NUAC Programme

Definition Phase Final Report

The feasibility of a joint enterprise for the carrying out of Air Navigation Services in Danish and Swedish airspace

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FOREWORD

In the summer 2005, the NUAC Programme Management Team was established and tasked with developing a high level Decision Platform and robust Case for Change regarding a possible closer cooperation between LFV/ANS and Naviair in the provision of Air Navigation Services in Danish and Swedish airspace. 1 August 2005, the team initiated the work in the Programme's Definition Phase.

Autum 2005, the first meeting was held in the newly established NUAC Coordination Group with officials from the Naviair and LFV/ANS Labour Unions, who thereafter have all participated in the process of ensuring the progress of the NUAC Programme as well as with constructive and relevant discussions in the ongoing social dialogue.

Likewise, the cooperation in the Coordination Groups with Aircraft Operators and organisations and both Danish and Swedish Armed Forces have been of great value in the Programme work, ensuring also our focus on our customers' needs and the possible external effects of our proposed changes.

During the winter 2005/2006, public procurement for third party assistance regarding the work related to the establishment of the robust Case for Change, including Mission, Vision and Strategic Rationales, Business Case, Integration Strategy, Business Model, and HR Aspects etc. was carried out. PA Consulting Group and Deloitte Business Consulting A/S were chosen and the detailed work in the Definition Phase started early February 2006.

Key personnel at both Naviair and LFV/ANS have also been highly involved in order to ensure correct data and have participated actively in consolidating our findings leading to this report as the sum of our work in the Programme Definition Phase.

Let us hereby thank you all for your commitment and your hard work. We are looking forward to our continued cooperation in the future development of the NUAC Programme.

Nils Sprenger	Stefan Hansson
NUAC Programme Manager	Deputy NUAC Programme Manager

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1 Introduction

With background in the Single European Sky legislation, the national strategic directions outlined in Denmark and Sweden respectively[1] and the general pressure for change in European Air Traffic Management, the NUAC Programme was established and tasked with the assignment of investigating the possibilities for a higher degree of cost-effectiveness for Air Navigation Services in Denmark and Sweden whilst maintaining at least today's high level of flight safety.

This led to the establishment of the "NUAC Programme – Definition Phase" resulting in this report with appendices as the sum of findings from the work conducted in this phase.

The purpose of the report and appendices is to give a high level picture of the aspects in a possible Case for Change regarding the future organisation of Danish and Swedish Air Navigation Service Provision in order to achieve the goal and thus form a robust platform for the decision making regarding the future development of the NUAC Programme.

1.1 Background

During the late 90s, the Nordic Air Navigation Service Providers (ANSPs) noticed the upcoming new demands for the provision of Air Navigation Service particularly with regard to the Single European Sky (SES) initiative launched in 1999.

In parallel with and complementary to the work undertaken by EUROCONTROL and the European Commission (ATM 2000+ Strategy and Single European Sky initiative), the Nordic Director Generals started informal discussions regarding possible establishment of a common Area Control Centre for the provision of Air Traffic Services (ATS) in the upper airspace over Norway, Sweden, Finland and Denmark[2].

In the beginning of year 2000 at the sixth Meeting of ECAC Transport Ministers (MATSE 6), the Nordic Ministers of Transport agreed to initiate an investigation of the possibilities, and the Director Generals were tasked to perform an initial survey of the possibilities to set up a common Nordic Area Control Centre for the upper airspace.[3]

Based on this survey, a set of Terms of References (ToRs) was signed in January 2001 by the Director Generals of the four countries for the Air Navigation Services (D-ANS) with the task to: "Establish an organisation to which the responsibility for provision of Air Traffic Services in the upper airspace (28.500 feet and above) can be transferred".

This led to the establishment of the original NUAC Project that as a first step comprised Sweden and Denmark and was to be completed mid 2007.

[1] Stated in respective government publications "Dansk Luftfart 2015 – muligheder og udfordringer" and "Moderna Transporter".
[2] The first dialogues between the Nordic service providers started in 1996, which indicates that changes in ATM are a complex and time-consuming process.
[3] Selected Air Navigation Providers are described in Appendix 13 "Strategic Framework"

In parallel to the established NUAC project, LFV/ANS in Sweden and Naviair in Denmark decided in 2002 to initiate a second project, the SKAANE project. The aim of the SKAANE project was: “To establish a safe, cost-effective cross-border service provision for the lower airspace in the Oresund region, this including traffic to/from the Malmoe Sturup, Copenhagen Kastrup and Roskilde airports and to ensure a seamless transfer to and from NUAC airspace”.

The first step in the SKAANE project was to be completed by mid 2006, and the final second step was to be completed 2008.

After internal investigations, Avinor/Norway and CAA/Finland concluded in 2003 that at that time, there was not sufficient justification for delegating service provision in the upper airspace of Norway and Finland to a new NUAC company. However Avinor and CAA/Finland continued as members of the NUAC steering committee with “observatory” status and expressed the need for consultations before any major decisions regarding the NUAC development was taken

LFV/ANS and Naviair agreed to continue the two projects as planned with the aim of establishing the NUAC Company.

In April 2004, the Single European Sky legislation was adopted, and the following development of the supporting mandates e.g. Common Charging Scheme raised some considerations internally in the LFV/ANS and Naviair organisations regarding how the legal framework would finally be developed. As a consequence, a review of the projects covering the possible impact in all areas was conducted.

This review was conducted in order for LFV/ANS and Naviair to study the external pressure for change including both the effect of the structural changes within the airline industry followed by political and financial initiatives regarding the European ATM industry, including the effect of the Single European Sky legislation and the coherent mandates, specifically the effect related to the Common Requirements, the proposed Charging Scheme and the establishment of Functional Airspace Blocks.

Based on the analysis and the following discussions between the two parties, LFV/ANS and Naviair agreed in June 2005 to continue the work on the two projects NUAC and SKAANE in a new NUAC Programme with a broader strategic perspective and a wider scope. [4]

The Programme should include all airspace in Sweden and Denmark and considerations regarding operational and technical support functions. The aim of the Programme was to increase efficiency and reduce costs for the carrying out of Air Navigation Services (ANS) in Denmark and Sweden with intention to comply with and support the Single European Sky legislation and the national strategic direction outlined in Denmark and Sweden respectively as stated in the government publications “Dansk Luftfart 2015 – muligheder og udfordringer” and “Moderna transporter” in the best possible way.[5] Furthermore, a strategic alliance leading towards a merger of LFV/ANS and Naviair was initially deemed as a possible and maybe attractive strategic direction for both parties.

[4] Avinor and CAA/Finland were accordingly informed of this decision.
[5] Aerodrome Control Services and ownership of ATM/CNS infrastructure are out of scope.

LFV/ANS and Naviair agreed to work on a revised NUAC Programme Definition. The aim was to conclude the work of the Definition Phase by 2006 and as an outcome have the necessary platform for decision-making regarding future development of the new NUAC Programme.

The NUAC Programme is expected to define an organisation able to provide ATM service provision throughout all airspace in Sweden and Denmark respectively, except for Aerodrome Control Services and specific Military Services.

1.2 Overall aim and scope for the NUAC Programme

As stated in the Terms of Reference for the NUAC Programme, the overall aim for the programme is to ensure cost reduction for the provision of air navigation service in Denmark and Sweden in alignment with both the Single European Sky (SES) legislation and the respective national strategic directions and to enable the necessary integration between the two companies LFV/ANS and Naviair and their employees.

To achieve this the NUAC Programme Definition Phase aims at enabling the decision-making regarding the strategic direction for a closer corporation between LFV/ANS and Naviair The aim was to conclude the work in the definition phase by 2006 and as an outcome of the definition phase have a solid platform for decision making regarding future development of the NUAC Programme.

The main objective for the “NUAC Programme - Definition Phase” was to develop a robust platform for decision-making consisting of a consolidated Case for Change including Mission, Vision & Strategic Rationale, Business Case, Integration Strategy, Stakeholder Care Programme, HR and Risk Management Plan.

The Terms of Reference describes the responsibilities, mandates and deliverables for the NUAC Programme Management Team during the Definition Phase and ensures the description of the necessary work to be done in order to ensure the robust platform regarding the development of the NUAC programme.

During the NUAC Definition Phase, three strategic scenarios for cooperation between LFV/ANS and Naviair have been evaluated. The scenarios have been defined by the NUAC Programme in collaboration with labour unions and the management of Naviair and LFV/ANS. The scenarios differentiate on *how* the organisations should cooperate, and *which* functional areas and business processes should be included in the cooperation. The scope of the NUAC Programme includes all Danish and Swedish airspace, except for the Aerodrome Control Services and coherent specific military services.

The three scenarios – which are defined in figure 1 – are:

- **Merger Scenario**
- **NUAC/SKAANE scenario**[6]
- **Alliance scenario**[7]

[6] The NUAC/SKAANE Scenario with the original prerequsites is both analysed and used as a form of reference scenario

The analytical framework, which is based on the Terms of References[8] for the NUAC Programme Definition Phase, contains four different key areas, which together establish a balanced, unbiased evaluation and understanding of the scenarios.

- **Business Case –** an assessment of the financial and non-financial costs and benefits related to the cooperation described in the three Scenarios
- **Business Model –** an analysis of how the cooperation will function. More specifically the product & services, processes, sourcing, organisation, ownership and legal entity
- **Integration Strategy –** an analysis of what, when and how to integrate the cooperation described in the Scenario
- **HR Aspects and Social Dialogue –** which key employee implications and potential risks are associated with implementing the Scenario.

[7] "The Alliance Scenario" is a new name replacing the "The Virtual Scenario" in order to more precisely reflect the definition of the scenario. This change will not be done in the appendixes for practical reasons, but will apply nevertheless.
[8] For a detailed description of the Terms of References, see Appendix 10.

Figure 1 Definition Phase Scenarios

	Merger	NUAC/SKAANE	Alliance
Description	Merger of the two organizations LFV/ANS and Naviair (except for aerodrome control service and the ownership of infrastructure) into one organization with responsibility for the provision of Air Traffic Service within Danish and Swedish airspace in a total integrated environment.	Implementation of the original NUAC & SKAANE concepts as laid down by the original projects with LFV/ANS and Naviair as co-owners of a NUAC company carrying out the service provision in a common Functional Airspace Block above FL 285, and responsibility for provision of ATS in the SKAANE region delegated to Naviair but otherwise remaining as independent organizations.	As independent organisations in a closer corporation LFV/ANS and Naviair are establishing a co-owned Alliance Company for the carrying out of certain support functions.
Rationales	• To investigate the feasibility and effects of the most comprehensive Scenario for cooperation in order to ensure highest possible degree of cost-effectiveness/cost reduction and strategic alignment with Single European Sky regulations as well as the national strategic direction outlined in Denmark and Sweden respectively as stated in government publications “Dansk Luftfart 2015 – muligheder og udfordringer” and “Moderna transporter - transportpolitisk proposition 2006” • To show clear and formalised lines of command in a merged company and entail management of all core processes and related support processes • To give the answer regarding to what extent the Strategic Rationales for the NUAC Programme could be met.	• To investigate more thoroughly the effects and possibilities regarding an implementation of the original NUAC and SKAANE projects in the light of the development in the European ATM community including the Single European Sky regulations and the respective national strategies regarding Air Navigation Services • To get the answer whether the Business Case is good enough to meet the demands for cost-effectiveness/cost reduction • To give the answer regarding to what extent the Strategic Rationales for the NUAC Programme could be met.	• To investigate the feasibility and effects of a less comprehensive but still beneficial Scenario. The Scenario should to the largest extent possible be in alignment with Single European Sky regulations and the national strategic directions outlined in Denmark and Sweden respectively as stated in government publications “Dansk Luftfart 2015 – muligheder og udfordringer” and “Moderna transporter - transportpolitisk proposition 2006” • To find out to what extent the cost-effectiveness/cost reductions could be reached without influencing the core business (the actual provision of Air Navigation Services) within LFV/ANS and Naviair and without merging the two companies • To give the answer regarding to what extent the Strategic Rationales for the NUAC Programme could be met.

The terms of Reference (ToR) for the NUAC Programme (Appendix 10) reflect the provisions for the Definition Phase as agreed between Luftfartsverket (LFV) and Naviair and describe the responsibilities, mandates and deliverables for the NUAC Programme Management Team during the Definition Phase. The lessons learned from the original NUAC and SKAANE Projects has been taken into consideration during the work in the Definition Phase and are thus part of the considerations in this report.

The report in hand recommends specific and determined analysis concerning the possible social and economical benefits from the NUAC Programme for the society. This work has been started in October 2006 and will analyse potential savings in terms of reduced burning of fuel, time and pollution etc. The analysis work will finish in time for incorporation in the decision platform.

1.3 Reader's guidelines

The report with appendicies is structured into three levels:

- **NUAC Programme – Executive Summary**
  The report focuses on conclusions, possiblities and the way ahead

- **NUAC Programme – Definition Phase Final Report**
  The report contains the analytical framework, the evaluation of each Scenario and conclusion including strategic framework for the NUAC Programme

- **NUAC Programme – Appendices**
  Project and work stream Appendices related to the Final Report and NUAC Definition Phase in general.

1.3.1 *The Report*

This Report contains three main parts reflecting different phases in the analytical work: scope, analysis and conclusion (see also Figure 2).

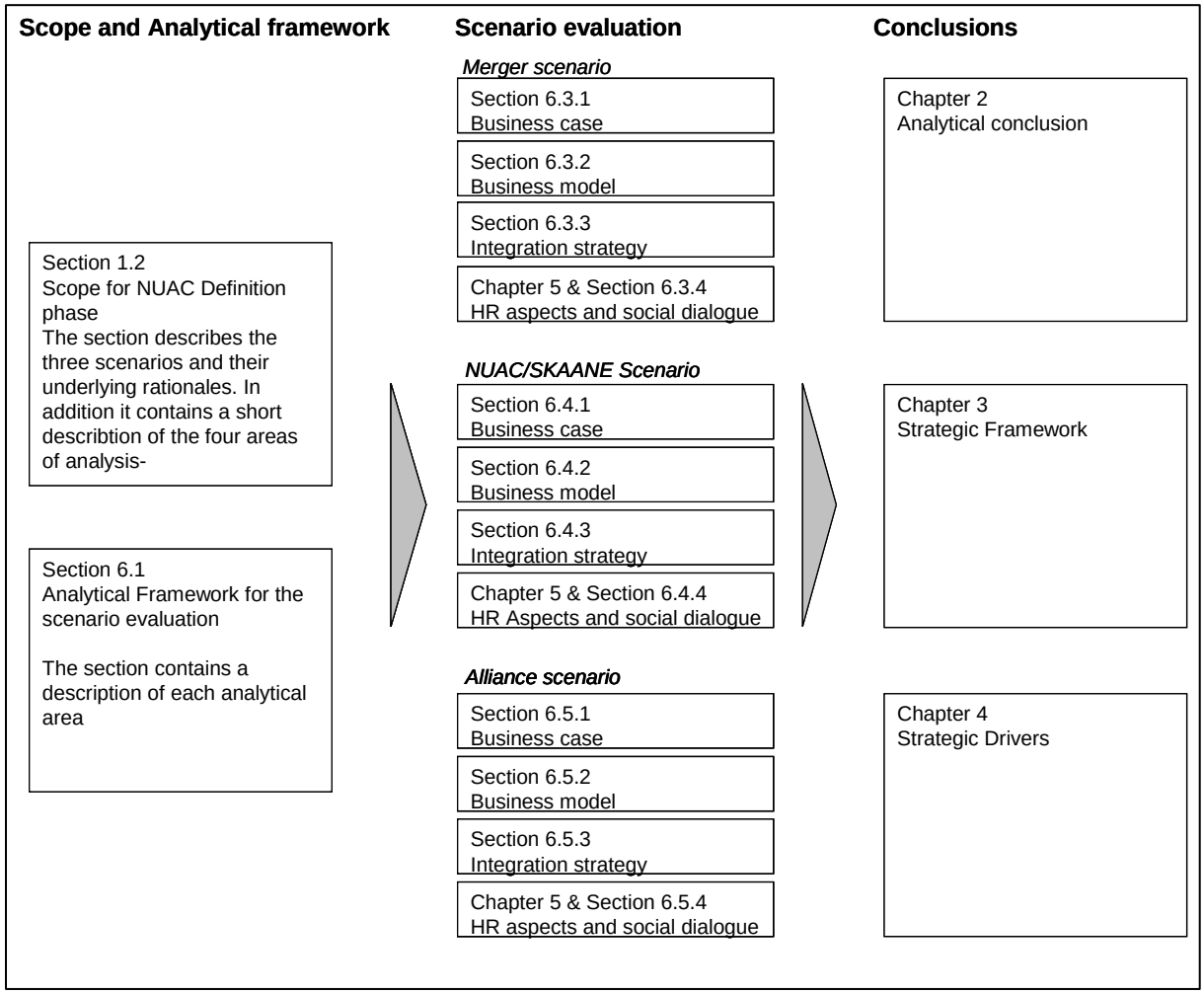
- **The scope and analytical framework** – Sections 1.2 and 6.1 in the Final Report contain a description of the three evaluated Scenarios and an introduction to the analytical framework used for the evaluation (Business Case, Business Model, Integration Strategy and HR Aspects).

- **The Scenario evaluation** – Chapter 6 contains the evaluation of the three Scenarios structured into each analytical area (Business Case, Business Model, HR Aspects and Integration Strategy). The HR Aspects evaluation will – as a consequence of the many similarities between the Scenarios – be presented partly in a general chapter (Chapter 5), which contains the general conclusion across the Scenarios; and partly in the three separate sections in Chapter 6, which contain the different aspects of the Scenarios.

- **The conclusions** – The Final Report contains two levels of conclusions; Chapter 2 contains the overall objective conclusion drawn from the analysis. Secondly, Chapter 3 outlines the future strategic framework (strategic drivers, mission, vision and strategic rationales) facing the NUAC Programme based on the current knowledge from the analysis and dialogue with major stakeholders. In addition,

Chapter 4 contains a detailed elaboration and analysis of the strategic drivers outlined in Chapter 3.

Figure 2 The structure of this report



1.3.2 *The Structure of the Appendices*

The Appendices related to the Final Report fall into two categories: first, the work stream Appendices (Business Case, Business Model, HR Aspects, Integration Strategy and Airspace Design) containing additional analysis, methodology and documentation; second, the general Appendices containing information regarding the program i.e. terms of reference, risk management and stakeholder management.

Figure 3 The Appendices to Final Report[9]

Area	Name	Description
Business Case	Appendix 1 Business case	A detailed description of the Business Case and applied methodology
	Appendix 2: Business case - Initiatives	The detailed description of the initiatives in the Business Case
	Appendix 3: Business case – Documentation	Detailed documentation supporting the Business Case
Business Model	Appendix 4: Business Model	Work Stream Report regarding Business Models and conclusions of the work
	Appendix 5: Consideration regarding Company Forms and Valude Added Tax	Report containing consideration regarding company forms and valuated taxes for the scenarios
Integration Strategy	Appendix 6: Integration Strategy	Work Stream Report containing Workdown Break structure for implementation of the scenarios
Air Space	Appendix 7: Airspace Design	Project Report with high level descriptions of possible future airspace design for the three Scenarios – for the use of the Business Case
	Appendix 8: Fast time simulation and Analyses	Report describing and concluding on the findings done in the conducted RAMS Fast Time Simulation – for the use of the initial Socio- Economics calculations
HR Aspects	Appendix 9: HR Aspects	Hovedrapport med fokus på formål, afgrænsning og analyse af HR Aspects på de tre scenarier Bilag 1: Personalejuridiske forhold, Danmark Bilag 2: Personalejuridiske forhold, Sverige Bilag 3: Skat og social sikring i Danmark og Sverige Bilag 4: Compensation and Benefit Bilag 5: Arbejdsmiljø Bilag 6: HR programmer
General	Appendix 10: Terms of references	Report describing the terms of reference of the NUAC Programme i.e.the objectives, the general timeline, the project portfolio and programme organisation
	Appendix 11: Stakeholder Care Programme and Communication Plan	Report describing the NUAC Programme Stakeholder Strategy including analysis of the relevant stakeholders, meeting strucure, communication plans etc.
	Appendix 12: Risk Management Plan	Report describing the NUAC Programme Risk Management Strategy including process for risk identification, analysis and documentation
	Appendix 13: Strategic Framework	The document containing the mission, vision and strategic drivers including a detailed description of the strategic rationales. In addition the document contains an initial description of selected neighboring Air Navigation Service Providers

[9] All documentation from the HR Aspects is deliberately kept in Danish (DK), respective Swedish (S) language due to legal content

2 Main Findings and Conclusions

During the The NUAC Definition Phase three scenarios (Merger, NUAC/SKAANE and Alliance) have been evaluated on an identical analytical framework.

These analyses have determined that there are substantial and growing incentives for LFV/ANS and Naviair to seek a closer and more formalised cooperation. I.e. provide higher cost-effectiveness, operational flexibility, and potentially enhance flight safety through harmonisation and standardisation.

A number of initiatives throughout the European airspace are currently underway[10], however, the NUAC Programme has a substantial first mover advantage and experience that will allow for cooperation between LFV/ANS and Naviair where the risk/return relationship of a closer cooperation or a potential merger makes a strong Case for Change. This is shown both in terms of the financial benefits as well as the non-financial benefits and rather clear indications of a positive socio-economic impact.

The potential behind a formalised cooperation is further stressed by the fact that the benefits and cost savings can be realised by two of the current most cost-effective service providers within the European Civil Aviation Conference (ECAC) area based on benchmark analysis by EUROCONTROLs Performance Review Commission[11].

The following sections contain high-level conclusions from each analytical area including the socio-economic impact of the Scenarios and finally some key recommendations for the future work of the NUAC Programme on the basis of the keyfindings.

2.1 Business Case

The Business Case in the three Scenarios analysed shows that especially two of these Scenarios – Merger and Alliance Scenario – have the potential for Optimising the Service Provision in Denmark and Sweden giving annual savings of €23,1 million in the Merger Scenario and €9,2 million in the Alliance Scenario.

Under the assumptions and prerequisites used in the analysis, the NUAC/SKAANE Scenario shows a negative Business Case and does not seem a viable solution unless the prerequisites for this Scenario are subject to rather substantial changes.

Both the Merger Scenario and the Alliance Scenario show a high return on the investments made, yielding a pay-back of 4 years for the Merger Scenario and 4,5 years for the Alliance.

This is significant and does further emphasise the potential in a formalised cooperation between LFV/ANS and Naviair.

Over the time period 2008 – 2020, the Merger Scenario shows accumulated cash flow savings of €217,4 million whereas the Alliance Scenario only accumulates less than 1/2 of the savings realised in the Merger Scenario, yielding an accumulated cash flow of

[10] Se Figure 16 for a complete overview of ongoing strategic corporation initiatives.
[11] Source: “Performance Review Report, An assessment of Air Traffic Management in Europe during the calendar year 2005”, EUROCONTROL, 2005

€89,4 million. However, it must be stressed that there is a potential for further savings regarding the airspace design in the Alliance Scenario that needs to be investigated even though these savings will not be of a scale that dramatically alters the difference in the savings potential between the two Scenarios.

The savings are realised through a number of initiatives[12] where the people-related initiatives can almost entirely be implemented through natural attrition, retirement and staff turnover, though detailed analysis relating to the exact positions and roles will have to be conducted as part of the future work in the NUAC Programme and the following integration process.

In addition to the identified financial savings, the Business Case also indicates considerable non-financial benefits by implementing the Merger or the Alliance Scenario. First, the Scenarios might achieve *internal* benefits such as improved operational flexibility, alignment of the business models as well as improved attraction and bargaining power; Second, the Scenarios might achieve *external* benefits such as improved safety, flight efficiency and customer orientation. The Merger Scenario will have the highest non-financial benefit potential, followed by the Alliance Scenario and finally the NUAC/SKAANE Scenario.

On a relative comparison between the Scenarios examined, it is evident that the Merger Scenario in all aspects shows the highest potential but also is the most complex Scenario with relatively higher but still manageable risks. This high potential is particularly evident in relation to the internal benefits, which relate to higher cost-effectiveness, greater operational flexibility, strategic readiness and attraction towards new entrants or partners to potentially join the NUAC cooperation.

2.2 Business Model

Compared to the current business and operating models of LFV/ANS and Naviair, the Merger Scenario implies significant changes. This includes the need for certification and designation of the NUAC Company as well as significant changes in the operations, which in the model are based on lean operating principals centred on the core business, the Air Navigation Services. From an ownership and establishment perspective, the most apparent solution is likely to be a limited company (Aktiebolag AB, Aktieselskab AS or Societas Europea SE) with LFV/ANS and Naviair having equal equity in the company.

The **Merger Scenario:** From a governance and management perspective, the key advantages of the Business Model are clear and formalised lines of command as well as clear and coherent management of all core processes and related support processes. This entails consistency between strategy, operations and the management of the NUAC Company.

The **NUAC/SKAANE Scenario**: Will have some impact on the actual Business Model of LFV/ANS and Naviair since it is based on moving the delivery of core processes between Area Control Centres. The Area Control (above 28.500 ft) will be operated from one single centre (Malmoe) in a newly founded limited company registered in

[12] The initiatives are found in Section 3.4.

Sweden. The air traffic below 28.500 ft will be handled from Copenhagen and Stockholm (as well as from the actual towers).

The governance and management of the NUAC/SKAANE Scenario will be complex as the Area Control services in the airspace above 28.500 ft will be run from one company, owned mutually by LFV/ANS and Naviair, but with a separate management. The newly founded business will outsource administrative and IS/IT services.

The **Alliance Scenario:** Will have little impact on the actual Business Model of LFV/ANS and Naviair since this is based on the establishment of a more formalisedcooperation around shared services with no or just limited changes to the operations of the current services. In order to allow for management of the shared services, the Alliance Company will be established as a mutually owned company. In terms of liability of the Alliance Company, this will have to be further analysed.

The governance and management of the Alliance Company in the Alliance Scenario will introduce additional complexity as this is likely to introduce a new layer of management in addition to the management of LFV/ANS and Naviair as of today. Particularly since the processes that will be transferred to the alliance/shared service company will only include parts of some of the current processes due to certification and designation requirements. This can potentially lead to greater administrative burdens and slow down the decision process and will thus have to be designed and monitored carefully in order to mitigate this.

2.2.1 *Considerations regarding Ownership, Legal Entity and Value Added Tax*

2.2.1.1 Ownership

The ownership with regard to all three Scenarios is proposed to be a mutual ownership by LFV/ANS and Naviair where each part has a 50% share.

2.2.1.2 Legal Entity

Of the three Scenarios described above, only for the NUAC/SKAANE Scenario a legal entity has formally been decieded upon, since it was decided already during the former NUAC Project to organise the business carrying out service provision above 28.500 ft as Swedish limited company, the NUAC AB.

In order to examine the appropriate legal entity for the Merger and Alliance Scenario, a brief investigation has been conducted. A report from the investigation is found in Appendix 5 – “Consideration regarding Company Forms and Value Added Tax”.

The main findings from the report are that the most appropriate legal entity for the Merger and Alliance Scenarios could be a limited company in the form of a Danish A/S, a Swedish AB or a European SE-company (Societas Europea). For the original NUAC/SKAANE scenario a limited company in the form of a Swedish AB was chosen for the NUAC Company.

With regard to company form, there are no major advantages or disadvantages by choosing any of the three mentioned forms.

It should be noted that the creation of a European SE company requires a prior step where relevant parts of both LFV/ANS and Naviair have to be established as limited companies as only existing limited companies with cross-border activities are allowed to form a European SE company. This will prolong the process of establishing the final legal entity with approximately five months.

On the other hand, creating a European SE company may have an advantage with regard to new entrants, as it could be easier to attract new entrants to a European limited company compared to a Danish or Swedish limited company.

2.2.1.3 Value Added Tax

With regard to value added tax, the situation will not in any major way be affected by what kind of limited company (A/S, AB or European SE company) that is finally chosen, nor will the location in Denmark or Sweden have any major effect regarding value added tax.

The effect of value added tax will differ between the Merger Scenario and the Alliance Scenario though.

In the Merger Scenario, the commonly owned limited company will be subject to value added tax which will improve the financial situation for the merged company compared to the Naviair value added tax situation as of today.

If the Alliance Scenario is chosen, the two organisations LFV/ANS and Naviair will maintain their core business outside the limited company and thus, the major part of the business will be as of today with no change regarding value added tax.

2.3 Integration Strategy

In all Scenarios analysed, a rapid integration process has been determined as the most efficient approach towards mitigating potential risks involved in a change from the current situation. A detailed risk analysis of the Scenarios has been conducted as part of the analysis and the design of the Integration Strategy and associated mitigations.

The general principle behind the integration is a strong focus on designing the actual integration process around the benefit areas rather than developing more generic functional teams. This approach has as a strong focus that the actual benefits can be realised, and that the potential outlined in the Business Case is constantly tracked and followed up upon.

In addition, the approach entails a strong focus on HR related aspects as well as a focus on the staff within LFV/ANS and Naviair that will be involved in the process. This includes having key staff within the two organisations deeply involved in the process rather than strong reliance on third party assistance.

The Alliance Scenario yields an integration cost of around €17- 20 million whereas the Merger Scenario integration costs are estimated at between €30 – 35 million, however yielding a return that is approximately 3 times higher than the Alliance Scenario. All integration costs are subject to some uncertainty due to the complexity of the integration task, particularly in relation to the technical integration of the CNS and ATM infrastructure where more detailed analysis will be required.

All of the Scenarios analysed comprise significant opportunities for current and future employees to develop, strengthen and to some extent broaden their competencies. However, the effects of the NUAC/SKAANE Scenario as well as the Alliance Scenario are more limited whereas the Merger Scenario will provide opportunities for all employees to develop competences and skills that will enable greater individual flexibility and opportunities. This is well in line with the current policies of the Swedish and Danish public administration of a more flexible and well-educated work force.

The implementation and analysis of NUAC is divided into three phases:

- Analysis and development phase
- Implementation phase
- Benefit tracking.

2.4 HR Aspects and Social Dialogue

In analysing the HR Aspects regarding the three Scenarios, a bottom-up approach has been used, meaning that the labour unions and employee representatives from the HR functions in LFV/ANS and Naviair have been directly involved in the analysis and risk evaluation of HR Aspects during the whole Definition Phase and also in discussing these matters in the ongoing Social Dialogue.

The employees are not obliged to accept essential changes in their working conditions. The interpretation of whether a change is essential or not depends on the specific change that will take place in each specific case. It is, however, stated that moving workplace from one country to another is an essential change. It must be added that further special rules apply for public servants in Naviair.

Differences between the three Scenarios are mainly a consequence of different employee groups being part of the change process. In the Merger Scenario, this may be relevant for all employee groups. In the NUAC/SKAANE Scenario, it is primarily the operational staff and direct support staff in the operational core business. In the Alliance Scenario, the changes are not relevant for the employees working in the operational core businesses (i.e. air traffic controllers and direct support staff in the existing companies LFV/ANS and Naviair) but the changes could be relevant for all remaining employee groups.

It should be noted that in Naviair there are also administrative employees who are public servants. The conditions applicable for public servants may thus also become relevant in the Alliance Scenario, in spite of the fact that the air traffic controllers are not affected.

The result of the analysis of HR Aspects indicates the necessity to continue the Social Dialogue with the relevant parts and early in the Development and Integration Phase to continue the close involvement of the trade unions and HR function from the Definition Phase.

The analysis carried out furthermore indicates that the Merger Scenario and the Alliance Scenario are somewhat more complex than the NUAC/SKAANE with regard to future employment.

2.4.1 *NUAC as an Attractive Workplace*

A new NUAC Company will be dependent on professional and skilled staff at all levels to fulfil the vision to become and remain the best service provider. The NUAC vision to be an attractive workplace must be supported by a system for development of the employees' skills and competences in addition to the basic competencies needed for the daily business as:

- NUACs ambition to be the most attractive partner to ATM service providers in Europe generates an expectation that staff representing NUAC is well suited to meet and co-operate with professionalism and with good knowledge of other service providers at both management and expert level also giving a potential for offering consultancy services to external parties.
- NUAC will operate in an international environment and, besides good language skills, knowledge of the basic international conditions for Air Traffic Management and Aviation Industry, it will be necessary for staff members to participate in various international cooperation activities.
- NUAC must be attractive for people from other ATM service providers and Aviation organisations implying a potential for added competence and knowledge from other areas.
- NUAC must provide good and attractive job conditions for the employees.

2.5 Socio-economics

As major changes in airspace structure and/or the actual provision of Air Navigation Services potentially can have an effect on both the level of flight safety and the socio-economics in the region where the changes are implemented, the NUAC Programme has conducted Fast Time Simulations[13] on the airspace suggested for the three Scenarios in the airspace design report (Appendix 7).

The analysis of the simulation (Appendix 8) gives clear indications that the airspace designed is a viable solution in terms of creating a Functional Airspace Block with potential positive effects also in a socio-economic perspective without jeopardising the level of flight safety.

The analysis shows that there could be reductions in flying time, flown distances and thus also in fuel consumptions and emissions of carbon dioxide and other greenhouse gases within Danish and Swedish airspace, this having positive effects on both customers and society in general.

Also, a possible establishment of a common enterprise/company for the provision of Air Navigation Services in Danish and Swedish airspace is deemed as having potentially positive socio-economic effects and ensuring development of a specialised work force in the region. Danish and Swedish influence on the future development of European Air Traffic Management will enable the common enterprise/company to react promptly to customer needs and society demands and thereby give more value to society in general.

[13] The Simulations were conducted by specialists from LFV/ANS and Naviair at the RAMS simulator in Malmö.

A larger common Air Navigation Service Provider established in the region handling the airspace regardless of national boundaries as well as different company methods and sector designs are also deemed to have potential positive effects in the aspect of ensuring both Copenhagen Airport, Kastrup and the Stockholm-Arlanda Airport positions as major gateways and also giving a window of opportunity for their further development for the cooperation and development of other airports in especially the Oresund region. Such cooperation will be well supported infrastructurally by the existence of the Oresund Bridge, train connections, highways etc.

A future possible development of NUAC to include even more Nordic Air Navigation Service Providers would provide opportunity for further substantial socio-economic effects in the Nordic Region.

The indications of the work conducted in the Definition Phase are that there could be substantial socio-economic benefits in the realisation of the NUAC Programme and as a consequence, the NUAC Programme Management Team deems it of great value for the decision process to ensure the conduction of a detailed Socio-Economic Analysis during the autumn 2006, in order to consolidate the indications/findings of all the Programme work.

2.6 Summary

In summary of the Scenarios examined, both the Merger Scenario and the Alliance Scenario show viable risk/return relationships. However, when assessing both financial and non-financial benefits, the Merger Scenario gives the best risk/return relationship even though the risks associated with a merger of the relevant parts of LFV/ANS and Naviair are deemed somewhat more comprehensive than in establishing an Alliance Company.

The analysis shows that almost all the substantial reductions in the need for resources/staff could be accommodated through natural attrition and staff turnover. Together with a higher return on the investments, this makes the Merger Scenario both the most comprehensive and most viable way of establishing a formalisedcooperation between LFV/ANS and Naviair.

In relation to alignment towards Single European Sky legislation, it is equally evident that a merger will yield a form of cooperation that will accommodate the Single European Sky as well as Danish and Swedish current air traffic, transport policies and strategies to a greater degree than both the original NUAC/SKAANE Scenario and a Alliance Scenario based on shared services.

2.7 Key Recommendations for the Way Ahead

On the basis on the findings and the work done during the Definition Phase, the NUAC Programme Management recommends to the Steering Committee that the following decisions are taken for the way ahead with the development of the NUAC Programme and thus for the continued work of the Programme Management Team during the autumn 2006:

- To narrow the scope for the development of the NUAC Programme by *abandoning the NUAC/SKAANE projects* futher development.
- To *establish a detailed Socio-Economic Analysis* in order to consolidate the indicative findings from the Programme work.
- To task the NUAC Programme Management Team with the assignment of *continuing the work* in accordance with the agreed process and road map, and *to start preparation and planning of the next phases of the NUAC Programme*

3 The Need for Change and the Strategic Framework

The analyses carried out during the Definition Phase of the NUAC Programme gives a clearer view of both the necessity and the possibilities for change in the organization as well as the provision of Air Navigation Services in Denmark and Sweden.

This chapter introduces the need for change and the strategic framework for the NUAC Programme i.e. the mission, vision and strategic drivers (and the underlying strategic rationales).

The strategic framework for the NUAC Programme is thus based on a combination of the need for change, the analysis results and a close dialogue with major stakeholders.

In Europe, the EU Commission has taken the lead in the regulation of more areas regarding air navigation e.g. certifying, setting competence standards for operators, safety standards etc., and overtaking regulatory power from the single member states[14].

The Single European Sky is the most notable EU initiative, which aims at establishing a common European airspace, enhancing cooperation between the European ANSPs leading to a possible consolidation.

The objective is to strengthen cross-border collaboration, increase capacity and reduce the overall costs associated with Air Navigation Service Providers.

In 2004, the European Parliament and the European Council adopted a regulatory approach with the objective of achieving a Single European Sky[15]. The objectives of the legislation are to improve and reinforce safety, to restructure European airspace as a function of air traffic flow rather than according to national borders, to create additional capacity, and to increase the overall efficiency of the Air Traffic Management system. This may be achieved by a more effective and integrated Air Traffic Management architecture and by ensuring that this architecture is based on demand-driven service provision. The legislation will enhance cross-border coordination, remove administrative and organisational bottlenecks in the area of decision-making and enhance enforcement in Air Traffic Management.

[14] The EU Commision Regulation ”No 2096/2005 of 20 December 2005” laying down common requirements for the provision of Air Navigation Services (Source: "Commission Regulation No 2096/2005 of 20 December 2005 laying down the Common Requirements for the provision of ANS"). Seen in a historical perspective, this regulation includes more areas of Air Navigation Services.

[15] The legislative package comprises four regulations covering the essential elements for a seamless European air traffic management system (EU Regulations regarding the Single European Sky: “No 549/2004”, “No 550/2004”, “No 551/2004”, “552/2004” – see figure 4). Source: “The Single European Sky”, The EU Commission, 2004 and "Regulations of the European Parliament and of the Council of 10 March 2004 (nos 549/2004, 550/2004, 551/2004, 552/2004) laying down the framework for the creation of the Single European Sky", EU,2004

Figure 4 The four essential legislative elements of the Single European Sky[16]

The framework regulation: this sets out the overall objectives for the Single European Sky initiative – "to enhance current safety standards and overall efficiency for general air traffic in Europe, to optimize capacity meeting the requirement of all airspace users and to minimize delays".	**The airspace regulation:** this addresses the organization and use of airspace in the area covered by the Single European Sky, aiming at the development of common procedures for design, planning and management of ATM. It calls for a reconfiguration of upper airspace to maximize capacity and safety, as well as adoption of flexible use of airspace – increasing civil capacity whilst ensuring that member states' military needs for airspace are always met.
The service provision regulation: here, the aim is to ensure that common standards for the provision of air navigation services are applied throughout the European Union. It sets out rules for the certification of service providers: certificates issued to providers by a national supervisory authority will be valid in all other member states. In respect of ATC services, member states will designate exclusive service providers for a given airspace block. This regulation also sets out the framework for a transparent charging scheme for air navigation services.	**The interoperability regulation:** this concerns the interoperability of systems, constituents and associated procedures of the European air traffic management network, and also aims to ensure that new agreed and validated concepts and technologies may be introduced rapidly. The relevant systems and procedures cover eight fields: airspace management, air traffic flow management, air traffic services, communications, navigation, surveillance, aeronautical information services, and meteorological information.

The corresponding SESAR program (Single European Sky ATM Research) focuses on aligning and standardising the future development and functionality in the ATM systems used by the European service providers.

The political ambitions and visions for the future of air transport from the national governments in Europe also address the necessity for international cooperation among service providers in order to ensure influence on the future development of the European Air Traffic Management.

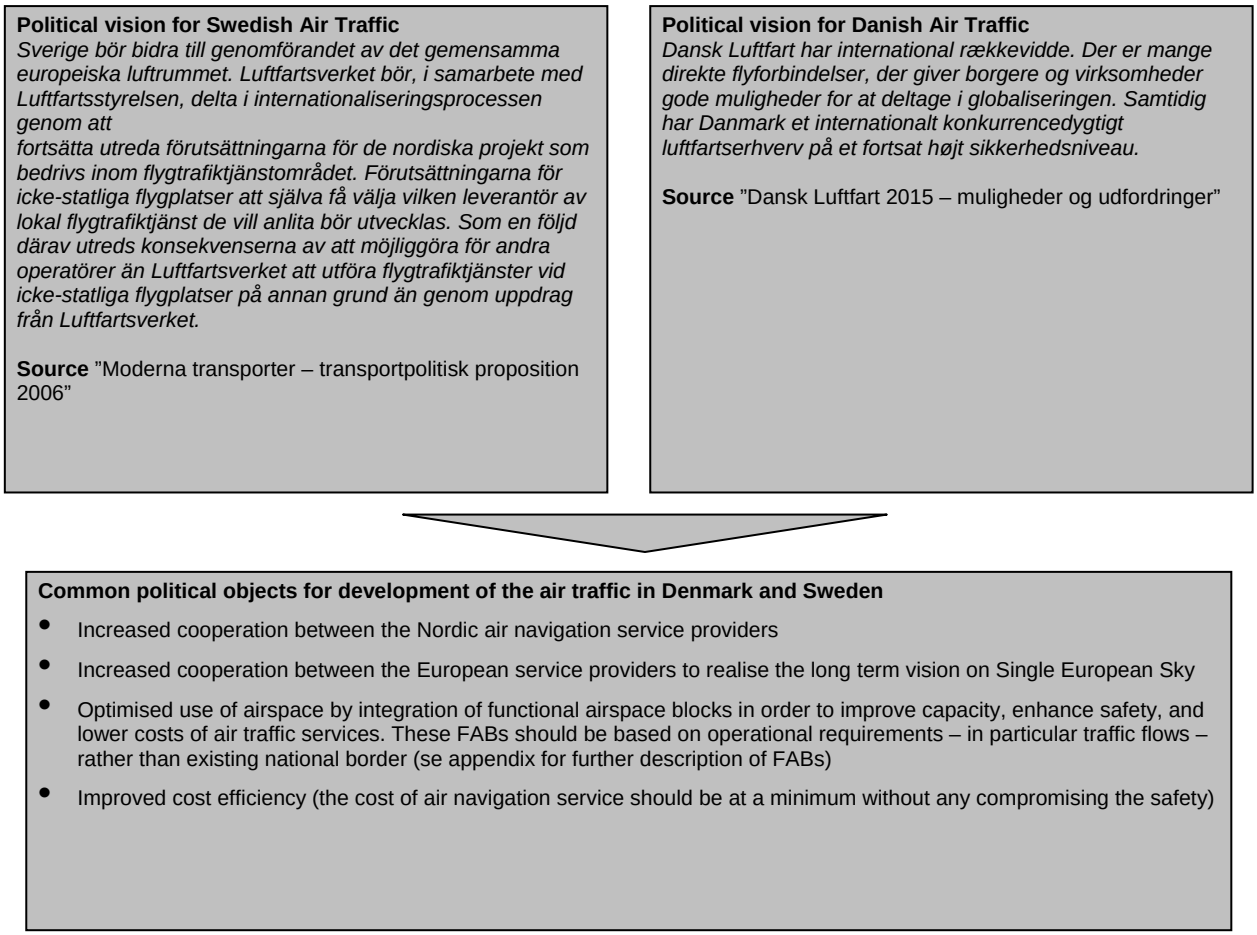
The political visions made by the Swedish and Danish governments outline the need for cooperation with focus on the Nordic region in order to secure a high standard in national air traffic (in the form of a broad selection of air routes, attractive airports, an innovative air transport industry and reduction in delays by airlines)[17]. The visions address different kinds of international cooperation:

- The national service providers must focus on large scale operation by Nordic cooperation
- The European countries must focus on integrating Functional Airspace Blocks in order to improve capacity, enhance safety and obtain lower costs of Air Traffic Services. These Functional Airspace Blocks should be based on

[16] The text box is copied from the publication "The Single European Sky", The EU Commission, 2004 (page 2).
[17] Source: "Dansk Luftfart 2015 – muligheder og udfordringer", Transport- og Energiministeriet, 2005 and "Moderna transporter", Näringsdepartementet, 2006.

operational requirements – in particular traffic flows – rather than existing national borders.

Figure 5 The political visions and objectives for air traffic management in Sweden and Denmark



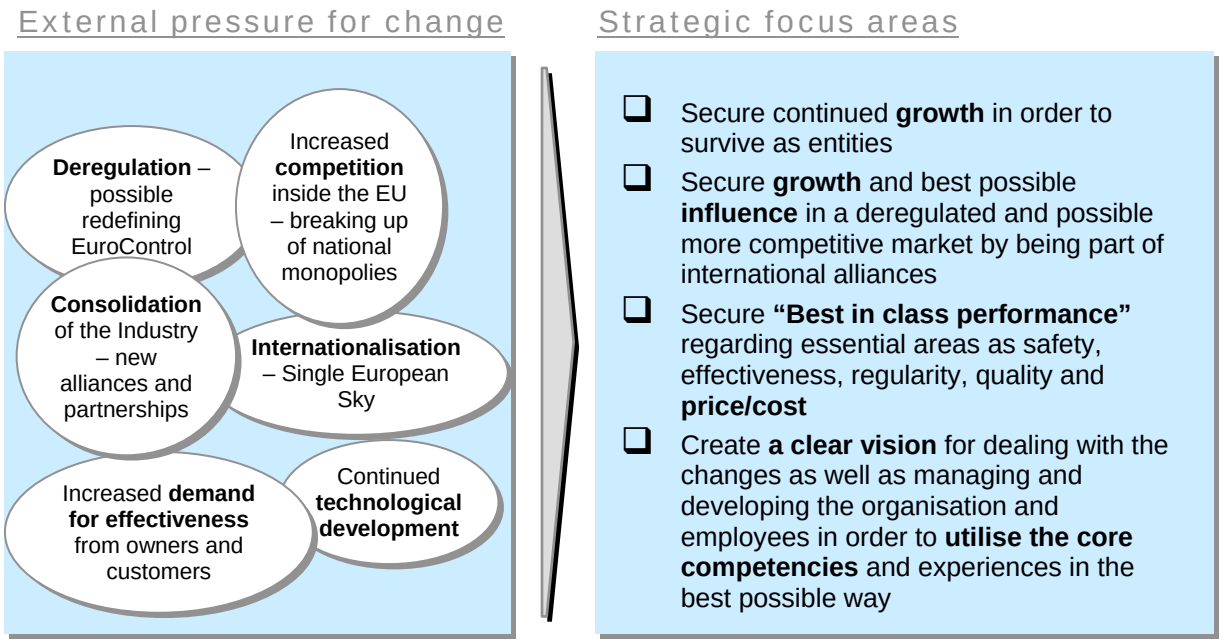
In summary, the political visions from the national governments point toward an international consolidation of Air Navigation Service Providers in accordance with the internationalisation of the regulations of the industry.

Due to the structural changes within the Airline industry followed by political and financial initiatives regarding the European ATM industry, i.e. the Single European Sky legislation, the European Air Navigation Service Providers (ANSPs) including LFV/ANS and Naviair face new strategic challenges and opportunities.

After analysing the call for change in the continued provision of Air Navigation Service in Europe, a number of strategic focus areas have been identified.

There are significant incentives for LFV/ANS and Naviair to pursue an increased cooperation in perspective of the profound changes to the organisation of the European airspace and to the organisation of European Air Navigation Service.

Figure 6 External pressure and strategic focus areas[18]



LFV/ANS and Naviair have deemed it necessary to meet these challenges and opportunities proactively and have decided to show due diligence by creating a clear vision for the future.

Thus the NUAC Programme was tasked with establishing a robust platform for decision making showing both the potential for lowering costs for the provision of Air Navigation Services in Danish and Swedish airspace and the possibilities for future development of the programme, all in order to meet the increased demand for cost effectivenes and to ensure the alignment with and fulfilment of:

- The Single European Sky legislation
- The national strategic directions outlined in Denmark and Sweden respective as stated in government publications "Dansk Luftfart 2015 – muligheder og udfordringer" and "Moderna transporter - Transportpolitisk proposition 2006".
- The best utilisation of Danish and Swedish airspace regardless of national boundaries. Thus also ensuring a minimum of emissions.

[18] For details regarding the structure and key strategic drivers for the Air Traffic Management Industry in general, refer to Chapter 4.

But also to:

- Secure both survival and future influence by growth
- Prepare for the increased liberalisation and /or competition within the European Air Traffic Management industry
- Ensure the possibilities of being part of the future European Air Traffic Management scene as Air Navigation Service Providers

As part of the task, the LFV/ANS and Naviair answer to the strategic challenges and opportunities was formulated as a NUAC draft mission and vision with supporting rationales behind as presented in the next section.

3.1 Mission, Vision and the Four Main Drivers

During the Definition Phase of the NUAC Programme, a mission and vision has been formulated. The mission and vision have been presented to the key stakeholders, who have been given the opportunity to comment on the proposal. The mission and vision together with the drivers to achieve the vision are the result of this process.

Figure 7 Mission and Vision for the future corporation between LFV/ANS and Naviair in the NUAC framework

NUAC Mission:

In close dialogue with our customers and through dedicated and competent employees NUAC delivers and develops safe, cost effective and flexible Air Navigation Services

NUAC Vision:

By 2015 the best service provider based on our commitment to serving our customer's needs

We will achieve our vision by:

- Being recognised by our customers for our dedication to safety, quality, cost effectiveness and a true sense of pride for our business and services
- Being established as the most attractive partner to service providers in the European airspace
- Being an attractive workplace with a constant focus on developing our employees, their skills and competences
- Continuously strengthening our competitiveness by a constant focus on improvement and by developing our performance trough harmonisation and standardisation

3.2 Strategic Rationale for the NUAC Programme

As stated in Section 3.1, the NUAC Programme has been established to provide a feasible and sustainable answer to the current and future challenges facing the ATM

industry and Air Navigation Service provision in particular. This includes the particular challenges and issues facing Nordic service provision.

Based on the mission and vision, a number of key strategic rationales and objectives for the NUAC Programme have been established – see figure 8. The strategic rationales are the arguments for establishing a closer cooperation between LFV/ANS and Naviair as well as the bases for the initiatives defined and have been identified as the key areas where the NUAC Programme must provide additional value in comparison with the current situation.

Figure 8 Strategic rationales for the NUAC Programme

Strategic Rationale		Description
INTERNAL	**Cost effectiveness**	Cost efficiency refers to the balance of effectively delivering high quality Air Navigation Services at the lowest possible costs without compromising flight safety.
	Operational flexibility	Operational flexibility entails the ability of the Air Navigation Service provider to respond to changes in the strategic environment of the service provider. This includes the ability to be able to leverage and share resources in the most optimum way across business processes and respond to changes in services and demand in the most efficient manner.
	Alignment of business model	Alignment of Business Model is the ability to achieve a strong link between the actual Business Model and the Strategy chosen to respond to the changes in the ATM industry as such. Currently, the majority of Air Navigation Service providers rely on a Business Model that is centered on air traffic control. However, in order to effectively meet the strategic challenges outlined, the Business Model needs to reflect these as well as serve as a sustainable path to implementing the chosen strategy.
	Strategic readiness	Strategic readiness entails the ability of an organisation to adapt and respond to changes in the overall value chain on which revenue is made or derived. It entails being able to act swiftly and adapt the overall strategy correspondingly.
	Attraction and bargaining power	Attractiveness and bargaining power imply how attractive the established entity or cooperation will be towards new partners as well as towards customers and to what extent this will lead to increased bargaining power.
EXTERNAL	**Flight safety**	Flight safety is the overarching measure within Air Traffic Control and aviation in general. It is paramount as a strategic rationale for the NUAC Programme that flight safety must not be compromised, and that the aim for any cooperation efforts should be to maintain or increase today's high level of flight safety by closer cooperation even with higher numbers of operations.
	Flight Efficiency	Flight efficiency has significant impact for both airline carriers as well as broader socio-economic and environmental effects. Closer cooperation in airspace design as well as in route planning has the potential of reducing the cost for fuel and the en-route charges for carriers as well as reducing emissions and thus environmental impact.
	Customer orientation	The majority of a service provider's revenue depends on the ability to deliver Air Navigation Services and interacting effectively with the key customers. As customers become increasingly focused on the service vs. cost equation, the ability to focus services, customer-facing business processes and systems towards the customers is becoming increasingly important.
	Political and social effects	Changes in airspace design and route planning along with closer cooperation on administrative functions within the Air Navigation Service providers may potentially have a significant impact on the overall societal benefits as such. This includes: Macro-economic benefits, environmental-economic benefits and political and infrastructure/transportation related benefits.
	Environment	Reducing emissions from aviation through better route planning and direct flights as well as Optimising take-off and landing profiles.

The strategic rationales outlined provide the basis for a study of the potential financial and non-financial benefits of a closer collaboration between LFV/ANS and Naviair.

3.3 Initiatives

Seventeen concrete initiatives have been established derived from the strategic rationales covering the benefit potential by formalized cooperation in the different functional areas of the two organizations. Due to the fact that the initiatives are driven by a formalized cooperation, they cannot in general be implemented as individual cost reduction projects.[19] The initiatives are described in Figure 9.

The financial impact of the initiatives will be analysed in the Business Case in the Scenario evaluation. The three Scenarios are defined – based on their definition and related Business Model – by the initiatives. As mentioned earlier, the Scenarios differentiate on how the organizations should cooperate and which functional areas should be included in the cooperation. In other terms, the Scenarios differentiate on which initiatives to include and how the initiatives are included.

Figure 9 Initiatives

No.	Name of Initiative	Description
1	**Optimisation of management functions**	Due to the new organisational design established in the Business Model, there will be a need for a re-arrangement of senior management and management staff in order to fill positions in a NUAC company as well as in LFV/ANS and Naviair.
2	**Optimisation of general administrative functions**	In order to Optimise the current administrative staff functions, new administrative staff functions and related processes etc. have been designed in the Business Model. The new administrative staff functions are designed in according to best practice – hence all processes, procedures, activities etc. within the respective functional areas have been harmonised and aligned to the new organisational design.
3	**Optimisation of systems development functions**	After implementation of DATMAS and EUROCAT, all development activities related to ATM systems will be handled in COOPANS. As a consequence of this, the number of system development staff may be kept at a minimum, since primary tasks are requirements for COOPANS. As a result, systems development staff functions may be optimised considerably.

[19] See “Appendix 2: Business Case – Initiatives” for a detailed description of the individual initiatives in each of the three Scenarios. In the assessment of the initiatives, three initiatives have been identified as possible initiatives for implementation in the current situation, though they have limited financial impact.The three initiatives are: Initiative 12: “Common future purchasing and operation of standard ‘other ATM systems’”, Initiative 13: “Common use of existing surveillance infrastructure in Denmark and Sweden”, and Initiative 14 “Common future purchasing and operation of standard CNS systems and infrastructure”. See “Appendix 2: Business Case – Initiatives” for details.

4	**Optimisation of systems maintenance functions**	Based on the assumptions that a future NUAC will be based on a harmonised and consolidated ATM and CNS systems infrastructure, significant potential savings related to systems maintenance and supervision exist. Outsourcing of systems maintenance and supervision to a third party (i.e. as partially done currently in LFV/ANS by ELTEL) is assumed to realise a savings potential. Besides scale economies, synergy potentials will arise due to the fact that current ATM systems will be harmonised and consolidated through COOPANS – hence reducing workload related to systems maintenance.
5	**Optimisation of procedures functions**	Optimisation of operational procedures functions through centralisation and alignment of current processes, procedures and activities as well as associated reduction in duplicate activities and positions. Also, benefit potential will arise due to common development of e.g. Aeronautical Information Publication.
6	**Optimisation of general operational support functions**	In order to Optimise the administrative functions related to general operational support functions (i.e. secretary functions etc.), new functions and related processes have been designed in the Business Model. The new administrative operational support and duty roster planning functions are designed so that all processes, procedures, activities etc. within the areas have been harmonised and aligned to the new organisational design, leading to a reduction in activities and positions.
7	**Optimisation of briefing officer functions**	Optimisation of Briefing Officer functions through cross-border alignment of current processes, procedures and associated reduction in activities and resource requirements. Furthermore, potential savings may be realised through centralised governance, Optimisation and harmonisation of current Briefing Officer activities.
8	**Closure of two control centres in night hours**	Optimisation of air traffic controllers (ATCOs) in night hours with low traffic volumes. With the current traffic volumes in Copenhagen, Stockholm and Malmoe in night hours between 24:00 to 06:00, it is estimated that one control centre can manage airspace for the three control centres – with a slight increase in ATCOs on the night shift at the chosen control centre – resulting in a reduction in necessary ATCOs overall.
9	**Optimisation of control positions**	Optimisation of current utilisation of operators through consolidation of positions in Copenhagen, Stockholm and Malmoe. Local approach positions are not included in the initiative (e.g. approach centres in Norrköping, Göteborg and Billund). The required amount of positions in the three Scenarios is estimated in the “NUAC Airspace Design Team Report”.
10	**Common administrative IT platform and applications**	Administrative IT systems and applications (MS Office applications etc.) and IT infrastructure will be sourced jointly, and key systems and applications platforms will be standardised in order to achieve lower license and procurement costs as well as an overall reduction in the maintenance, support and implementation related costs (non-FTE). Administrative IT is defined as all non-operational (CNS, ATM) related hardware and software.
11	**Sourcing of tele/data communication services**	Common sourcing/procurement of telephony/data communication incl. hardware and subscriber services (handsets, switches etc.). It is assumed that a potential cost reduction may be achieved through realising better sourcing and subscriber contracts through greater volume discounts.
12	**Purchasing and operation of ‘other ATM systems’**	Common future purchasing and operation of standard ‘other ATM systems’ (i.e. systems are replaced at the end of their life cycle) will results in cost savings. The category ‘other ATM systems’ covers all relevant ATM systems except CNS systems, tower systems and systems covered by the COOPANS cooperation.
13	**Common use of existing surveillance infrastructure**	Common use of existing surveillance infrastructure in Denmark and Sweden will reduce the total need for surveillance infrastructure in Denmark and Sweden, and thereby reduce the operating and investment related costs.

14	**Purchasing and operation of standard CNS systems**	Common future purchasing and operation of standard CNS systems and infrastructure (i.e. infrastructure/systems will be replaced when their life cycle is completed) will reduce the operating and investment related costs.
15	**Optimisation of basic and unit training simulators**	Joint use of existing basic and unit training simulators in Denmark and Sweden will realise savings through shutdown of the basic training simulator in Copenhagen (the CATCAS simulator) and basic training carried out at Entry Point North (EPN). Furthermore, savings will occur through integration of basic and unit training in one simulator at EPN, by closing down the existing Smart simulator and by expanding the capacity of existing EUROCAT simulator in Malmoe to cover both basic and unit training as well as simultaneously moving this simulator to EPN.
16	**Reduction in general overhead costs**	Cost savings not directly related to payrolls or operation costs, but dependant on the number of staff. As an effect of the FTE reductions, general overhead costs will be reduced. General overhead costs include recruitment and training, administrative IT costs etc.
17	**Programme implementation costs**	This initiative assesses the implementation costs related to implementation of the initiatives defining the Scenarios in the NUAC Programme.

In addition to the 17 initiatives, four initiatives were investigated during the NUAC Programme Definition Phase. Due to uncertainty related to implementation of these initiatives, further investigation of the initiatives will be performed in the future programme work. Additional cost savings related to these initiatives have **not** been included in the Business Case.[20]

3.4 Key Stakeholders

In order to ensure that the NUAC Programme and its future strategic framework support the stakeholders' needs and priorities, a stakeholder care and communication plan has been developed.[21] Regular coordination meetings have been organized with the following four identified key stakeholders:

- Staff and Labour Unions of LFV/ANS and Naviair
- The Armed Forces in Denmark and Sweden
- The National Supervisory Authorities, Statens Luftfartsvæsen (SLV) and Luftfartsstyrelsen (LS)
- The Aircraft Operators and other customers.

3.4.1 *The Labour Unions of LFV/ANS and Naviair*

As key stakeholders, the staffs of LFV/ANS and Naviair are part of the Stakeholder Care Programme and the ongoing Social Dialogue through their Union officials.

[20] The four initiatives relate to: Optimisation of Airspace Management Cells (AMC), Optimisation of Air Traffic Flow Management (ATFM) Supervisor functions, Alignment of Flight Information Service (FIS) and finally, Reduction of rental costs of buildings and establishment of one corporate headquarter.

[21] For details, see "Appendix 11 – Stakeholder Care and Communication Plan"

The Union officials are participating in the Union Coordination Group and are directly involved in the work regarding HR Aspects, Integration Strategy and Risk Management, and this process will continue with no change to the ongoing and well-functioning cooperation with the Unions as part of the future work in the programme.

The already established cooperation and working condition between the Programme Management and the Unions will continue with common regular meetings. This will safeguard that the LFV/ANS and Naviair staff have the possibility through their Union officials to influence and be a part of the overall continued work.

3.4.2 *Armed Forces in Denmark and Sweden*

The coordination with the respective Armed Forces have been ensured through the established Coordination Group, and cooperation has been constructive and has given the opportunity for the parties to gain a mutual understanding of the key issues regarding the requirements of the Armed Forces and the development of the NUAC Programme.

The process of documenting the requirements of the respective Armed Forces and the NUAC Programme's fulfilment of these requirements is ongoing. This process will ensure that the requirements are met, and that the Armed Forces can continue to live up to their national responsibility with no constraints posed on them by the NUAC Programme's development.

The Swedish Armed Forces are in the process of clarifying the responsibility between the different national Swedish authorities concerned. When this work is done, a thorough review will be conducted in cooperation between the Programme Management and the representatives of the Armed Forces in order to safeguard that all military requirements are met.

The NUAC Programme is confident that the present demands from both the Danish and the Swedish Armed Forces can and will be met.

3.4.3 *The National Supervisory Authorities*

The National Supervisory Authorities – "Statens Luftfartsvæsen" and "Luftfartsstyrelsen" – have continually been informed of the scope of the NUAC programme and its progress during the Definition Phase. During the continued work, the cooperation between the Programme Management and the National Supervisory Authorities will encompass a more comprehensive approach when an indicative decision regarding the development of the NUAC Programme is in place.

The forward going cooperation process with The National Supervisory Authorities will ensure the development of the Programme in accordance with both national and international law and the adherence to the EC Common Requirements Regulation for ANSPs which:

1) Introduces a common system for the certification of ANSPs (including providers of Air Traffic Services (ATS), meteorological information (MET), aeronautical information services (AIS), and communication, navigation and surveillance services (CNS))

2) Includes requirements for technical and operational competence, systems and processes for safety and quality management, reporting systems, quality of services, financial strength, liability and insurance cover, ownership and organisational structure, human resources and security
3) Supports the objective of the Service Provision Regulation (EC 550/2004) to establish common requirements for safe and efficient provision of Air Navigation Services in the European Community.

3.4.4 *Aircraft Operators*

During the Definition Phase, the Aircraft Operators have been informed about the scope and progress of the NUAC Programme through their participation in coordination groups and through direct meetings between the Programme Management, International Air Transport Association and some major airlines of the region (SAS DK, Sterling, Cimber Air and Svensk Flyg).

This cooperation has lead to a good mutual understanding and an expressed general support to the NUAC Programme from the participating Aircraft Operators and Organisations who have all expressed that the Programme seems to be in line with policy expressed and have also encouraged a further development of an enhanced and cost-effective relationship between LFV/ANS and Naviair.

To safeguard the Mission and Vision as well as relate to customer needs, the coordination groups and direct face-to-face meetings will be continued between the Programme Management and the Aircraft Operators of the region and their organisationsduring the continued programme work.

4 Air Traffic Management, Structure and Key Strategic Drivers

This section contains a summary of the existing structure, regulatory issues and key strategic drivers and reforms, which are currently under consideration for the Air Traffic Management industry in Europe.

The development of the European Air Navigation Service industry may fundamentally be seen as having developed in four successive steps where the current consolidation of the industry may be perceived as the fourth step in the development of the industry (see Figure 10). Currently, there are 42[22] Air Navigation Service Providers (ANSPs) managing the European airspace, which covers the airspace from Iceland to Turkey.

Figure 10 Major historical steps in the European and Nordic Air Navigation service

	-1930 ***Development of air navigation industry***	1930-1950 ***Establishment of national air navigation service providers***	1990- ***Separation of executive and judicial power***	2000- ***Consolidation of air navigation service providers***
General trends	Air navigation gradually developed as a coherent and highly sophisticated discipline due to increased airline traffic and technological improvements in the beginning of the century	Air navigation was organized in national service provider companies due to a rising complexity in the industry, an increased pressure for safety and a need for harmonization and standardization of operation procedures across Europe and later worldwide via ICAO	National air navigation providers become independent due to political pressure for a separation of the executive and judicial power in the industry	Service providers are facing increased pressure towards consolidation of the European airspace according to political factors (e.g. European Single Sky initiative), economic factors (carriers push hard for lower rates and increased competition among ANSPs) and social-cultural factors (a push for more capacity)
Denmark and Sweden	The first commercial airlines in Sweden and Denmark were established in the 1930s	LFV and Luftfartsdirektoratet (Naviair) were established in 1938	LFV and Naviair became independent service providers in 2005, respectively 2001	Naviair and the LFV/ANS have decided to examine the prospects of establishing a joint enterprise for carrying out air traffic services in the Nordic region

[22] There are 42 ANSPs in Europe according to the ECAC list of members. ECAC covers the widest grouping of member states of any European organisation dealing with civil aviation. For a complete list of members, see ECAC homepage http://www.ecac-ceac.org/index.php?content=lstsmember&idMenu=1&idSMenu=10#12

In the next sections, a detailed analysis of the current developments in the air transport industry is presented, which confirms the fourth step - consolidation in the air transport industry.

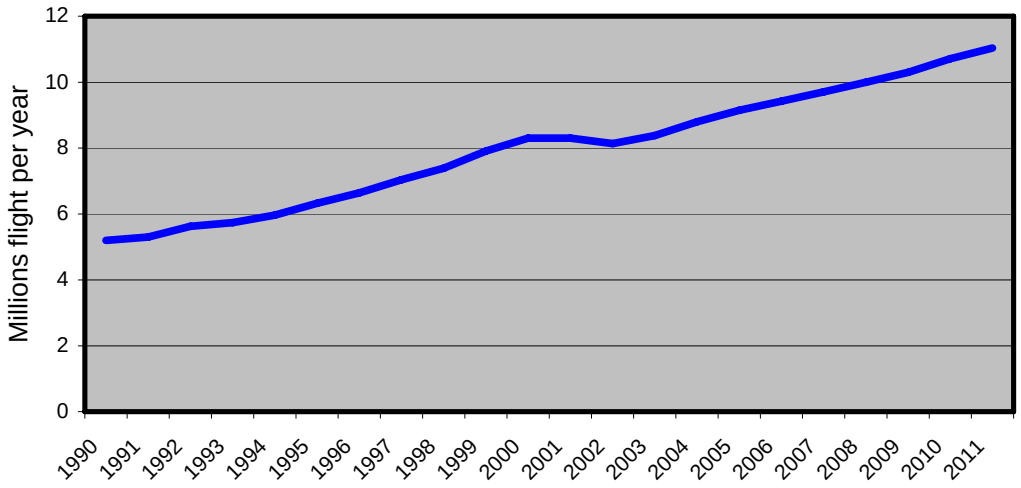
- A growing traffic volume
- A changed cost structure
- Consolidation among stakeholders in the value chain
- Increased focus on security
- The regulation of air navigation becomes international
- Nordic political visions focus on international cooperation
- Reforms and defragmentation in the industry.

4.1 Development in Traffic Volume in Europe

Since 1990, the commercial air traffic volume within Europe[23] has increased by an average of 4 percentage points yearly to a total of 9,2 million flights in 2005.

EUROCONTROL forecasts show (Figure 11) that the commercial air traffic volume is expected to rise by approximately 3,7 percentage point yearly towards an estimated 11,4 million flights by 2011. The projected growth rate for Denmark until 2011 is estimated at a 3,0 percentage point annual growth whereas the Swedish growth rate is estimated at a 4,1 percentage point annual growth.

Figure 11 EUROCONTROL estimated air traffic volume development[24]



The growing amount of air traffic within the European airspace is leading to greater complexity and congestion of the airspace. The consequences are emerging capacity issues, which mean an increasing focus on efficiency in air traffic control, better leverage of current and future ATM and CNS systems and equipment, and overall utilisation of the airspace.

[23] ESRA: EUROCONTROL Statistical Reference Area.
[24] Source: “Performance Review Report – An assessment of Air Traffic Management in Europe during the calendar year 2005”, EUROCONTROL, 2005. Data from 2006-2011 are forecasts.

The air traffic volume growth also has the consequence of an increasing attention towards the environmental aspects associated with air travel. This combined with the airspace utilisation focus is leading to a demand for more direct gate-to-gate routing which requires stronger collaboration in the utilisation of the airspace.

As air traffic volume has increased, particularly since 1990, in certain areas of the European airspace have been experiencing lacks of capacity[25] and consequently major delays, which are the key incentives for consolidation of the ANSP industry.

4.2 The Cost of Fragmentation Drives Increased Cooperation

Air Navigation Services rely mainly on three key resources for providing the service:

- Sophisticated Air Traffic Management (ATM) systems
- Infrastructure
- The Air Traffic Controllers responsible for the actual operation of the systems and applying defined ATM-procedures.

Air Traffic Management systems refer to a number of different IT systems and equipment necessary to undertake Air Navigation Service. The primary systems areas cover:

- **ATM systems**
    - The core Air Traffic Management system
    - Related ATM support systems
- **CNS systems**
    - Communication systems
    - Navigation systems
    - Surveillance equipment.

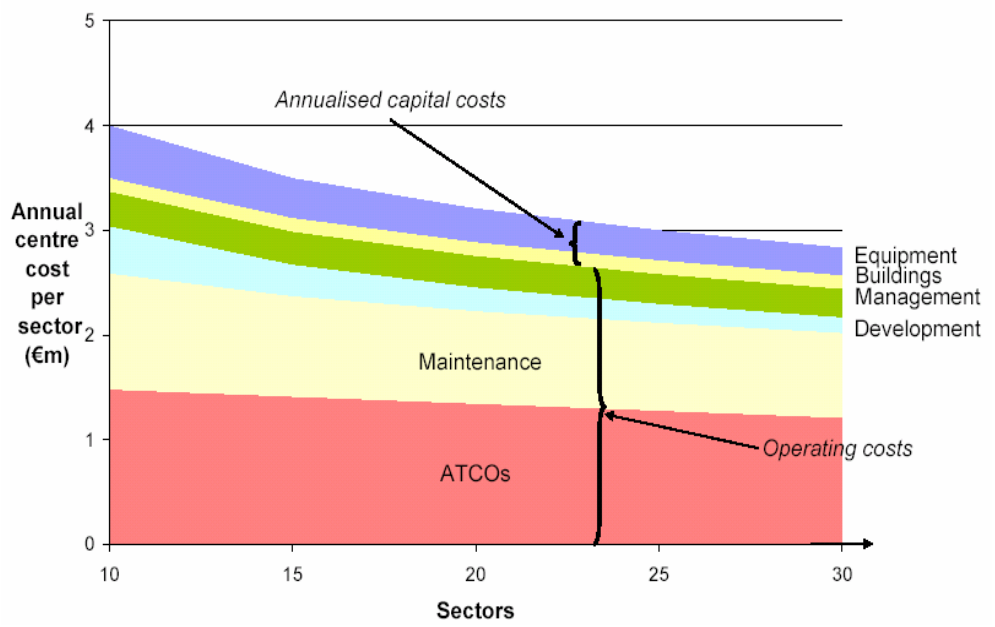
As air traffic volume has grown, so has the complexity of providing Air Navigation services and correspondingly the costs associated with ATM and CNS systems and equipment as part of the overall service provision costs.

Several studies of the service provision costs have determined that the capital costs and operating costs are significantly higher with smaller service providers covering a smaller airspace than with providers covering a larger airspace and number of sectors.

A recent study by the Performance Review Commission estimates the costs of fragmentation, i.e. the costs of not consolidating procurement, development and maintenance/operations of the key technical systems and equipment, to be between €890-€1,430 million annually for the European Airspace Providers (see Figure 12) [26].

[25] However, lack of capacity is not yet an issue in the Nordic region. Source: ”CFMU Yearly Summary 1999-2005”, EUROCONTROL, 2005
[26] Source: ”The Impact of Fragmentation in European ATM/CNS”, Solar Alliance, 2006.

Figure 12 Variation in yearly capital costs and operating costs correlated to ATC size[27]



The growing investment and operating costs constitute a key driver for stronger cooperation among Air Navigation Service Providers in Europe since there are significant economies of scale related to particularly the development and maintenance of ATM and communication, navigation and surveillance systems (CNS).

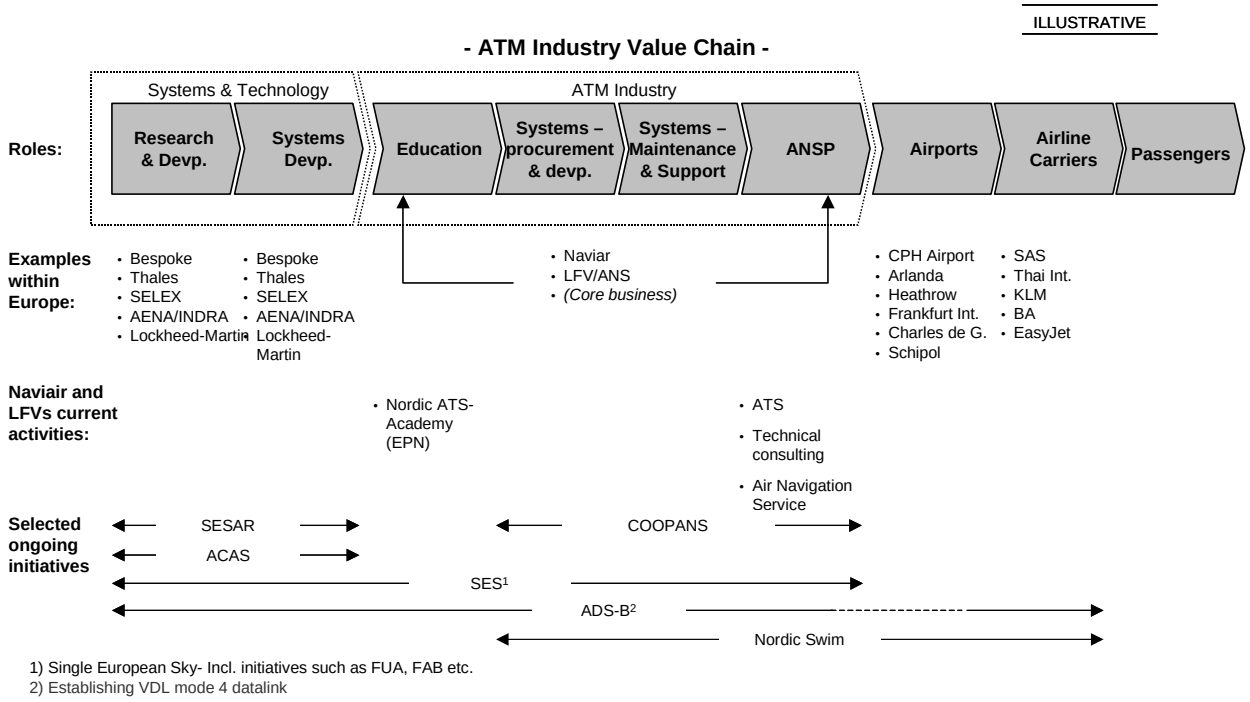
The increasing complexity and associated cost of technology related to service provision have raised the optimum size of a service provision centre upwards[28], and for smaller Air Navigation Service Providers such as LFV/ANS and Naviair, the costs of fragmentation are significant as has been laid out by the parties behind the COOPANS cooperation on the development of a common ATM technical platform.

4.3 Consolidation among all Stakeholders in the Value Chain

The value chain of the air transport industry is characterised by consolidation among all key stakeholders in the chain (see Figure 13). The key users of Air Navigation Services comprise: airports, commercial airline carriers and ultimately the commercial airline passengers and airport users.

[27] The model is taken from ”The Impact of Fragmentation in European ATM/CNS”, PRC, 2006.
[28] Source: “The Impact of Fragmentation in European ATM/CNS”, Solar Alliance, 2006.

Figure 13 Illustrative overview for the ATM industry value chain



Consolidation and corporation is strong among the air carriers where excess fleet capacity and new low cost Business Models have lead to a strong focus on customer unit price and thus a significant focus on cost-effectiveness to mitigate eroding margins.

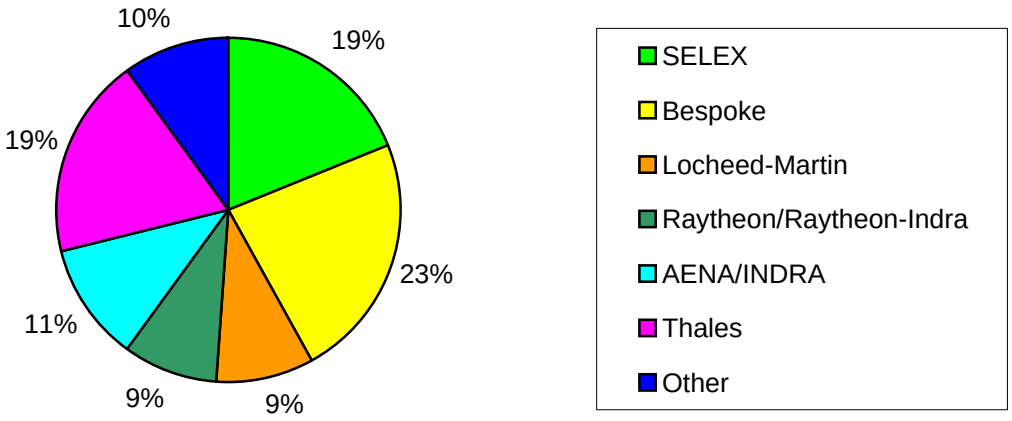
Among the airports, increasing demand from low cost carriers has also lead to an increased focus on cost reduction and recent privatisation of a number of European airports, most recently exemplified by the acquisition of Copenhagen Airport[29] by the Australian private equity firm Macquarie.

[29] The Danish State owns 39,2 % of Copenhagen Airport.

Consolidation also characterises companies providing ATM/CNS systems/infrastructure. As an example, the core technology and systems used by the Air Navigation Service Providers are provided by few select vendors with the three largest systems providers (See Figure 14):

Thales ATM/SIEMENS Pleassey/Thomson-CFS, SELEX and AENA/INDRA accounting for approximately half of the European market for Air Traffic Management systems[30].

Figure 14 Breakdown of market share – European ATM/CNS system providers



4.4 Current Strategic Cooperation between European ANSPs

A number of current initiatives regarding cooperation are under development in Europe as a consequence of the challenges and Single European Sky legislation.

In the Nordic Region (see Figure 15), the NUAC Programme has been established, where LFV/ANS and Naviair have taken the initiative to examine the prospects of establishing cooperation for carrying out air traffic services in the Nordic Region. NUAC is based on the rationale and vision of the Single European Sky, e.g. by aiming at efficiency and effectiveness.

[30] Source: ”The Impact of Fragmentation in European ATM/CNS”, PRC, 2006.

Figure 15 Current ATM key activities, where LFV/ANS and Naviair are participating

Origin	Initiative	Focus area
Denmark, Sweden	NUAC Programme	Establishing of one common Swedish and Danish airspace thus creating a FAB and leverage economies of scale, cost efficiencies
Ireland, Denmark, Sweden	COOPANS (Cooperation in the Procurement of Air Navigation Systems)	Common procurement and cost reductions related to procurement and operating costs associated with core ATM systems development
Denmark, Sweden, Norway	Entry Point North	Common school and educational standards for ATCO education and basic training

LFV/ANS and Naviair are also involved in the COOPANS initiative, which was launched in 2005 with the scope of establishing common procurement of the core ATM systems used. The initiative comprises joint procurement cooperation between the Irish Aviation Authority (IAA), Luftfartsverket (LFV) in Sweden and Naviair, the Danish service provider. Another Scandinavian initiative was the establishment of Entry Point North in 2005, which is common school and educational standards for ATCO training.

Across Europe, several initiatives concerning cooperation between ANSPs in Europe exist, e.g. CEATS, NATS and RADA (see Figure 16). These initiatives confirm the existence of a consolidation trend and indicate wide political support to the vision of the Single European Sky. For a detailed description of these initiatives, see the table on the next page.

Figure 16 A complete overview of ongoing strategic cooperation between European ANSPs

Origin	Initiative	Focus area
Austria, Bosnia and Herzegovina, Croatia, Czech Republic, Hungary, Slovakia, and Slovenia	CEATS Central European Air Traffic Services	Austria, Bosnia and Herzegovina, Croatia, Czech Republic, Hungary, Slovakia, and Slovenia have since 1997 been working to establish a common upper airspace with a coordinated or consolidated common airspace. The initiative originally included Italy, but ENAV withdrew from the program in 2005. The work is supported by EUROCONTROL but has seen little progress before mid-2005 where a letter of intent was signed by the involved government officials. Difficulties can still be foreseen as the initiative includes seven different countries and ANSPs, and as one airline operator organisation (IATA) has officially withdrawn its support for the program reasoning that building the alliance seems to take too long and be more costly than the benefits in the short to medium term. However, the work is officially ongoing.
Spain, Portugal	NAV, Portugal, and AENA, Spain	Spain and Portugal have established a common cross-border area along the sovereignty border of the two countries in order to gain more direct structured en-route airways and also to enable military exercise areas that may be used by both states.

Ireland, United Kingdom	NATS	The Irish Aviation Authority (IAA) and National Air Traffic Services (NATS) have planned an initiative on the basis of a report from 1 July 2005 by the independent consultants The Solar Alliance on the feasibility of establishing a Functional Airspace Block (FAB) in Irish/UK airspace. The main recommendations of the Solar Alliance report are: • A three-centre high level en-route strategy based on Shannon, Prestwick, and Swanwick area control centres • An integrated charging regime across the whole airspace • Joint airspace management to deliver improvements in service quality with a new Atlantic interface system managed from Shannon • Control of the Dublin TMA should be transferred to Prestwick Thus an ambitious initiative that involves airspace as well as staff, and both the IAA and NATS now seek the support of their Boards to move to the next phase of more detailed work which is supposed to continue in the autumn of 2006.
France, Switzerland	DSNA/Skyguide	DSNA and Skyguide, Air Navigation Service providers of France and Switzerland, have initiated a project to form a Functional Airspace Block (FAB) in their joint airspace. As in the above case for NATS and IAA, these two ANSPs, after having studied the issues and potential benefits internally, needed to have an independent review of the costs and benefits and of options for charging and financing in the FAB. In this light, Skyguide and DSNA signed a letter of intent on 27 November 2004 that commissioned the independent consultants Helios Technologies to carry out a feasibility study of a Franco-Swiss FAB in order to quantify benefits where possible and also assess the potential impact on flight efficiency and delay. The report was finished in 2005 and makes a number of recommendations aimed at initiating the next phase in intensifying the collaboration between DSNA and Skyguide from 2006 onwards prior to the entry into operation of the new FAB. The initial timeframe for implementation is before the end of year 2008.

Germany, Netherlands, Belgium, Luxemburg	MUAC	The airspaces of Belgium, Luxembourg, Netherlands, and Germany are the most densely used airspaces of Europe. The states and their Air Navigation Service Providers (ANSPs) have lengthy experience of operating air traffic control irrespective of the individual boundaries, with the Upper Area Control Centre in Maastricht. The Civil Aviation Authorities (DGCAs) of these states, together with the military authorities and with the support of EUROCONTROL and the CEOs of the ANSPs, have decided to start a detailed FAB Feasibility Study. The study will address as priority the safety, capacity, and cost-efficiency cases. It will begin on 1 July 2006, and its four phases will be completed by the end of 2007. The study will investigate the advantages of a FAB in the upper and lower airspace of the four states. The design of the FAB will also be discussed with neighboring states and consider the needs of harmonisation with other FAB initiatives. The DGCAs have asked the CEOs of the five ANSPs (DFS, LVNL, Belgocontrol, LuxATC, and MUAC) to prepare a project charter for the study. The study will examine seven areas of the possible FAB: operational, technical, safety, financial, human resources/communications, regulatory/institutional/legal, and civil/military issues. Closer cooperation between the air traffic control organisationsinvolved will be investigated. The national authorities will study legal and institutional aspects of the common management of the airspace. The sovereignty of the airspace of the states will be guaranteed. The study will be managed by a High Level Policy Group consisting of the DGCAs and the Ministries of Defense, with the support of the DG EUROCONTROL, together with the CEOs of the ANSPs. The possibility of service provision without EUROCONTROL is also studied to increase adherence to the Single European Sky legislation where EUROCONTROL today may be regarded as a regulator as well as an ANSP. The latter is a long-term initiative.
Azerbaijan, Armenia, Georgia, Moldova, and Ukraine	Regional Air Navigation Services Development Association (RADA)	RADA is created by ANS providers of Azerbaijan, Armenia, Georgia, Moldova, and Ukraine. RADA was registered in Ukraine on 16 September 2003. RADA is a non-profit, international, non-governmental organisation acting according to the principles of partnership, openness, cooperation, subsidiary and professionalism of its members. The RADA initiative investigates the need for the practical implementation of solutions to problems related to the development of air navigation in the region. The creation of favourable conditions for the further growth of the economic efficiency of airspace use and the development of the safe and efficient Europe-Caucasus-Asia transport corridor lead to the understanding of the expediency of developing common regional approaches to the implementation of the communications, navigation and surveillance/air traffic management (CNS/ATM) concept and to the development of the air navigation services market in the region. The initiative is supported by UN ICAO and several associated members and observers from the manufacturing industry and the airlines associations, and RADA is open for all forms of cooperation.

4.5 Summary of Key Conclusions for European Air Navigation Service Providers

The European ATM industry value chain is currently undergoing significant changes. These changes are bound to have a profound impact on the national Air Navigation Service Provision in terms of:

- The cost efficiency and profitability of the Air Navigation Service Providers pursuing a stand-alone strategy
- Further consolidation and cross-border cooperation and scale to combat growing operating and capital costs
- Creating a more rational organisation of airspace across borders through the establishment of Functional Airspace Blocks (FABs) to improve capacity, enhance flight safety and lower costs of air traffic services
- More focus of customers and their particular needs concerning cost, joint cooperation and use of airspace
- Changing business and operating models and structures of ownership
- Increased commercialisation and potential privatisation of parts of the Air Traffic Management value chain
- Regulatory alignment and increasing common operating standards – i.e. as driven forward by the Single European Sky initiative and common requirements
- Increased consolidation and standardisation of ATM and CNS systems and infrastructures.

As Service Providers seek to strengthen their position by pursuing growing scale efficiencies and compliance with the Single European Sky initiative, LFV/ANS and Naviair seek a more formalisedcooperation that will:

1. Ensure flight safety through common procedures, operational cooperation and systems and technology integration
2. Enable cost efficient and effective operations aligned with customer needs and requirements and in compliance with the Single European Sky
3. Mitigate capacity issues through better flight efficiency and a more flexible use of the airspace (through establishment of a FAB) and corresponding resources, ultimately also improving the overall environment
4. Enable a focused Business Model that provides strategic readiness and bargaining power towards internal and external stakeholders as well as a common voice

In summary, there is a significant incentive and a strong platform for LFV/ANS and Naviair to pursue increased formalised cooperation and change the current business and operating model towards one that facilitates strong cooperation and that will provide the necessary flexibility and efficiency for the future.

The benefits from different ways of achieving this cooperation have been analysed in the following chapters.

5 HR Aspects and Social Dialogue

This chapter deals with the general HR Aspects in connection with NUAC Programme. The chapter consists of two sections; first a description of the analytical framework of HR Aspects including the purpose and structure as well as assumptions of the analyses. Second are the general analysis results – i.e. the HR Aspects, which are the same for the three Scenarios.

5.1 Reader's Guidelines

As a consequence of the many similarities between the Scenarios, the analysis results will be presented partly in a general chapter, which contains the general conclusions across the Scenarios, and partly in three separate sections, which contain the different aspects of the Scenarios.

It should be noted that the presentation of the analysis results in this report only contains general conclusions and highlights. For a more complete understanding of HR Aspects, reference should be made to the comprehensive Appendix 9, which contains a detailed description of the analysis results of the five partial analyses. This Appendix is a constructive tool in the further work of the NUAC Programme. Furthermore, due to its detailed and systematic character, it functions as an actual work of reference in relation to HR Aspects in the further work.

Finally, it should be noted that the partial analysis with legal content are presented in the Danish and Swedish language in order to ensure the correctness of legal content.

5.2 Analytical Framework

5.2.1 *Purpose and Structure*

On the basis of an analysis of the present HR Aspects in LFV/ANS and Naviair in Denmark and Sweden respectively, the purpose of the HR Aspects is to assess the consequences with regard to employees in connection with an implementation of the three Scenarios. This means in part implications for the employees, i.e. questions of rights, tax aspects, challenges and possibilities of the three Scenarios etc.; partly implications for the individual Scenarios, i.e. questions of implementation of the Scenarios within existing legislation, outlines drawn up etc.

The analyses in HR Aspects are based on various sources of data with a view to building a valid and balanced understanding of the issues at hand. This means:

- **Bottom-up approach –** Unions and employee representatives have been actively involved in the data collection and the analyses
- **Analysis of legislation –** Existing legislation as well as legal usage in Denmark and Sweden have been applied in the analyses
- **Interviews –** A number of supplementary interviews have been carried out with key employees in the two organisations
- **Existing material and analyses in the area –** have been employed as the basis for the analyses.

HR Aspects contain five different partial analyses, which together provide an overall understanding of HR Aspects in the three Scenarios. The five general partial analyses, whose general purpose and focus areas are described in Figure 17, are:

- Employee legal aspects
- Tax and social protection
- Compensation and benefits
- Working environment
- HR programs.

Figure 17 Overview of analysis areas of HR Aspects

Partial analysis	Issue of the analysis	Focus areas of the analysis
Employee legal aspects	Analysis of the employee legal aspects by implementation of the three Scenarios	• Assessment of legislation on transfer of ownership of a company is valid • Geographical move of employees • Secondment of employees • Closure of work places/terminations • Movement to another legal unit • Changes in work tasks of the employees
Tax and social protection	Analysis of implications concerning tax and social protection by implementation of the three Scenarios	• Implications of Swedish NUAC AB • Implications of Danish NUAC A/S • Special rules for public employees
Compensation and benefits	Analysis of the present benefits of the two organisations including assessment of differences in benefits as well as consequences in relation to implementation of the Scenarios	• General bonus arrangements • Work tools • Possibility of coverage of expenses in connection with change of job
Working environment	Analysis of potential risks and negative effects related to working environment in connection with implementation of the three Scenarios	• Psycho-social working environment • Physical and chemical working environment
HR Programmes	Analysis of differences in HR Programmes of Naviair and LFV/ANS with a view to assessing implementation of the three Scenarios	• Recruitment • Competence development • Performance management

5.2.2 *Assumptions*

In addition to existing Scenario descriptions, HR Aspects have applied the assumptions in Figure 18.

Figure 18 Application of HR Aspects in the three Scenarios

HR conditions	Merger	NUAC/SKAANE	Alliance
Conditions relating to company law	Legally, the construction will be a company registered as a public limited company either in Denmark (A/S) or Sweden (AB)	Legally, the construction will resemble that of the NUAC/SKAANE project	The current companies will continue along with a new alliance company. The alliance company will be controlled by the current companies (Naviair and LFV). It will be a construction resembling that of Star Alliance.
Moving of workplace, internally in Denmark/Sweden as well as to and from Denmark and Sweden	The Scenarios may imply some moving of workplace both internally in Denmark/Sweden and to and from Denmark/Sweden however no major staff movements is foreseen. This applies for all workplaces and employee groups	The Scenarios may imply moving of workplace both internally in Denmark/Sweden and to and from Denmark/Sweden. This applies for all workplaces and employee groups	The Scenarios may imply some moving of workplace both internally in Denmark/Sweden and to and from Denmark/Sweden however no major staff movements is foreseen. This applies for all workplaces and employee groups except from the employees working in the operational core positions (i.e. air traffic controllers and direct support in the existing companies, Naviair and LFV/ANS).
Employee groups which may be involved in the transactions	All employee groups may be involved in the transactions	All employee groups may be involved in the transactions	All employee groups may be involved in the transactions except from the employees working in the operational core positions (i.e. air traffic controllers and direct support in the existing companies, Naviair and LFV/ANS)
Discontinuation of jobs/resignations	Discontinuation of jobs/resignations may occur in all employee groups	Discontinuation of jobs/resignations may occur in all employee groups	Discontinuation of jobs/resignations may occur in all employee groups except from the employees working in the operational core positions (i.e. air traffic controllers and direct support in the existing companies, Naviair and LFV/ANS)
Change in work assignments	Changes in work assignments may occur in all employee groups	Changes in work assignments may occur in all employee groups	Changes in work assignments may occur in all employee groups except from the employees working in the operational core positions (i.e. air traffic controllers and direct support in the existing companies, Naviair and LFV/ANS)
Transfer of employees to a different legal entity	Transfer of employees to a different legal entity may occur in all employee groups	Transfer of employees to a different legal entity may occur in all employee groups	Transfer of employees to a different legal entity may occur in all employee groups except from the employees working in the operational core positions (i.e. air traffic controllers and direct support in the existing companies, Naviair and LFV/ANS)

5.3 HR Aspects – General Conclusions

This chapter contains the general conclusions of HR Aspects in the five partial analyses – i.e. aspects that are the same in the three Scenarios. The aspects that are different will be dealt with in the various Scenario chapters.

Differences between the Scenarios are mainly a consequence of different employee groups being affected. In the Merger Scenario, all employee groups may be influenced to some extent. Also in the NUAC/SKAANE Scenario, the conditions indicate that all employee groups may be affected. However, the Scenario description is drawn up in such a way that primarily the operational staff and direct support staff in the operational core business are involved. In the Alliance Scenario employees who work in the operational core businesses are not affected (i.e. air traffic controllers and direct support staff in the existing companies LFV/ANS and Naviair[31]), but all other functional groups may be involved.

5.4 Personalejuridiske forhold

Denne delundersøgelse vil analysere de personalejuridiske forhold ved implementering af de tre scenarier. Undersøgelsen behandler forholdene i Danmark og Sverige separat.

5.4.1 *Danmark og Naviair*

De personalejuridiske forhold som er ens i de tre scenarier er udlån af medarbejdere og ændring af medarbejdernes opgaver.

5.4.1.1 Udlån af medarbejdere

Ved udlån forstås, at medarbejderen forbliver ansat hos Naviair og udfører tjeneste for en anden juridisk enhed.

Ved vurderingen af, om der kan ske udlån af medarbejdere, skal der tages stilling til, om der uden medarbejdernes samtykke kan foretages en sådan ændring af ansættelsesvilkårene. Det er herved forudsat, at udlån altid kan ske, hvis medarbejderen samtykker hertil og de nærmere vilkår for udlånet er fastsat ved aftale. Det er ikke oplyst, hvorvidt der kan blive tale om udlån af medarbejdere. Der henvises derfor generelt til Appendix 9.1.

5.4.1.2 Ændring af medarbejdernes arbejdsopgaver

Der kan potentielt blive tale om ændring af arbejdsopgaverne for samtlige medarbejdergruppers vedkommende bortset fra i Alliance scenariet, hvor de medarbejdere, der arbejder i de operationelle kernevirksomheder (dvs. flyveledere og direkte support i de bestående selskaber Naviair og LFV), ikke bliver berørt.

[31] It should be noted that in Naviair, also administrative employees who are public servants are employed. The conditions applicable for public servants may thus also become relevant in the Alliance Scenario, in spite of the fact that the air traffic controllers are not affected.

Da det ikke er fuldstændigt præciseret, hvilke ændringer af arbejdsopgaverne, der kan blive tale om, henvises til det generelle afsnit om ændring af ansættelsesvilkårene i Appendix 9.1.

Figure 19 Generelle bemærkninger vedr. tjenestemænd og funktionærer

Funktionærer	Tjenestemænd
Udover de grænser som eventuelt følger af en kollektiv overenskomsts faglige gyldighedsområde, vil funktionærerne ikke være forpligtede til at acceptere ændringer i deres ansættelsesvilkår, såfremt disse fremstår som væsentlige. Stillingsændringer som følge af interne omlægninger i virksomheden må funktionæren som udgangspunkt skulle acceptere Om der er tale om generelle ændringer på virksomheden eller en konkret ændring for den enkelte medarbejder, kan tillægges en vis betydning. Beskyttelseshensynet er størst, når der er tale om individuelle ændringer. Endvidere kan det være afgørende, om ændringen er midlertidig eller mere permanent. En funktionær vil således skulle tåle midlertidige ændringer i videre omfang end permanente ændringer.	Tjenestemandens ansættelsesområde er et af de væsentlige elementer i vurderingen af, om en stillingsændring kan finde sted.Det væsentlige element i begrebet forflyttelse er, at tjenestens karakter ikke ændres. Ændringen må være af en sådan art, at stillingen også efter ændringen kan ligge inden for stillingsbetegnelsen, således som denne afgrænser stillingens art.

For mere detaljerede generelle bemærkninger vedr. tjenestemænd, funktionærer og ikke-funktionærer henvises ligeledes til Appendix 9.1.

5.4.2 *Sverige och LFV/ANS*

De arbetsrättsliga aspekter i Sverige och LFV/ANS som till huvudsak överrensstämmer i analysen av de tre scenarierna är utlåning av anställda, neddragning av personalstyrkan samt förändring av arbetsvillkor. Dessa områden behandlas nedan medan arbetsrättsliga aspekter som är specifika för de tre scenarierna behandlas under respektive Scenario.

5.4.2.1 Utlåning av anställda

Utlåning av anställda i LFV/ANS till NUAC kan aktualiseras under en begränsad period.

Frågan som uppkommer kan delas upp i två delar – är det är möjligt för LFV/ANS att ensidigt anvisa en anställd att utföra arbete:

1. för annat bolag, och
2. på annan ort i Sverige eller i Danmark.

Frågan besvaras med beaktande av den anställdes arbetsskyldighet, dvs. genom att bedöma om den anställdes tjänst härigenom ”i grunden förändras”. För detaljer se Appendix 9.2.

Bedömningen är att det ligger inom den anställdes arbetsskyldighet att efter anvisningar från arbetsgivaren (såsom LFV/ANS), temporärt utföra arbete för annat bolag (såsom NUAC AB) [32].

Avseende den andra frågeställningen avseende arbetsskyldighet på annan ort i Sverige eller i Danmark gäller följande.

Som sagts ovan skall en tillfällig placering inte anses medföra att tjänstens beskaffenhet i grunden ändras. Vidare gäller generellt sett att en anställd måste tillgodose arbetsgivarens tillfälliga behov av att få utfört på annan arbetsort; jfr. skyldigheten att vidta tjänsteresa.

En sådan temporär förflyttning – vare sig denna avser annan ort i Sverige eller i Danmark - ryms således i den anställdes arbetsskyldighet, vilket innebär att LFV/ANS ensidigt skulle kunna beordra de anställda att för en begränsad tid, utföra sina arbetsuppgifter på annan ort. För detaljer se Appendix 9.2.

Före ett beslut om en temporär förflyttning skall samverkan ske med de avtalsbundna fackliga organisationerna.

5.4.2.2 Neddragning av personalstyrkan

LFV/ANS har beskrivit arbetsgången vid arbetsbrist i dokumentet ”Omställningsarbete i Luftfartsverket – åtgärder och förhållningssätt”. Processen genomförs efter förhandlingar/samverkan mellan LFV/ANS och de avtalsbundna fackliga organisationerna.

Reglerna som skall följas i en arbetsbristsituation beskrivs i detalj i Appendix 9.2.

5.4.2.3 Förändring av anställningsvillkor

Vid en övergång av verksamhet har de anställda en principiell rätt att övergå på oförändrade villkor. Emellertid kan en viss harmonisering ske efter själva övergången till NUAC AB/Alliansbolaget. För detaljer se respektive scenarieanalyser och Appendix 9.2.

5.5 Skat og social sikring

Denne delundersøgelse vil analysere implikationerne vedr. skat og social sikring ved implementering af de tre scenarier.

5.5.1 *Svensk NUAC AB – arbejdssted i Sverige*

Ved arbejde for et svensk registreret NUAC AB/allianceselskab vil medarbejdere, som er bosat i Sverige som hovedregel være omfattet af svensk social sikring og svensk skat.

De medarbejdere, som vil **pendle** mellem Danmark og Sverige, og som har bopæl i Danmark, vil være fuldt skattepligtige til Danmark af deres globale indkomst samt begrænset skattepligtige til Sverige af arbejde udført for det svenske AB. Denne

[32] ST inom Flygledningen anser att rättsläget är oklart och reserverar sig mot denna tolkning.

dobbeltbeskatningssituation, med skatteopkrævning i både Danmark og Sverige, er løst gennem den nordiske dobbeltbeskatningsoverenskomst – se Appendix 9.3.

Ved **flytning til Sverige fra Danmark** for en årrække vil medarbejderen som hovedregel blive skattemæssigt hjemmehørende i Sverige. Det forudsættes her, at en eventuel ægtefælle eller samlever flytter med til Sverige. Skattemæssig hjemmehør i Sverige betyder, at medarbejderens globale indkomst skal beskattes i Sverige, herunder lønindkomsten for arbejde udført i Sverige for det svenske AB. Medarbejderen vil som udgangspunkt blive omfattet af almindelige svensk skat og svensk social sikring - se Appendix 9.3.

5.5.2 *Dansk NUAC A/S – arbejdssted i Danmark*

Ved arbejde for et dansk registreret NUAC A/S med et dansk fast driftssted af det svenske AB, vil medarbejdere som er bosat i Danmark, og som skal udføre arbejde i Danmark, som hovedregel være omfattet af almindelig dansk social sikring (AM-bidrag på 8%) og dansk skat med en skatteprocent op til 59%, dvs. i alt effektivt ca. 62% i skat og social sikring.

Medarbejdere, som p.t. er bosat i Sverige, og som skal udføre arbejde i Danmark for den danske arbejdsgiver, vil som udgangspunkt overgå til dansk social sikring og dansk skat med beskatning på op til 62% inkl. social sikring. Dette gælder, uanset om de pendler eller flytter permanent til Danmark.

Da Danmark i overensstemmelse med den nordiske dobbeltbeskatningsoverenskomst har retten til at beskatte lønindtægt for arbejde udført i Danmark for en dansk arbejdsgiver, medregner Sverige ikke denne lønindtægt i den svenske skatteberegning. Dette gælder, selvom medarbejderen stadig har bopæl i Sverige og hermed som udgangspunkt skal globalindkomstbeskattes i Sverige.

For yderligere vurdering af mulighederne for at opnås skattemæssig gunstig situation (fx ekspert beskatning) ved flytning til Danmark fra Sverige se Appendix 9.3. Sammenfattende vil en konkret vurdering, når det endelige set-up er på plads, altid være påkrævet, idet den endelige kvalificering i forhold til skat og social sikring afhænger af konstruktionens konkrete og endelige udformning.

5.5.3 *Specielle regler for offentligt ansatte*

Der gælder specielle regler for offentligt ansatte medarbejdere, der udfører arbejde i et andet land end det land, hvor deres arbejdsgiver har hjemsted.

Dobbeltbeskatningsoverenskomsten mellem Danmark og Sverige har således for offentligt ansatte fastlagt, at det som hovedregel er det land, hvorfra lønindkomsten udbetales, der har beskatningsretten til lønindkomsten. En medarbejder ansat af Naviair vil således som udgangspunkt være skattepligtig til Danmark af arbejde udført fysisk i Sverige, når medarbejderen får udbetalt sin løn fra Danmark. Se Appendix 9.2.

En konkret vurdering vil, når det endelige set-up er på plads, være påkrævet, idet den endelige kvalificering i forhold til skat og social sikring, især når der er tale om offentligt ansatte medarbejdere, afhænger af konstruktionens konkrete og endelige udformning. Det skal her særligt bemærkes, at medarbejdere, der i udgangspunkt er offentligt ansatte, efter en konkret vurdering af det endelige set-up kan blive omfattet af enten de

almindelige regler eller alternativt af reglerne for offentligt ansatte beskrevet i Appendix 9.3.

5.6 Compensation and Benefits

Denne delundersøgelse vil belyse de nuværende eksisterende personalegoder i LFV/ANS og Naviair, herunder eventuelle forskelle samt konsekvenser ved implementering af et af scenarierne[33]. Analysen afdækker organisationernes arbejdsredskaber, personalegoder samt generelle velfærdsordninger i relation til personalepleje. Undersøgelsen omfatter således ikke forhold som er fastsat og/eller reguleret i forhold til det overenskomstmæssige, herunder f.eks. fastsættelse af løn, pension og ferie/fritid.

5.6.1 *Kortlægning og analyse af benefits*

Det kan overordnet konstateres, at de to virksomheder i stor udstrækning stiller de samme arbejdsredskaber og personalegoder til rådighed for medarbejderne, og de stilles til rådighed på baggrund af ens forudsætninger om erhvervsmæssig relevans. Hverken Naviair eller i LFV/ANS tilbyder medarbejderne egentlige personalegoder som en del af den individuelle aflønning (personlige lønpakker)[34]. I Naviair findes der dog i dag en regularitetsbonuspulje, som udbetales til flyvelederuddannede medarbejdere samt individuelle resultatkontrakter på ledelsesniveau. Der er som udgangspunkt heller ingen særlige begrænsninger i tildelingen i forhold til personalegrupper eller anciennitet.

Der kan dog være forskel på, hvorledes "erhvervsmæssig relevans" vurderes i de to organisationer. Der synes således at være konstateret en forskel i vurderingen af, hvilke medarbejdere, som får tilbudt f.eks. mobiltelefon til brug for arbejdet.

Generelt gælder det, at ved ansættelse såvel i Danmark som i Sverige kan arbejdsgiver stille erhvervsrelaterede arbejdsredskaber til rådighed for medarbejderne uden skattemæssige konsekvenser.

Men for personalegoder (til også privat benyttelse) gælder, at disse i både Danmark og Sverige som udgangspunkt beskattes som lønindkomst. Man skal således være opmærksom på, at i Sverige vil der på samme måde som ved kontant løn blive opkrævet en arbejdsgiverafgift på op til 32,28 procent af den skattepligtige værdi. I Danmark opkræves ikke nogen form for arbejdsgiverbidrag til social sikring af personalegoder. Men i begge lande vil der være tale om beskatning af personalegoder til samme fulde marginalskat som på lønindkomst.

I forhold til hovedreglen om fuld beskatning af personalegoder gælder dog også undtagelser i både Danmark og Sverige for visse personalegoder, hvor der enten er hel skattefrihed (generel personalepleje, som f.eks. motionsfaciliteter på arbejdspladsen og arbejdsgivers tilskud til kantineordninger samt kaffe-, te- og frugtordninger) eller faste

[33] Analysen har ikke haft til formål at beskrive muligheder for skattemæssig optimering i relation til personalegoder ved arbejde på tværs af Øresund.
[34] For komplet gennemgang af bonusordninger, arbejdsredskaber og personalegoder se appendix 9.4.

satser for værdiansættelse af godet (f.eks. arbejdsgiverbetalt telefoni til privat benyttelse).

Både efter de danske og svenske regler er det som udgangspunkt muligt for arbejdsgiveren at betale en række af medarbejderens udgifter, som er forbundet med medarbejderens skift af arbejdssted, uden at medarbejderen skal betale skat heraf. For en detaljeret analyse se Appendix 9.4.

5.6.2 *Konsekvenser af de tre scenarier*

De forskellige scenarier vil som udgangspunkt ikke have nogen betydning for de medarbejdere, som ikke skifter arbejdsland, for så vidt angår muligheden for at få stillet arbejdsrelaterede arbejdsredskaber til rådighed eller eventuel beskatning af modtagne personalegoder.

For ansatte i henholdsvis Danmark og Sverige kan arbejdsgiver stille erhvervsrelaterede arbejdsredskaber til rådighed for medarbejderne uden skattemæssige konsekvenser. Og i såvel Danmark som Sverige gælder, at personalegoder som udgangspunkt beskattes som lønindkomst. Dog gælder undtagelser i både Danmark og Sverige for visse personalegoder, hvor der enten er hel skattefrihed eller faste satser for værdiansættelse af godet.

For de medarbejdere, som helt eller delvist flytter arbejdsland, vil der imidlertid ske ændringer i den skattemæssige situation. Dette vil som udgangspunkt ikke medføre ændring af muligheden for at få stillet arbejdsredskaber og goder til rådighed, men kan betyde ændring af beskatningen.

5.7 Working Environment

The aim of the analysis is to evaluate the effects that the Scenarios may have on the working environment. The analysis focuses on potential risks of negative effects as these risks need to be taken into consideration in the evaluation of the Scenarios. The Integration Strategy may reduce the risks.

The psychosocial working environment deals with psychological and social factors that affect how the employees interpret their working environment. This includes demands, cooperation, conflicts, job security, predictability, influence, development, stress, motivation, and preventive measures. The physical and chemical working environment is more or less everything that does not involve people or planning, e.g. safety, ergonomics, chemical working environment, indoor climatic conditions, ventilation, noise, vibrations, lighting and interior.

5.8 HR Programmes

The aim of the analysis is to evaluate the effects that the Scenarios may have on the existing HR programmes in both Naviair and LFV/ANS. The analysis focuses on differences in HR programmes, which need to be taken into consideration in the evaluation of the Scenarios.

The areas that will be analysed are the recruitment process, competence development and performance management.

5.8.1 *Recruitment*

Recruitment in both Naviair and LFV/ANS is best divided into two main areas, Recruitment of ATM staff and Recruitment of Other employees. In the table below differences in recruitment between the two organisations/countries are summarised:

Figure 20 Recruitment processes in Denmark and Sweden

Recruitment	Denmark	Sweden
The recruitment process, ATC personnel	• Included in the ATM recruitment procedures in Naviair is the security check. A classified check that goes beyond a standard clean "straffeattest".	• LFV/ANS uses a SDM test, whereas Naviair uses a TDM test, which contrary to the Swedish test does not contain spatiality test.
The recruitment process, Other employees	• Test (logical and personality test) of candidates is used consistently for all applicants. • A Danish applicant is entitled to an assessor in connection with an employment interview. • A safety check is also required for non-Danish ATM staff.	• Test (logical and personality test) of candidates is not used consistently during the recruitment process. • In Sweden applicants are not entitled to an assessor during employment interviews. • The recruitment process in LFV/ANS consists of more steps than the recruitment process in Naviair. There are e.g. requirements for journalising and to trade unions for involvement in the recruitment process.
Regulatory Differences	• The Tjenestemandsloven (Statute relating to Public Servants) regulates the recruitment process for the ATC. That means among other things provisions as to age, health and education. • Legislation regulates among other things that employment as public servant is to take place after public notice.	• Generally, the recruitment process for other applicants in Sweden is considerably more regulated than is the case in Denmark. • Moreover, negotiation between employee and employer is more regulated by legislation than in Denmark. • Finally, Swedish legislation urges that an applicant who is refused has the legal right to complain of the decision.

5.8.2 *Competence Development*

The overall competence development processes are identical in both Naviair and LFV/ANS. At the same time, the present supply of courses, training etc. in Naviair and LFV/ANS respectively seems to be identical.

However, today LFV/ANS uses an IT system ProCompetence to support the entire competence development model. Naviair does not have a similar system.

In the table below differences in competence development between the two organisations/countries are summarised:

Figure 21 Competence development in the two organisations

Competence	Denmark	Sweden
Main process	• Naviair is implementing a new competence development model. The development of the model is ongoing, but it will to a far higher degree than previously systematise the competence development process. • That means that Naviair to a lesser degree works with a systematic competence development process than LFV/ANS.	• In LFV/ANS a systematic and structured competence development model has been implemented. That means that all employees and managers work systematically with a common process for determination, examination and handling of competence development.
Methods and tools	• The supporting IT systems are not yet implemented, but there are templates developed for the appropriate steps in the process.	• The entire competence development process is IT supported with an adapted IT program ProCompetence. • Both employees and managers have access to the system, where they systematically can follow the competence development plans and goals.

5.8.3 *Performance Management*

In the table below differences in performance management between the two organisations/countries are summarised:

Figure 22 Performance Management in the two organisations

Performance Management	Denmark	Sweden
Main process	• Naviair is currently implementing a new performance management model. • "Resultatkontrakter" which today is the main link to the corporate KPIs are only related to the CEO team and Head of Function levels.	• Like in Naviair, the performance management system in LFV/ANS is being developed. The intention is that performance-related contracts are to be an integrated part of the existing career planning, including competence development model.
Methods and tools	• The supporting system is designed by the Manager of Business Development and will be substituted by SAP during this year.	• It is the intention that the performance-related contracts are to be an integrated part of the existing IT supported ProCompetence, which already is supporting competence development.

6 Strategic Scenarios Evaluated

This chapter deals with the evaluation of the three selected Scenarios for future cooperation between LFV/ANS and Naviair. It consists of two parts; first, an introduction to the analytical framework used for the Scenario evaluations including a separate section for each analytical area, second, the evaluation of each Scenario including a separate section for each analytical area (Business Case, Business Model, Integration Strategy and HR Aspects) as illustrated in Figure 23.

6.1 The Analytical Framework

During the NUAC Definition Phase, three strategic Scenarios have been analysed in order to describe the effect of three Scenarios for a formal cooperation between LFV/ANS and Naviair. In addition, the Business Models that provide the foundation for the closer cooperation have been analysed.

In this report, a strategic Scenario is defined as a plausible description of how the future cooperation may develop, based on a coherent and internally consistent set of assumptions about key relationships, driving forces of the ATM industry and the specific characteristics of LFV/ANS and Naviair.

The strategic Scenarios have been defined by the NUAC Programme in close collaboration with labour unions and the management of Naviair and LFV/ANS.

The Scenarios differentiate on *how* the organisationsshould cooperate, and *which* functional areas and business processes should be included in the cooperation.

The three Scenarios examined are (as described in Section 1.2):

- **Merger Scenario** – Merger of the two organisations LFV/ANS and Naviair (except for aerodrome control service and the ownership of infrastructure) into one organisation with responsibility for the provision of Air Traffic Service within Danish and Swedish airspace in a totally integrated environment.

- **NUAC/SKAANE Scenario** – Implementation of the original NUAC & SKAANE concepts as laid down by the original projects with LFV/ANS and Naviair as co-owners of a NUAC company carrying out the service provision in a common Functional Airspace Block above FL 285, and responsibility for provision of ATS in the SKAANE region delegated to Naviair but otherwise remaining as independent organizations.

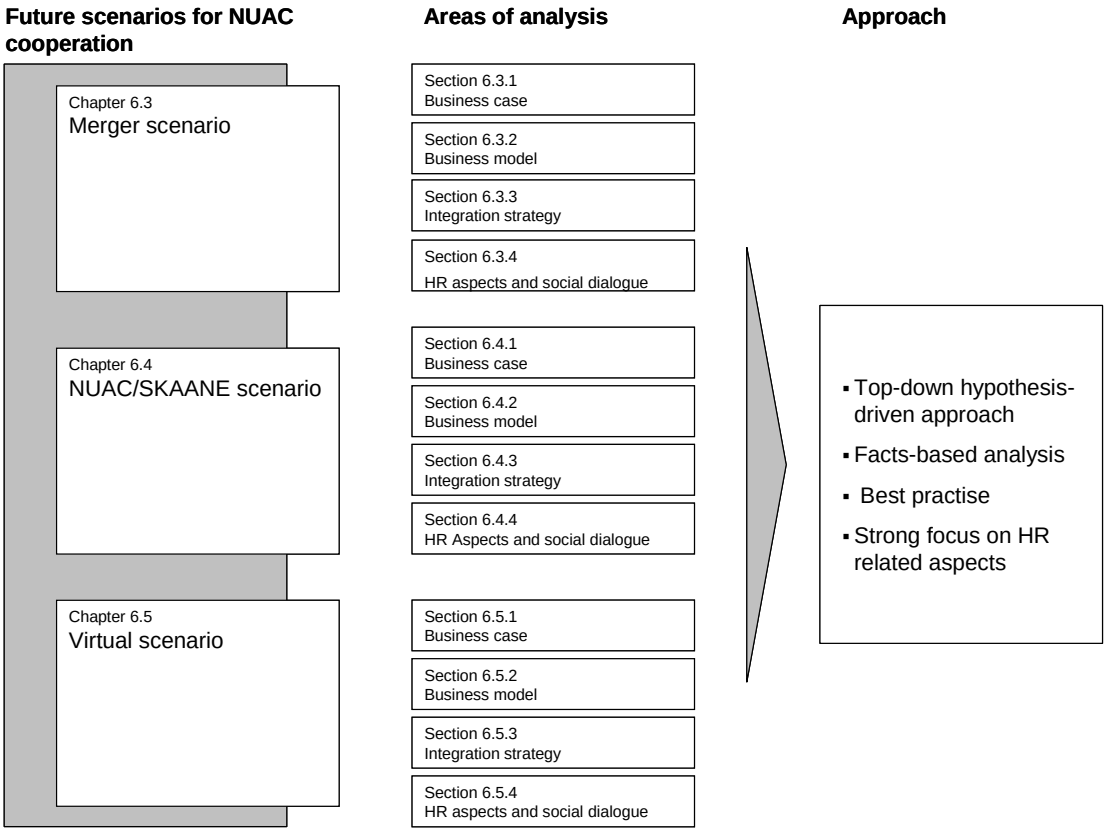
- **Alliance Scenario** – As independent organisations in a closer corporation LFV/ANS and Naviair are establishing a co-owned Alliance Company for the carrying out of certain support functions.

The three Scenarios have been evaluated using an identical framework (as illustrated in Figure 23) for analysis to secure a coherent standard of reference between the Scenarios. The analytical framework consists of four different key areas, which together establish a balanced, unbiased evaluation and understanding of the Scenarios.

The four different areas of analysis are:

- **Business Case –** an assessment of the financial and non-financial costs and benefits related to the cooperation described in the three Scenarios
- **Business Model –** an analysis of how the cooperation will function in the scenario. More specifically the product & services, processes, sourcing, organisation, ownership and legal entity
- **Integration Strategy –** an analysis of what, when and how to integrate the cooperation described in the Scenario
- **HR Aspects and Social Dialogue –** which key employee implications and potential risks are associated with implementing the Scenario.

Figure 23 Overall structure of the Scenario evaluation



The four analyses are based on a common set of principles, which include:

- Top-down hypothesis-driven approach i.e. analysing the overall best case for the three defined Scenarios
- Facts-based analysis based on key research and experience from the ATM industry and ANSP providers in general and interviews with selected ATM and ANSP experts
- Best practice from comparable industries in terms of merger and integration experience and learning

- Strong focus on HR related aspects as well as employees within the two organisations.

In the following sections, these key analytical areas will be introduced (purpose, approach and objectives).

6.1.1 *Business Case*

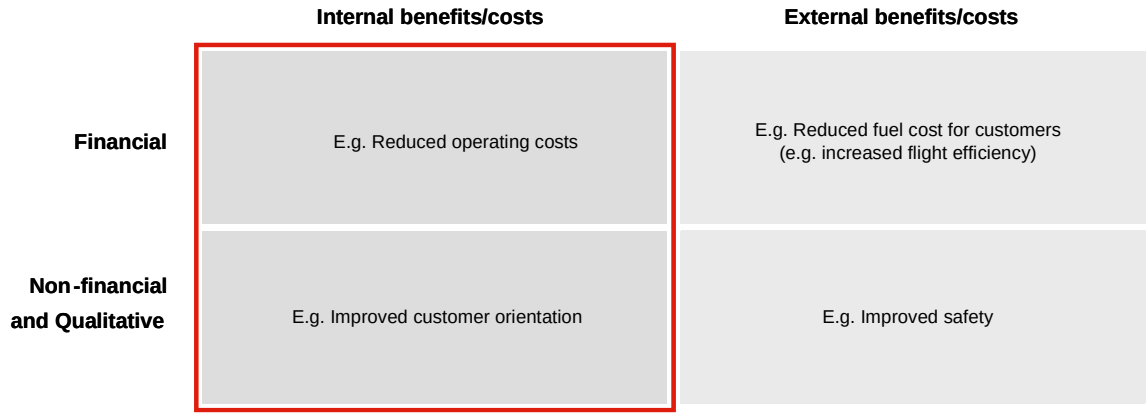
This section will describe the subject and methodology of the Business Case used when designing the Business Case for the Scenarios.
The primary purpose of the Business Case is to assess the financial and non-financial and qualitative benefits of a more formalised cooperation between Naviair and LFV/ANS.

6.1.1.1 Subject and Methodology of the Business Case

The subject of the Business Case[35] is an analysis of the financial effects – i.e. the costs and cost savings – as well as non-financial and non-quantifiable benefits related to the implementation of the three Scenarios during the fiscal years 2006 through 2020. Non-financial and non-quantifiable benefits related to each Scenario have been assessed in order to capture qualitative effects that are part of the strategic rationale for NUAC.

The Business Case consists of two areas of benefits – i.e. internal versus external benefits and costs of NUAC; and two ways of measure – i.e. financial versus non-financial and qualitative benefits and costs. As illustrated in Figure 24, the primary focus of the Business Case is the internal financial and non-financial and qualitative benefits and costs related to the three Scenarios. External benefits and costs are to some extent assessed in the analysis of the strategic rationales, whereas socio-economic effects are covered in Chapter 7.

Figure 24 Focus of the Business Case



[35] Details related to methods, assumptions etc. used in the business case are given in "Appendix 1: Business Case".

6.1.1.1.1 Initiatives

The three Scenarios are defined by the 17 initiatives[36]. The initiatives are derived from the strategic rationales and are described in Figure 25. As indicated in the table, the initiatives are driven by the establishment of formalised cooperation. As a consequence, the initiatives cannot in general be implemented as individual cost reduction projects.

In the assessment of the initiatives, three initiatives[37] have been identified as possible initiatives for implementation in the current situation, though they have a limited financial impact.

Figure 25 Initiatives

No.	Name of Initiative	Description
1	**Optimisation of management functions**	Due to the new organisational design established in the Business Model, there will be a need for a re-arrangement of senior management and management staff in order to fill positions in the NUAC company as well as in Naviair and LFV/ANS.
2	**Optimisation of general administrative functions**	In order to Optimise the current administrative staff functions, new administrative staff functions and related processes etc. have been designed in the Business Model. The new administrative staff functions are designed in according to best practice – hence all processes, procedures, activities etc. within the respective functional areas have been harmonised and aligned to the new organisational design.
3	**Optimisation of systems development functions**	After implementation of DATMAS and EUROCAT, all development activities related to ATM systems will be handled in COOPANS. As a consequence of this, the number of system development staff may be kept at a minimum, since primary tasks are requirements for COOPANS. As a result, systems development staff functions may be optimised considerably.
4	**Optimisation of systems maintenance functions**	Based on the assumptions that a future NUAC will be based on a harmonised and consolidated ATM and CNS systems infrastructure, significant potential savings related to systems maintenance and supervision exist. Outsourcing of systems maintenance and supervision to a third party (i.e. as partially done currently in LFV/ANS by ELTEL) is assumed to realise a savings potential. Besides scale economies, synergy potentials will arise due to the fact that current ATM systems will be harmonised and consolidated through COOPANS – hence reducing workload related to systems maintenance.
5	**Optimisation of procedures functions**	Optimisation of operational procedures functions through centralisation and alignment of current processes, procedures and activities as well as associated reduction in duplicate activities and positions. Also, benefit potential will arise due to common development of e.g. Aeronautical Information Publication.

[36] See “Appendix 2: Business Case – Initiatives” for a detailed description of the individual initiatives in each of the three Scenarios.

[37] The three initiatives are: Initiative 12: “Common future purchasing and operation of standard ‘other ATM systems’”, Initiative 13: “Common use of existing surveillance infrastructure in Denmark and Sweden”, and Initiative 14 “Common future purchasing and operation of standard CNS systems and infrastructure”. See “Appendix 2: Business Case – Initiatives” for details.

6	**Optimisation of general operational support functions**	In order to Optimise the administrative functions related to general operational support functions (i.e. secretary functions etc.), new functions and related processes have been designed in the Business Model. The new administrative operational support and duty roster planning functions are designed so that all processes, procedures, activities etc. within the areas have been harmonised and aligned to the new organisational design, leading to a reduction in activities and positions.
7	**Optimisation of briefing officer functions**	Optimisation of Briefing Officer functions through cross-border alignment of current processes, procedures and associated reduction in activities and resource requirements. Furthermore, potential savings may be realised through centralised governance, Optimisation and harmonisation of current Briefing Officer activities.
8	**Closure of two control centres in night hours**	Optimisation of air traffic controllers (ATCOs) in night hours with low traffic volumes. With the current traffic volumes in Copenhagen, Stockholm and Malmoe in night hours between 24:00 to 06:00, it is estimated that one control centre can manage airspace for the three control centres – with a slight increase in ATCOs on the night shift at the chosen control centre – resulting in a reduction in necessary ATCOs overall.
9	**Optimisation of control positions**	Optimisation of current utilisation of operators through consolidation of positions in Copenhagen, Stockholm and Malmoe. Local approach positions are not included in the initiative (e.g. approach centres in Norrköping, Göteborg and Billund). The required amount of positions in the three Scenarios is estimated in the “NUAC Airspace Design Team Report”.
10	**Common administrative IT platform and applications**	Administrative IT systems and applications (MS Office applications etc.) and IT infrastructure will be sourced jointly, and key systems and applications platforms will be standardised in order to achieve lower license and procurement costs as well as an overall reduction in the maintenance, support and implementation related costs (non-FTE). Administrative IT is defined as all non-operational (CNS, ATM) related hardware and software.
11	**Sourcing of tele/data communication services**	Common sourcing/procurement of telephony/data communication incl. hardware and subscriber services (handsets, switches etc.). It is assumed that a potential cost reduction may be achieved through realising better sourcing and subscriber contracts through greater volume discounts.
12	**Purchasing and operation of ‘other ATM systems’**	Common future purchasing and operation of standard ‘other ATM systems’ (i.e. systems are replaced at the end of their life cycle) will results in cost savings. The category ‘other ATM systems’ covers all relevant ATM systems except CNS systems, tower systems and systems covered by the COOPANS cooperation.
13	**Common use of existing surveillance infrastructure**	Common use of existing surveillance infrastructure in Denmark and Sweden will reduce the total need for surveillance infrastructure in Denmark and Sweden, and thereby reduce the operating and investment related costs.
14	**Purchasing and operation of standard CNS systems**	Common future purchasing and operation of standard CNS systems and infrastructure (i.e. infrastructure/systems will be replaced when their life cycle is completed) will reduce the operating and investment related costs.
15	**Optimisation of basic and unit training simulators**	Joint use of existing basic and unit training simulators in Denmark and Sweden will realise savings through shutdown of the basic training simulator in Copenhagen (the CATCAS simulator) and basic training carried out at Entry Point North (EPN). Furthermore, savings will occur through integration of basic and unit training in one simulator at EPN, by closing down the existing Smart simulator and by expanding the capacity of existing EUROCAT simulator in Malmoe to cover both basic and unit training as well as simultaneously moving this simulator to EPN.

16	**Reduction in general overhead costs**	Cost savings not directly related to payrolls or operation costs, but dependant on the number of staff. As an effect of the FTE reductions, general overhead costs will be reduced. General overhead costs include recruitment and training, administrative IT costs etc.
17	**Programme implementation costs**	This initiative assesses the implementation costs related to implementation of the initiatives defining the Scenarios in the NUAC Programme.

In addition to the 17 initiatives above, four initiatives[38] were investigated during the NUAC Programme Definition Phase. Due to uncertainty related to implementation of these initiatives, further investigation of the initiatives will be performed in the future programme work. Additional cost savings related to these initiatives have **not** been included in the Business Case.

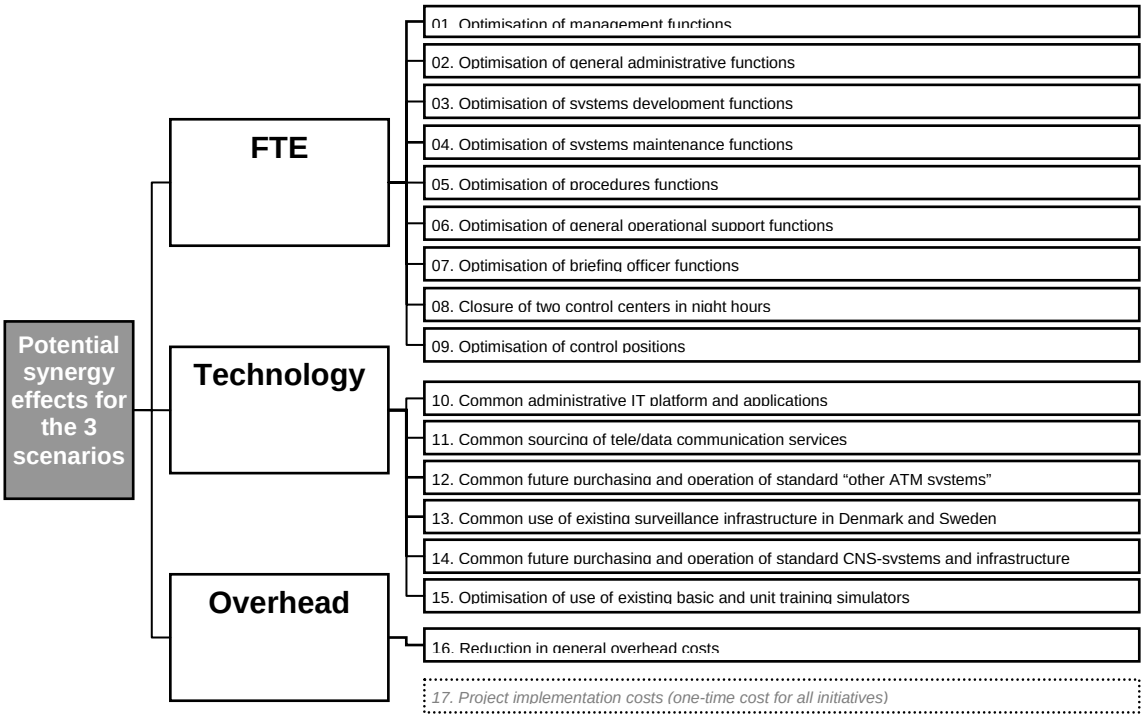
6.1.1.1.2 Categories of Initiatives

Based on the general cost structure in the Air Navigation Service industry, the initiatives are grouped into the following main categories, as indicated in Figure 26:

- Optimisation of staff functions (“FTE”)
- Cost savings related to systems and technology (“Technology”)
- Reduction of general overhead costs (“Overhead”).

[38] The four initiatives relate to: Optimisation of Airspace Management Cells (AMC), Optimisation of Air Traffic Flow Management (ATFM) Supervisor functions, Alignment of Flight Information Service (FIS), and finally reduction of rental costs of buildings and establishment of one corporate headquarter.

Figure 26 Grouping of initiatives



6.1.1.1.3 "Business as usual" and baseline

The Business Case is based on the above stated initiatives and their financial effect in the three Scenarios – Merger, NUAC/SKAANE and Alliance. In order to recognise the impact of the initiatives, a "business as usual" situation is needed for comparison.

The "business as usual" is the situation where LFV/ANS and Naviair carry on as planned, according to their current strategies and plans. As a consequence, current procedures, practices, systems etc. remain in place in LFV/ANS and Naviair respectively during the analysis period. As COOPANS is part of the current strategies and plans for both Naviair and LFV/ANS, the implementation cost of COOPANS is included in the "business as usual".

The budget for "business as usual" is established by consolidating current 2006 budgets of LFV/ANS and Naviair (referred to as "baseline")[39]. The 2006 budgets of LFV/ANS and Naviair have been projected to 2020 in order to cover the analysis period[40, 41].

[39] All tower and local approach unit/ATS related costs and revenues are excluded in the business case, since these areas are out of scope for the NUAC Programme. For further details and assumptions related to baseline, see the data sources and methods section in "Appendix 1: Business Case".

[40] Respective finance departments of Naviair and LFV/ANS have provided the baseline figures from 2006 to 2020.

The consolidated total operating costs in the analysis period are shown in Figure 27 in million euros.

Figure 27 Total operating costs 2006-2020 (million Euros)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Naviair	64,0	67,2	73,2	72,6	73,1	73,7	74,1	75,0	74,6	75,9	78,0	78,1	77,9	77,8	77,0
LFV/ANS	101,9	104,6	107,5	110,4	113,4	116,5	119,7	123,1	126,5	130,0	133,7	137,4	141,3	145,3	149,5
Total	**165,9**	**171,8**	**180,6**	**183,0**	**186,6**	**190,2**	**193,9**	**198,1**	**201,0**	**205,9**	**211,7**	**215,5**	**219,2**	**223,2**	**226,5**

6.1.1.1.4 The Incremental Value Approach

The financial effects related to implementation of the initiatives are estimated as incremental values. This means that only additional costs and benefits related to implementation of the initiatives are considered.

The reason for choosing the incremental value approach is to compare the differences between the costs and benefits obtained by implementing the three Scenarios, hereby obtaining the required transparency when comparing the financial costs and benefits between the Scenarios – i.e. the Business Case only displays benefits and costs directly related to implementation of the Scenarios.

6.1.2 *Business Model*

This section defines the Business Model as used in the NUAC Programme and describes the key design principles that have been used when designing the Business Model for the Scenarios. The purpose of the Business Model section is to provide a high-level picture of the business.

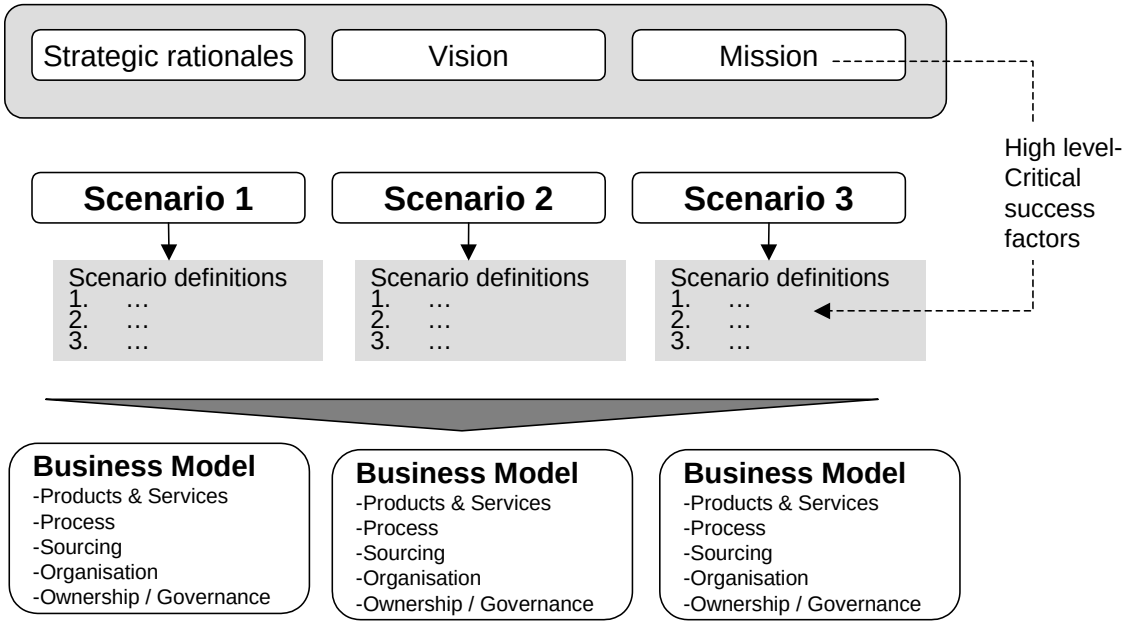
A Business Model is a description of how an organisation works, a general template that describes its major activities. It identifies the company's customers as well as the products and services it offers. The Business Model also provides information on how a company is governed, which processes are included, and how it is organised.

6.1.2.1 Business Model Definition

The Business Model is an effect of a series of strategic challenges affecting the company/enterprise (as illustrated in Figure 28). First, the strategic rationales, vision and mission must be established in order to set the strategic direction and the identification of the high-level critical success factors. Second, alternative ways of reaching the vision are established. In the NUAC Programme, the Scenario definitions are used as design principles for the new Business Model. Third, the Business Model is established for each Scenario in order to enable the company to reach the vision. Below, the framework for the Business Model is presented:

[41] For further details and assumptions related to baseline, see the data sources and methods section in "Appendix 1: Business case".

Figure 28 Business Model framework



In this report, the Business Model is defined in a wide term, including the value the company intends to bring to market (products & services) to how the company intends to produce support processes (sourcing or in-house production). The Business Model is an effect of the strategic direction of a business. The Business Model is defined in five building blocks as shown in Figure 29.

Figure 29 The building blocks in the Business Model

Building block	Description
Products & services	A description of what value the company intends to bring to the market in terms of products and/or services. In this section, the customer is identified and the pricing model described.
Processes	This section describes what activities are needed to produce the products & services, including attracting new customers and servicing existing customers.
Sourcing	This section describes if the processes identified above will be produced in-house, or if they will be outsourced.
Organisation	The organisation section shows a description of roles and responsibilities, and how the business will be organised. This section also identifies process owners within the organisation.
Ownership and legal entity	This section describes how the ownership structure will look like, and which form of legal entity the company will operate as.

In addition, the Business Model will provide a description of the effects on the retained organisations in Naviair and LFV/ANS.

6.1.2.2 Key Design Principles

The process of designing the NUAC Business Model has been based on a set of design principles reflecting the key strategic drivers of the NUAC Programme. These drivers are:

- Flight safety
- Cost efficiency
- Flight efficiency
- Capacity improvement
- Environment
- Operational flexibility
- Alignment of Business Model
- Attractiveness and bargaining power.

6.1.3 *Integration Strategy*

This section will present purpose and objectives of the Integration Strategy. In addition, the integration risk management approach is described. Moreover relations to implementations complexity are presented to show the high level picture of relation between benefits and implementation complexity.

6.1.3.1 Purpose of the Integration Strategy

The Integration Strategy describes how to deal with the main challenges of integration process related to a Scenario. The strategy outlines goals, targets and rationale for the implementation approach (what, when and how to integrate relevant processes and services). The Integration Strategy covers all core Business Model aspects and determine the degree of integration in each. Focus is on establishing a high-level but practical strategy for the necessary integration.

The Integration Strategy has as its purpose to:

1) Create a framework/road map for realisation of the Business Case
2) Support and ensure realisation of the future Business Model
3) Describe approach, timings and complexity of the three Scenario integration approaches
4) Ensure coordination with other implementation focused work streams (risk management; stakeholder care and HR/communication) to ensure a coherent roadmap (high-level project plan) for the integration.

6.1.3.2 Objectives of the Integration Strategy

To point out directions for the closer cooperation between LFV/ANS and Naviair processes and services into a future cooperation in the most efficient way:

- Optimising the implementation and restructuring costs without compromising the quality of service
- Optimising integration activities ensuring optimal value from economies of scale benefits (common/shared operation and Business Model)

- Clarifying and streamlining the organisational structure, reducing resources to optimal levels
- Discard processes and services which are deemed either non-core or unlikely to meet the defined future strategy and strategic rationales.

The above objectives must be achieved under a number of pre-requisites:

- Stakeholder satisfaction must be optimised through a high level of involvement and clear communication during integration (Employees, owners, National Supervisor Authorities, customers, suppliers and partners, and managers)
- Daily business as usual during transition
- Flight safety cannot be compromised
- HR & people management principles must be clear when executing integration.

6.1.3.3 Integration Risk Management Approach and the Relation between Complexity and Benefits

Risk management is a key part of the Integration Strategy. During the definition phase, three types of risks have been identified for each of the Scenarios:

- Initiative risks – risks specifically related to the implementation of the different integration initiatives
- Business Model risks – risks related to the implementation of the new Business Models
- HR aspect risks – risks related to the HR consequences of the integration (personnel, conditions, legal aspects, competencies, environment etc.).

All risks and considerations about complexity and mitigation actions have been documented in a log and are used to estimate the sensitivity related to the financial effects of implementation of the three Scenarios.

The Initiative risks and complexities indicate the effort needed for realising the benefits of the specific initiative.

6.2 Conclusion from the Scenario Evaluations

6.2.1 *Business Case*

This section provides an assessment of the financial and non-financial and qualitative benefits of a more formalised cooperation between LFV/ANS and Naviair for the three Scenarios.

6.2.1.1 Financial Impact

A comparison of the three Scenarios reveals that the Merger Scenario realises a positive net present value (NPV[42]) of €131,7 million, the Alliance Scenario a positive

[42] NPV represents total cash flow across the analysis period, adjusted to reflect the time value of money. Other things being equal, the action or investment with the larger NPV is the better option. See ”Appendix 1 – Business Case” for further details on NPV calculations.

NPV of €52,7 million, whereas the NUAC/SKAANE Scenario results in a negative NPV of -€18,0 million, in the fiscal years 2006 through 2020, with a discount rate of 5%[43].

The Merger Scenario shows an internal rate of return (IRR[44]) of 47%, and the Alliance Scenario an IRR of 35% (IRR is not defined for the NUAC/SKAANE Scenario since the result is negative).

Figure 30 Financial results of the 3 Scenarios

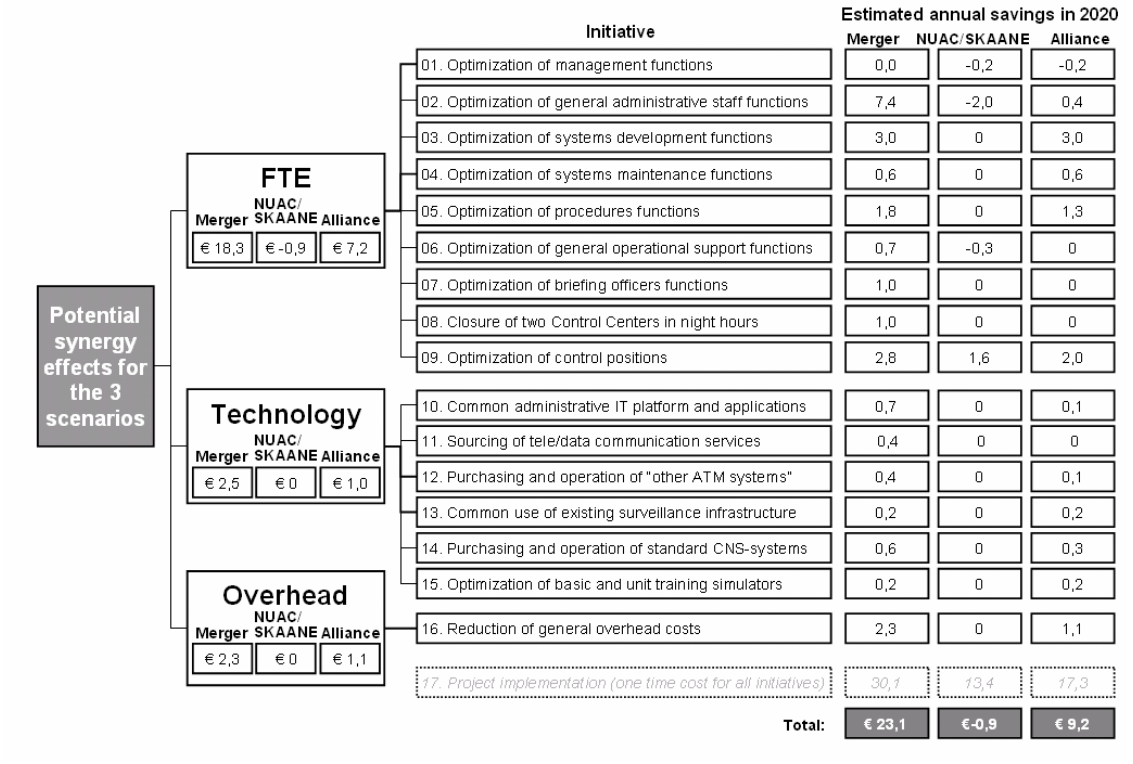
	NPV	IRR	Payback time
Merger	€131,7 million	47%	2011 – 4 years
NUAC/SKAANE	– €18,0 million	–	–
Alliance	€52,7 million	35%	2011 – 4,5 years

An estimation of the annual saving potentials in 2020 reveals that annual savings in the Merger Scenario exceeds factor 2.5 of the annual savings in the Alliance Scenario, as illustrated in Figure 31.

[43] See ”Appendix 1 – Business Case” for further details on NPV calculations.

[44] Internal Rate of Return (IRR) is a financial metric that reflects the time value of money (like NPV). The IRR for an investment is the discount rate for which the total present value of future cash flows equals the cost of the investment. It is the interest rate, that produces a 0 NPV i.e. the IRR describes the maximum rate that would result in the investment being defined as beneficial.

Figure 31 Estimated annual savings in 2020 (million Euros)[45]



As illustrated in figure 31 the total savings in the respective Scenarios are: €23,1 million in the Merger Scenario, €-0,9 million in NUAC/SKAANE and €9,2 million in the Alliance Scenario.

In the Merger Scenario €18,3 million in annual cost savings are derived from “FTE”-initiatives (FTE – Full Time Equivalents), corresponding to 79% of total cost savings in 2020, whereas the savings potential in the Alliance Scenario from “FTE”-initiatives constitute €7,2 million, corresponding to 77% of the total cost savings in 2020. Savings related to payroll costs are primarily realised through harmonisation and standardisation of current processes, exclusion of duplicate functions etc.

The difference in potential savings related to the “FTE”-initiatives between the Merger and Alliance Scenario is primarily based on the fact that LFV/ANS and Naviair will remain as two separate companies in the Alliance Scenario – hence both companies will have to obtain certification and designation, and also maintain the necessary administrative staff functions within the respective companies. In addition, potential savings are reduced due to the assumption that the Alliance Company will not include any operational activities related to core business - Air Navigation Services.

“Technology”-related initiatives constitute annual cost savings of €2,5 million, corresponding to 11% of the cost savings in the Merger Scenario. In comparison, annual cost savings within “Technology” in the Alliance Scenario constitute a total of € 1,0 million, corresponding to 11% of the cost savings in the Alliance Scenario. Cost

[45] Note that technology initiatives sum up to € 0,9 million in the figure due to roundings compared to the exact values which total € 1.022.500

savings related to technology initiatives are mainly realised through standardisation, harmonisation and consolidation of existing system platforms etc., combined with reductions in procurement costs, due to increased bargaining power, reduced adjustment and implementation costs etc.

The estimated savings related to the technology initiatives are lower in the Alliance Scenario – compared to the Merger Scenario – due to a lower degree of standardisation and consolidation of systems and infrastructure. This is primarily due to the fact that LFV/ANS and Naviair are assumed to remain as separate companies – hence both companies will have to obtain certification and designation.

In addition, overhead costs are reduced due to a decrease in the future staffing requirement. In the Merger Scenario, overhead costs are reduced by a total of €2,3 million, due to a reduction of 186 FTE, compared to €1,1 million in the Alliance Scenario, with a reduction of 86 FTE.

6.2.1.1.1 Effects related to Realisation of FTE Initiatives

Realisation of the cost savings in the “FTE”-initiatives implies a reduction of current staff in the Merger Scenario with 359 FTE. Of these 359 FTE, 186 FTE are reduced, while 173 FTE are proposed to be outsourced to third parties. As indicated in Figure 32, the total reduction of 186 FTE is expected reduced through natural attrition and general staff turnover[46]. In comparison, the NUAC/SKAANE Scenario result in a reduction of 20 FTE (and an additional hiring of administration and management staff of 39 FTE) and the Alliance Scenario results in a reduction of 86 FTE, all expected to be reduced through natural attrition and general staff turnover.

The level of which the total FTE reductions may be reduced through natural attrition and general staff turnover is subject to some uncertainty due to the fact that detailed analyses on individual FTE levels need to be conducted, i.e. specific staff groups must be investigated in the next phase of the project in order to determine the functions and exact number of reductions.

[46] See “Appendix 1: Business Case” for details related to assumptions for distribution of age and staff turnover.

Figure 32 Staff reductions and natural attrition and staff turnover for the 3 Scenarios

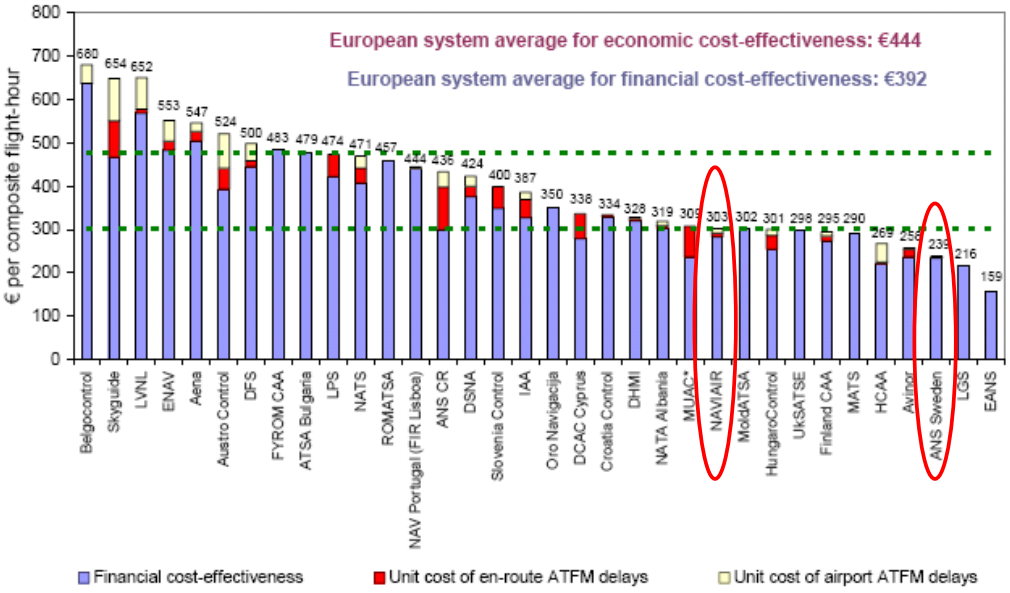
	Baseline			Merger		NUAC/SKAANE		Alliance		Staff turnover and Natural attrition
	Naviair	LFV/ANS	Total	Outsourcing	Reduction	Outsourcing	Reduction	Outsourcing	Reduction	
Initiative 1	5	7	12	0	0		-2	0	-2	
Initiative 2	97	95	192	29	44		-31	0	7	
Initiative 3	57	22	79	0	44		0	0	44	
Initiative 4	85	75	160	144	-4		0	144	-4	
Initiative 5	21	77	98		23		0	0	16	
Initiative 6	13	15	28	0	13		-6	0	0	
Initiative 7	12	31	43	0	18		0	0	0	
Initiative 8	9	19	28	0	13		0	0	0	
Initiative 9	193	380	573	0	35		20	0	25	
	492	**721**	**1213**	**173**	**186**	**0**	**-19**	**144**	**86**	**253**

6.2.1.1.2 Comparison with other Air Navigation Service Providers

When comparing economic cost-effectiveness and financial cost-effectiveness[47], both LFV/ANS and Naviair belong to the lowest quartile of the European Air Navigation Service providers, as illustrated in Figure 33 below. Considering the high cost-effectiveness in LFV/ANS and Naviair the potential cost savings identified in the Business Case are significant.

[47] Source: ”ATM Cost Effectiveness (ACE) 2004 Benchmarking Report”, EUROCONTROL, 2006.

Figure 33 Economic cost-effectiveness among European Air Navigation Service Providers

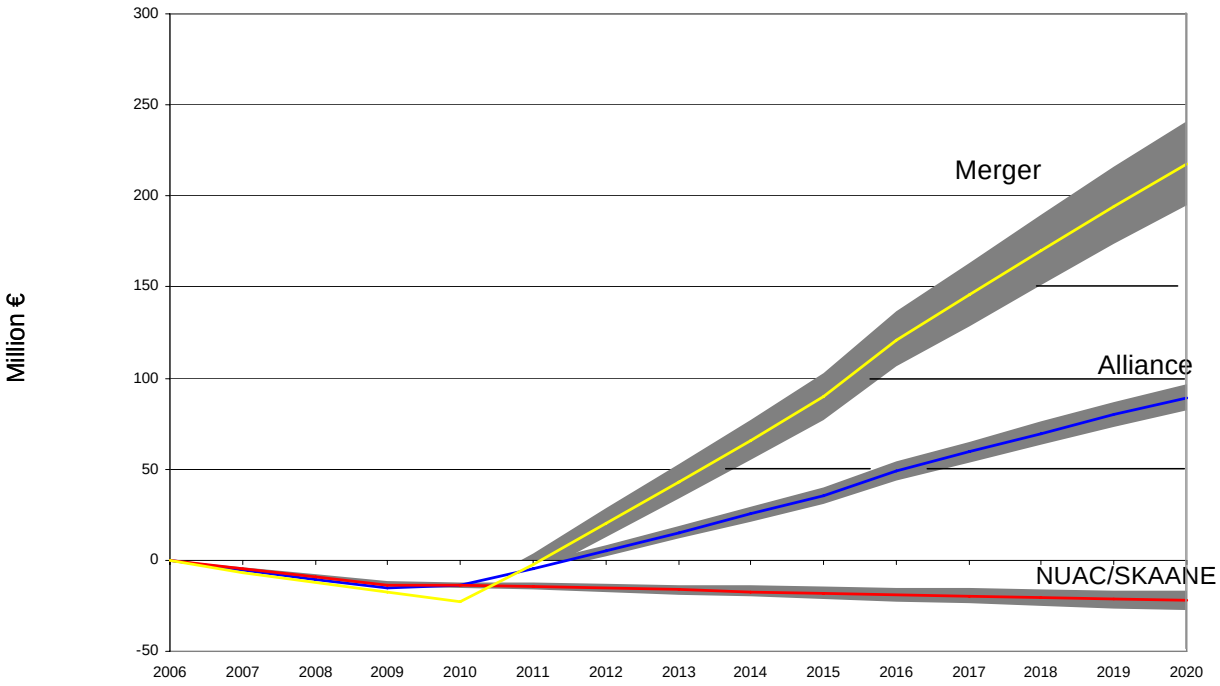


Financial cost-effectiveness is defined as a measure of the service provision costs per unit output. It does not capture the additional costs borne by airspace users that are linked to ANSP service quality. Economic cost-effectiveness includes those costs, which arise from ATFM ground delays, but not those that arise from other aspects of service quality, such as lack of flight efficiency and airborne delays.
Both key performance indicators are widely accepted as the most accurate comparison of cost-effectiveness performance between service providers. Thus it is important to recognise that the savings outlined in the Business Case Scenarios in the NUAC programme are identified on the basis of two of the current service providers with the highest cost-effectiveness in EUROCONTROL measures.

6.2.1.2 Cash Flow Summary

Figure 34 below illustrates that the Merger Scenario reaches break-even in 2011, based on the fact that the majority of the initiatives will have financial effect from primo 2011, giving a break-even point after four years. The Alliance Scenario also has its break-even point in 2011, but has relatively lower implementation costs compared to the benefits realised in the initiatives. The implementation costs related to the Merger Scenario are approx. €30,1 million, distributed over the first four years of implementation – i.e. 2007 to 2011. In comparison, the costs related to implementation of the Alliance Scenario are approx. €17,3 million, due to a relatively smaller scope of integration of systems, process designs etc. As previously stated, the relatively high project implementation costs related to the Merger Scenario are more than outweighed by the high cost savings in the Scenario, giving a break even point after four years.

Figure 34 Most likely cumulative cash flows and sensitivity per Scenario (million Euros)



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Merger	0,0	-7,0	-12,5	-17,8	-23,0	-2,3	20,3	43,0	65,8	89,6	121,1	145,5	169,9	194,3	217,4
NUAC/ SKAANE	0,0	-4,5	-9,0	-13,4	-13,6	-14,5	-15,4	-16,3	-17,2	-18,0	-18,9	-19,8	-20,7	-21,5	-22,4
Alliance	0,0	-5,7	-10,5	-15,1	-13,9	-4,5	5,4	15,4	25,4	35,4	49,3	59,5	69,8	80,1	89,4

As indicated by the span of cumulative cash flow per Scenario in Figure 34, the sensitivity related to the Merger Scenario is relatively higher than in the Alliance Scenario. This is based on the fact that the implementation risks combined with the variance related to the estimated potential benefits are relatively higher than in the Alliance Scenario[48].

6.2.1.3 Non-Financial and Qualitative Effects

An assessment of the internal and external non-financial and qualitative effects – reflected by the strategic rationales in Figure 35 – reveals that the Merger Scenario has the relatively highest score among the three Scenarios, Alliance Scenario second highest, and NUAC/SKAANE the lowest score.

[48]Sensitivity is defined by the risks related to implementation of the Scenarios and the variance related to the estimated benefit potentials. See “Appendix 1 – Business Case” for further details on sensitivity analysis. Due to the fact that the risks identified in the various initiatives in the three Scenarios relates to different aspects, combined with fact that the risk assessment covers a differnet amount of risks, it is not possible to make a direct comparative evaluation of the sensitivity in the three Scenarios.

Figure 35 Non-financial and qualitative effects

Strategic Rationale		Merger	NUAC/ SKAANE	Virtual
Internal drivers	Cost effectiveness	High	Low	Medium
	Operational flexibility	High	Low	Medium
	Alignment of business model	High	Medium	Medium
	Strategic readiness	High	Low	Low
	Attraction and bargaining power	High	Low	Medium
External drivers	Potential safety improvement	High	High	High
	Flight efficiency	High	High	High
	Customer orientation	High	Medium	Medium
	Political and social effects	High	Medium	Medium
	Environment*	Medium/High	Medium/High	Medium/High

*** Due to the fact that the socio-economics analyses is on going this compliance is base on preliminary findings from the fast time simulation**

6.2.1.3.1 Internal Non-Financial and Qualitative Effects

As indicated in Figure 35, the Merger Scenario achieves the highest relative score among the three Scenarios within all the internal strategic drivers – i.e. operational flexibility, alignment of Business Model, strategic readiness etc.

A common flexible resource pool within selected support functions combined with a high degree of alignment between the Business Model and strategic drivers in the Alliance Scenario entail a higher score on the internal perspective than within the NUAC/SKAANE Scenario.

6.2.1.3.2 External Non-Financial and Qualitative Effects

In relation to the external strategic drivers[49] – i.e. safety, flight efficiency etc. – the Merger Scenario achieves the highest relative score among the three Scenarios. The high score in the Merger Scenario is based on an optimised use of airspace, combined with common uniform operational rules and procedures etc.

With regards to the Alliance Scenario, current operational Air Traffic Control Services are assumed to remain largely intact within LFV/ANS and Naviair, due to the fact that the implementation of terminal radar approach control (TRACON)[50] in the SKAANE cross-border area covers the two major airports Sturup and Kastrup. This TRACON will cover airports in Sweden and Denmark and will require an organisation that can manage this cross-border. This is not possible under the organisational assumptions laid out in the Alliance Scenario.

This assumption implies that it will be difficult to optimise the current airspace design in the Alliance Scenario, hence improve the current flight efficiency, capacity improvement and environmental impact.

6.2.2 *Business Model*

The Business Models defined for the three Scenarios are simplified pictures of how the business would look like in the specific Scenario. In order to draw any conclusions, the solutions and the Business Models must be tested against the strategic rationale for the program. A model in itself cannot create – just enable – benefits. Below, a summary of the Business Model for each Scenario is presented:

6.2.2.1 Merger Scenario

The Business Model for the Merger Scenario is the creation of a new business around an existing portfolio. The major outcomes are:

- A new aggregated process map has been developed, including core, support and management processes
- A number of processes have been targeted for outsourcing
- A new organisation has been developed to manage a cross-border service provision. The organisation is split into one strategic level, focusing on developing, controlling and managing the service provision, and one operative level, focusing on delivering the products and services provided by the NUAC company
- A legal structure has been developed where Naviair and LFV/ANS owns 50% each of the NUAC company
- A business and operating model that is designed to accommodate and facilitate easy inclusion of potential new partners in the NUAC company
- An organisation will be retained in Naviair & LFV/ANS to deliver tower services and manage the infrastructure.

[49] See chapter 7 “Socio-economics” for further details related to external benefits and socio-economics.
[50] Terminal radar approach control, utilising both radar approach control functions, feeder/stacker positions and even, in case of preference, some en-route sectors.

6.2.2.2 NUAC/SKAANE

The major outcomes from the Business Model work in the NUAC/SKAANE Scenario are:

- A new legal entity is established for the provision of area control services above 28.500 ft
- Current processes in LFV/ANS and Naviair are utilised in the new company
- The new company will utilise administrative and operational support from LFV/ANS and Naviair to a large extent
- A legal structure has been developed where Naviair and LFV/ANS owns 50% each of the NUAC company. The legal entity will be a Swedish limited company
- The changes in the current organisation will be minor.

6.2.2.3 Alliance Scenario

The major outcomes from the Business Model work in the Alliance Scenario are:

- A new legal entity will be created, the NUAC alliance
- LFV/ANS and Naviair will establish an alliance support/control function within each organisation for managing the alliance work
- A governance framework is established in order to manage new joiners and establishing new projects
- LFV/ANS and Naviair will transfer support activities into the alliance.
- The provision of Air Navigation Services will not be transferred to the alliance.

6.2.3 *Integration Strategy*

The Integration Strategy points out the direction for ensuring realisation of expected benefits as well as of the strategic rationales for the NUAC Programme. To achieve this objective, a set of integration principles will be applied. Key risks and complexity will be presented in this concluding section after the initial description of the Integration Strategy principles for the next phases. Finally at the end of this section, integration costs following the chosen Integration Strategy and principles are presented.

6.2.3.1 Integration Strategy Principles for the Next Phases

Integrating two companies (fully or partly) is a challenging managerial task. Integration in the ATM industry is characterised by state ownership, international regulation and complex technology. Therefore, a set of key Integration Strategy principles is derived to ensure successful execution of the integration.

Furthermore, the principles are developed with input from international merger experiences[51]. Below, the principles appropriate for all three integration Scenarios are described:

Focus on the NUAC strategic rationales
The reasons and objectives for the NUAC Programme are described by the NUAC vision and strategic rationales in Chapter 2. The strategic rationale describes the

[51] Source: ”Merger & Acquisition report”, PA Consulting Group, 2004.

importance of remaining among the best ANSPs in terms of flight safety, cost efficiency, infrastructure, flight efficiency, customer satisfaction and environmental care and of the key to long-term survival in a consolidating industry.

Vision and strategic rationales will be communicated with regular intervals, and active stakeholder care will be managed and driven with rigor. Focus and energy should continuously be reinforced during integration.

Prepare with rigor and incorporate people aspects
Future company/entity will be established with the aim of overtaking accountability for its selected core processes and service areas (depending on scope and of chosen Scenario) as soon as possible. This is important in order to minimise the period length of uncertainty during transition. In order to achieve this objective, preparation and process alignment between LFV/ANS and Naviair will be prioritised before establishing the future company/entity formally.

Thorough planning will be done to avoid early showstoppers and the transition period will be designed to be as short as possible and start addressing the requirements, operational concepts and procedures one at the time. Additionally, a plan for natural attrition and retirements (manpower planning) will be developed in order to minimise organisational insecurity.

Integrate around benefits
Integration will be organised around the key benefit areas pointed out in the Business Case by the initiatives with highest potentials.

The Business Model must be aligned initially and as soon as possible. Therefore, a central work stream in the program ensuring all the pre-requisites for the future NUAC Business Model will be established. The key is to focus on early wins harvesting benefits as soon as possible in order to create energy, ensure momentum and maximise benefit realisation.

Balance momentum with respect for ATM industry complexity
Merger experiences point out the need for momentum to manage large change programs. Thus, the NUAC Programme will balance momentum with the needed respect for the ATM industry complexity and the flight safety.

Manage integration risks and complexity
Learning from both private and public sector merger experiences is the importance of managing risks and complexity continuously throughout the integration period.

6.2.3.2 Integration Risk and Complexity Analysis

The essence of these assessments is presented below starting with a number of overall risks for the NUAC Programme and then a highlight of the identified Scenario specific key risks and complexities.

6.2.3.2.1 Overall Key Risks and Complexities for the NUAC Programme irrespective of the Chosen Scenario

Initiative and Business Model implementation
Irrespective of the Scenarios, the NUAC Programme faces a complex task when ensuring a closer cooperation between LFV/ANS and Naviair in the future. No matter which Integration Strategy is chosen, the companies stand before a:

- Complex integration with many details, which calls for a high level of involvement of internal and external subject matter experts
- Cultural and legal issues when integrating the two companies concerning questions about national sovereignty, system integration, management styles, ownership structure and set-up etc.

Integration and benefit management
LFV/ANS and Naviair face the challenge of continuously containing focus on harvesting the benefits of the Business Case. Due to the political agenda there is an uncertainty that the foundation for the NUAC Programme will undergo changes.

Stakeholder management
Merger experiences from both the private and public sector stress the complexity of stakeholder management during mergers[52].

During the further process the key stakeholders must remain actively involved. These are Staff and Labour Unions, Armed Forces, National Supervisory Authorities and Aircraft Operators and other customers.

HR and people management
Contracts, conditions and legal aspects for employees will be a key area going forward. One of the specific characteristics is the large number of personnel that have civil servant status. Ownership and commitment among key employees must be ensured, and all staff must be informed about their specific tasks and responsibilities. Alignment of HR programs including new role descriptions, competencies etc., will therefore be of utmost importance going forward with the NUAC Programme.

6.2.3.2.2 Scenario Specific Risks and Complexities

Below is a presentation of key risk complexities associated with implementation of the three possible NUAC Scenarios: Merger, NUAC/SKAANE, and Alliance. The presentation sums up findings and recommendations from the individual Integration Strategy Scenario sections.

Key integration risks and complexities in Merger Scenario:

- Temporary decrease in motivation and productivity among involved personnel, until their personal situations are communicated in terms of new tasks and responsibilities, physical belonging, and other key working conditions
- Of the three Scenarios, the Merger integration time span is the longest. The Merger Scenario also holds the most comprehensive integration and initiative

[52] Source: ”Merger & Acquisition report”, PA Consulting Group, 2004.

scope, and thus most people and functions will be part of the process of increased cooperation
- In conclusion, the overall benefit and implementation complexity assessment of the Merger Scenario implementation is somewhat higher than the complexity regarding the NUAC/SKAANE and Alliance Scenarios. See Section 6.3.3.3 for more details.

Key integration risks and complexities in NUAC/SKAANE Scenario:

- Temporary decrease in motivation and productivity among involved personnel, until their personal situations are communicated in terms of new tasks and responsibilities, physical belonging, and other key working conditions
- The integration time span is the second longest after the Merger Scenario implementation. However, only the operational functions are directly part of the process of increased cooperation, thus somewhat limiting risks. The NUAC/SKAANE Scenario recommends that approximately 80 (40 + 40) ATCOs are transferred between the three legal entities which could appose a specific risk regarding the provision of Air Navigation Services
- In conclusion, the overall benefit and implementation complexity assessment of the NUAC/SKAANE Scenario implementation is moderate complexity. See Section 6.4.3.3 for more details.

Key integration risks and complexities in the Alliance Scenario:

- Temporary decrease in motivation and productivity among involved personnel, until their personal situations are communicated in terms of new tasks and responsibilities, physical belonging, and other key working conditions
- The integration time span is shorter, and no operational ATCO staff will be directly part of the process of increased cooperation in the Alliance Scenario, thus limiting possible risks even further compared to the NUAC/SKAANE Scenario
- However, instead a substantial support staff number will be part of the process of increased cooperation. The Alliance Scenario initiatives are directed at shared services, rather than core ATM areas, which stay in retained organisations.
- In conclusion, the overall benefit and implementation complexity assessment of the Alliance Scenario implementation is medium to high complexity.

6.2.3.3 Integration Costs for the NUAC Programme

On the basis of earlier experiences, integration costs have been estimated for the three Scenarios. This estimate is, of course, associated with statistical spread, as Air Traffic Management integration experiences are almost none, and because there is no “one-size-fits-all” approach applicable to the NUAC Programme and the establishment of a Functional Air Block in neither Europe nor the entire Air Navigation Service community worldwide. Therefore, the estimate is derived from a number of assumptions as well as specific ATM experiences and the earlier work from the original NUAC and SKAANE projects.

6.2.3.3.1 Key Assumptions for Estimating Integration Costs

Integration costs cover all internal and external costs associated with implementing the three Scenarios. Implementation costs will cover all implementation activities: e.g. planning, redesigning processes/structures/systems, IT/technology upgrades, integration execution, business consulting, change management, training and competence development, compensation package pool, preparation of outsourcing and supplier management etc.

Integration costs will not contain costs for compensation to Senior Management and Management staff, as costs for compensation to these individuals is covered directly in the respective initiatives as negative benefits.

6.2.3.3.2 Integration Cost Allocation

Total integration costs are described and allocated into five main areas described in details below:

- Establishment costs setting up the new cooperation
- Personnel costs (internal FTE and potential third party assistance)
- System alignment and Optimisation
- Training, competence development and other attrition aiming activities
- Preparation of outsourcing (technical maintenance & administrative IT/ERP)

Establishment costs setting up the new cooperation
Costs for preparation and establishment of the new cooperation, advice on new legal entities, legal aspects of separating the new Business Model, legal advice concerning certification and designation, costs for third party assistance etc.[53]

Personnel costs
Costs related to alignment and Optimisation of processes, procedures and organisation structure, change and integration management, benefit management, preparation of certification and designation, development of HR (retrenchment) plan etc.

Estimated integration periods and scope for the three Scenarios are[54]***:***

Merger Scenario approximately 4 years:

- 1 year in the initial “concepts, solutions & preparation” phase and 3 years in the “transition” phase
- Based on the work break down structure[55], the Merger integration will be conducted around 6 main work streams plus the program management with approximately 6-8 FTE in each.

[53] See integration costs in “Appendix 2: Business case – Initiatives” for details.
[54] See Integration roadmaps in the Scenario chapters for more details.
[55] The work break down structure for the Merger Scenario is described in ”Appendix 6: Integration Strategy”.

NUAC/SKAANE approximately 3 years:

- 1 year in the initial "concepts, solutions & preparation" phase and 1½ years in the "transition" phase
- Integration costs for NUAC/SKAANE Scenario will follow the original NUAC/SKAANE program cost estimates (prices/costs adjusted to contemporary inflation rates).

Alliance Scenario approximately 2,5 years:

- 1 year in the initial "concepts, solutions & preparation" phase and 2 years in the "transition" phase
- Based on the work break down structure[56], the Alliance integration will be conducted around 6 main work streams plus the program management with approximately 6-8 FTEs in each.

System alignment and Optimisation
Costs related to system alignment and Optimisation, system hardware and software upgrades, ATM system integration, administrative IT/ERP alignment etc.

NUAC/SKAANE IT upgrade and integration costs were estimated at roughly €5 million assuming a lean IT upgrade for a limited scope compared to the Merger Scenario. Therefore, IT costs are assumed larger in the Merger Scenario and smaller in the Alliance Scenario due to the reduced system and IT scope.

Training, competence development and other attrition aiming activities
Costs for integration related training, competence development in relation to new job descriptions and/or new job roles and technical content, voluntary retrenchment package pool to be used if necessary.

Preparation of outsourcing (technical maintenance & administrative IT/ERP)
Costs for preparing the planned outsourcing, preparation of tender materials, supplier management and selection etc. Outsourcing of technical maintenance and systems supervision – Legal and business consulting advice.

6.2.3.3.3 Estimated Integration Costs in the Full Implementation Period (3-4 Years)

Merger (4 years of integration)

- €30 million (one-time cost spread over 4 years)
- Including the relative uncertainty of this estimate, a budget of €30-35 million is recommended seen against €23,1 million (annual savings) estimated in the Business Case
- Break-even after 4 years (primo 2011)

[56] The work down structure for the Alliance Scenario is described in "Appendix 6: Integration Strategy".

NUAC/SKAANE (3 years of integration)

- €13,4 million (one-time cost spread over 3 years)
- Including the relative uncertainty of this estimate, a budget of €13-16 million is recommended seen against a low (negative) Business Case
- No break-even

Alliance (2,5 years of integration):

- €17,3 million (one-time cost spread over 3 years)
- Including the relative uncertainty of this estimate, a budget of €17-20 million is recommended seen against €9,2 million (annual savings) estimated in the Business Case
- Break-even after 4½ years (mid 2011)

Figure 36 Integration cost breakdown

Integration cost areas	Merger	NUAC/SKAANE	Virtual
1) Establishment costs setting up the new corporation.	1.000.000 euro	Costs not completely comparable to the current selected cost areas but rough figures were in 2004: Personnel and establishment costs: 7.800.000 euro IT/software upgrade costs: 5.000.000 euro	800.000 euro
Personnel: 2) Internal FTE´s + 3) Cost for Consulting & Legal services.	14.100.000 euro		7.000.000 euro
4) Costs for IT/software upgrades	8.000.000 euro		4.000.000 euro
5) Training, competence development and other attrition aiming activities.	5.000.000 euro		4.0000.000 euro
6) Preparation of outsourcing (Technical maintenance & administrative IT/ERP)	2.000.000 euro		1.500.000 euro
Total integration costs	**30 mio. euro**	**13.4 mio. Euro***	**17,3 mio. euro**
Total integration costs adjusted for uncertainty	**30 – 35 mio. euro**	**13 – 16 mio. euro**	**17 – 20 mio. euro**

*Total NUAC/SKAANE Integration costs described in the Feasibility Phase Final Report from January 2004 is estimated to 12.870.743 euro, which today equals 13.391.000 (3.528.000 + 9.863.000) euro using an annual inflation rate of 2%

6.3 Merger Scenario

In essence, the Merger Scenario is a merger of the two organisations LFV/ANS and Naviair (excluding Tower services and infrastructure ownership and management) into one organisation with responsibility for carrying out Air Navigation Service provision within Danish and Swedish airspace and working in a functional airspace block with one en-route charging zone and one common unit rate. The merged cooperation will be lean with a focus around the core business – Air Navigation services, and the organisation will only include specific administrative functions supporting the core business. The key performance indicators are flight safety, efficiency, flexibility and cost-effectiveness.

The most important aspects of the cooperation in the Merger Scenario are:

- The NUAC Company will have the responsibility for carrying out Air Navigation Service provision. LFV/ANS and Naviair will transfer operation and related operational support and administrative support functions to the new legal entity, NUAC
- The NUAC Company will have individual certification and designation
- Ownership of the NUAC Company will be split evenly between participating states (50/50 initially for Denmark and Sweden)
- LFV/ANS and Naviair respectively will retain the ownership of all infrastructures.
- Tower services and infrastructure ownership remain – as currently – in LFV/ANS and Naviair.

6.3.1 *Business Case*

This section contains the Business Case for the Merger Scenario, i.e. the financial and non-financial costs and benefits related to implementation of the Scenario.

6.3.1.1 Assumptions

- With constant focus on safety and the core processes related to Air Navigation Services the merged organisation is fully driven by cost-effectiveness
- NUAC handles area control and approach activities in Denmark and Sweden, including related support functions as defined in the Business Model [57]
- Only the merged NUAC organisation needs to be certified and designated for area control services in Denmark and Sweden
- Tower services and infrastructure ownership remain in LFV/ANS and Naviair
- Based on the "NUAC Programme Airspace Design Report" document regarding consolidation of positions, it is estimated that the required amount of ATCO and ATCO support positions in the Merger Scenario equals 107 working positions[58].

6.3.1.2 Financial Impact

The net present value (NPV) related to implementation of the Merger Scenario in the period 2006-2020 is estimated to a total of approx. €131,7 million. Payback period for the Merger Scenario is projected as approx. 4 years, and internal rate of return (IRR) at 47%.

Figure 37 Financial results for Merger Scenario

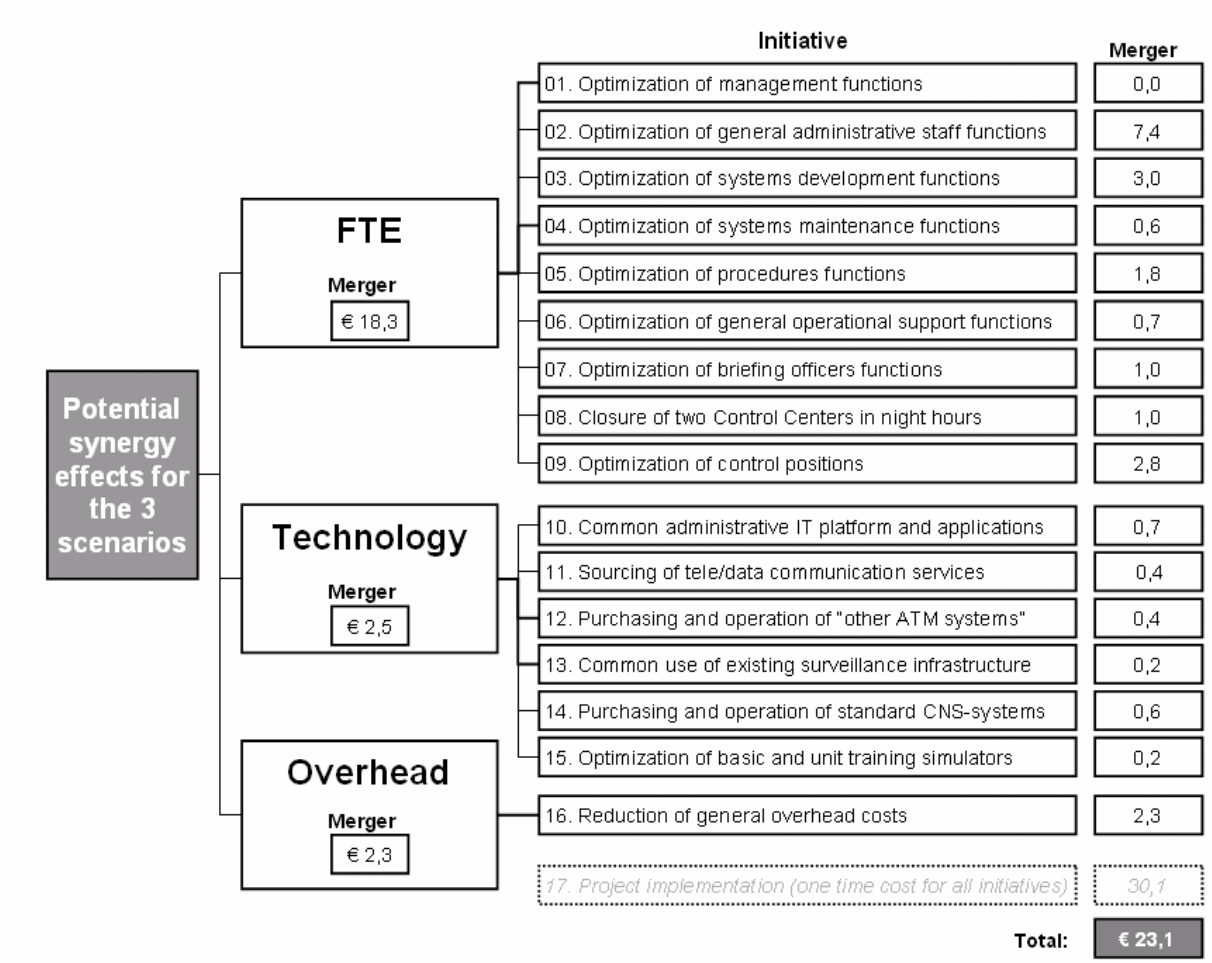
	NPV	IRR	Payback time
Merger	€131,7 million	47%	2011 – 4 years

An estimation of the annual saving potentials in the Merger Scenario in 2020 reveals that annual savings of €23,1 million are mainly derived from Optimisation of staff functions ("FTE") with a total annual cost saving of approx. €18,3 million, corresponding to 79% of the total cost savings in 2020, and annual cost savings related to systems

[57] See " Appendix 4: Business Model" for further details.
[58] See " Appendix 7: Airspace Design" for further details.

and technology equals approx. €2,5 million, whereas reductions in general overhead costs are estimated to approx. €2,3 million as shown in Figure 38.

Figure 38 Estimated annual savings in 2020 (million Euros) in Merger Scenario



As shown in Figure 38, the largest projected benefit in the Merger Scenario derives from the "FTE"-category. As described in the respective "FTE"-initiatives[59], the potential savings are primarily realised through:

- *Elimination of duplicate functions:* Based on the fact that a high level of duplicate positions (management, specialists, international representatives etc.) will occur as a result of full integration of the functional areas in a merged organisation

- *Increased effectiveness:* Optimisation of current processes through harmonisation and standardisation of current administrative and operational processes, hereby reducing current workload. Furthermore, centralisation of personnel to one location will increase staff utilisation, due to a more flexible use of available resources, knowledge sharing etc.

[59] For a detailed description of the initiatives, see "Appendix 2: Business Case – Initiatives".

- *Outsourcing of non-core processes:* In order to focus on core business processes and maximise cost-effectiveness, all non-core processes are outsourced if this is considered financially beneficial

- *Optimal size of organisation:* Future resource requirements related to some administrative support functions (e.g. administrative IT, Human Resource etc.) are reduced, due to the fact that synergies will mean that the merged organisation will employ fewer personnel, than LFV/ANS and Naviair together before the merger.

The second largest projected benefit area in the Merger Scenario derives from "Technology" related initiatives. The total annual benefit potential related to these initiatives is approx. €2,5 million. Cost savings related to these initiatives are mainly realised through standardisation, harmonisation and consolidation of existing system platforms. Of these costs savings, approx. €1,0 million is realised through common future purchasing, due to improved bargaining power, reduced adjustment and implementation costs (external consulting services) etc.

Finally, the annual cost savings related to "Overhead" amounts to a total of approx. €2,3 million. The cost savings related to general overhead is a direct effect of the reduction in required personnel of 186 FTE.

6.3.1.2.1 Effects related to Realisation of FTE Initiatives

Realisation of the cost savings in the "FTE" initiatives implies a reduction of current staff in the Merger Scenario with 359, including 173 FTE who are proposed to be outsourced to third parties. As indicated in Figure 39, the total reduction of 186 FTE are all expected reduced through natural attrition and general staff turnover of 5%, due to the fact that 253 FTE are expected to resign in the period 2008 to 2011[60, 61].

[60] See "Appendix 1: Business Case", for details related to assumptions for distribution of age and staff turnover.
[61] As previously stated, the level of which the total FTE reductions may be reduced through natural attrition and general staff turnover is subject to some uncertainty due to the fact that detailed analyses on individual FTE level need to be conducted, i.e. specific staff groups must be investigated in the next phase of the project in order to determine the functions and exact number of reductions.

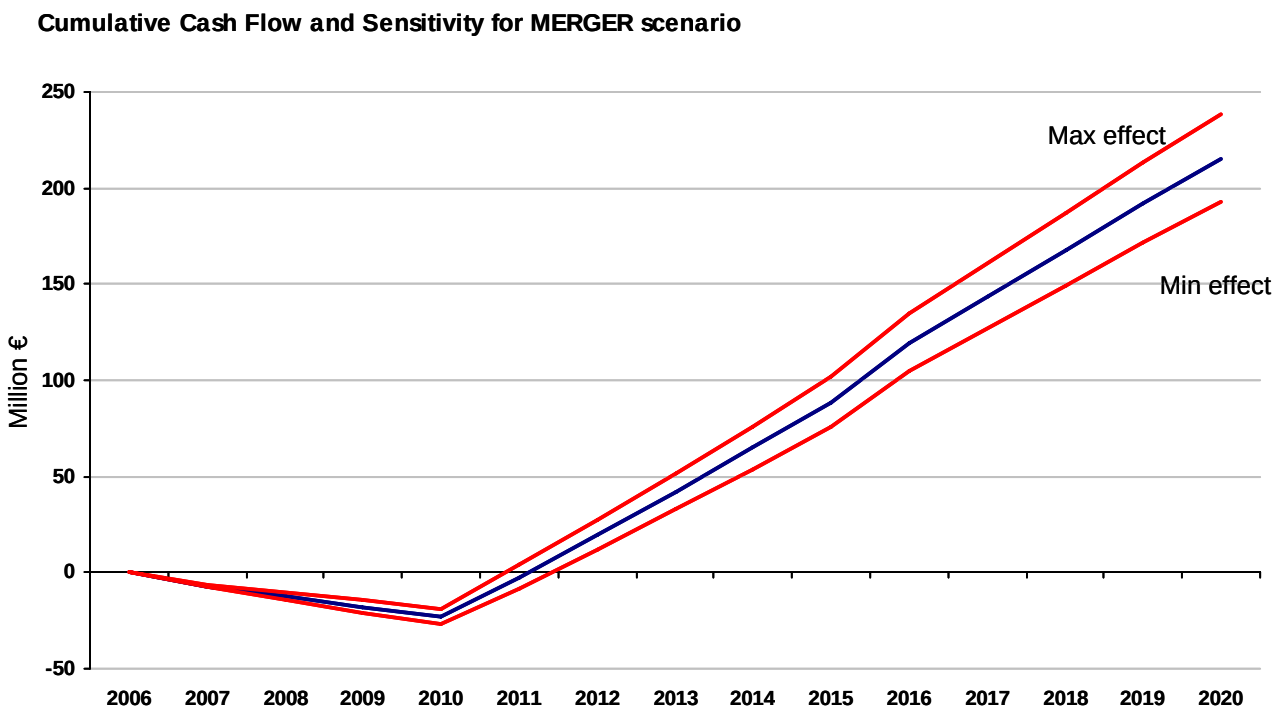
Figure 39 Total FTE reductions and natural attrition and staff turnover in Merger

	Baseline			Implication				Staff turnover and Natural attrition
	Naviair	LFV/ANS	Total	NUAC Company	Outsourcing	Remaining	Reduction	
Initiative 1	5	7	12	9		3		
Initiative 2	97	95	192	99	29	20	44	
Initiative 3	57	22	79	35			44	
Initiative 4	85	75	160	3	144	17	-4	
Initiative 5	21	77	98	58		17	23	
Initiative 6	13	15	28	15			13	
Initiative 7	12	31	43	25			18	
Initiative 8	9	19	28	15			13	
Initiative 9	193	380	573	538		0	35	
	492	**721**	**1213**	797	173	57	186	253

6.3.1.3 Cash Flow Summary

As illustrated in Figure 40, the Merger Scenario reveals a break-even in 2011. This is based on the fact that costs related to project implementation will occur from 2007 to 2011, and cost savings related to Optimisation of staff functions (“FTE”) occurring from 2011, outweighing the severance costs and implementation costs.

Figure 40 Cumulative cash flow for Merger Scenario (million Euros)



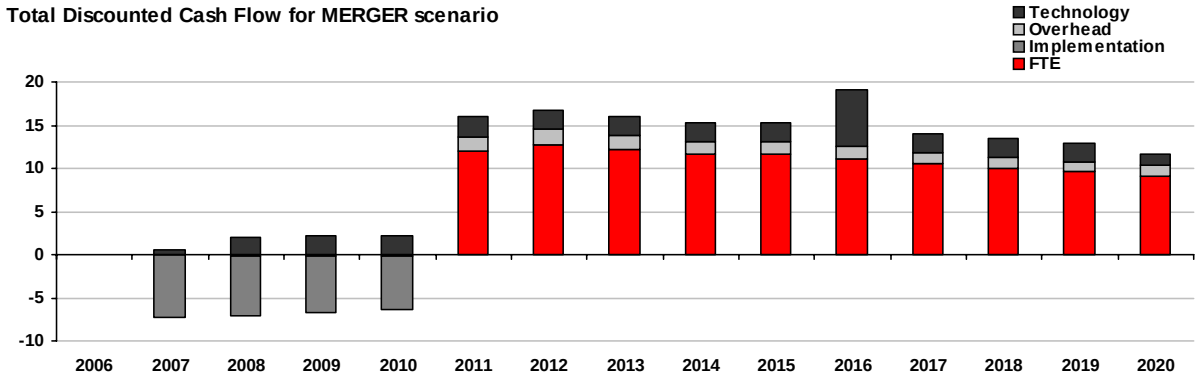
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Maximum effect	0,0	-6,0	-10,5	-14,6	-18,6	4,0	28,3	52,7	77,2	102,9	136,9	163,1	189,4	215,8	240,7
Likely effect	0,0	-7,0	-12,5	-17,8	-23,0	-2,3	20,3	43,0	65,8	89,6	121,1	145,5	169,9	194,3	217,4
Minimum effect	0,0	-7,8	-14,5	-20,8	-27,1	-8,2	12,8	33,8	54,9	76,9	106,1	128,7	151,2	173,8	195,2

The span of cumulative cash flow between the maximum effect and minimum effect indicates some degree of risk[62] in the Merger Scenario, combined with a variance in the estimated cost savings.

As indicated in Figure 41, an increase in cost savings related to systems and technology ("Technology") occurs in 2016. These additional cost savings relate to avoidable investment costs related to 'other ATM systems'[63].

[62] For a detailed description of integration risk related to the initiatives, see "Appendix 2: Business Case – Initiatives".
[63] For a detailed description, see initiative 12A in "Appendix 2: Business Case – Initiatives".

Figure 41 Total discounted cash flow for Merger Scenario



Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
€ Mil.	0,00	-6,60	-5,03	-4,53	-4,25	16,24	16,91	16,15	15,43	15,37	19,44	14,24	13,60	12,99	11,69

6.3.1.4 Non-Financial Benefits

Previous sections have mainly focused on financial benefits, but implementation of the Merger Scenario will also result in a number of significant non-financial and qualitative benefits. A number of non-financial and qualitative benefits related to flight safety, flight efficiency etc. influence the political Air Traffic Management (ATM) environment and should therefore be taken into consideration.

This section describes some of the non-financial and qualitative benefits, which are expected as a result of the implementation of the merged Scenario. The non-financial and qualitative benefits are divided into internal and external benefits for the Merger Scenario:[64]

6.3.1.5 Internal Non-Financial and Qualitative Benefits

Operational flexibility

- A common and flexible resource pool entails the merged organisation to optimise the delivery and sharing of resources and knowledge. Combined with a common set of uniform processes and procedures, this entails the organisation to respond to changes in a future strategic environment.

Alignment of Business Model

- The Business Model of the merged organisation is designed around the strategic drivers. This ensures the required alignment and coherence between the Business Model and strategic drivers and enables the realisation of the

[64] See chapter 7 “Socio-economics” for further details related to external benefits and socio-economics.

strategy. In addition, the high level of operational flexibility in the Business Model entails the merged organisation with the required level of agility.

Strategic readiness

- The Business Model designed in the merged organisation entails a clear focus on a coherent value chain consisting of: research & development – technique – airports, Air Traffic Management – airlines – passengers. The high degree of operational flexibility and alignment in the Business Model ensures the required level of agility and readiness to adapt opportunities in the ATM industry – i.e. new services, acquisitions etc.

Attraction and bargaining power

- Common processes supports scalability – i.e. entrance of new partners – due to easier integration on e.g. a common platform of standard operating procedures
- The size and strategic importance (of airspace) of the merger offer a high degree of commercial bargaining power in relation to customers, suppliers as well as alliance partners.
- In some instances, the merged organisation might offer cost savings to some of the adjacent area control centres (ACC), as the interface to NUAC and the local centres will be simplified through the larger technical harmonisation resulting from the merger
- A merged organisation entails an attractive Nordic working environment developing employees through an increased number of working tasks and job flexibility.

6.3.1.6 External Non-Financial and Qualitative Benefits

Flight Safety

- Improved safety through common uniform operational rules and procedures due to a common operational understanding of the regulatory environment
- Less operational conflict intervention with reduced complexity in one single airspace with common airspace management
- Integration of CNS and other ATM systems will enhance quality and improve exchange of data at technical level as a consequence of improved interoperability between technical systems
- A common technical knowledge base for the systems in the entire area will consolidate a flexible and safe technical infrastructure.

Flight Efficiency

- Optimisation of routing through the use of a larger and more flexible airspace will reduce distance and time and thus make for more efficient flight profiles
- More efficient and economic profiles for entering and leaving airspace due to the coordinated and systematic approach to adjacent areas
- Development of procedures and tools, which support en-route to en-route processes due to common and flexible solutions for regulating airport flow in the area, minimising the delay in terminal areas and on the ground

- More flexible route structuring with direct entry/exit point flights in the area
- Improved possibility of establishing civilian and military cross-border areas due to the factual abolishment of adherence to national boundaries between the countries involved
- Quicker release and hand-over of military/civilian airspace provided by interoperable systems and common rules and procedures
- The availability of more area control centres will reduce the risk of total airspace closure and loss of capacity in case of a system breakdown in one area control centre due to the possibility of providing service for the area from the other centre(s). This will improve regularity, efficiency and contingency.

Capacity Improvement

- Optimised use of airspace structures and less operational conflicts to free operational resources provide for capacity increase due to more efficient and flexible use of the entire airspace
- Consistent and optimised route network will align traffic flows in the area, which will hold more traffic as the alignment of the traffic flows will reduce coordination and the necessity for rerouting, which is cause of delay in the air and on the ground
- Improved operational cooperation due to the abovementioned consistency and common understanding.

Customer Orientation

- A merged organisation will – from a customer point of view – reduce interaction to only one common access point, hereby increasing the perceived service level. The perceived customer level is enforced by a more uniform customer experience at operational and administrative level, provided by enhanced customer-facing business processes and systems
- Customer value and attractiveness will increase due to cost reductions realised through economies of scale and optimised business processes and systems.

Socio-Economics

- The establishment of a single cross-border multinational provider of Air Navigation Services are in line with the political desire to establish a more suitable air transport system as stated in the Danish and Swedish vision – i.e. “Dansk Luftfart 2015 – muligheder og udfordringer” and “Moderna transporter - transportpolitisk proposition 2006”
- A single cross-border provider is in accordance with the Single European Sky legislation, which aims towards establishing a common airspace. In addition, the merged organisation corresponds to the Single European Sky Implementation Programme, SESAR, through the high level of standardisation and harmonisation of ATM systems
- One common organisational unit will create substantial political bargaining and negotiating power (one common voice) in relation to the EU and other significant political stakeholders
- More direct flight paths given shorter flying times and thus lower fuel consumption
- Possibilities for a lower unit rate.

Environment

- Optimised profiles for entering and leaving airspace result in improved environment through more direct flights, less fuel consumption and thus less emission of CO2, SO2 and NOX
- Outside economics and emissions the total amount of noise imposed upon society by aircrafts will be reduced through shorter flight time/distance.

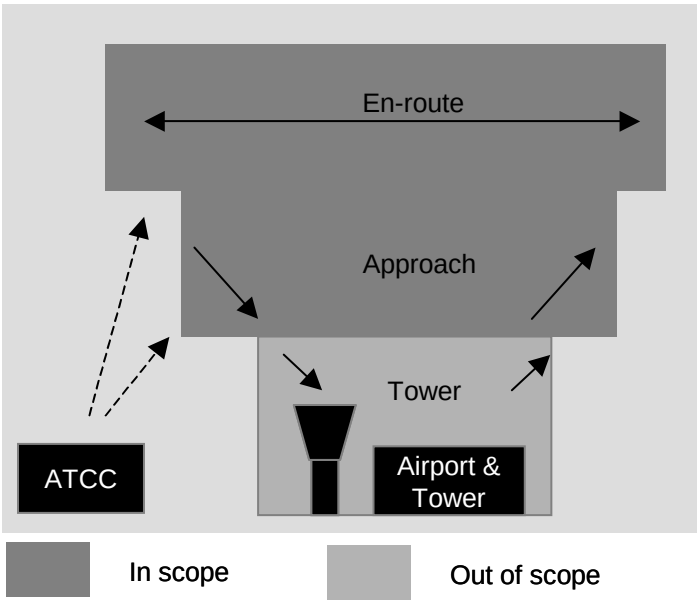
6.3.2 *Business Model*

This section is split into seven sections. First, a summary of the section is presented. Second, a description of which products and services NUAC will produce. Third, the processes connected to NUAC are presented. Fourth, the major sourcing initiatives relevant for this Scenario are presented. Fifth, the future NUAC organisation is presented. Sixth, the ownership structure and legal entity are presented. Seventh, a discussion regarding the retained organisations in LFV/ANS and Naviair is presented.

6.3.2.1 Products and Services

In the Merger Scenario, the NUAC Company is expected to be designated to supply approach services and en-route services in the Swedish and Danish airspace. Furthermore, NUAC will provide flight information services and air traffic flow management.

Figure 42 Products and services – Merger



6.3.2.2 Customers

The customers are defined as direct users of the services provided by the NUAC Company. The customers are defined as:

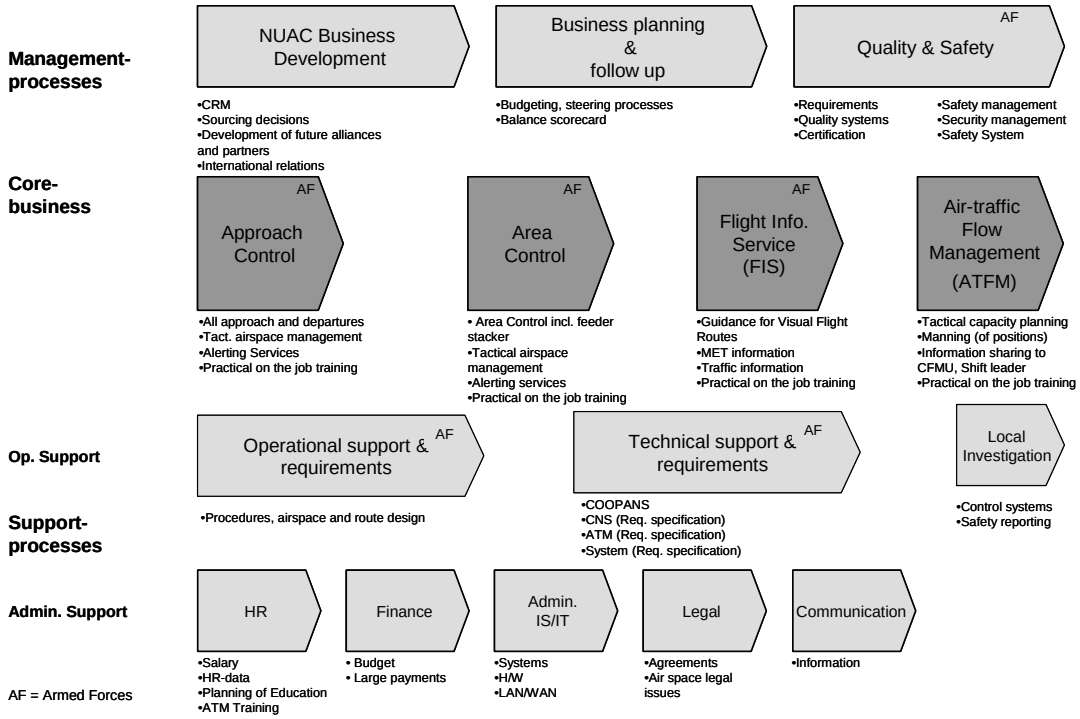
- Airlines
- Armed forces
- Other airspace users

6.3.2.3 Processes and Process Levels

A process map has been created to secure homogenous operating standards.

The NUAC process map is structured in three levels: management processes, core business and support processes (as shown in Figure 43).

Figure 43 Process map – Merger



The Armed Forces (AF) in each member country will be important stakeholder in some processes marked with AF.

The NUAC process map focus on the core business and the processes included, shown in Figure 28 Business Model framework. These are central in the process map as they represent the products and services described above. As direct effect of the core business, the support processes are defined. As not all the support processes are defined as core, they will be evaluated for partial or full outsourcing. Finally in order to manage and control the business, a set of management processes are defined. The process map provided above supports the design criteria for the Business Model in terms of:

1) Common processes enable positive synergies in terms of increased financial efficiency and quality
2) Common processes support scalability as standard operating procedures will be implemented by new joiners of NUAC
3) Common processes are needed for the certification process.

6.3.2.3.1 Core Business

The NUAC processes starts with the delivery processes - the core business. These processes cover the essence of the business, and what directly brings value to the customers. In the Merger Scenario, the core business processes are defined as:

Approach Control
Approach control includes: approach services, all approaches and departures within the approach area, tactical airspace management and alerting services

Area Control
Area Control service including feeder and stacker, tactical airspace management and alerting services,

Flight Information Services (FIS)
A service provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights. Included is Guidance for visual flight routes, MET-services and traffic information.

Air Traffic Flow Management (ATFM)
Air traffic flow management is the process that aims to Optimise the traffic flow given the constraints and capacity of the airspace. Included is tactical airspace planning, manning of positions, and information sharing to CFMU.

6.3.2.3.2 Support Processes

Support processes are defined as processes not directly creating customer value, but rather enabling the core processes to operate smoothly. The support processes are defined and managed from a core business perspective; which support processes are necessary to enable efficient operations.

In this report, support processes are defined as either operational support, directly supporting the operation and the core processes, or administrative support, not directly connected to the operation.

6.3.2.3.2.1 Operational Support

Technical support & requirements
This support process handles the technical areas of ANS provision such as maintenance and supervision of ATM- and CNS systems. All work related to administration of COOPANS is included in this process.

Operational support & requirements
This support process handles the operational areas of ANS provision such as procedures, route design, airspace design, ATCO instructions/manuals etc.

Local investigation
All control systems and safety reporting are managed through a local investigation process in order to comply with safety standards and carry out investigation of air traffic incidents.

6.3.2.3.2.2 Administrative Support

Human Resources (HR)
The HR processes will secure that all employee-related activities are harmonised throughout the business, and that sufficient specialist support is available for the organisation. The sub-processes within HR are: competence development & maintenance, resourcing, performance management, communication & information.

Finance
The finance processes are to secure financial soundness within the business. The financial policies within NUAC will be harmonised in a standard operating handbook, with exception to national legal issues. The sub-processes within finance are: Budgeting, business planning, balance scorecards, invoicing, large payments, reporting.

Administrative IS/IT
Administrative IS/IT is the process securing the pure administrative IS/IT within NUAC. This includes administrative systems, LAN/WAN infrastructure and the provision of hardware. Administrative IS/IT will be organised under finance in NUAC but the actual process will be outsourced to a third party.

Legal
All issues that need legal interpretation will be managed by centralised legal support. Areas covered will be agreements with owners and third parties such as airspace legal issues managed by EUROCONTROL and other international bodies or National Supervisory Authorities. Legal will be organised under Quality & Safety in NUAC.

Communication and Information
There will be a common process for managing communication and information within NUAC. This process will be organised under HR in NUAC.

Facility Management
Includes the process of managing the facilities within NUAC. This process will be organised under HR in NUAC but the actual work related to the process will be outsourced to a third party.

6.3.2.3.3 Management Processes

The management processes in NUAC are defined as managing and governing the business. This includes business planning, control and formulating the strategic direction.

NUAC Business Development
Strategic projects, customer relation management, sourcing decisions, development of future alliances and partners, and international relations. This process also includes the strategy formulation, the long-term planning of the NUAC business.

Business Planning and Follow-Up
Business planning and follow-up is focusing on middle to short-term. This also includes governing the business and the balance scorecard process, where the framework for individual target setting is managed.

Quality and Safety
This process ensures that the business have adequate framework for defining and managing the quality and safety. This process also secures the certification and the designation process.

6.3.2.3.4 Process Ownership

All processes defined within the NUAC Business Model will have a corresponding process owner in the future organisation. The NUAC organisation is described below and in the organisational diagram provided in Figure 45.

6.3.2.4 Sourcing

In the Merger Scenario, the NUAC Company will strive for maximising cost-effectiveness with constant focus on flight safety and search for out-sourcing solutions when financially efficient. Out-sourcing is considered the best solution in the following areas:

- System maintenance and supervision both for ATM and CNS systems
- System development, both for ATM and CNS systems
- Administrative IS/IT.

6.3.2.5 NUAC Future Organisation

The organisation is a blueprint of areas of responsibility (What to do), and does not provide any information regarding which processes are used (How to do) or the level of responsibility (Who is doing and what to decide). These questions are provided through the process framework above and more detailed role descriptions are not described in this report. Detailed roles and responsibilities will be handled in the next phase of the NUAC Programme.

6.3.2.5.1 Overall Description

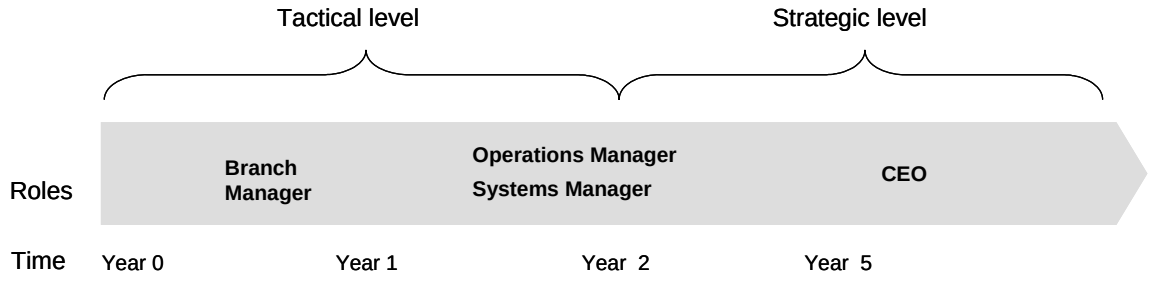
The NUAC organisation will be based on the principles of a lean organisation focusing on its core business – the provision of ATS. All activities supporting these services, both in term of administrative support as well as operative and technical support, will be evaluated for sourcing strategies.

Further on in order to fulfil all design criteria, NUAC must both deliver efficient operation at the same time as managing the strategic direction of NUAC, including attracting new partner entries etc. As a result, the NUAC organisation is designed in two levels: one strategic and one tactical level. The strategic level is discussed in the next section whilst the tactical level is discussed in Section 6.3.2.5.3.

In figure 45, the time perspective is added. This shows the differences in focus from ATCC[65] manager, who is managing day-to-day operation in the ATCC, to the CEO working at strategic level.

[65] ATCC – Air Traffic Control Centre.

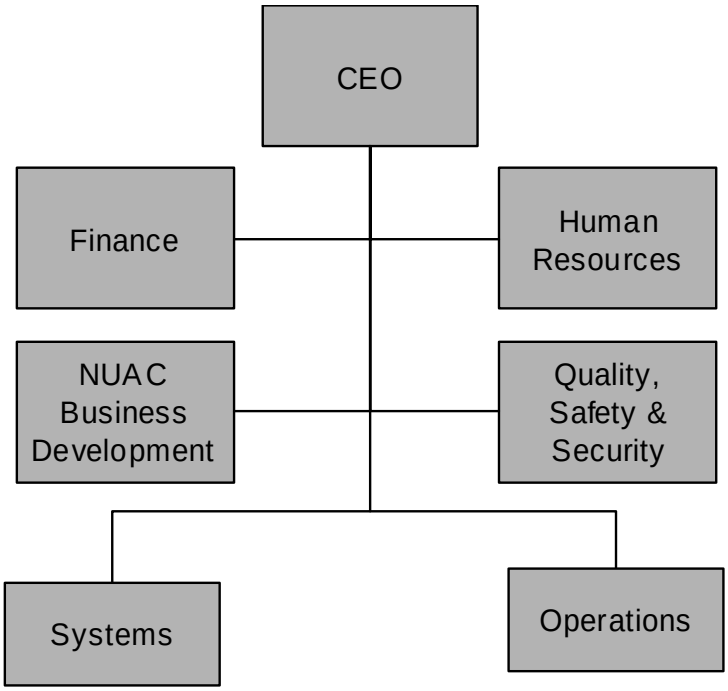
Figure 44 Management time perspective – Merger



6.3.2.5.2 Strategic Level

The strategic level, Level 0, of the organisation in the Merger Scenario is presented in Figure 45.

Figure 45 Organisation – Merger



Chief Executive Officer (CEO)
The CEO is legally responsible for the business and all activities within the organisation. The areas of responsibility of the CEO are to a large extent shown by the design of the organisation and the management group:

- Financial responsibility (CFO)
- Employer responsibility (HR Director)

- Quality and Safety responsibility (Q&A Director)
- NUAC business development responsibility (Business Development Director)
- Operational responsibility (COO)
- System responsibility (CTO).

Finance
The CFO will also be responsible for budgeting, business planning, balance scorecards, invoicing, large payments, reporting, and process owner for business planning and follow-up, administrative IS/IT.

Human Resources (HR)
The HR director will be responsible for all HR related processes: competence development, salary, training, reward, resourcing, communication, information, and process owner for HR, communication, and facility management.

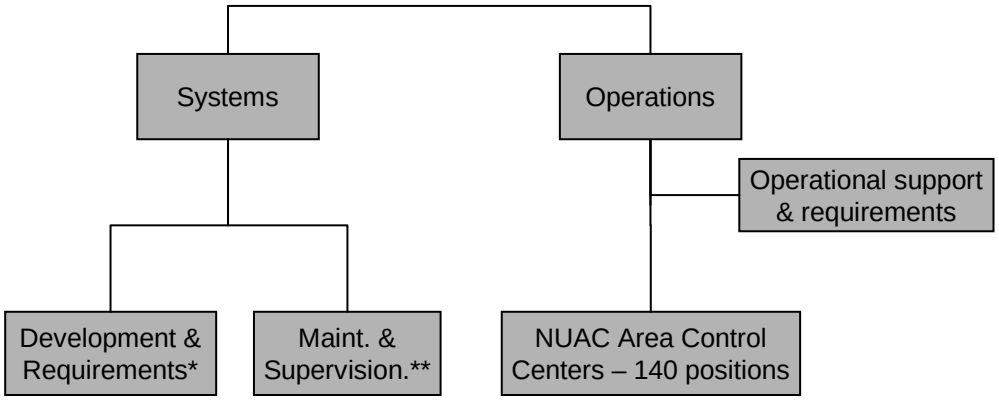
NUAC Business Development
The Business Development Director will be responsible for all external relations, strategic projects – including strategic ATM system development decisions, business intelligence and process owner for business development.

Quality & Safety
The Quality & Safety Director will be responsible for all quality systems, certificates, legal, security, safety, and process owner for quality and safety, legal.

6.3.2.5.3 Tactical Level

The tactical level, Level 1, of the organisation in the Merger Scenario is presented in Figure 46.

Figure 46 Tactical level organisation – Merger



* Including administration of COOPANS
** Including management of outsourcing

The tactical organisation's high-level roles and responsibilities:

Chief Operation Officer (COO)
A COO is responsible for the production of ATS and the support services produced in order to develop and maintain the ATS. As responsible for ATS, the COO will secure operational alignment within all core processes and secure an efficient operational support

Local Operations
The operation is run in ATC centres. The number of ATC centres needed for the operation may be subject to change over time, both depending on new entrants and further consolidation of the ANS industry. The COO will delegate the responsibility for local operations to branch managers. Briefing Officers and local support are included in ATC.

Operational Support and Requirements
The operational support and requirements function will be responsible for formalising and structuring the way of working within the operation. The operational support and requirements function will be responsible for managing the relationship with the third party (measurement and follow-up of LOA and KPIs etc.) in this area. This includes airspace design, procedures, working methods, MET, AIS, NOF, ARO and local investigation.

Chief Technical Officer (CTO)
A CTO will be responsible for all the systems supporting the production of ANS provision. That includes both ATM related systems and CNS infrastructure. Major areas of responsibility:

Development and Requirement Specification
The CTO will be responsible for all development regarding ATM and CNS systems. As major development work in both ATM and CNS are outsourced to third parties, a large proportion of the work within this function will be to define, negotiate and measure system requirements. The COOPANS cooperation will also be a part of the development and requirement specification function.

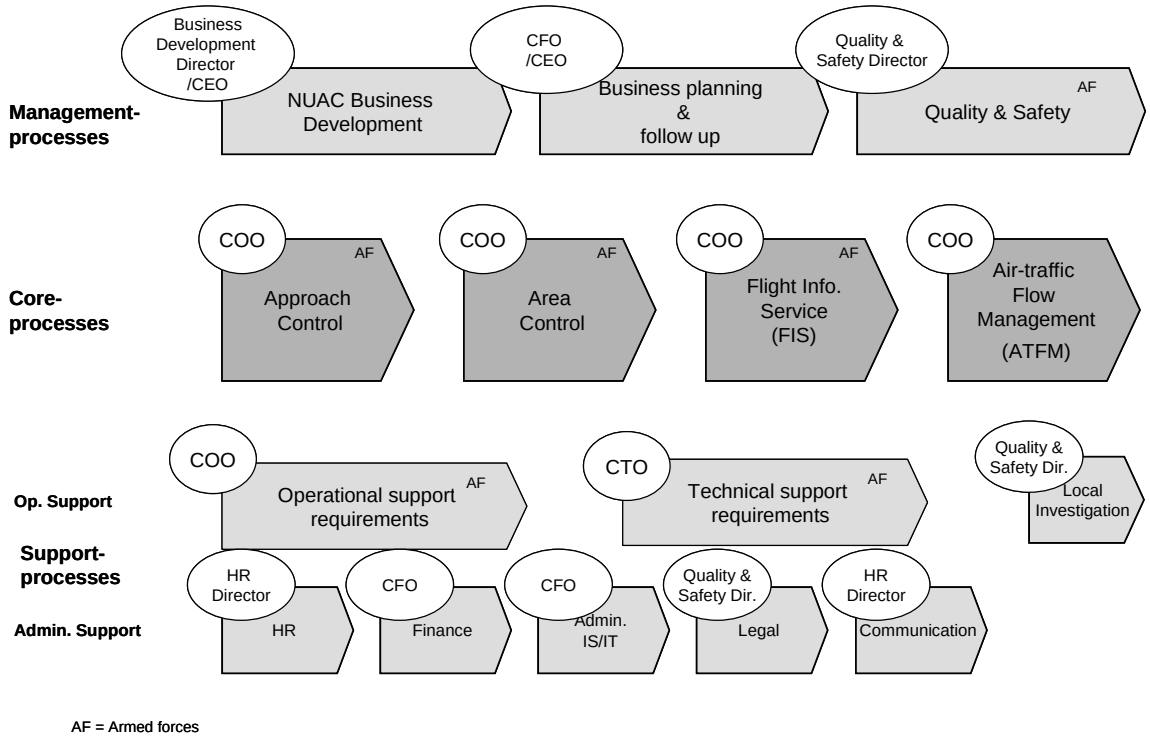
Maintenance and Supervision
The technical support and requirements function will be responsible for structuring and harmonising the system portfolio within NUAC. This function will manage both the ATM system and the CNS environment.

NUAC will also be responsible for the maintenance and supervision of the CNS infrastructure, even though this work will be outsourced to a third party. The technical support and requirements function will be responsible for managing the relationship with the third party (measurement and follow-up of SLA and KPIs etc).

6.3.2.5.4 Process Ownership within the Organisation

All processes defined in the process section will have a process owner in the NUAC organisation. Below in
Figure 47, the process owners are identified.

Figure 47 Process ownership – Merger

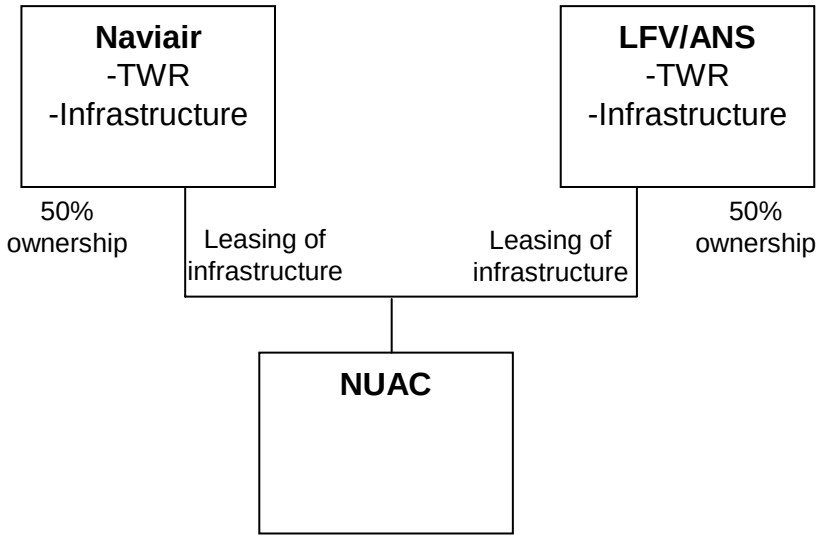


The process owner for level 0 processes will be senior managers and members of the management group. The COO will own all core processes to secure operational alignment. The CTO owns the processes connected to ATM/CNS systems and the COOPANS cooperation.

6.3.2.6 Ownership and Legal Entity

The business will be organised in a shared legal entity 'NUAC', owned mutually by Naviair (50%) and LFV/ANS (50%) as shown in Figure 48. The NUAC Company will be legally organised in a limited company registered in Denmark, Sweden or the European Union.

Figure 48 Ownership structure – Merger



New Entrants

The new NUAC Company has relative low entry barriers for new partners due to a lean Business Model centred on delivering its core business – service provision – which is almost harmonised among European ANSPs according to international regulations (see Section 3.1.3). This leaves out potential conflicts relating to national infrastructure and TWR related issues. In addition the new NUAC Company has a transparent ownership structure that will enable easy access towards new potential partners.

The ownership structure may be subject to change in the purpose of accommodating new entries. The result of that is subject to separate negotiations and will not be analysed further in this report.

6.3.2.7 Retained Organisations

As the tower operation is out of scope for the NUAC Programme, and as the ownership of the infrastructure will be retained by LFV/ANS and Naviair respective, there will be a need for a retained organisation in Sweden and Denmark. A full analysis of the organisation of the retained business is not provided by the NUAC Programme, but an indication of needed size and areas of responsibilities is provided below:

6.3.2.7.1 Naviair

The retained organisation will initially be structured into two areas and a management team. The management team will consist of a CEO and a Quality & Safety manager. The two businesses units are tower management and infrastructure management:

- The tower operation will be retained as one unit, including operational staff and a lean operational support function
- As the infrastructure (CNS and ATM) ownership will be retained in Naviair, a small unit is set up to manage the infrastructure.

Figure 49 Naviair retained – Merger

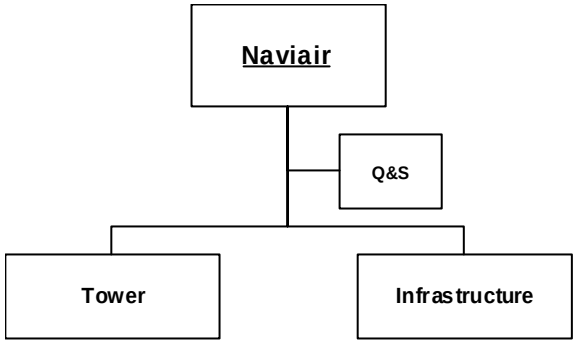


Figure 50 Indication of Staff requirements in Naviair

Naviair – Staff categories	Staff requirement
Management	
CEO	1
Quality & Safety	1
Tower	
Manager	1
Administrative Staff (finance, legal, HR)	3
Technical Maintenance	11
Operational Support (Procedures, AIP, etc)	4
ATCOs	141[66]
Infrastructure	
Junior Manager	1
Administrative Staff	2
Total	**165**

[66] Excl. resources from Greenland (9 FTE), Vagar (6 FTE), and ATCO-candidates (14 FTE) which are out of scope

6.3.2.7.2 LFV/ANS

The retained organisation will initially be structured into two areas and a management team. The management team will consist of a CEO and a Quality & Safety manager. The two businesses units are tower management and infrastructure management:

- The tower operation will be retained as one unit, including operational staff and a lean operational support function.
- As the infrastructure (CNS and ATM) ownership will be retained in LFV/ANS, a small unit is set up to manage the infrastructure.

Figure 51 Retained LFV/ANS – Merger

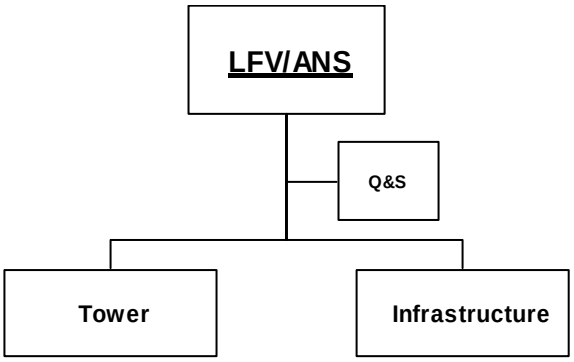


Figure 52 Indication of Staff requirement in LFV/ANS

LFV/ANS – Staff categories	Staff requirement
Management	
CEO	1
Quality & Safety	2
Tower	
Manager	1
Junior Manager	3
Secretary	1
Administrative Staff (finance, legal, HR)	4
Technical Maintenance	4
Operational Support (Procedures, AIP, etc)	13
ATCOs	392[67]
Infrastructure	
Junior Manager	1
Administrative Staff	3
Total	**425**

[67] Incl. 14 FTE APP-ATCO's performing tower operations

6.3.3 *Integration Strategy*

This section describes the integration for the implementation of the Merger Scenario. It presents Merger integration principles and approach, milestones, roadmap and associated integration risk and complexity

6.3.3.1 Principles and Approach

The objective of the Integration Strategy for the Merger Scenario is to point out direction for how to realise the expected benefits outlined in the Business Case and to ensure transformation to the designed Merger Business Model described earlier – simultaneously, minimising risks and maximising effect for the strategic rationales.

The Merger Scenario implementation is the most comprehensive integration task of the three Scenarios merging relevant parts of the two organisations' Business Models. Therefore, the initial "*concepts, solutions & preparation*" phase must be well organised, and the following "*transition*" phase will last longer than in the NUAC/SKAANE and Alliance Scenario as all processes and functions must be aligned. A key principle is to align key processes and concepts before the establishment of the new NUAC Company January 2008 and the subsequent transition period.

Key elements of the integration work streams[68] in this Scenario are:

- Pre-requisite work stream (political process, validation of Business Case & model, preparing for separation of new Business Model, and governance and concepts alignment)
- Benefits delivery areas (process alignment & Optimisation and benefit realisation)
- Direction and support (integration management, benefit, stakeholder and risk management, communication and detailed HR (retrenchment) plan.

The transition phase will start with the establishment of the NUAC Company, appointment of the NUAC senior management group, and a well planned partial stop for recruitment and replacement in LFV/ANS and Naviair (to ensure biggest possible benefit realisation from natural attrition).

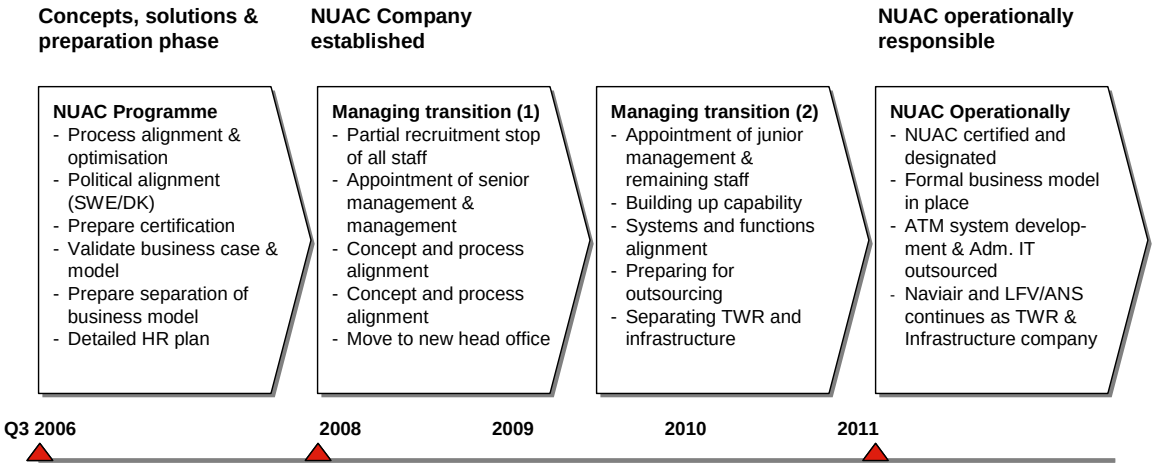
LFV/ANS and Naviair CEOs and NUAC Programme management will manage the NUAC Programme. In this period, focus is on building operational capability (certification and designation as end target) in the new NUAC Company, benefit realisation in the integration (initiative) areas and fine-tuning of process alignment and Optimisation.

6.3.3.2 Milestones and Roadmap for Merger Implementation

Below is the roadmap for the implementation of the Merger Scenario:

[68] See "Appendix 6: Integration Strategy" for a detailed integration work breakdown structure.

Figure 53 Roadmap – Merger Scenario



Key milestones:

- ***December 2007*** – DATMAS (Danish ATM core IT system for ensuring optimal provision of ANS) implemented
- ***January 2008*** – NUAC cooperation established (temporary employment/contract)
- ***January 2008*** – Senior management (CEO, COO, CFO, CHRO, BD Mgr and QA Mgr) and management (heads of functions e.g. OT, OCH etc.) appointed
- ***January 2008*** – Start benefit realisation via partial recruitment stop for all staff
- ***2006-2009*** – NUAC Programme: Concepts, solutions, process alignment
- ***January 2010*** – Physical move to new head office
- ***January 2010*** – Applications for certification completed
- ***June 2010*** – National designations achieved
- ***July 2010*** – Junior management and administrative staff appointed
- ***September 2010*** – ATCOs and operational support staff appointed
- ***2010*** – Common CNS systems and platforms
- ***2010*** – Common NUAC technical & operational support organisation[69]
- ***2011*** – Appointment of junior management and remaining staff
- ***2011*** COOPANS upgrade of EUROCAT (Partly outsourcing of ATM system development and administrative IT)
- ***2011*** – NUAC cooperation operational (certified & designated)

6.3.3.3 Key Integration Risks and Complexity for Merger Scenario

The risk of temporary decrease in motivation and productivity among the personnel will be minimised when further working condition can be communicated. The risk is estimated somewhat higher in the Merger Scenario, which has the most comprehensive integration, compared to the NUAC/SKAANE and Alliance Scenarios.

[69] Only core personnel needed in NUAC – not technical maintenance and administrative IT staff.

Merger Scenario – Detailed Risk and Complexity Description

Business Model implementation: Optimisation and redesign of management positions, general administrative staff functions and operational staff functions are complex and will therefore need to be aligned as quickly as possible. Role clarity, training and competence development will therefore be part of the integration programme.

ATCO operational and technical: Night closure of two control towers demands ATCO procedure training to obtain certification as well as new ways of working can create more complex ATCO tasks. However, this will appear late in the process (approximately 2015) so mitigation actions can be well planned and prepared.

Alignment of technical requirements: Technical initiatives assume a certain alignment of the current national (regulatory) technical requirements in regards to the systems (some misalignment between LFV and SLV exists).

Technical alignment proves more complex than estimated: Technical initiatives assume that alignment of the current systems may be undertaken relatively easily (confirmed by senior ATM experts). However, a risk exists that this proves more difficult to achieve than estimated.

Psycho-social working environment and retention of key employees (HR issues): The new organisation will lead to higher pressure on the employees during the transition period, therefore management need to have attention into it to avoid lack of motivation and higher stress among some employee concerned.

6.3.4 *HR Aspects and Social Dialogue*

The specific parts of the analysis of the HR Aspects for the Merger Scenario will be presented here. Parts that are shared by all three Scenarios are covered in Chapter 5. For full reports, please refer to Appendix 9.

6.3.4.1 Personalejuridiske forhold i Danmark og Naviair

6.3.4.1.1 Virksomhedsoverdragelsesloven

Det lægges til grund, at der vil ske overdragelse af aktiviteter fra Naviair til det nye selskab NUAC. I hvilket omfang der overføres medarbejdere fra Naviair til NUAC er uklart, da der primært er lagt vægt på, at nyansættelser skal ske i det nye selskab.

Lægges det til grund, at der overføres medarbejdere fra Naviair til NUAC, vil virksomhedsoverdragelsesloven antageligt finde anvendelse på overdragelsen. Det understreges dog, at den endelige vurdering heraf vil være afhængig af, hvorledes den endelige overdragelse struktureres og gennemføres.

6.3.4.1.2 Geografisk flytning af medarbejderes arbejdssted

Der kan potentielt blive tale om geografisk flytning af medarbejderes arbejdssted i samtlige medarbejdergrupper.

Det spørgsmål, der skal besvares i denne sammenhæng er, om Naviair vil kunne pålægge sine medarbejdere at skifte arbejdsplads internt i Danmark og fra København til Malmø.

I HR-arbejdsgruppens rapport om personalemæssige forhold version 2.0 af 26. januar 2006, er der p. 21, angivet, at en medarbejder, der skal arbejde i Sverige og som samtidig vælger at bevare sin hidtidige bopæl, i værste fald får ca. 55 km længere til arbejde (afstanden mellem Naviair (København) og Malmoe Sturup Airport). Medarbejderen skal betale broafgift DKK 2.525 pr. måned (50 enkeltrejser).

For mere information se Appendix 9 om aftale om tjenesterejser.

6.3.4.1.2.1 Funktionærer

Stillingtagen til en geografisk flytning af medarbejdere internt i Danmark, vil afhænge af, om ændringen betragtes som væsentlig. Dette vil afhænge af en række forhold, herunder forlængelse af afstand til arbejdspladsen, øget transporttid, øgede transportomkostninger og evt. særlige ulemper for den enkelte medarbejder. For en illustration af gældende ret, se dommene i Appendix 9.

Da det ikke på nuværende tidspunkt er oplyst, hvortil en flytning i Danmark vil ske, kan denne problemstilling ikke behandles yderligere på nuværende tidspunkt.

I relation til flytning af de danske medarbejderes arbejdssted til Sverige, må det med udgangspunkt i de generelle bemærkninger om ændring af ansættelsesvilkår for funktionæransatte (jævnfør Appendix 9) lægges til grund, at en ændring af arbejdsstedet fra København til Malmoe vil være en væsentlig ændring, der skal varsles med funktionærernes individuelle opsigelsesvarsler og som medarbejderne ikke er forpligtet til at acceptere. Ved denne vurdering er der lagt vægt på:

- at den geografiske afstand forøges med op til 55 km eller i alt 110 km dagligt til og fra arbejde,
- at transportomkostningerne forøges væsentligt,
- at medarbejdernes skattemæssige og sociale sikring kan ændres samt
- at de kollektive overenskomster ikke finder anvendelse i udlandet.

Ønskes ændringen gennemført, skal den som nævnt varsles og de medarbejdere, der afslår ændringen kan opsiges af Naviair med dertil knyttede rettigheder eller der må kompenseres med kortere arbejdstid og/eller delvis dækning af transportomkostningerne.

For de medarbejdere der accepterer varslingen, skal der tages stilling til en række forhold:

- Hvis flytningen af medarbejdere sker i forbindelse med overførslen af aktiviteterne til NUAC finder virksomhedsoverdragelsesloven anvendelse og fastslår, at medarbejderne bevarer deres rettigheder over for erhververen.
- De kollektive overenskomster, som eventuelt har fundet anvendelse på medarbejderne i Danmark, finder ikke anvendelse i udlandet, og erhververen kan i øvrigt have frasagt sig de kollektive overenskomster i medfør af Virksomhedsoverdragelseslovens § 4a.

- Der eksisterer væsentlige forskelle mellem ansættelsesvilkårene for de danske medarbejdere sammenlignet med de svenske medarbejdere i tilsvarende stillinger. Det er ikke hensigtsmæssigt på langt sigt at have forskellige ansættelsesvilkår.
- Naviair bør så tidligt som muligt forhandle med henholdsvis de danske og de svenske fagforeninger om de fremtidige ansættelsesvilkår for de overførte medarbejdere. Der kan blive tale om at forhandle evt. overgangsordninger på plads.

6.3.4.1.2.2 Tjenestemænd

Der henvises generelt til Appendix 9 om ændring af ansættelsesvilkårene for tjenestemænd. Forbliver tjenestemændene ansat i Naviair, vil afgørelsen af, hvor vidt tjenestemændene er forpligtet til at tåle en sådan flytning, i henhold til tjenestemandslovens § 12, stk. 1, afhænge af, om der sker ændring af tjenestens karakter, og om stillingen fortsat kan anses for passende for tjenestemanden.

Retspraksis har vist, at tjenestemændene i vidt omfang skal underkaste sig de forandringer, der måtte blive bestemt. Der er således eksempler på, at tjenestemænd har måttet acceptere, at arbejdstiden er blevet forlænget samt at tjenestestedet er blevet flyttet. For en illustration af gældende ret, se dommene i Appendix 9.

Hvorvidt en intern flytning af tjenestemændenes arbejdssted i Danmark, skal accepteres af tjenestemændene, kan der først tages stilling hertil, når det nye tjenestested kendes.

Ved en flytning af tjenestemændenes arbejdssted fra Danmark til Sverige, vil der antageligvis være tale om ansættelse i NUAC eller i et af NUAC helejet dansk eller svensk aktieselskab. Ansættelsesområdet for tjenestemændene i Naviair er Transport- og Energiministeriet med tilhørende institutioner og styrelser, og det nyoprettede NUAC og evt. datterselskaber under NUAC vil være ejet af Naviair med 50 % og af LFV/ANS med 50 % og vil derfor ikke kunne anses for en del af Transport- og Energiministeriet. Allerede fordi der er tale om en ændring, der ligger udenfor tjenestemændenes hidtidige ansættelsesområde, kan den ikke gennemføres tvangsmæssigt.

Selvom tjenestemændene forbliver ansat i Naviair, vil man i henhold til tjenestemandslovens § 12, stk. 1, nå frem til, at selvom tjenesten efter sin karakter svarer til den hidtidige stilling, må det lægges til grund, at en sådan stillingsændring ikke er ”passende” for tjenestemændene og at de derfor ikke er forpligtede til at acceptere den. Der lægges herved primært vægt på, at der bliver tale om ændring af tjenestested (med 55 km, dvs. 110 km dagligt), øgede transportudgifter, evt. ændrede skatteforhold og social sikring for flyvelederne og at reglerne i den danske tjenestemandslovgivning ikke omfatter arbejde udført i Sverige.

Et pålæg til tjenestemændene om at overgå til det nyoprettede NUAC med tjenestested i Malmø vil være så væsentlig en ændring af tjenestemændenes hidtidige ansættelse, at der ikke blot tales om forflyttelse, men om nedlæggelse af stillingen.

Dette betyder, at tjenestemændene vil være berettiget til rådighedsløn i 3 år og pension, medmindre de tilbydes anden passende ansættelse i Staten.

6.3.4.1.3 Nedlæggelse af stillinger/afskedigelser

Der forventes ikke omfattende afskedigelser i dette scenarie, men det kan ikke afvises at der potentiellt kan blive tale om nedlæggelse af stillinger/afskedigelser for samtlige medarbejdergrupper.

Hvis der opstår overtallighed i NUAC, vil det som udgangspunkt være det nye selskab som arbejdsgiver, der skal forestå de nødvendige afskedigelser. Der kan indgås aftaler om, at LFV/ANS og Naviair skal friholde NUAC for udgifter i forbindelse hermed. Vilkårene for disse opsigelser afhænger af, om de medarbejdere, der skal afskediges er omfattet af dansk ret eller svensk ret og i øvrigt af, hvilke vilkår de er ansat på. Dette er ukendt.

Opstår der overtallighed i Naviair, sker afskedigelserne ud fra de regler, der gælder om opsigelse af disse medarbejdere. Der henvises til Appendix 9.

Udover egentlige afskedigelser kan Naviair vælge at afvikle overtalligheden i form af naturlig afgang eller ved frivillige ordninger.

6.3.4.1.4 Flytning af medarbejdere til anden juridisk enhed

Der kan potentielt blive tale om flytning af medarbejdere til anden juridisk enhed for alle medarbejdergruppers vedkommende.

6.3.4.1.4.1 Funktionærer

En virksomhedsoverdragelse kan ikke i sig selv påberåbes af funktionærerne som en væsentlig ændring af ansættelsesvilkårene. Kun hvis der sker andre væsentlige ændringer i ansættelsesvilkårene som f.eks. ændring af arbejdssted, væsentligt ændrede arbejdsopgaver eller overgang til en mindre solvent arbejdsgiver, vil dette kunne påberåbes af funktionæren som en væsentlig ændring af ansættelsesvilkårene.

I nærværende tilfælde overgår funktionærerne fra at være ansat under Transport- og Energiministeriet til at være ansat af et af Naviair og LFV/ANS i lige forhold ejet svensk eller dansk aktieselskab eller et datterselskab under NUAC. Dette kan ikke i sig selv påberåbes som en væsentlig ændring af ansættelsesvilkårene. Da ændringen imidlertid har en række mulige følgevirkninger, såsom ændring af arbejdssted, bortfald af de kollektive overenskomster ved arbejde i Sverige, ændrede skattevilkår og social sikring for medarbejderne ved arbejde i Sverige, kan disse forhold føre til, at ansættelse i NUAC indebærer væsentlige ændringer i ansættelsesvilkårene for medarbejderne med den konsekvens, at medarbejderne ikke er forpligtede til at acceptere ændringerne, men kan opsiges med deraf følgende rettigheder.

6.3.4.1.4.2 Tjenestemænd

Ansættelsesområdet for tjenestemændene i Naviair er Transport- og Energiministeriet med tilhørende institutioner og styrelser. Det nyoprettede NUAC og danske eller svenske datterselskaber vil være ejet af Naviair og LFV/ANS og vil derfor ikke kunne anses for en del af Transport- og Energiministeriet. Efter gældende praksis kan overførsel af tjenestemænd i henhold til tjenestemandsloven § 12, stk. 1 og 2, alene ske til statsejede selskaber, såfremt den danske stat ejer mindst 75 % af det pågældende selskab.

Justitsministeriet angiver, at overgangen til ansættelse i et statsligt aktieselskab, hvor staten fortsat står for pensionsforpligtelser mv. skal tåles af tjenestemanden, så længe staten fortsat ejer 75 % af aktiekapitalen, idet der reelt ikke er nogen forskel i ansættelsesvilkårene, idet staten fortsat har den fulde indflydelse. Dette forudsætter, at der ikke samtidig sker andre væsentlige ændringer i ansættelsesvilkårene.

Et pålæg til tjenestemændene om at overgå til det nyoprettede NUAC vil være så væsentlig en ændring af tjenestemændenes hidtidige ansættelse, at der ikke kan tales om forflyttelse, men om nedlæggelse af stillingen. Dette betyder, at tjenestemændene ikke kan tvinges til en sådan ændring, men vil være berettiget til rådighedsløn i 3 år og pension, medmindre de tilbydes anden passende ansættelse.

Der henvises i øvrigt til afsnit 6.3.4.1.2.2 Tjenestemænd ovenfor.

6.3.4.1.4.3 Ikke funktionærer

Der henvises til afsnit 6.3.4.1.4.1 Funktionærer ovenfor.

6.3.4.1.5 Øvrige ændringer i ansættelsesvilkår

Det er ikke præciseret, hvilke øvrige ændringer af ansættelsesvilkårene, dette scenarie vil medføre. Det må dog antages, at der ved forflyttelse af medarbejdere fra Danmark til Sverige og vice versa, vil være behov for på sigt at ensrette de forskellige ansættelsesvilkår.

Der henvises i den forbindelse til den udførlige sammenligning af ansættelsesvilkårene, der er gennemført i Rapport af 26. januar 2006 af HR arbejdsgruppen om personalemæssige forhold version 2.0, afsnit 5 (og bilag 5 og 6) for så vidt angår danske og svenske flyveledere. Gruppen fremhæver særligt de store forskelle i reglerne om opsigelse, pension og ferie samt, at de danske flyveledere lønningsmæssigt ligger noget højere end svenskerne.

Det ligger udenfor denne rapport at foretage en sammenligning af ansættelsesvilkårene mellem øvrige personalegrupper.

For mere information se Appendix 9.

6.3.4.2 Arbetsrättsliga aspekter i Sverige och LFV/ANS

6.3.4.2.1 Övergång av verksamhet

I detta Scenario skall verksamheterna integreras i ett nytt bolag; NUAC AB eller NUAC AS. Alternativt överlåts delar av den relevanta rörelsen inom LFV/ANS till ett dotterbolag till NUAC AB/NUAC AS.

Före ett beslut om övergång av verksamhet måste samverkan ske med de avtalsbundna fackliga organisationerna.

Nedan behandlas först tillämpliga regler för det fall integrering sker till ett annat svenskt bolag – såsom NUAC AB, därefter om integrering sker med utländskt bolag – såsom NUAC AS.

6.3.4.2.1.1 Rörelseöverlåtelse till NUAC AB

I denna situation när en verksamhet flyttas över för att fortsättningsvis bedrivas i ett annat bolag blir reglerna om övergång av verksamhet (6b § LAS) tillämpliga. Reglerna innebär i korthet att samtliga anställda i den del av LFV/ANS som integreras med NUAC AB, har rätt att på oförändrade anställningsvillkor övergå i anställning till NUAC AB (se mer utförligt apendix8).

Att anställningarna skall övergå på ”oförändrade anställningsvillkor” innebär att de anställningsvillkor som gällt i LFV/ANS, även fortsättningsvis skall gälla i NUAC AB. Vidare har de anställda rätt att ta med sig intjänade rättigheter såsom exempelvis intjänad semester. Vad avser rättigheter som följer av anställningstidens längd, får den anställde tillgodoräkna sig anställningstiden hos LFV, även i sin anställning i NUAC AB.

Enligt huvudregeln i 28 § MBL första stycket följer tillämpliga kollektivavtal med verksamhetsöverlåtelsen och LFV:s kollektivavtal blir då tillämpligt för NUAC AB med bindande verkan fullt ut enligt reglerna i MBL (inkluderande bland annat förhandlingsskyldighet gentemot facken).

För det fall de kollektivavtal som gällt inom LFV/ANS följer med till NUAC AB (enligt 28 § MBL), övergår även de anställdas kollektivavtalade rätt till tjänstepension (se mer utförligt Appendix 9).

Det finns emellertid möjlighet såväl för facken som för LFV/ANS (dock inte för NUAC AB) att inom viss tidsfrist säga upp kollektivavtalen till upphörande i samband med verksamhetsövergången. Även om kollektivavtalen skulle sägas upp, skall emellertid NUAC AB fortsätta att tillämpa anställningsvillkoren i kollektivavtalen under minst ett år (pensionsrätten inklusive) – emellertid är NUAC AB i denna situation inte bunden av avtalet gentemot facken.

För det fall det i NUAC AB vid tiden för överlåtelsen redan skulle föreligga ett kollektivavtal som är tillämpligt på de anställda som övergår från LFV/ANS, skall emellertid inte tidigare gällande kollektivavtal i LFV/ANS övergå (28 § MBL första stycket, andra meningen). För det fall facken och NUAC AB önskar komma överens om ett nytt kollektivavtal för verksamheten som skall bedrivas i NUAC AB, kan det således vara en möjlighet att implementera detta nya kollektivavtal redan före själva verksamhetsövergången. Alternativt träffas ett inrangeringsavtal efter själva verksamhetsövergången till NUAC AB, vilket innebär att de kollektivavtal som följt med vid verksamhetsövergången upphör gälla (28 § MBL tredje stycket).

Anställda har möjlighet att motsätta sig en övergång till NUAC AB, och blir då fortsatt anställda i LFV/ANS trots att de arbetsuppgifter de tidigare arbetat med förts över till NUAC AB. För det fall övertalighet uppstår inom LFV, aktualiseras då reglerna om uppsägning på grund av arbetsbrist (se Appendix 9 och nedan avsnitt 6.3.4.2.3 Neddragning av personalstyrkan).

6.3.4.2.1.2 Rörelseöverlåtelse till NUAC AS

För det fall integrering sker till ett danskt bolag – såsom NUAC AS, skulle detta innebära en gränsöverskridande verksamhetsövergång. För detta redogörs i Appendix 9.

6.3.4.2.1.3 Rörelseöverlåtelse till dotterbolag till NUAC AB/NUAC AS

Vid en rörelseöverlåtelse från LFV/ANS till ett svenskt dotterbolag till antingen NUAC AB eller NUAC AS, blir reglerna om övergång av verksamhet (6b § LAS) tillämpliga. Därmed gäller vad som sagt i Appendix 9 och avsnitt 6.3.4.2.1.1 Rörelseöverlåtelse till NUAC AB.

En rörelseöverlåtelse från LFV/ANS till ett danskt dotterbolag till antingen NUAC AB eller NUAC AS, är emellertid en gränsöverskridande verksamhetsövergång och kommentarer till en sådan situation anges i Appendix 9.

6.3.4.2.2 Byte av arbetsort

Det kan bli tal om att vissa tjänster flyttas till annan ort och därigenom uppstår frågan om byte av arbetsort.

I respektive anställds anställningsavtal stadgas i vilken ort som den anställde skall arbeta. Fråga uppkommer om LFV/ANS ensidigt kan bestämma att de anställda skall arbeta från annan ort – antingen i Sverige eller i Danmark, och om så kan ske inom ramen för anställningen. För ytterligare information se Appendix 9.

Ett byte av anställningsort till ett annat land har även privatekonomiska konsekvenser för den anställde. Permanent arbete i Danmark skall enligt huvudregeln beskattas i Danmark. Även sociala förmåner förändras i samband med att arbetet utförs och beskattas i Danmark.

Mot bakgrund av ovan, är vår bedömning att en permanent förflyttning och byte av anställningsort inte kan ske utan samtycke från respektive anställd. Nya anställningsavtal måste således träffas med angivande av den nya arbetsorten.

Emellertid skall noteras att förläggning av arbetet är ett typiskt arbetsgivarbeslut. LFV/ANS kan således (efter samverkansförhandingar) besluta att viss verksamhet från ett visst datum skall utföras från annan ort. De anställda som väljer att inte följa med vid en sådan verksamhetsflytt, riskerar att bli uppsagda på grund av arbetsbrist (se punkten 6.3.4.2.3 Neddragning av personalstyrkan).

6.3.4.2.3 Neddragning av personalstyrkan

Stora neddragningar av personalstyrkan förväntas inte i detta scenario. Om neddragning av personalstyrkan blir aktuell klassificeras det som ”uppsägningar på grund av arbetsbrist”.

6.3.4.2.4 Förflyttning av anställda till annan juridisk person

En verksamhetsöverlåtelse innebär en flytt från en juridisk person (dvs. en arbetsgivare) till en annan juridisk person (arbetsgivare). I denna situation gäller vad som ovan har beskrivits i avsnitt 6.3.4.2.1 Övergång av verksamhet.

6.3.4.2.5 Förändringar av arbetsuppgifter

Enligt beskrivningen av detta Scenario skall nya gemensamma arbetsbeskrivningar upprättas. I denna situation aktualiseras reglerna om ändring av anställningsvillkor för vilka det redogörs i Appendix 9.

För det fall dessa nya arbetsbeskrivningar ryms inom respektive anställds nuvarande arbetsuppgifter, kan LFV/NUAC AB ensidigt förändra (eller snarare förtydliga) arbetsbeskrivningarna, efter det att frågan tagits upp för samverkan med de avtalsbundna fackliga organisationerna.

Vidare skall nämnas den nya bestämmelsen i 6e § LAS, som förväntas träda i kraft den 1 juli 2006. Enligt denna bestämmelse skall arbetsgivaren bl.a. för det fall arbetsuppgifterna förändras, skriftligen informera den anställde om detta inom en månad.

Skulle en sådan förändring av arbetsbeskrivningen emellertid innebära en reell förändring av de anställdas arbetsuppgifter, man talar här om att ”tjänstens beskaffenhet i grunden förändras”, krävs i första hand samtycke från den berörde anställde. För det fall den anställde inte samtycker till de nya arbetsuppgifterna, kan det i slutändan bli fråga om ”arbetsbrist” beträffande den tidigare tjänsten eftersom tjänsten (med de tidigare arbetsuppgifterna) inte längre finns kvar inom LFV/NUAC AB. Rent tekniskt, erbjuds den anställde istället skälig omplacering till den nya tjänsten (i enlighet med den nya arbetsbeskrivningen). Skulle den anställde ändå tacka nej till den nya skäliga tjänsten, föreligger ”saklig grund” att med iakttagande av tillämplig uppsägningstid, säga upp den anställde på grund av arbetsbrist (se Appendix 9).

6.3.4.3 Skat og social sikring

I Merger-scenariet etableres et samlet NUAC registreret som et svensk eller et dansk aktieselskab med ejerskab af operative driftsselskaber i Sverige og Danmark. Det forudsættes i det følgende, at medarbejderne skal udføre arbejde i det land, hvor deres arbejdsgiver har hjemsted, samt at der er tale om flytning af arbejdssted for minimum ét år.

For så vidt angår skat og social sikring vil implementeringen af merger-scenariet som udgangspunkt ikke have betydning for medarbejdere, som ikke skifter arbejdsland.

For medarbejdere, som helt eller delvist flytter arbejdsland, vil der imidlertid ske ændringer i den skattemæssige situation, samt evt. med hensyn til social sikring. Det komplekse skattemæssige regelsæt i forbindelse med flytning af arbejdssted på tværs af Øresund medfører, at det i flere situationer er muligt at vælge forskellige skattemæssige løsninger for medarbejderne.

I afsnit 5.5 Skat og social sikring opsummeres de væsentligste ændringer vedrørende skat og social sikring. For en detaljeret gennemgang af regelsættet med illustrative konsekvensberegninger mv. henvises til Appendix 9, som indeholder to detaljeret baggrundsrapporter om udsendelse af medarbejdere til arbejde i henholdsvis Sverige og Danmark.

6.3.4.4 Working Environment

6.3.4.4.1 Effects on the Psycho-Social Working Environment

The psychosocial working environment is likely to be affected in the Merger Scenario.

First of all, this would be a result of a higher level of quantitative and cognitive demands imposed on the employees and management, especially during the transition period when employees may use energy on worrying about the future, adapting to the new situation, learning to cooperate with new people, as well as trying to acquire the competencies needed in the new organisation.

Secondly, it is stated in the Scenario description that there will be a reorganisation, which will lead to new compositions of people working together. This will probably impose new demands on cooperation. As people try to find their place in the new work group and learn to cooperate, disagreement is likely to occur. Potentially, differences in national and former corporate cultures may affect the cooperation and lead to disparities. However, there are also positive effects that are likely to arise from the cooperation. A diversified work group may lead to new opportunities and challenges being noticed, as situations will be viewed from different perspectives. The work will also be more varied.

Thirdly there may be effects on the predictability, characterised by the more flexible workforce and the closer cooperation across previous organisational borders. Employees may not know for sure where in the organisation their workplace will be located in the future, who they are going to work with or what tasks they are going to carry out. In addition, it is stated in the Scenario description that contractual agreements will be re-negotiated for all personnel groups, which may make it harder to predict the future initially.

Moreover, there is a risk that the possibilities of influence may be reduced as e.g., processes are standardised. However, the actions of the new management may counteract that risk.

In the new organisation the employees will most likely have to develop new skills and competencies depending on their function. However, all employees may have to learn how to work with the new standardised and integrated processes and systems, as well as the more diversified organisation. According to the Scenario description, there may also be more specialisation opportunities.

Furthermore, during the transition period, there will probably be effects on the stress level. This would follow from moving workplace, putting people together that have not worked together before, new management, the prospect of working in a new country etc. However, the stress level will most certainly depend on the Integration Strategy.

The individuals' perception of their new situation and their ability to handle several changes at once will most likely decide whether they feel more or less stressed, respectively motivated.

However, it is uncertain which norms will be established regarding preventive measures in the new organisation. Presently, both organisations work systematically and continuously with preventive measures.

6.3.4.4.2 Effects on the Physical and Chemical Working Environment

It is not stated in the Scenario description whether the new organisation will be a Swedish or Danish one. In addition to that, it is not stated where the headquarters are

going to be located and consequently where top management and the administrative and support personnel's workplaces will be located.

Depending on the nationality of the new organisation, different regulations will apply when it comes to the physical and chemical working environment. However, the regulations are alike. For this reason, the effects on the physical and chemical working environment for the individual employee will most likely depend primarily on the local conditions in that organisation, and not on the country in which the workplace will be located. For example, there could be local variations regarding the safety and ergonomic conditions, the level of noise, vibrations and lighting, the interior, the indoor climatic conditions and ventilation, and the chemical working environment, e.g. what materials are used.

6.3.4.4.3 Summary of the Effects on Working Environment

There may be effects on the psychosocial, as well as the physical and chemical working environment. The full integration of the organisations may have consequences for most employees but to a different extent. The employees that need to expect the greatest changes are the ones whose workplace will be relocated to the other country. In the table below the effects on the working environment are summarised:

Figure 54 Summary of the working environment in the Merger Scenario[70]

Working environment	Merger Scenario
Psychosocial working environment	There may be effects on the psychosocial working environment due to possible increased demands, new compositions of work groups affecting the cooperation, reduced predictability, increased development opportunities, and, especially during the transition period, a possible increased stress level and lower motivation. The individuals' perception of their new situation and their ability to handle several changes at once will most likely decide whether they feel more or less stressed, respectively motivated.
Physical and chemical working environment	There may be effects as a consequence of local differences.
Conclusion of the effects on the working environment	Effects are likely on both the psychosocial and the physical and chemical working environment, especially for the employees whose workplace will be relocated.

6.3.4.5 HR Programmes

6.3.4.5.1 Recruitment

In the Merger Scenario it is planned that all new employments are made in the new company and in this connection it is important that the new company arranges a standardised recruitment process for support and administrative personnel. Recruitment of operational personnel will, however, continuously take place in the Danish and Swedish subsidiary companies, respectively.

[70] For detailed information, refer to Appendix 9

Overall, the standard recruitment processes for support and administrative personnel in LFV/ANS and Naviair are fairly identical which can make a future merger of the standardised processes uncomplicated. However, one condition for organising a standardised recruitment process for support and administrative personnel demands a decision on the subjects of Swedish applicants – as the Danish applicants – should have the right/possibility to an assessor during the employment interview.

6.3.4.5.2 Competence Development

If deciding on a merger, it has to be determined whether the two legal units should be offered standardised education or whether education should be offered separately and adapted to the two legal units.

6.3.4.5.3 Performance Management

Merging the two companies will demand greater focus on aligning the performance management structures.

Today the two performance management structures are not completely identical, however the overall intentions and purpose are similar.

Naviair's structure is embedded in "Resultatkontrakter" for the CEO team and Head of Functions where Luftfartverkets performance measurement system is looking broader into the organisation.

The targets from the Danish Ministry of Energy and Transport and the performance objectives from the corporate strategy in Naviair are not the same as in LFV/ANS.

This means that merging the two companies will, besides aligning the corporate objectives and targets from the public authorities, emphasise the need for aligning both performance support systems and the underlying performance methodology and policies[71].

6.4 NUAC/SKAANE Scenario

The NUAC/SKAANE Scenario is defined as an implementation of the original NUAC and SKAANE concepts as was laid down by the original projects i.e. with LFV/ANS and Naviair as co-owners of a NUAC Company carrying out the service provision in a common functional airspace block above 28.500 ft, and Naviair taking over the Air Navigation Services in the lower airspace of southern Sweden, but otherwise LFV/ANS and Naviair will remain as independent organisations.

The NUAC/SKAANE Scenario is a combination of the two previous projects: Nordic UAC and SKAANE:

- Nordic UAC was a project initiated by the four Nordic states to establish one common Nordic upper area control centre. The aim was to “increase capacity

[71] For detailed information, refer to Appendix 9

and flexibility while maintaining/increasing safety, ensuring cost-effectiveness and respecting the environment" [72].

- SKAANE project was initiated by Sweden and Denmark to "investigate the possibilities from Naviair to take over the service provision for approach function to Sturup Airport. This includes the traffic flows in the lower airspace in the southern part of Sweden connected to the approach control functions" [73].

The most important aspects of the new company in NUAC/SKAANE Scenario are:

- The NUAC Company includes some limited operational support activities, whereas core operational activities and administrative support will remain within LFV/ANS and Naviair
- Ownership of the NUAC Company will be split evenly between participating states (50/50 initially for Denmark and Sweden)
- LFV/ANS and Naviair must remain designated; LFV/ANS and Naviair and NUAC must be certified.

6.4.1 *Business Case*

This section contains the Business Case for the NUAC/SKAANE Scenario, hence the financial and non-financial benefits related to implementation of the Scenario.

As previously stated, the NUAC/SKAANE Scenario is fully based on implementation of the two original projects – Nordic UAC and SKAANE project[74]. The initiatives analysed in this Scenario therefore only take into account the financial and non-financial costs and benefits stated in the original projects.

6.4.1.1 Assumptions

- The NUAC/SKAANE Scenario is based fully on implementation of the two original projects – Nordic UAC and SKAANE project
- Original cost and benefit estimates from the Nordic UAC project and the SKAANE project have been projected to 2006 present value with an annual inflation rate of 2%
- Similarly, the time periods for which costs and benefits have been established are 2001 to 2020 (Nordic UAC) and 2003 to 2025 (SKAANE) in the original projects, but have been adjusted to 2006 to 2020 in this content
- NUAC will handle area control services above flight level 28.500 ft for both Danish and Swedish airspace in Malmoe, and Naviair will handle approach and low area control services for the SKAANE area in Copenhagen
- The original Nordic UAC and SKAANE project did not include staffing, systems etc. related to the Stockholm central and local control centrals in Sweden, and as a result, these are assumed to remain unchanged in the NUAC/SKAANE Scenario
- Tower services and infrastructure ownership remain as currently within LFV/ANS and Naviair

[72] Source: "Nordic UAC NUAC Project Phase 1 Report", LFV/ANS, Naviair, Finavia and Avinor, 2002.
[73] Source: "SKAANE Project, Feasibility Phase, Final Report"; LFV/ANS and Naviair, 2004.
[74] See reports from the original projects: NUAC Project Phase 1 Report, and SKAANE Project Feasibility Phase Final Report January 2004.

- To a large extent, support and administrative functions will remain in LFV/ANS and Naviair
- LFV/ANS and Naviair will remain designated, and as a consequence Naviair, LFV/ANS and NUAC will be certified
- Results from the original Nordic UAC and SKAANE project are used to calculate the number of FTE savings for the initiatives (specifically the number of reductions in the number of air traffic controllers (ATCO) is based on the original SKAANE project and results in a saving of 20 FTE).

6.4.1.2 Financial Impact

The net present value of the initiatives in the NUAC/SKAANE Scenario in the period 2006 through 2020 is -€18,0 million, hence the Scenario shows a negative result, due to the fact that additional administrative and management staff is needed in the NUAC/SKAANE Scenario compared to the current state.

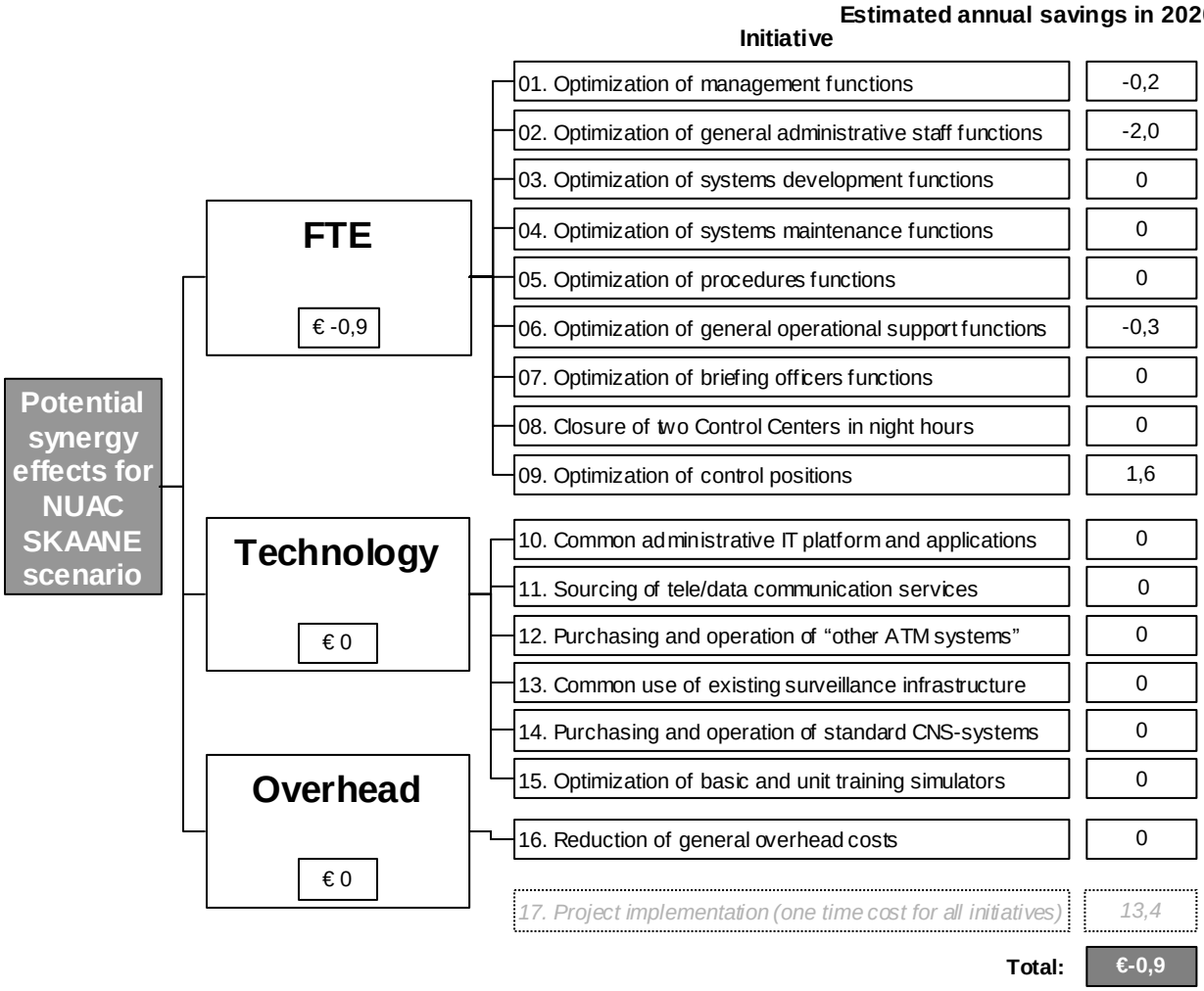
Figure 55 Financial results for NUAC/SKAANE Scenario

	NPV	IRR	Payback time
NUAC/SKAANE	-€18,0 million	–	–

An estimation of the annual saving potentials in the NUAC/SKAANE Scenario in 2020 reveals that Optimisation of staff functions (“FTE”) will have a negative impact of -€0,9 million. No costs or cost savings related to systems and technology (“Technology”) as defined by the initiatives identified in this project are considered in the original projects. Finally, no reduction of general overhead costs (“Overhead”) was estimated in the original Nordic UAC and SKAANE projects[75], as shown in Figure 56.

[75] Based on the original projects: NUAC Project Phase 1 Report, and SKAANE Project Feasibility Phase Final Report January 2004.

Figure 56 Estimated annual savings in 2020 (million Euros) in NUAC/SKAANE Scenario



All financial cost savings in the NUAC/SKAANE Scenario are derived from reductions in air traffic control personnel (ATCO). The total cost savings related to reduction of ATCOs are approx. €1,6 million annually. On the contrary, the annual payroll costs related to the additional management and administrative staff are approx. – €2,5 million, as shown in Figure 56.

Implementation costs related to the NUAC/SKAANE Scenario are estimated to €4,5 million annually for the years 2007-2009.

Altogether, the annual costs are estimated to -€0,9 million, not including one-time costs and savings. These results rest solely on the results identified in the original Nordic UAC and SKAANE projects.

6.4.1.2.1 Effects related to Realisation of FTE Initiatives

Realisation of the cost savings in the FTE initiatives implies a reduction of current operational staff in NUAC/SKAANE Scenario with 20 FTE, whereas an additional staff of management and administration of 39 FTE is required.[76, 77]

Figure 57 Total FTE reductions and natural attrition and staff turnover in NUAC/SKAANE

	Baseline			Implication				Staff turnover and Natural attrition
	Naviair	LFV/ANS	Total	NUAC Company	Outsourcing	Remaining	Reduction	
Initiative 1	5	7	12	2			-2	
Initiative 2	97	95	192	31			-31	
Initiative 3	57	22	79					
Initiative 4	85	75	160					
Initiative 5	21	77	98					
Initiative 6	13	15	28	6			-6	
Initiative 7	12	31	43					
Initiative 8	9	19	28					
Initiative 9	193	380	573				20	
	492	**721**	**1213**	39			-19	253

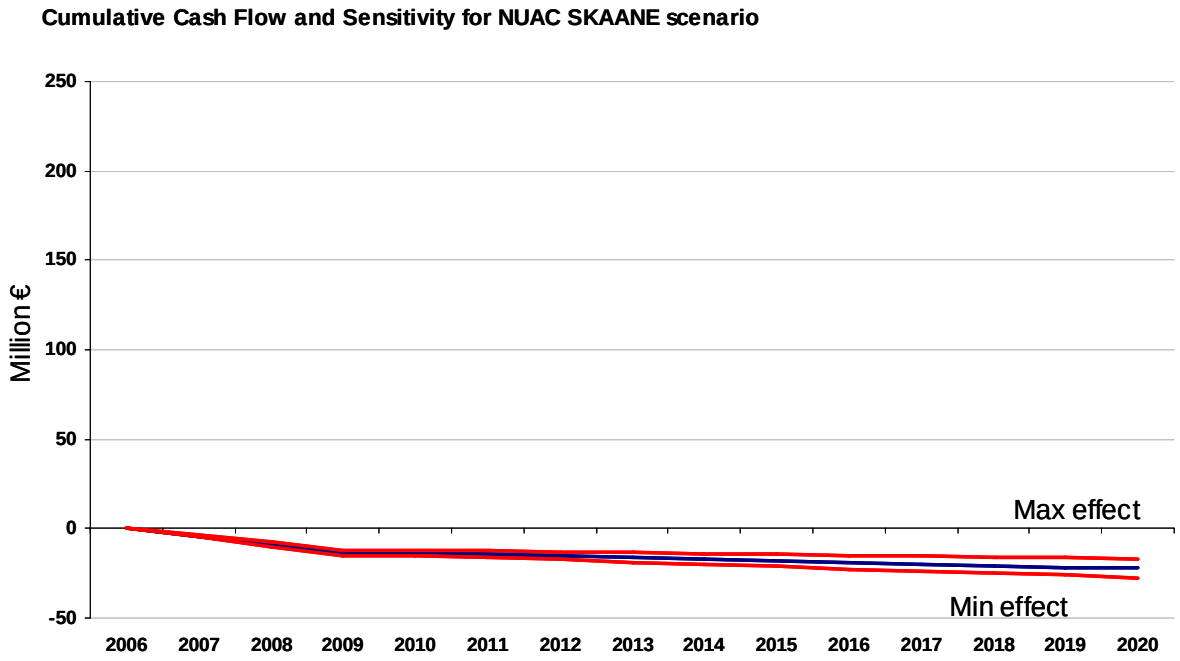
6.4.1.3 Cash Flow Summary

The analysis of the NUAC/SKAANE Scenario does not reveal a break-even, as shown in Figure 58, since the Scenario shows a negative result. This is based on the fact that implementation costs and additional payroll costs outweigh the savings in payroll costs occurring from 2011, as described in the previous section.

[76] See “Appendix 1: Business Case” for details related to assumptions for distribution of age and staff turnover.

[77] As previously stated, the level of which the total FTE reductions may be reduced through natural attrition and general staff turnover is subject to some uncertainty due to the fact that detailed analyses on individual FTE level need to be conducted, i.e. specific staff groups must be investigated in the next phase of the project in order to determine the functions and exact number of reductions.

Figure 58 Cumulative cash flow for NUAC/SKAANE (million euro)



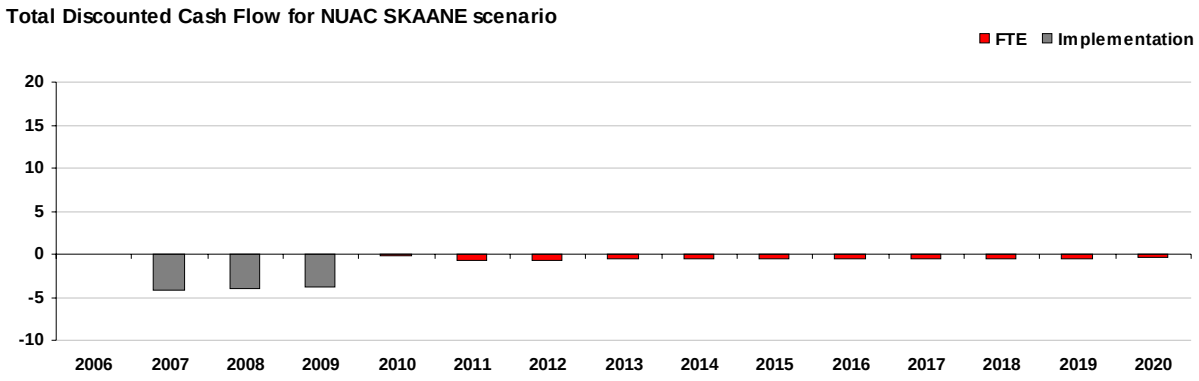
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Max effect	0	-4,1	-8,2	-12,3	-12,5	-13,1	-13,6	-14,1	-14,7	-15,2	-15,7	-16,2	-16,8	-17,3	-17,8
Likely effect	0	-4,4	-8,9	-13,3	-13,5	-14,4	-15,3	-16,2	-17,0	-17,9	-18,8	-19,7	-20,6	-21,5	-22,4
Min effect	0	-4,9	-9,8	-14,7	-14,9	-16,1	-7,3	-18,5	-19,7	-20,8	-22,0	-23,2	-24,4	-25,6	-26,8

The cash flow is negative due to the high implementation costs (from the original SKAANE project), and the fact that savings in FTE related to ATCO personnel occurring in 2011 are outweighed by the payroll costs for the additional required administrative staff in NUAC (the staff requirement for NUAC have been adjusted to reflect the fact that Norway and Finland, which were included in the original Nordic UAC-project, is out of scope in this project).

In addition, no savings related to investments and operating costs of systems have been identified.

As indicated in Figure 59, the annually discounted cash flow remains negative throughout the analysis period from 2006 to 2020.

Figure 59 Discounted cash flow for NUAC/SKAANE Scenario (million Euros)



Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
€ Mil.	0,00	-4,25	-4,05	-3,86	-0,17	-0,70	-0,66	-0,63	-0,60	-0,57	-0,54	-0,52	-0,49	-0,47	-0,45

6.4.1.4 Non-Financial Benefits

Previous sections have mainly focused on financial benefits, but implementation of the NUAC/SKAANE Scenario will also result in a number of significant non-financial and qualitative benefits. A number of non-financial and qualitative benefits related to e.g. flight safety, flight efficiency etc. influence the political Air Traffic Management (ATM) environment etc. and should therefore be taken into consideration.

This section describes some of the non-financial and qualitative benefits, which are expected as a result of the implementation of the NUAC/SKAANE Scenario. The non-financial and qualitative benefits are divided into internal and external benefits for the NUAC/SKAANE Scenario[78, 79].

6.4.1.5 Internal Non-Financial and Qualitative Benefits

LFV/ANS and Naviair's Operational Flexibility

- The NUAC/SKAANE Scenario will only increase the operational flexibility in the functional areas that are handled centrally in the NUAC Company.

[78] Source: Appendix 11 Nordic UAC Input to NUAC Business Case ver. 01.00.pdf, and SKAANE Project Feasibility Phase Final Report January 2004.
[79] See chapter 7 "Socio-economics", for further details related to external benefits and socio-economics.

Alignment of Business Model

- The Business Model established for NUAC/SKAANE ensures a medium degree of alignment and coherence between the Business Model and the strategic drivers.

Strategic Readiness

- The lack of a common support organisation, combined with a moderate level of operational flexibility and alignment of Business Model, leads to a low level of strategic readiness in the NUAC/SKAANE Scenario compared to the Merger and Alliance Scenarios.

Attraction and Bargaining Power

- The size of the airspace in the NUAC/SKAANE Scenario offers commercial bargaining power in relation to customers, suppliers as well as alliance partners, but is limited due to the new NUAC Company being established.

6.4.1.6 External Non-Financial and Qualitative Benefits

Flight Safety

- Some improvements in safety through the harmonisation of rules, procedures and commonly used practices
- Less operational conflicts due to less complexity in a common airspace with procedures adapted to the traffic flow
- A common set of rules and procedures handling all traffic will reduce the number of handovers between controllers in different centres
- One common approach unit in the Oresund region with a common set of rules and procedures handling all traffic for Sturup, Roskilde and Kastrup will result in a higher degree of standardisation and harmonisation and reduce the number of handovers between controllers in different centres.

Flight Efficiency

- High level of optimised flight efficiency due to optimum airspace configuration with regards to time and distance, hence optimal departure and arrival profiles and use of direct routing
- By enabling better predictability in airline operation
- By enabling a more flexible use/better knowledge of segregated airspace
- Arrivals and departure routes in SKAANE area will be improved.

Capacity Improvement

- Through promoting optimisation of airspace structures at a regional level
- By creating a basis for a more coherent and optimised route network
- Through the improved operational environment for coordination
- Quicker release and hand-over of military/civilian airspace provided by interoperable systems and common rules and procedures.

Customer Orientation

- A NUAC/SKAANE Scenario can reduce required customer interaction due to establishment of a common area control service flight level above 28.500 ft, combined with one approach and low area control service for the SKAANE area in Copenhagen.

Socio-Economics

- The establishment of a single cross-border multinational provider of Air Navigation Services in the upper airspace is in line with the political desire to establish a more suitable air transport system as stated in the Danish and Swedish vision – i.e. “Dansk Luftfart 2015 – muligheder og udfordringer” and “Moderna transporter - transportpolitisk proposition 2006”
- A single cross-border provider is in accordance with the Single European Sky legislation, which aims towards establishing a common airspace
- More direct flight paths given shorter flying times and thus lower fuel consumption.

Environment

- Optimised profiles for entering and leaving airspace result in improved environment through more direct flights, less fuel consumption and thus less emission of CO2, SO2 and NOX
- Outside economics and emissions the total amount of noise imposed upon society by aircrafts will be reduced through shorter flight time/distance.

6.4.2 *Business Model*

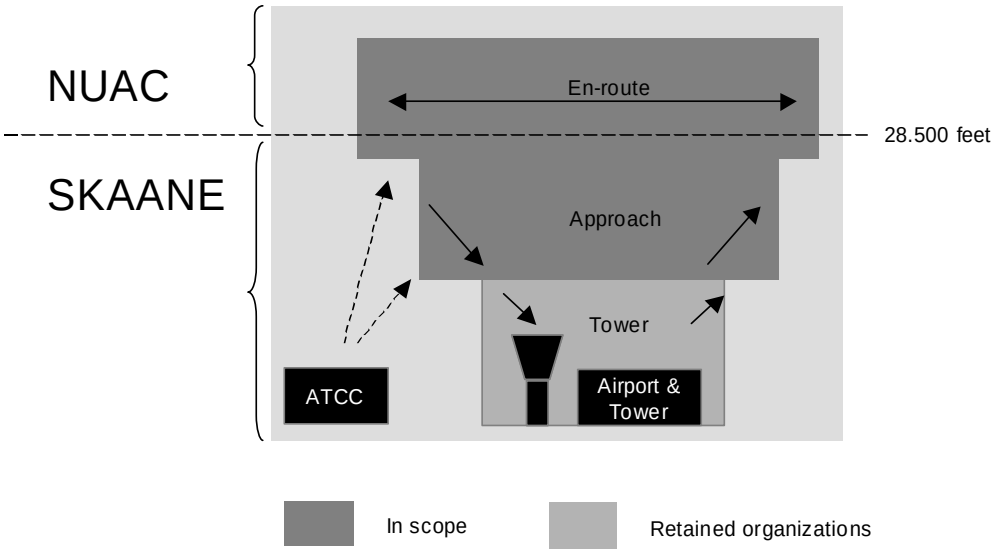
This section is split into seven sections. First, a summary of the section is presented. Second, a description of which products and services the NUAC Company will produce. Third, the processes connected to NUAC are presented. Fourth, the major sourcing initiatives relevant for this Scenario are presented. Fifth, the future NUAC organisation is presented. Sixth, the ownership structure and legal entity are presented. Seventh, a discussion regarding the retained organisations in LFV/ANS and Naviair is presented.

6.4.2.1 Products and Services

In the NUAC/SKAANE Scenario, the NUAC Company is expected to be certified to supply approach services for some of the Swedish airspace and en-route services in the Swedish and Danish airspace above 28.500 feet.

Furthermore, NUAC will provide flight information services and air traffic flow management.

Figure 60 Products and services – NUAC/SKAANE[80]



6.4.2.1.1 Customers

The customers are defined as direct users of the services provided by the business. The customers are:

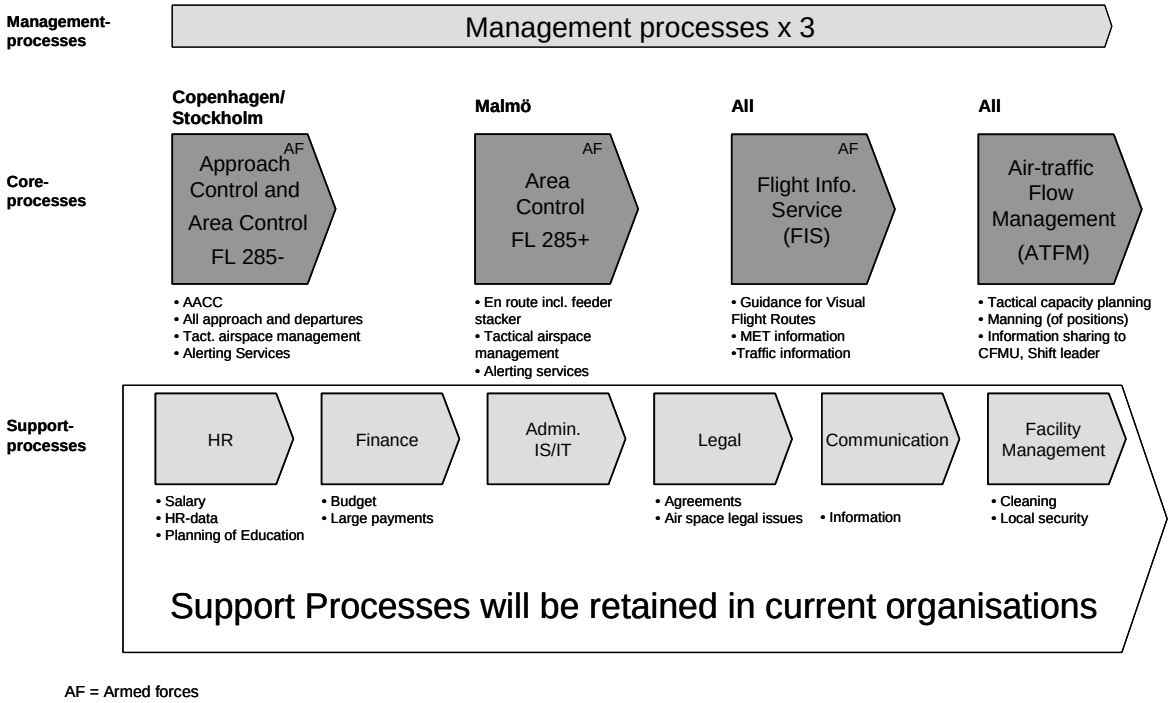
- Airlines
- Armed forces
- Other airspace users
- Airports

6.4.2.2 Processes

The NUAC/SKAANE Scenario will not have a predefined full process framework, as it is designed to be a lean operative company. The existing process maps in LFV/ANS and Naviair will remain unchanged. NUAC/SKAAANE will use the defined processes in LFV/ANS for both operation and support. Below, in figure 61, a process map is presented.

[80] Malmö Sturup tower was in scope in the SKAANE project.

Figure 61 Process map – NUAC/SKAANE



AF = Armed forces

The management processes within LFV/ANS and Naviair will be retained, and a new set of management processes will be established in NUAC/SKAANE, showed in the process map as management processes x 3.

Regarding the core processes, some changes will be implemented. Malmoe ACC will take over the Area control service provision for the airspace above 28.500 feet. The Stockholm and Copenhagen ACC's will manage the Approach- and Area control service provision for the airspace below 28.500 feet[81]. FIS and ATFM will not be affected by the NUAC/SKAANE project.

The support processes will be outsourced to LFV/ANS and Naviair

6.4.2.3 Sourcing

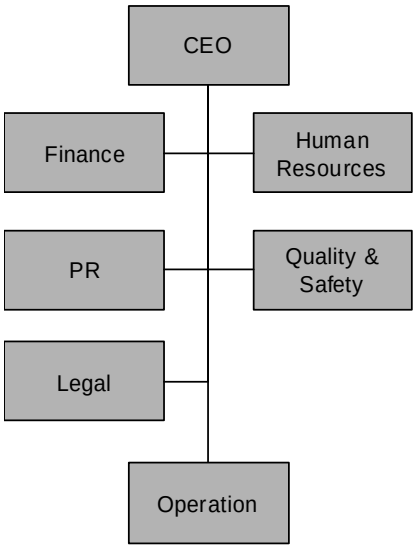
The NUAC/SKAANE Scenario is dependant on out-sourcing solutions. In fact, the NUAC/SKAANE Scenario is a production company with only minimal administrative and operative support, which will be purchased from LFV/ANS and Naviair.

6.4.2.4 Organisation

The organisation of NUAC/SKAANE will have a management group as presented in figure 62.

[81] There are additional locations (towers) in Sweden and Denmark currently delivering Approach Control. These locations will not be affected by the NUAC/SKAANE Scenario.

Figure 62 Organisation – NUAC/SKAANE



The CEO is legally responsible for the business and all activities within the organisation. To a large extent, the areas of responsibility of the CEO are shown by the design of the organisation and the management group:

- Financial responsibility (CFO)
- Employer responsibility (HR- Director)
- Quality and safety responsibility (Q&A Director)
- Legal responsibility (Legal Director)
- Public relations responsibility (PR Director)
- Operational responsibility (Operations Director)

Finance
The CFO will be responsible for accounting, budgeting, and financial planning

Human Resources (HR)
The HR Director will be responsible for salary, personnel development, travel, recruiting

Legal
The Legal Director will be responsible for all legal advisory services

Quality & Safety
The Quality & Safety Director will be responsible for all quality systems, certificates, legal, security, and safety

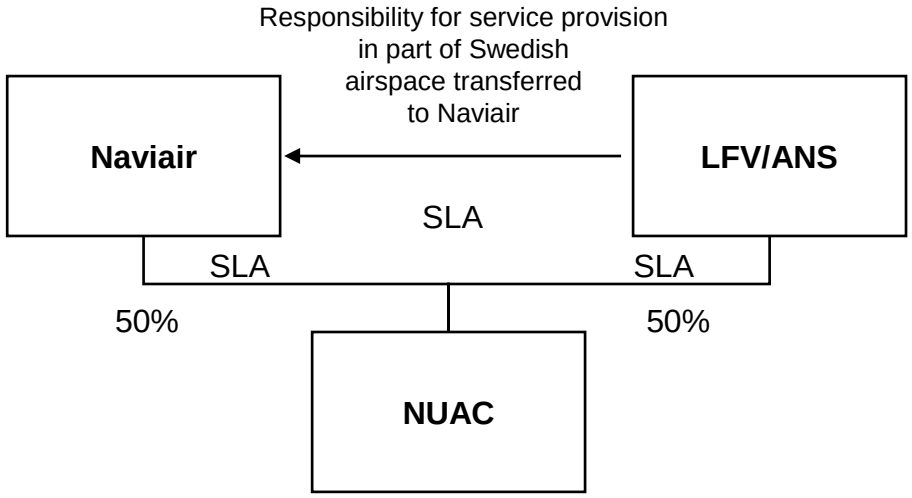
Public Relations
Public relations and internal information

Operations
The Operations Director will be responsible for FDO, operational supervisors, ATC, students, conversion controllers (ATCOs trained to manage new systems), controllers.

6.4.2.5 Ownership and Legal Entity

The business will be organised in a Swedish limited entity “NUAC AB”, owned mutually by Naviair (50%) and LFV/ANS (50%) as shown in Figure 63 below.

Figure 63 Ownership structure – NUAC AB



New Entrants

The NUAC part of NUAC/SKAANE was originally cooperation between four ANSPs within the Nordic region. New entrants were therefore to join NUAC by buying equity in the established company. In terms of attractiveness towards new entrants the combined NUAC/SKAANE Scenario is assessed as potentially being less attractive than the comparable Merger and Alliance Scenario since the cooperation will have to be governed by a set of service level agreements that over time may be perceived as being more bureaucratic than an ownership structure governed by equity. In addition only parts of the operating and support processes are affected which in terms of benefits yield significantly lower (or no) benefits.

The ownership structure will be subject to change as soon as a new national ASP will be introduced to NUAC. The result of that is subject to separate negotiations and will not be analysed further in this report.

6.4.2.6 Retained Organisations

The effects on the retained organisations will be minor in the NUAC/SKAANE Scenario. In essence, Naviair will have a number of Swedish ATCOs working in Copenhagen, and LFV/ANS will have a number of Danish ATCOs working in Malmoe. The products and services produced in the Copenhagen ATCC will be for air traffic below 28.500 ft and in the Malmoe ATCC above 28.500 ft.

6.4.3 *Integration Strategy*

This section will describe the integration for the implementation of the NUAC/SKAANE Scenario. It presents integration principles and approach, milestones, roadmap and associated integration risks and complexity.

6.4.3.1 Principles and Approach

The objective of the Integration Strategy for the NUAC/SKAANE Scenario is to point out the direction for how to realise non-financial benefits outlined in the Business Case and to ensure transformation to the designed NUAC/SKAANE Business Model described earlier – simultaneously, minimising risks and maximising effects for the strategic rationales.

The implementation of the NUAC/SKAANE Scenario is comparable to the Merger Scenario implementation. In both Scenarios, the operational areas are widely impacted. As these are the most complex functions in ATM organisations, integration will likewise be challenging.

In addition, in the NUAC/SKAANE Scenario the Service Level Agreement (SLA) agreements between NUAC/SKAANE, LFV/ANS and Naviair will be complex to design and manage. Therefore, the initial "*concepts, solutions & preparation*" phase must be well prepared, and the following "*transition*" phase will last approximately 2-2½ years as all operational processes and functions must be aligned (ATM core business functions). A key principle is to align operational processes and concepts before the establishment of the new NUAC Company on approximately January 2008.

Key elements of the integration work streams[82] in this Scenario:

- Pre-requisite work stream (limited scope focusing on operational processes – political process, validation of Business Case & model, preparing for separation of new Business Model, and governance and concepts alignment)
- Benefits delivery areas (limited scope focusing on operational processes – process alignment & optimisation, SLA agreements between the three legal entities and benefit realisation).
- Direction and support (limited scope focusing on operational processes – integration management, benefit, stakeholder and risk management, communication and detailed HR (retrenchment) plan.

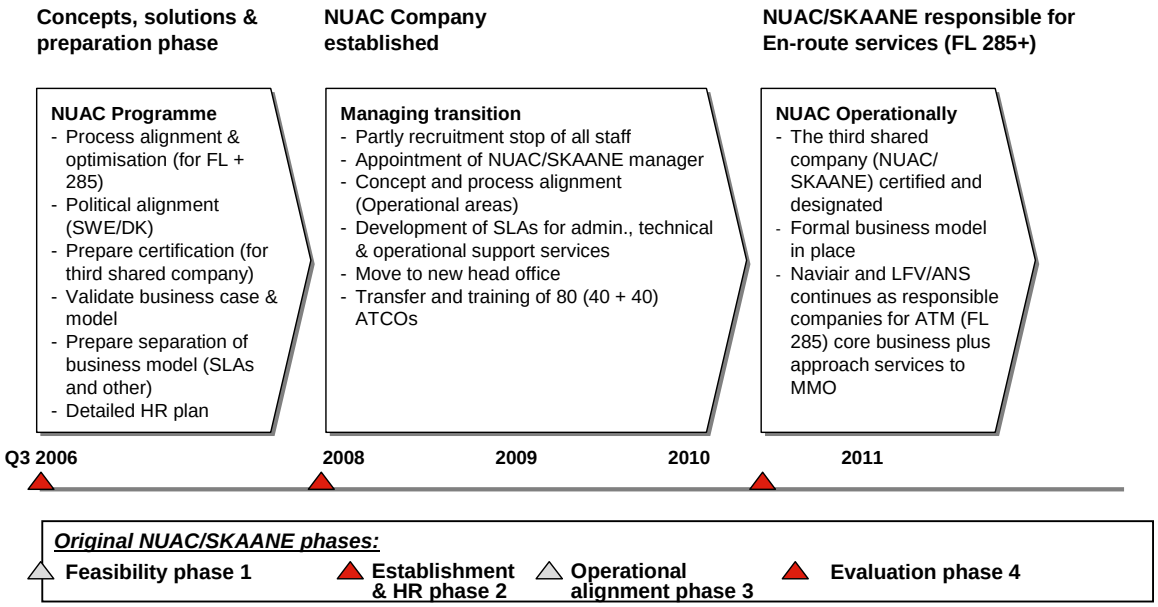
The transition phase will start with the establishment of the NUAC subsidiary company and appointment of the new NUAC Senior Manager. During transition, approximately 80 ATCOs will be transferred between the three legal entities. This should ensure the expected benefit realisation from managing area control services for Flight level above 28.500 ft from Malmoe, and from managing the remaining airspace blocks somewhat differently from today.

6.4.3.2 Milestones and Roadmap for NUAC/SKAANE Implementation

Below is the roadmap for the implementation of the NUAC/SKAANE Scenario:

[82] See "Appendix 6: Integration Strategy" for a detailed integration work breakdown structure.

Figure 64 Roadmap for NUAC/SKAANE Scenario[83]



Key milestones:

- ***July 2006*** – Naviair takes over Tower in Sturup
- ***December 2007*** – DATMAS (Danish ATM core IT system for ensuring optimal provision of ANS) implemented
- ***January 2008*** – NUAC company established
- ***July 2008*** NUAC manager appointed
- ***2007-2009*** – NUAC/SKAANE set-up: concepts, solutions, process alignment.
- ***January 2009*** – Physical move (set-up) to new head office (or design of internal location in Naviair and/or LFV/ANS)
- ***2010*** – SLAs for administrative, technical and operational support services in place[84]
- ***January 2010*** – Applications for certification completed
- ***June 2010*** – National decisions on designations
- ***2010*** NUAC/SKAANE fully operational (the third shared company certified)

6.4.3.3 Key Integration Risks and Complexity – NUAC/SKAANE

The risk of temporary decrease in motivation and productivity among the personnel will be minimised when further working condition can be communicated. Physical belonging and other working conditions, is estimated to moderate in the NUAC/SKAANE Scenario. The integration time span is the second longest after the Merger Scenario implementation, and mainly operational functions will be part of the process of increasing cooperation. The NUAC/SKAANE Scenario recommends that approximately 80 ATCOs be transferred between the three legal entities.

[83] This updated roadmap remains loyal to the former thoughts and ideas from the NUAC and SKAANE projects, but the time period has been projected to reflect the implementation of the NUAC/SKAANE Scenario.
[84] Support functions/services will be maintained in the original LFV/ANS and Naviair companies.

NUAC/SKAANE Scenario – Detailed Risk and Complexity Description
Business Model implementation: The organising of the NUAC/SKAANE subsidiary company will create a complex governance structure. The NUAC/SKAANE manager will have to cooperate and agree several actions and decisions with national companies in LFV/ANS and Naviair through SLA agreements.

Operational: Transfer of 40 ATCOs from Copenhagen to Malmoe, and vice versa may prove complex due to new/increased operational responsibilities and procedures, licensing, training/competence issues and motivation. Therefore Operational processes need to be aligned early, role clarity, training and competence development established for the 80.

Business Model governance: A new service provider will be established spreading forces rather than aligning and consolidating the Nordic ATM companies. The NUAC/SKAANE subsidiary company will result in only partly harmonisation of LFV/ANS and Naviair's current organisations, and in increased overhead costs and increased complexity due to the three management teams.

Psycho-social working environment and retention of key employees (HR issues) – limited mainly to the operative personnel: The new organisation may lead to higher pressure during the transition period. Management needs to pay great attention to ensure highest motivation in this period.

6.4.4 *HR Aspects and Social Dialogue*

The specific parts of the analysis of the HR Aspects for the NUAC/SKAANE Scenario will be presented here. Parts that are shared by all three Scenarios are covered in Chapter 5. For full reports, please refer to Appendix 9.

6.4.4.1 Personalejuridiske forhold i Danmark og Naviair

6.4.4.1.1 Virksomhedsoverdragelsesloven

Da der sker overdragelse af aktiviteter og medarbejdere til NUAC AB, lægges det til grund, at der som udgangspunkt er tale om en virksomhedsoverdragelse omfattet af virksomhedsoverdragelseslovens regler. Det understreges dog, at den endelige vurdering heraf vil være afhængig af, hvorledes den endelige overdragelse struktureres og gennemføres.

6.4.4.1.2 Geografisk flytning af medarbejderes arbejdssted

Dette Scenario indebærer potentielt flytning af medarbejderes arbejdssted fra alle medarbejdergrupper såvel internt i Danmark som fra Danmark til Sverige.

Det spørgsmål, der skal besvares i denne sammenhæng er, om Naviair vil kunne pålægge sine medarbejdere at skifte arbejdsplads internt i Danmark og fra København til Malmø.

I HR-arbejdsgruppens rapport om personalemæssige forhold version 2.0 af 26. januar 2006, er der p. 21, angivet, at en medarbejder, der skal arbejde i Sverige og som samtidig vælger at bevare sin hidtidige bopæl, i værste fald får ca. 55 km længere til

arbejde (afstanden mellem Naviair (København) og Malmoe Sturup Airport). Medarbejderen skal betale broafgift DKK 2.525 pr. måned (50 enkeltrejser).

For mere information se Appendix 9 om aftale om tjenesterejser.

6.4.4.1.2.1 Funktionærer

Stillingtagen til en geografisk flytning af medarbejdere internt i Danmark, vil afhænge af, om ændringen betragtes som væsentlig. Dette vil afhænge af en række forhold, herunder forlængelse af afstand til arbejdspladsen, øget transporttid, øgede transportomkostninger og evt. særlige ulemper for den enkelte medarbejder. For en illustration af gældende ret, se dommene i Appendix 9.

Da det ikke på nuværende tidspunkt er oplyst, hvortil en flytning i Danmark vil ske, kan denne problemstilling ikke behandles yderligere på nuværende tidspunkt.

I relation til flytning af de danske medarbejderes arbejdssted til Sverige, må det med udgangspunkt i de generelle bemærkninger om ændring af ansættelsesvilkår for funktionæransatte (jævnfør Appendix 9) lægges til grund, at en ændring af arbejdsstedet fra København til Malmoe vil være en væsentlig ændring, der skal varsles med funktionærernes individuelle opsigelsesvarsler og som medarbejderne ikke er forpligtet til at acceptere. Ved denne vurdering er der lagt vægt på:

- at den geografiske afstand forøges med op til 55 km eller i alt 110 km dagligt til og fra arbejde,
- at transportomkostningerne forøges væsentligt,
- at medarbejdernes skattemæssige og sociale sikring kan ændres samt
- at de kollektive overenskomster ikke finder anvendelse i udlandet.

Ønskes ændringen gennemført, skal den som nævnt varsles og de medarbejdere, der afslår ændringen kan opsiges af Naviair med dertil knyttede rettigheder eller der må kompenseres med kortere arbejdstid og/eller delvis dækning af transportomkostningerne.

For de medarbejdere der accepterer varslingen, skal der tages stilling til en række forhold:

- Hvis flytningen af medarbejdere sker i forbindelse med overførslen af aktiviteterne til NUAC AB finder virksomhedsoverdragelsesloven anvendelse og fastslår, at medarbejderne bevarer deres rettigheder over for erhververen.
- De kollektive overenskomster, som eventuelt har fundet anvendelse på medarbejderne i Danmark, finder ikke anvendelse i udlandet, og erhververen kan i øvrigt have frasagt sig de kollektive overenskomster i medfør af Virksomhedsoverdragelseslovens § 4a.
- Der eksisterer væsentlige forskelle mellem ansættelsesvilkårene for de danske medarbejdere sammenlignet med de svenske medarbejdere i tilsvarende stillinger. Det er ikke hensigtsmæssigt på langt sigt at have forskellige ansættelsesvilkår.
- Naviair bør så tidligt som muligt forhandle med henholdsvis de danske og de svenske fagforeninger om de fremtidige ansættelsesvilkår for de overførte

medarbejdere. Der kan blive tale om at forhandle evt. overgangsordninger på plads.

6.4.4.1.2.2 Tjenestemænd

Der henvises generelt til Appendix 9 om ændring af ansættelsesvilkårene for tjenestemænd. Forbliver tjenestemændene ansat i Naviair, vil afgørelsen af, hvor vidt tjenestemændene er forpligtet til at tåle en sådan flytning, i henhold til tjenestemandslovens § 12, stk. 1, afhænge af, om der sker ændring af tjenestens karakter, og om stillingen fortsat kan anses for passende for tjenestemanden.

Retspraksis har vist, at tjenestemændene i vidt omfang skal underkaste sig de forandringer, der måtte blive bestemt. Der er således eksempler på, at tjenestemænd har måttet acceptere, at arbejdstiden er blevet forlænget samt at tjenestestedet er blevet flyttet. For en illustration af gældende ret, se dommene i Appendix 9.

Hvorvidt en intern flytning af tjenestemændenes arbejdssted i Danmark, skal accepteres af tjenestemændene, kan der først tages stilling hertil, når det nye tjenestested kendes.

Ved en flytning af tjenestemændenes arbejdssted fra Danmark til Sverige, vil der antageligvis være tale om ansættelse i NUAC AB. Ansættelsesområdet for tjenestemændene i Naviair er Transport- og Energiministeriet med tilhørende institutioner og styrelser, og det nyoprettede NUAC AB vil være ejet af Naviair med 50 % og af LFV/ANS med 50 % og vil derfor ikke kunne anses for en del af Transport- og Energiministeriet. Allerede fordi der er tale om en ændring, der ligger udenfor tjenestemændenes hidtidige ansættelsesområde, kan den ikke gennemføres tvangsmæssigt.

Selvom tjenestemændene forbliver ansat i Naviair, vil man i henhold til tjenestemandslovens § 12, stk. 1, nå frem til, at selvom tjenesten efter sin karakter svarer til den hidtidige stilling, må det lægges til grund, at en sådan stillingsændring ikke er ”passende” for tjenestemændene og at de derfor ikke er forpligtede til at acceptere den. Der lægges herved primært vægt på, at der bliver tale om ændring af tjenestested (med 55 km, dvs. 110 km dagligt), øgede transportudgifter, evt. ændrede skatteforhold og social sikring for flyvelederne og at reglerne i den danske tjenestemandslovgivning ikke omfatter arbejde udført i Sverige.

Et pålæg til tjenestemændene om at overgå til det nyoprettede NUAC AB med tjenestested i Malmoe vil være så væsentlig en ændring af tjenestemændenes hidtidige ansættelse, at der ikke blot tales om forflyttelse, men om nedlæggelse af stillingen. Dette betyder, at tjenestemændene vil være berettiget til rådighedsløn i 3 år og pension, medmindre de tilbydes anden passende ansættelse i Staten.

6.4.4.1.3 Nedlæggelse af stillinger/afskedigelser

Der forventes ikke omfattende afskedigelser i dette scenario, men det kan ikke afvises at det potentiellt kan blive tale om nedlæggelse af stillinger/afskedigelser for alle medarbejdergrupper.

Hvis der opstår overtallighed i NUAC AB, vil det som udgangspunkt være det nye selskab som arbejdsgiver, der skal forestå de nødvendige afskedigelser. Der kan

indgås aftaler om, at LFV/ANS og Naviair skal friholde NUAC AB for udgifter i forbindelse hermed. Vilkårene for disse opsigelser afhænger af, om de medarbejdere, der skal afskediges er omfattet af dansk ret eller svensk ret og i øvrigt af, hvilke vilkår de er ansat på. Dette er ukendt.

Opstår der overtallighed i Naviair, afvikles overtaligheden såvidt muligt i form af naturlig afgang eller ved frivillige ordninger. I tilfelde af avskedigelser sker disse ude fra de regler da gelder om opsigelse af disse medarbejdere. Der henvises til Appendix 9.

6.4.4.1.4 Flytning af medarbejdere til anden juridisk enhed

Der kan potentielt blive tale om flytning af medarbejdere fra alle medarbejdergrupper til anden juridisk enhed.

6.4.4.1.4.1 Funktionærer

En virksomhedsoverdragelse kan ikke i sig selv påberåbes af funktionærerne som en væsentlig ændring af ansættelsesvilkårene. Kun hvis der sker andre væsentlige ændringer i ansættelsesvilkårene som f.eks. ændring af arbejdssted, væsentligt ændrede arbejdsopgaver eller overgang til en mindre solvent arbejdsgiver, vil dette kunne påberåbes af funktionæren som en væsentlig ændring af ansættelsesvilkårene.

I nærværende tilfælde overgår funktionærerne fra at være ansat under Transport- og Energiministeriet til at være ansat af et af Naviair og LFV/ANS i lige forhold ejet svensk aktieselskab. Dette kan ikke i sig selv påberåbes som en væsentlig ændring af ansættelsesvilkårene. Da ændringen imidlertid har en række mulige følgevirkninger, såsom ændring af arbejdssted, bortfald af de kollektive overenskomster ved arbejde i Sverige, ændrede skattevilkår og social sikring for medarbejderne ved arbejde i Sverige, kan disse forhold føre til, at ansættelse i NUAC AB indebærer væsentlige ændringer i ansættelsesvilkårene for medarbejderne med den konsekvens, at medarbejderne ikke er forpligtede til at acceptere ændringerne, men kan betragte sig som opsagt med deraf følgende rettigheder.

6.4.4.1.4.2 Tjenestemænd

Ansættelsesområdet for tjenestemændene i Naviair er Transport- og Energiministeriet med tilhørende institutioner og styrelser. Det nyoprettede NUAC AB vil være ejet af Naviair og LFV/ANS og vil derfor ikke kunne anses for en del af Transport- og Energiministeriet. Efter gældende praksis kan overførsel af tjenestemænd i henhold til tjenestemandsloven § 12, stk. 1 og 2, alene ske til statsejede selskaber, såfremt den danske stat ejer mindst 75 % af det pågældende selskab.

Justitsministeriet angiver, at overgangen til ansættelse i et statsligt aktieselskab, hvor staten fortsat står for pensionsforpligtelser mv. skal tåles af tjenestemanden, så længe staten fortsat ejer 75 % af aktiekapitalen, idet der reelt ikke er nogen forskel i ansættelsesvilkårene, idet staten fortsat har den fulde indflydelse. Dette forudsætter, at der ikke samtidig sker andre væsentlige ændringer i ansættelsesvilkårene.

Et pålæg til tjenestemændene om at overgå til det nyoprettede NUAC AB vil være så væsentlig en ændring af tjenestemændenes hidtidige ansættelse, at der ikke kan tales om forflyttelse, men om nedlæggelse af stillingen. Dette betyder, at tjenestemændene

ikke kan tvinges til en sådan ændring, men vil være berettiget til rådighedsløn i 3 år og pension, medmindre de tilbydes anden passende ansættelse.

Der henvises i øvrigt til afsnit 6.4.4.1.2.2 Tjenestemænd ovenfor.

6.4.4.1.4.3 Ikke funktionærer

Der henvises til afsnit 6.4.4.1.4.1 om funktionærer ovenfor.

6.4.4.1.5 Ændring af medarbejdernes arbejdsopgaver

6.4.4.1.5.1 Tjenestemænd

I øvrigt henvises bilag 2 til HR arbejdsgruppens rapport af 26. januar 2006, p. 14:

”I Naviair varetager de enkelte flyveledere lufttrafiktjeneste i såvel det nedre som det øvre luftrum. I NUAC-selskabet skal flyvelederne alene varetage lufttrafiktjeneste i det øvre luftrum. Forskellen i udførelse af lufttrafiktjeneste i det nedre og det øvre luftrum må imidlertid antages at være så begrænset, at denne ændring af arbejdets karakter næppe kan føre til, at stillingsændringen ikke kan anses for passende.”

Da denne vurdering kræver en indsigt i flyveledernes afvikling af deres arbejde i henholdsvis den nedre og det øvre luftrum, som ikke foreligger, er der ikke grundlag for at verificere denne konklusion.

6.4.4.1.6 Øvrige ændringer i ansættelsesvilkår

Det er ikke præciseret, hvilke øvrige ændringer af ansættelsesvilkårene, dette Scenario vil medføre. Det må dog antages, at der ved forflyttelse af medarbejdere fra Danmark til Sverige og vice versa, vil være behov for på sigt at ensrette de forskellige ansættelsesvilkår.

Der henvises i den forbindelse til den udførlige sammenligning af ansættelsesvilkårene, der er gennemført i Rapport af 26. januar 2006 af HR arbejdsgruppen om personalemæssige forhold version 2.0, afsnit 5 (og bilag 5 og 6) for så vidt angår danske og svenske flyveledere. Gruppen fremhæver særligt de store forskelle i reglerne om opsigelse, pension og ferie samt, at de danske flyveledere lønningsmæssigt ligger noget højere end svenskerne.

Det ligger udenfor denne rapport at foretage en sammenligning af ansættelsesvilkårene mellem øvrige personalegrupper.

For mere information se Appendix 9.

6.4.4.2 Arbetsrättsliga aspekter i Sverige och LFV/ANS

6.4.4.2.1 Övergång av verksamhet

Detta Scenario innebär att en del av den svenska verksamheten (bestående av 40 svenska flygledartjänster) skall flytta till Danmark. På motsvarande sätt skall en del av den danska verksamheten (bestående av 40 danska flygledartjänster) flytta till Sverige.

Den första frågan som uppkommer här är huruvida en flytt av 40 flygledartjänster över huvud taget triggar reglerna om övergång av verksamhet. Reglerna om övergång av verksamhet blir tillämpliga för det fall en ”ekonomisk enhet som behåller sin identitet” övergår från ett bolag till ett annat. För att avgöra om det är fråga om en sådan enhet, gör domstolen en helhetsbedömning av verksamheten, särskilt med beaktande av de kriterier som det redogörs för i Appendix 9. Beroende på hur en sådan flytt ”paketeras”, t.ex. om det är fråga om en flytt av en intakt avdelning, kan flytten legalt hamna under reglerna om en ”övergång av (del av) verksamhet”.

Frågan som då i nästa steg uppkommer är huruvida reglerna om övergång av verksamhet gäller även över landgränser. Denna fråga redogörs för i Appendix 9.

6.4.4.2.2 Byte av arbetsort

För de 40 berörda flygledarna aktualiseras en flytt till Danmark, och därigenom uppstår frågan om byte av arbetsort till Danmark.

I respektive anställds anställningsavtal stadgas i vilken ort som den anställde skall arbeta. Fråga uppkommer om LFV/ANS ensidigt kan bestämma att de anställda skall arbeta från annan ort i Danmark, och om så kan ske inom ramen för anställningen. För ytterligare information se Appendix 9.

Ett byte av anställningsort till ett annat land har även privatekonomiska konsekvenser för den anställde. Permanent arbete i Danmark skall enligt huvudregeln beskattas i Danmark. Även sociala förmåner förändras i samband med att arbetet utförs och beskattas i Danmark.

Mot bakgrund av ovan, är vår bedömning att en permanent förflyttning och byte av anställningsort inte kan ske utan samtycke från respektive anställd. Nya anställningsavtal måste således träffas med angivande av den nya arbetsorten.

Emellertid skall noteras att förläggning av arbetet är ett typiskt arbetsgivarbeslut. LFV/ANS kan således (efter samverkansförhandingar) besluta att viss verksamhet från ett visst datum skall utföras från annan ort. För det fall anställda väljer att inte följa med vid en sådan verksamhetsflytt, kan istället en arbetsbristsituation uppkomma (se avsnitt 6.4.4.2.3).

6.4.4.2.3 Neddragning av personalstyrkan

Eventuellt aktualiseras neddragning av personalstyrkan. Övertalighet och därmed arbetsbrist kan även aktualiseras om flygledartjänsterna flyttas men berörda flygledare inte önskar permanent förflyttning till Danmark. Uppsägningar kan då bli nödvändiga.

6.4.4.2.4 Förflyttning av anställda till annan juridisk person

Förflyttning planeras för flygledare. För det fall en viss avdelning skulle förflyttas, klassificeras detta troligen som en ”övergång av del av verksamhet”, vilket innebär en rätt för de anställda att följa med vid verksamhetsövergången (se ovan avsnitt 6.4.4.2.1 Övergång av verksamhet).

6.4.4.2.5 Förändringar av arbetsuppgifter

Vissa mindre förändringar av arbetsuppgifterna kan aktualiseras. Sådana förändringar torde rymmas inom ramen för de anställdas arbetsskyldighet, och kan således ensidigt anvisas av LFV/ANS efter det att frågan tagits upp för samverkan med de avtalsbundna fackliga organisationerna (se Appendix 9).

6.4.4.2.6 Förändring av anställningsvillkor

Vid en övergång av verksamhet har de anställda en principiell rätt att övergå på oförändrade villkor, se ovan avsnitt 6.4.4.2.1 Övergång av verksamhet.

För ytterligare information se Appendix 9.

6.4.4.3 Skat og social sikring

I NUAC/SKAANE-scenariet etableres et svensk registreret AB som operativt driftsselskab, mens den nuværende konstruktion bevares i øvrigt.

Idet det nye selskab vil være repræsenteret i både Sverige og Danmark, bør det overvejes, hvorvidt arbejdets omfang i Danmark medfører et fast driftssted i Danmark. Idet vi forudsætter, at dette vil være situationen, er resultatet, at NUAC/SKAANE-scenariet fra en personskattemæssig synsvinkel kommer til at ligne merger-scenariet.

Det forudsættes i det følgende, at medarbejderne skal udføre arbejdet i det land, hvor deres arbejdsgiver har hjemsted/fast driftssted, samt at der er tale om flytning af arbejdssted for minimum et år. Det forudsættes yderligere, at der som udgangspunkt vil være tale om flytning af medarbejdere, der skal arbejde for det operative driftsselskab (AB)/dets faste driftssted.

For så vidt angår skat og social sikring, vil implementeringen af NUAC/SKAANE-scenariet ikke som udgangspunkt have betydning for medarbejdere, som ikke skifter arbejdsland.

For de to grupper af flyveledere, som helt eller delvist flytter arbejdsland, og som er ansat af et svensk AB eller dette selskabs faste driftssted i Danmark, vil der imidlertid ske ændringer i den skattemæssige situation, samt evt. med hensyn til social sikring. Det komplekse skattemæssige regelsæt i forbindelse med flytning på tværs af Øresund medfører, at det i flere situationer er muligt at vælge forskellige skattemæssige løsninger for medarbejderne. Imidlertid kan lønindkomsten for de 40 svenske flyveledere som flytter arbejdssted till Danmark ikke blive beskattet efter arbejdsudlejebeskatning.

Bliver der i dette Scenario tale om flytning af offentligt ansatte medarbejdere, gælder der særlige regler, se afsnit 5.5.3 Specielle regler for offentligt ansatte.

I afsnit 5.5 Skat og social sikring opsummeres de væsentligste ændringer vedrørende skat og social sikring. For en detaljeret gennemgang af regelsættet med illustrative konsekvensberegninger mv. henvises til Appendix 9, som indeholder to detaljerede baggrundsrapporter om udsendelse af medarbejdere til arbejde i henholdsvis Sverige og Danmark.

6.4.4.4 Working Environment

6.4.4.4.1 Effects on the Psycho-Social Working Environment

The psychosocial working environment is likely to be affected, e.g. demands are likely to increase. One reason for this is increased demands on acquiring new competencies and skills. The employees that are most likely to experience increased demands are the 80 air-traffic controllers that will have their workplaces relocated to the other country.

Furthermore, as the 80 Danish and Swedish air-traffic controllers will move place of work, they will have to learn to cooperate with new colleagues and management, as well as learn a new language and national and corporate culture. Various disagreements are likely to occur and the differences in language and national culture may continue to cause complications for cooperation also in the long term. However, lingual and cultural differences may also offer learning and development opportunities.

Other effects on the psychosocial working environment are caused by predictability being lower, especially for the operative personnel who will have their workplace relocated and their contractual agreements changed. There is also a risk that these air-traffic controllers may experience that it is hard to influence their new organisation at first. Initially, they may also experience lower motivation and a higher stress level as a natural result from change and the potential increase of demands. In addition, they may experience an increased need for personal and professional development as they e.g. may have to learn a new language and culture. In general, all employee groups may experience an increased need for personal and professional development.

Long-term effects on motivation depend on whether the employees consider their new situation as being better or worse than their previous situation. At the same time a potential increase of the development and advancement opportunities may raise the level of motivation.

Finally, personnel moving place of work may experience other routines when it comes to preventive measures regarding the working environment, as it is likely that there are differences between LFV/ANS and Naviair.

6.4.4.4.2 Effects on the Physical and Chemical Working Environment

Air-traffic controllers whose workplace will be moved may experience that the physical and chemical working environment will be different, as it is likely that there are differences between LFV/ANS and Naviair, e.g. regarding the safety and ergonomic conditions, the level of noise, vibrations and lighting, the interior, the indoor climatic conditions and ventilation, and the chemical working environment. However, the working environment acts in Denmark and Sweden are alike, which implies that it is unlikely that the differences will be major. Personnel that remain in their usual organisation are not likely to experience any effects on the physical and chemical working environment.

6.4.4.4.3 Summary of the Effects on Working Environment

The employees who primarily are expected to experience effects on their working environment will be the 80 air-traffic controllers whose workplace will be relocated to

another organisation and country. In the table below the effects on the working environment are summarised:

Figure 65 Summary of the working environment in NUAC/SKAANE

Working environment	NUAC/SKAANE Scenario
Psychosocial working environment	Especially the 80 air-traffic controllers who will have their workplace relocated may experience effects on the psychosocial working environment. The effects result from possibly increased demands, new conditions for the cooperation, changes in the possibilities to predict the future, less possibilities of influence, increased development opportunities, and, especially during the transition period, a possible increased stress level and lower motivation. The individuals' perception of their new situation and their ability to handle several changes at once will most likely decide whether they feel more or less stressed, respectively motivated.
Physical and chemical working environment	Employees whose workplace will be moved may experience some differences.
Conclusion of the effects on the working environment	Effects are likely, especially for the 80 air-traffic controllers whose workplace will be relocated.

For further information, refer to Appendix 9.

6.4.4.5 HR Programmes

6.4.4.5.1 Recruitment

It is important that the new organisation structure in the NUAC/SKAANE Scenario arranges a standardised recruitment process for support and administrative personnel. Recruitment of operational personnel will, however, continuously take place in the Danish and Swedish subsidiary companies, respectively.

A condition for organising a standardised recruitment process for support and administrative personnel will be that a decision is taken on whether Swedish applicants are also to have the same rights/possibilities to an assessor during the employment interview.

The present Swedish legal requirements determine to a great extent the possibilities of action in connection with recruitment of support and administrative personnel. This means it has to be decided how these legal requirements etc are to be handled during the integration phase.

Recruitment procedures regarding operational staff to be reviewed.

6.4.4.5.2 Competence Development

On the whole, the overall competence development processes are identical in both Naviair and LFV/ANS. A possible move of work place in the NUAC/SKAANE Scenario will influence the qualifying education courses existing in the present organisations.

Gathering employees in three resource pools may imply a need for a standardised specific competence development model for this. The choice of the NUAC/SKAANE Scenario will mean that a decision has to be made on whether in the new third company there is to be a common competence development model and whether this competence development model is to contain a similar division of education courses and whether the existing IT system ProCompetence in LFV/ANS is to be used in the entire organisation.

6.4.4.5.3 Performance Management

The NUAC/SKAANE solution for the two entities will as a starting point only demand changes to personnel enrolled in the performance management programme today. However since some of the CEO team and Head of Function level in Naviair are belonging to Administration (the shared functions) hence the need for alignment is still present.

Even more, if the NUAC/SKAANE Scenario is implemented, the shared personnel will continuously need to have shared objectives in order to align the performance policies. As mentioned, the performance policies are linked to the strategic objectives of the entities and unless the underlying methodology of the performance management policies will change, it will still be required to align the strategic objectives and targets determined by the public authorities for the performance management policies to work.

For further information, refer to Appendix 9.

6.5 Alliance Scenario

LFV/ANS and Naviair will, as independent organisations in closer cooperation, establish a co-owned alliance[85] company regarding certain support functions. This will require only minor changes to the operational parts of the two organisations working in a Functional Airspace Block

The most important aspects of the Alliance Scenario:

- The Alliance Company will not include provision of operational Air Navigation Services. All core activities related to operative Air Traffic Management will remain in their current state within LFV/ANS and Naviair
- The Alliance Company will include selected operational support and administrative functions where it is deemed beneficial (improved efficiency and reduced costs) and possible (designation is not needed)
- Ownership of the Alliance Company will be split evenly between participating states (50/50 initially for Denmark and Sweden)
- Certification and designation remains as today, within LFV/ANS and Naviair.

6.5.1 *Business Case*

This section contains the Business Case for the Alliance Scenario, hence the financial and non-financial benefits related to implementation of the Scenario.

[85] The concept of the Scenario is inspired from STAR Alliance.

6.5.1.1 Assumptions

- The Alliance Scenario is designed to form a strong alliance, considering no transfer of employees directly related to the carrying out of Air Traffic Services to the NUAC Alliance Company
- General assumptions and principles used in the Merger Scenario, including assumptions regarding resignation of administrative and technical support staff and redundancies, are used in the Alliance Scenario
- LFV/ANS and Naviair remain in their current positions
- A NUAC Alliance Company is established to support increased cooperation as well as to undertake selected shared service activities where possible and financially beneficial
- The NUAC Alliance Company will only include shared services, which are not necessary internally within LFV/ANS and Naviair in order to maintain individual certification and designation for carrying out Air Traffic Services
- Tower services and infrastructure ownership will remain as currently within LFV/ANS and Naviair
- Ownership of the NUAC Alliance Company will be split evenly between LFV/ANS and Naviair (50/50 initially)
- Certification and designation remain within LFV/ANS and Naviair. No certification and designation of the NUAC Alliance Company is possible unless a joint agreement and concession from and between the National Supervisory Authorities under the provision of the EU Common Requirements
- Effects from initiatives in the Alliance Scenario are based on the premise that the NUAC Alliance Company cannot retain tasks that depend on certification and designation
- Implementation of terminal radar approach control (TRACON)[86] in the SKAANE cross-border area will require an organisation that can manage this cross-border. This is not deemed possible under the organisational assumptions laid out in the Alliance Scenario
- The maintained division of the operational organisations means that both supervisor positions and flow positions must be maintained in both organisations
- Based on the above assumptions and on the "NUAC Programme Airspace Design Report" regarding consolidation of positions, it is estimated that the required amount of ATCO and ATCO support positions in the Alliance Scenario equals 109 working positions[87].

6.5.1.2 Financial Impact

The net present value (NPV) related to the implementation of the Alliance Scenario from 2006-2020 is a total of approx. €52,7 million. Payback period for the Alliance Scenario is projected as approx. 4,5 years, and internal rate of return (IRR) at 35%.

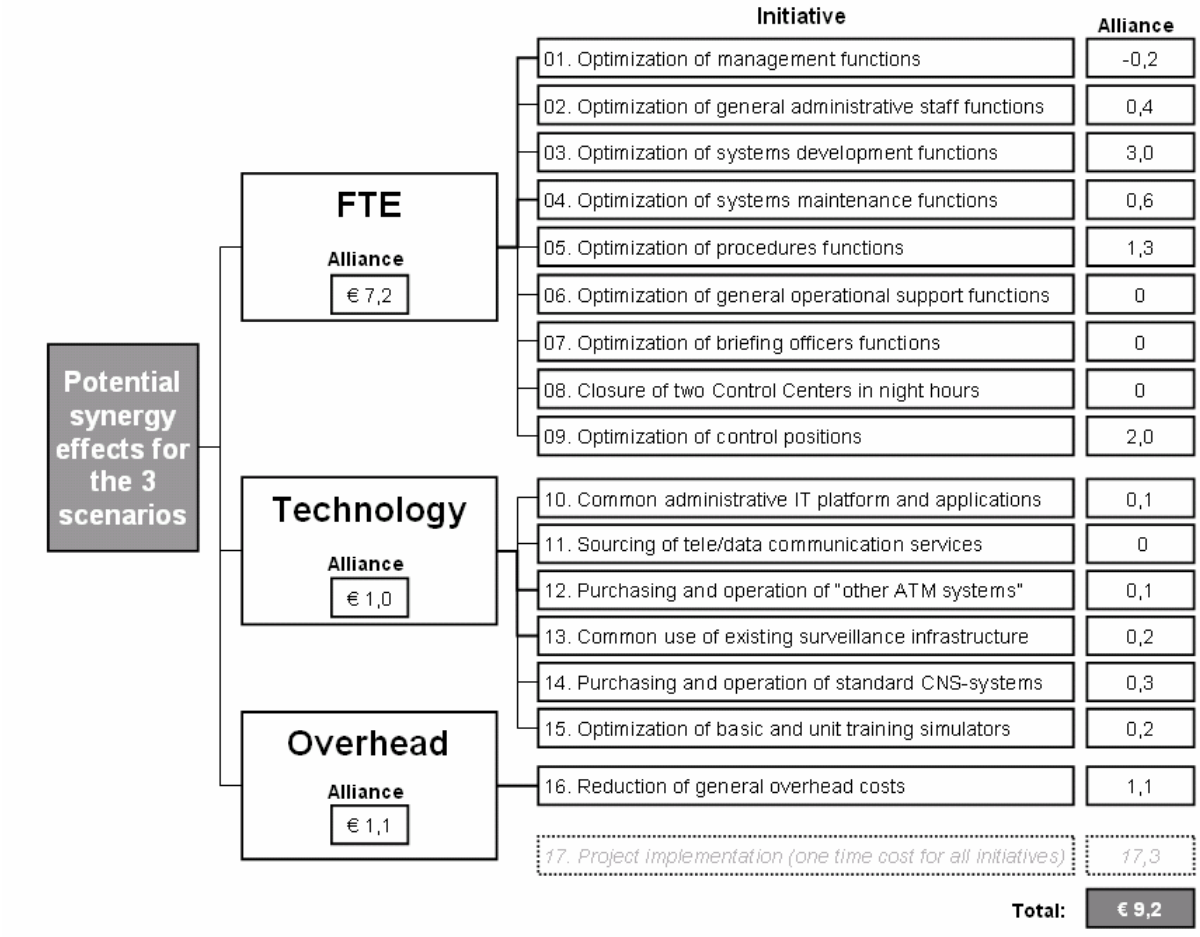
[86] Terminal Radar Approach CONtrol, utilising both radar approach control functions, feeder/stacker positions and even, in case of preference, some en-route sectors.
[87] Note that there is a possibility for improvements in the airspace for the Alliance Scenario, but this must be further investigated in the next phase (eg. establishment of TRACON Stockholm).

Figure 66 Financial results for Alliance Scenario

	NPV	IRR	Payback time
Alliance	€52,7 million	35%	2011 – 4,5 years

An estimation of the annual saving potentials in the Alliance Scenario in 2020 reveals that annual savings are derived primarily from Optimisation of staff functions "FTE" with total annual cost savings of approx. €7,2 million, corresponding to 77% of the total cost savings in 2020, and cost savings related to "Technology" equals approx. €1,0 million, corresponding to 11% of the total cost savings in 2020, whereas reduction of general overhead costs "Overhead" are estimated at approx. €1,1 million, as shown in Figure 67, corresponding to 12% of the total cost savings in 2020.

Figure 67 Estimated annual savings in 2020 (million Euros) in Alliance Scenario[88]



As shown in Figure 67, the largest projected benefit derives from initiatives related to optimisation of staff functions ("FTE"). As described in the respective "FTE"-initiatives[89],

[88] Note that technology initiatives sum up to € 0,9 million in the figure due to roundings compared to the exact values which total € 1.022.500

[89] For a detailed description of the initiatives, see "Appendix 2: Business Case – Initiatives".

the primary sources for potential savings – as stated in the Merger Scenario – are realised through common system development, outsourcing of system maintenance and supervision etc.

The estimated savings potential related to the “FTE”-initiatives are lower than the Merger Scenario. This is primarily based on the fact that LFV/ANS and Naviair will remain as two separate companies – hence both companies will have to obtain certification and designation, and also maintain the necessary administrative staff functions within the respective companies.

The second largest projected benefit in the Alliance Scenario derives from “Technology”-related initiatives. The total annual benefit potential related to the “Technology”-initiatives is approx. € 1,0 million. Cost savings related to these initiatives are realised through common future purchasing, due to improved bargaining power, reduced adjustment costs and implementation costs (external consulting services) etc. The estimated savings potential related to the technology initiatives are lower than the Merger Scenario due to a lower degree of standardisation and consolidation. This is primarily due to the fact that LFV/ANS and Naviair are assumed to remain as separate companies – hence both companies will have to obtain certification and designation.

Finally, the annual cost savings related to “Overhead” costs amounts to a total of approx. €1,1 million. The cost savings related to general overhead is a direct effect of the reduction in required personnel of 86 FTE.

6.5.1.2.1 Effects related to Realisation of FTE Initiatives

Realisation of the cost savings in the “FTE”-initiatives implies a reduction of current staff in the Alliance Scenario with 86 FTE, exclusive 144 FTE who are proposed to be outsourced to third parties. As indicated in Figure 68, the total reduction of 86 FTE are all expected reduced through natural attrition and general staff turnover, due to the fact that 253 FTE are expected to resign in the period 2008 to 2011[90, 91].

[90] See “Appendix 1: Business Case” for details related to assumptions for distribution of age and staff turnover.

[91] As previously stated, the level of which the total FTE reductions may be reduced through natural attrition and general staff turnover is subject to some uncertainty due to the fact that detailed analyses on individual FTE level need to be conducted, i.e. specific staff groups must be investigated in the next phase of the project in order to determine the functions and exact number of reductions.

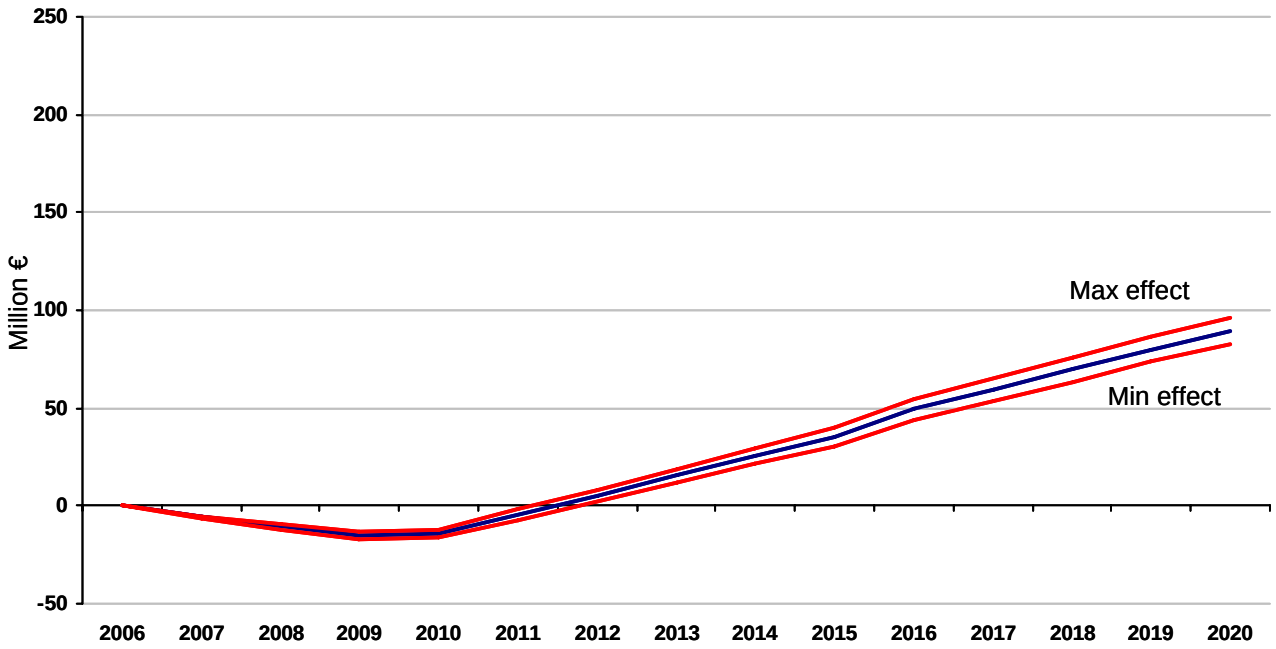
Figure 68 Total FTE reductions and natural attrition and staff turnover in Alliance

	Baseline			Implication				Staff turnover and Natural attrition
	Naviair	LFV/ANS	Total	Alliance	Outsourcing	Remaining	Reduction	
Initiative 1	5	7	12	2		12	-2	
Initiative 2	97	95	192	3		182	7	
Initiative 3	57	22	79	35			44	
Initiative 4	85	75	160	3	144	17	-4	
Initiative 5	21	77	98	65		17	16	
Initiative 6	13	15	28			28		
Initiative 7	12	31	43			43		
Initiative 8	9	19	28			28		
Initiative 9	193	380	573			548	25	
	492	**721**	**1213**	108	144	875	86	253

6.5.1.3 Cash Flow Summary

As illustrated in Figure 69 , the Alliance Scenario reveals a break-even in 2011. This fact has to do with implementation costs, which occur from year 2006 to 2008, and the savings in payroll costs occurring from 2011, outweighing the severance costs and implementation costs. The break-even point is considered with some uncertainty due to the variance in the effects of the individual initiatives.

Figure 69 Cumulative cash flow for Alliance Scenario (Million Euros)

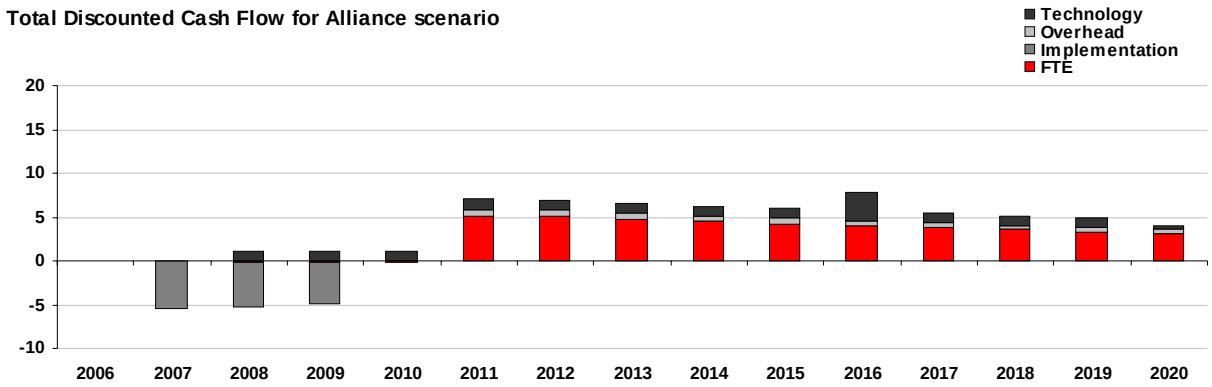


	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Maximum effect	0,0	-5,1	-9,2	-13,1	-11,9	-1,9	8,5	18,9	29,3	39,8	54,4	65,2	75,9	86,8	96,4
Likely effect	0,0	-5,7	-10,5	-15,1	-13,9	-4,5	5,4	15,4	25,4	35,4	49,3	59,5	69,8	80,1	89,4
Minimum effect	0,0	-6,4	-11,9	-17,4	-16,3	-7,3	2,2	11,7	21,2	30,8	44,0	53,8	63,6	73,5	82,3

As indicated in Figure 70, an increase in cost savings related to systems and technology ("Technology") occurs in 2016. The cost savings relate to avoidable investment costs related to 'other ATM systems'.[92]

[92] For a detailed description, see initiative 12C in "Appendix 2: Business Case – Initiatives".

Figure 70 Total discounted cash flow for Alliance Scenario (Millions Euros)



Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
€ Mil.	0,00	-5,44	-4,27	-4,00	0,97	7,43	7,38	7,06	6,76	6,46	8,53	5,99	5,73	5,48	4,67

6.5.1.4 Non-Financial and Qualitative Benefits

Previous sections have mainly focused on financial benefits but implementation of the Alliance Scenario will also result in a number of significant non-financial and qualitative benefits. A number of non-financial and qualitative benefits related to e.g. safety, flight efficiency etc. influence the political Air Traffic Management (ATM) environment etc. and should therefore be taken into consideration.

As previously stated, it is assumed that current operational air navigation in the Alliance Scenario remains largely intact within LFV/ANS and Naviair, due to the fact that the implementation of terminal radar approach control (TRACON)[93] in the SKAANE cross-border area covers the two major airports Sturup and Kastrup. This TRACON will cover airports in Sweden and Denmark and will require an organisation that can manage this cross-border. This is not deemed possible under the organisational assumptions laid out in the Alliance Scenario

The assumption implies that if the pre-conditions for the Alliance Scenario are changed then improvements in the current flight efficiency, capacity improvement and environmental impact can be achieved.

This section describes some of the non-financial and qualitative benefits, which are expected as a result of the implementation of the Alliance Scenario. The non-financial and qualitative benefits are divided into internal and external benefits for the Alliance Scenario[94]:

[93] Terminal radar approach control, utilising both radar approach control functions, feeder/stacker positions and even, in case of preference, some en-route sectors.
[94] See chapter 7 “Socio-economics” for further details related to external benefits and socio-economics.

6.5.1.4.1 Internal Non-Financial and Qualitative Benefits

Operational Flexibility

- Some increase in flexibility, since a common and flexible resource pool is established for support functions. This entails the organisation to respond to changes in a future strategic environment.

Alignment of Business Model

- The Business Model of the Alliance organisation is designed to form the strongest possible alliance. This ensures the best possible alignment and coherence between the Business Model and strategic drivers considering that no transfer of employees directly related to air traffic control to the NUAC Alliance Company will take place.

Strategic Readiness

- Some improvements in strategic readiness due to the common support organisation. The degree of operational flexibility and alignment in the Business Model might improve the level of agility and readiness to adapt opportunities in the ATM industry – i.e. new services, acquisitions etc.

Attraction and Bargaining Power

- The size and strategic importance (of airspace) of the Alliance solution might offer some degree of commercial bargaining power in relation to suppliers.

6.5.1.4.2 External Non-Financial and Qualitative Benefits

As previously mentioned it is possible to realise the same external non-financial and qualitative benefits in the Alliance Scenario, as stated for the Merger Scenario, if the pre-conditions related to the airspace are changed to reflect the changes in the Merger Scenario.

Flight Safety

- Based on the previous stated assumptions, no changes to current safety level have been identified, except for a possible benefit in having a common procedures entity.

Flight Efficiency

- Based on the previous stated assumptions, changes to current level of flight efficiency have been identified by establishing cross-border sectors mainly above FL 195 and by, as far as possible, aligning the sectors described in the Merger Scenario to the Alliance Scenario.

Capacity Improvement

- Based on the previous stated assumptions, some changes to current level of capacity have been identified by establishing cross-border sectors mainly above FL 195 and by, as far as possible, aligning the sectors described in the Merger Scenario to the Alliance Scenario.

Customer Orientation

- The direct benefits in customer orientation, are connected to the above described airspace design changes since the Alliance solution focuses on improvements in the support functions that are not dependant on designation and certification, except for a possible benefit in having a common procedures entity.

Socio-Economics

- Establishment of an alliance is somewhat in line with the political desire to establish a more suitable air transport system as stated in the Danish and Swedish vision.

Environment

- Based on the previous stated assumptions, changes to current level of environmental impact have been identified.

6.5.2 *Business Model*

This section is split into seven sections. First, a summary of the section is presented. Second, a description of which products and services the NUAC Alliance will produce. Third, the processes connected to NUAC are presented. Fourth, the major sourcing initiatives relevant for this Scenario are presented. Fifth, the future NUAC organisation is presented. Sixth, the ownership structure and legal entity are presented. Seventh, a discussion regarding the retained organisations in LFV/ANS and Naviair is presented.

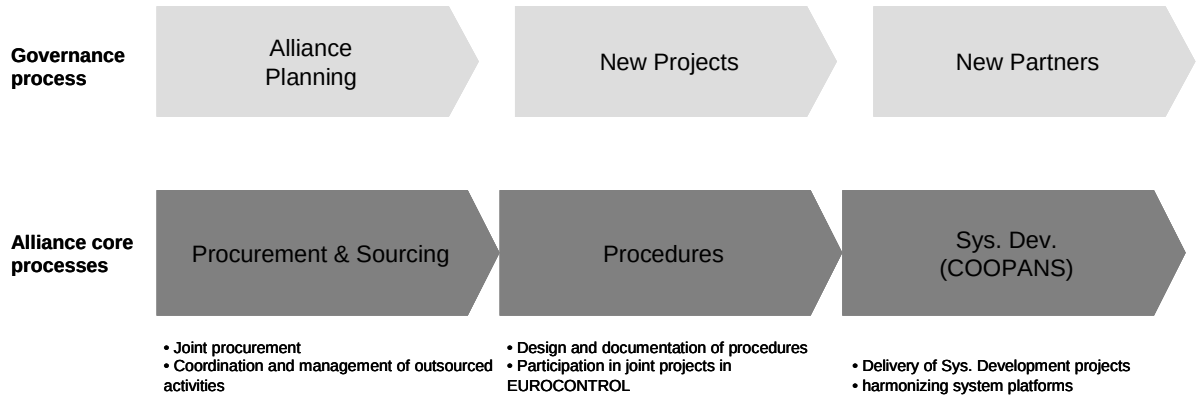
6.5.2.1 Products and Services

This aspect of the Business Model is not applicable, as no joint portfolio will be created in this Scenario.

6.5.2.2 Processes and Process Levels

The alliance will not have a predefined full process framework, as no activities initially will be included in the alliance. From the start, the alliance will only have a set of governance processes. New alliance projects will then be initiated and governed within the alliance.

Figure 71 Process map – Alliance Scenario



6.5.2.2.1 Governance Processes

Three governance processes are defined within the alliance:

Alliance planning
Alliance planning is the process of defining which types of projects the alliance will run. A set of criteria for the aim and scope of projects will be created. The decision process is also defined in this process.

New projects
This is the process for handling or deciding which projects to be initiated within the NUAC scope.

New partners
New partners are the process for attracting and negotiating with new entrants into the alliance. A set of joining criteria will be defined together with the criteria for full membership.

6.5.2.2.2 Alliance Scope

Within the Alliance Scenario, a number of projects and activities will be run in the alliance. In-scope for the alliance, the following activities are included:

COOPANS
The COOPANS initiative will be managed within the scope of the alliance, with focus on creating a common ATM technical platform.

Support activities
Administrative processes will be run within the scope of the alliance in order to utilise economies of scale. Activities in scope are:

- Training and competence development (not delivered by Entry Point North)
- Procurement & Coordination of sourced activities
- Communication and information (including PR and branding)
- Procedures.

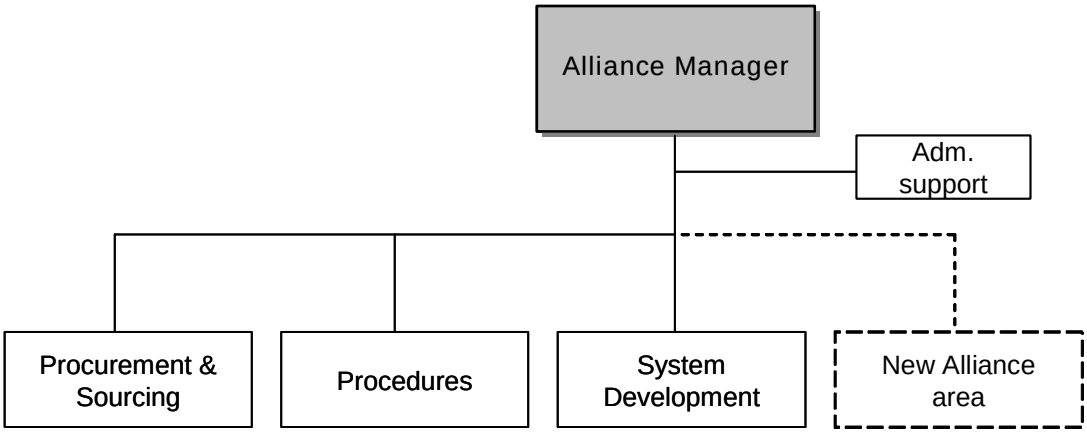
6.5.2.3 Sourcing

In the Alliance Scenario, ATM system maintenance and supervision will be outsourced to a third party. The governance and coordination of the sourcing contract will be managed within the alliance in order to secure benefit potential. LFV/ANS and Naviair will within the scope of the alliance together negotiate with outsourcing third parties in order to enable savings.

6.5.2.4 The Organisation

The alliance will only have an organisation to govern the alliance and secure the delivery of the alliance responsibilities defined in Alliance scope above. Alliance areas and projects are foreseen populated from the member countries. One Alliance manager, supported by a lean administrative function to control and manage the operation, will lead the organisation. The Alliance manager will have a number of first line managers directly responsible for the different areas within the Alliance. The organisation is presented in figure 72.

Figure 72 Organisation – Alliance



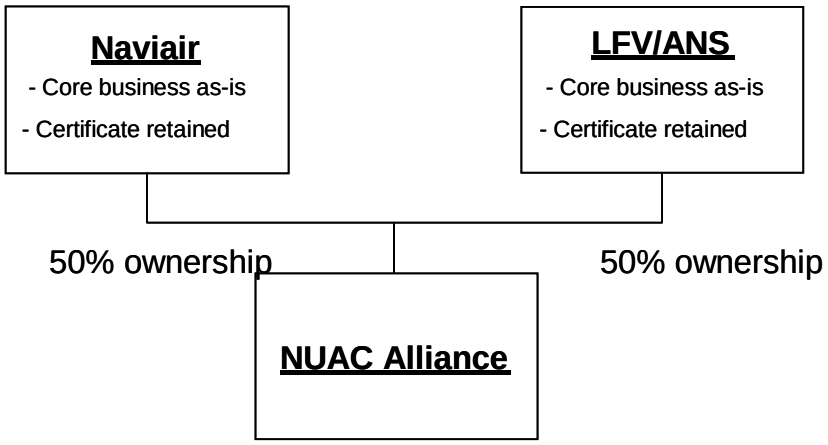
6.5.2.4.1 Alliance Governance

All members of the NUAC Alliance will organise the alliance cooperation under a separate support function, closely to senior management. The alliance management function is responsible for allocating the right resources from the organisation to the NUAC alliance.

6.5.2.5 Ownership and Legal Entity

The business will be organised in a shared legal entity “NUAC Alliance”, owned mutually by Naviair (50%) and LFV/ANS (50%) as shown in Figure 73 Ownership structure – Alliance below.

Figure 73 Ownership structure – Alliance



New Entrants
The main driver for the Alliance Company is to leverage economies of scale within administrative support functions. New entrants will be offered to out-source administrative support processes to the alliance. The Alliance Company will be run as a shared service centre. Potentially this can be a form of cooperation that will have low entry barriers towards partners, but since only parts of support processes will be part of the scope for the Alliance Company due to the fact that individual certification and designation will have to be maintained it is questionable how attractive this form of cooperation will be in reality.

The ownership structure may be subject to change in the purpose of accommodating new entries. The result of that is subject to separate negotiations and will not be analysed further in this report, but can be further investigated.

6.5.2.6 Retained Organisation

The effects on the retained organisations are initially small but will increase over time as more areas of cooperation are initiated within the alliance. The scope of the Alliance Scenario excludes transfer of any operational activities to the Alliance Company.

6.5.3 *Integration Strategy*

This section will describe the integration for the implementation of the Alliance Scenario. It presents integration principles and approach, milestones, roadmap and associated integration risk and complexity

6.5.3.1 Principles and Approach

The objective of the Integration Strategy for the Alliance Scenario is to point out how to realise benefits outlined in the Business Case and ensure transformation to the new Alliance Business Model described earlier – simultaneously, minimising risks and maximising effects for the strategic rationales.

The Alliance Scenario implementation is less complex than the Merger Scenario implementation, as operational areas are only indirectly impacted. Administrative

functions are widely impacted; however, operational areas are only indirectly impacted through changes in airspace management and production of procedures in the original companies (LFV/ANS and Naviair). ATM core business including ATM procedures remains in the two original companies.

In conclusion, the initial "*concepts, solutions & preparation*" phase must be well prepared but the following "*transition*" phase will be shorter than the Merger and NUAC/SKAANE Scenarios. A key principle is to align key administrative processes and systems before the establishment of the new Alliance alliance shared services organisation on January 2008.

Key elements of the integration work streams[95] in this Scenario:

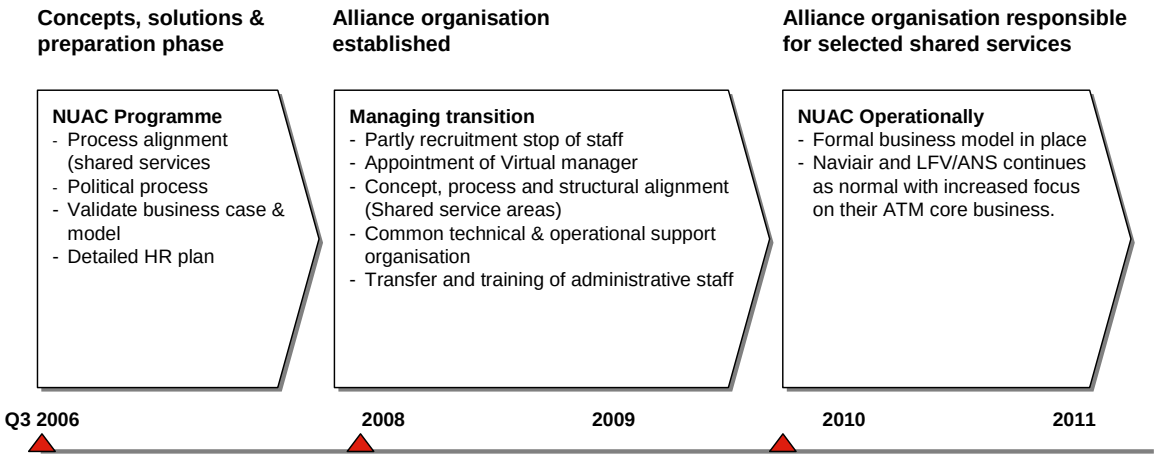
- Pre-requisite work stream (limited scope focusing on shared services processes –political process, validation of Business Case & model, preparing for separation of new Business Model, and governance and concepts alignment)
- Benefits delivery areas (limited scope focusing on shared services processes – process alignment & optimisation and benefit realisation).
- Direction and support (limited scope focusing on shared service processes – integration management, benefit, stakeholder and risk management, communication and detailed HR (retrenchment) plan.

The transition phase will start with the establishment of the NUAC Alliance Company, the appointment of the NUAC Alliance Company Senior Manager and a partial stop for recruitment and replacement (to ensure biggest possible benefit realisation from natural attrition). During transition, a small group of key persons from LFV/ANS and Naviair will be recruited to the Alliance shared service organisation. They will be responsible for benefit realisation in the selected shared service areas.

6.5.3.2 Milestones and Roadmap for Alliance Scenario Implementation

Below is the roadmap for the implementation of the Alliance Scenario:

Figure 74 Roadmap – Alliance Scenario



[95] See "Appendix 6: Integration Strategy" for a detailed integration work breakdown structure.

Key milestones:

- ***December 2007*** – DATMAS (Danish ATM core IT system for ensuring optimal provision of ANS) implemented
- ***January 2008*** – NUAC Alliance Company established
- ***January 2008*** – Partial recruitment stop of all staff (start benefit realisation)
- ***July 2008*** Alliance manager appointed
- ***2007-2008*** – Alliance: concepts, solutions, process alignment
- ***January 2009*** – Physical move to new head office
- ***2009*** – Common CNS systems and platforms
- ***January – 2009*** Adm. staff appointed
- ***December – 2009*** – Common technical & operational support organisation
- ***December – 2009*** Alliance organisation fully operational
- ***January 2011*** COOPANS upgrade of EUROCAT

6.5.3.3 Key Integration Risks and Complexity

The Alliance Scenario involves a substantial number of support staff in the process of increasing cooperation. Based on the anticipated structure of the Alliance there will be more complex governance between the different parties.

Alliance Scenario – Detailed Risk and Complexity Description

Business Model implementation
Establishing of the Alliance shared service organisation will create a complex governance structure. Managing several daily actions and decisions concerning shared services with the two national companies through SLA agreements will be a complex task. Need for detailed description regarding distribution of tasks is high.

Administrative function
Optimisation and redesign of administrative staff functions and processes are complex implementation tasks. Processes will need to be aligned early and role clarity, training and competence development is a prerequisite, and stakeholders must be involved early.

Business Model governance and identity
The Alliance shared service organisation holds limited incentives for benefit realisation. This may make it more difficult to achieve benefits, as no one will have benefit realisation as their key personal target. Simultaneously, company identity will weaken with a third Alliance alliance set-up, and depending on distribution of responsibility the decision-making processes may become more complex.

Psycho-social working environment and retention of key employees
(HR issues – primarily for the support and administrative personnel, with exception of the personnel directly supporting the core operations): The new organisation may lead to higher pressure during the transition period. Management needs to pay great attention to ensure highest motivation in this period. Focus must be on retention of critical employees through clear communication and a solid retrenchment plan.

6.5.4 *HR Aspects and Social Dialogue*

The specific parts of the analysis of the HR Aspects for the Alliance Scenario will be presented here. Parts that are shared by all three Scenarios are covered in Chapter 5. For full reports, please refer to Appendix 9.

6.5.4.1 Personalejuridiske forhold i Danmark og Naviair

6.5.4.1.1 Virksomhedsoverdragelsesloven

Et øget formaliseret samarbejde mellem Naviair og LFV/ANS indebærer som udgangspunkt ikke overdragelse af virksomhed eller medarbejdere, hvorfor virksomhedsoverdragelsesloven ikke er relevant i relation til denne del af scenariet. Hvis der overføres aktiviteter og medarbejdere til det nyoprettede allianceselskab, kan der som udgangspunkt være tale om en virksomhedsoverdragelse i henhold til virksomhedsoverdragelsesloven. Dette kan først endeligt afgøres, når de faktiske omstændigheder omkring overdragelsen ligger fast.

6.5.4.1.2 Geografisk flytning af medarbejderes arbejdssted

Der bliver alene tale om frivillig flytning af medarbejderes arbejdssted.

Flyttes en medarbejders arbejdssted fra Danmark til Sverige, skal der foretages et nyt lovvalg, jf. Romkonventionens (80/934/EØF) artikel 6. Der henvises i det hele til Appendix 9.

Det fremgår heraf, at en dansk flyveleder, hvis arbejdssted frivilligt flyttes til Sverige, vil være omfattet af de svenske ansættelsesretlige regler, med mindre parterne foretager et gyldigt lovvalg og udpeger dansk ret til at være gældende. Et sådant lovvalg vil dog skulle suppleres med de ufravigelige svenske regler, der måtte gælde for denne medarbejdergruppe.

6.5.4.1.3 Udlån af medarbejdere

Der kan blive tale om udlån af danske medarbejdere til LFV/ANS eller til allianceselskabet. Det er ikke præciseret, hvor vidt der er tale om varigt eller midlertidigt udlån.

6.5.4.1.3.1 Funktionærer

Varige udlån til Malmoe må betragtes på samme måde som geografisk flytning af arbejdssted, jf. Appendix 9.

Om midlertidige udlån kan det generelt antages, at en funktionær midlertidigt (2-3 måneder) vil kunne pålægges at udføre sine arbejdsopgaver fra Malmoe, forudsat at den pågældende godtgøres de hermed forbundne ulemper, såvel økonomisk som tidsmæssigt. Sidstnævnte kan for eksempel ske ved, at medarbejderen gives mulighed for at betragte transporttiden som arbejdstid. Denne vurdering kan ændres i det omfang, der konkret er særlige ulemper for den enkelte medarbejder, hvilket kan være ændret skattepligt og ændret social sikring.

At der er tale om udlån til en anden juridisk enhed (LFV/ANS eller allianceselskabet), bør funktionæren skulle tåle midlertidigt, forudsat at der ikke er særlige forhold, der gør

dette til en væsentlig ændring af ansættelsesvilkårene for funktionæren. Ved udlånet skal det således sikres, at medarbejderen fuldt ud bevarer alle sine rettigheder, såvel individuelle som i henhold til kollektive overenskomster. De kollektive overenskomster omfatter som tidligere nævnt som udgangspunkt ikke arbejde udført i udlandet.

6.5.4.1.3.2 Tjenestemænd

Varige udlån til Malmoe må betragtes på samme måde som geografisk flytning af arbejdssted, jf. Appendix 9.

Udenfor det tilfælde at der etableres en særlov, der direkte pålægger tjenestemændene at lade sig udlåne til et aktieselskab mv. findes der en mulighed for, at finansministeren kan bestemme, at tjenestemænd i staten og folkeskolen mv. kan udlånes til kommunale, private og statslige institutioner/ virksomheder og lignende og samtidig fortsat optjene pensionsalder i tjenestemandspensionssystemet mod, at virksomheden/ institutionen indbetaler et pensionsdækningsbidrag. Muligheden indebærer dog ikke, at tjenestemændene tvangsmæssigt kan udlånes. Den indebærer ej heller et retskrav fra medarbejderen på at blive udlånt, og den forudsætter i hvert fald, at hver enkelt sag forelægges Finansministeriet til godkendelse.

Tjenestemandslovens § 11 fastslår tjenestemandens pligt til midlertidigt at udføre tjeneste i en stilling, der er sideordnet eller højere end hans egen. Bestemmelsen gælder dog kun pligt til at gøre midlertidig tjeneste indenfor sit ansættelsesområde, dvs. Transport- og Energiministeriet og tilhørende institutioner og styrelser og kan derfor ikke omfatte udlån til LFV/ANS eller allianceselskabet.

Vurderingen af, om tjenestemændene skal acceptere midlertidig flytning til LFV/ANS eller allianceselskabet med tjenestested i Malmoe, falder udenfor tjenestemandslovens § 12, stk. 1, da der er tale om en ændring udenfor tjenestemændenes ansættelsesområde. Vurderingen skal herefter foretages i henhold til tjenestemandslovens § 12, stk. 2, om ændringer udenfor ansættelsesområdet.

Ifølge betænkning 483/1969 p. 117, sigter "udenfor sit hidtidige ansættelsesområde" dog ikke til ethvert andet ansættelsesområde. Bestemmelsen finder alene anvendelse på omflytning af personale inden for statsadministrationen. En tjenestemand kan således ikke efter denne bestemmelse midlertidigt pålægges at gøre tjeneste i LFV/ANS eller allianceselskabet.

6.5.4.1.3.3 Ikke funktionærer

Der henvises til det for funktionærer anførte, jf. afsnit 6.5.4.1.3.1.

6.5.4.1.4 Nedlæggelse af stillinger/afskedigelser

Der forventes ikke omfattende afskedigelser i dette scenario, men det kan ikke afvises at der potentiellt kan blive tale om nedlæggelse af stillinger/afskedigelse for alle medarbejdergruppers vedkommende bortset fra de medarbejdere, der arbejder i de operationelle kernevirksomheder (dvs. flyveledere og direkte support i de bestående selskaber Naviair og LFV).

Hvis der opstår overtallighed i allianceselskabet, vil det som udgangspunkt være det nye selskab som arbejdsgiver, der skal forestå de nødvendige afskedigelser. Der kan

indgås aftaler om, at LFV/ANS og Naviair skal friholde allianceselskabet for udgifter i forbindelse hermed. Vilkårene for disse opsigelser afhænger af, om de medarbejdere, der skal afskediges er omfattet af dansk ret eller svensk ret og i øvrigt af, hvilke vilkår de er ansat på. Dette er ukendt.

Opstår der overtallighed i Naviair, sker afskedigelserne ud fra de regler, der gælder om opsigelse af disse medarbejdere. Der henvises til Appendix 9.

Udover egentlige afskedigelser kan Naviair vælge at afvikle overtalligheden i form af naturlig afgang eller ved frivillige ordninger.

6.5.4.1.5 Flytning af medarbejdere til anden juridisk enhed

Dette scenarie kan indebære flytning af medarbejdere til anden juridisk enhed, bortset fra de medarbejdere, der arbejder i de operationelle kernevirksomheder (dvs. flyveledere og direkte support i de bestående selskaber Naviair og LFV). Det lægges til grund, at flytning til anden juridisk enhed altid kan gennemføres med medarbejdernes samtykke, hvor de nærmere vilkår for flytningen fastlægges ved aftale.

6.5.4.1.6 Øvrige ændringer i ansættelsesvilkår

Der er ikke oplyst øvrige ændringer i ansættelsesvilkårene, som kan komme på tale ved dette Scenario.

For mere information se Appendix 9.

6.5.4.2 Arbetsrättsliga aspekter i Sverige och LFV/ANS

6.5.4.2.1 Övergång av verksamhet

Reglerna om övergång av verksamhet aktualiseras för det fall en ”ekonomisk enhet som behåller sin identitet” övergår från LFV/ANS till Alliansbolaget. Vidare uppkommer eventuellt frågan om en gränsöverskridande verksamhetsövergång. För detta redogörs i Appendix 9.

Före ett beslut om övergång av verksamhet måste samverkan ske med de avtalsbundna fackliga organisationerna.

Nedan behandlas först tillämpliga regler för det fall Alliansbolaget placeras i Sverige och därefter vad som gäller om Alliansbolaget placeras i Danmark.

6.5.4.2.1.1 Rörelseöverlåtelse – Alliansbolaget placeras i Sverige

I denna situation när en verksamhet flyttas över för att fortsättningsvis bedrivas i ett annat bolag blir reglerna om övergång av verksamhet (6b § LAS) tillämpliga. Reglerna innebär i korthet att samtliga anställda i den del av LFV/ANS som överförs till Alliansbolaget, har rätt att på oförändrade anställningsvillkor övergå i anställning till Alliansbolaget (se mer utförligt Appendix 9).

Att anställningarna skall övergå på ”oförändrade anställningsvillkor” innebär att de anställningsvillkor som gällt i LFV/ANS, även fortsättningsvis skall gälla i Alliansbolaget. Vidare har de anställda rätt att ta med sig intjänade rättigheter såsom

exempelvis intjänad semester. Vad avser rättigheter som följer av anställningstidens längd, får den anställde tillgodoräkna sig anställningstiden hos LFV, även i sin anställning i Alliansbolaget.

Enligt huvudregeln i 28 § MBL första stycket följer tillämpliga kollektivavtal med verksamhetsöverlåtelsen och LFV:s kollektivavtal blir då tillämpligt för Alliansbolaget med bindande verkan fullt ut enligt reglerna i MBL (inkluderande bland annat förhandlingsskyldighet gentemot facken).

För det fall de kollektivavtal som gällt inom LFV/ANS följer med till Alliansbolaget (enligt 28 § MBL), övergår även de anställdas kollektivavtalade rätt till tjänstepension (se mer utförligt Appendix 9).

Det finns emellertid möjlighet såväl för facken som för LFV/ANS (dock inte för Alliansbolaget) att inom viss tidsfrist säga upp kollektivavtalen till upphörande i samband med verksamhetsövergången. Även om kollektivavtalen skulle sägas upp, skall emellertid Alliansbolaget fortsätta att tillämpa anställningsvillkoren i kollektivavtalen under minst ett år (pensionsrätten inklusive) – emellertid är Alliansbolaget i denna situation inte bunden av avtalet gentemot facken.

För det fall det i Alliansbolaget vid tiden för överlåtelsen redan skulle föreligga ett kollektivavtal som är tillämpligt på de anställda som övergår från LFV/ANS, skall emellertid inte tidigare gällande kollektivavtal i LFV/ANS övergå (28 § MBL första stycket, andra meningen). För det fall facken och Alliansbolaget önskar komma överens om ett nytt kollektivavtal för verksamheten som skall bedrivas i Alliansbolaget, kan det således vara en möjlighet att implementera detta nya kollektivavtal redan före själva verksamhetsövergången. Alternativt träffas ett inrangeringsavtal efter själva verksamhetsövergången till Alliansbolaget, vilket innebär att de kollektivavtal som följt med vid verksamhetsövergången upphör gälla (28 § MBL tredje stycket).

Anställda har möjlighet att motsätta sig en övergång till Alliansbolaget, och blir då fortsatt anställda i LFV/ANS trots att de arbetsuppgifter de tidigare arbetat med förts över till Alliansbolaget. För det fall övertalighet uppstår inom LFV/ANS, aktualiseras då reglerna om uppsägning på grund av arbetsbrist (se Appendix 9 och nedan avsnitt 6.5.4.2.3 Neddragning av personalstyrkan).

6.5.4.2.1.2 Rörelseöverlåtelse - Alliansbolaget placeras i Danmark

För det fall Alliansbolaget placeras i Danmark, uppkommer frågan om reglerna om övergång av verksamhet (6b § LAS) är tillämpliga vid en gränsöverskridande verksamhetsövergång. För detta redogörs i Appendix 9.

6.5.4.2.2 Byte av arbetsort

Det kan bli tal om att vissa tjänster flyttas till annan ort och därigenom uppstår frågan om byte av arbetsort.

I respektive anställds anställningsavtal stadgas i vilken ort som den anställde skall arbeta. Fråga uppkommer om LFV/ANS ensidigt kan bestämma att de anställda skall arbeta från annan ort – antingen i Sverige eller i Danmark, och om så kan ske inom ramen för anställningen. För ytterligare information se Appendix 9.

Ett byte av anställningsort till ett annat land har även privatekonomiska konsekvenser för den anställde. Permanent arbete i Danmark skall enligt huvudregeln beskattas i Danmark. Även sociala förmåner förändras i samband med att arbetet utförs och beskattas i Danmark.

Mot bakgrund av ovan, är vår bedömning att en permanent förflyttning och byte av anställningsort inte kan ske utan samtycke från respektive anställd. Nya anställningsavtal måste således träffas med angivande av den nya arbetsorten.

Emellertid skall noteras att förläggning av arbetet är ett typiskt arbetsgivarbeslut. LFV/ANS kan således (efter samverkansförhandingar) besluta att viss verksamhet från ett visst datum skall utföras från annan ort. De anställda som väljer att inte följa med vid en sådan verksamhetsflytt, riskerar att bli uppsagda på grund av arbetsbrist (se nedan avsnitt 6.5.4.2.3).

6.5.4.2.3 Neddragning av personalstyrkan

Eventuellt kan det aktualiseras neddragning av personalstyrkan i detta scenario.

6.5.4.2.4 Förflyttning av anställda till annan juridisk person

Förflyttning av anställda till annan juridisk person kan aktualiseras för medarbetare – dock inte för operativa flygledare som skall vara fortsatt anställda i LFV/ANS.

För det fall en viss avdelning skulle förflyttas, klassificeras detta troligen som en ”övergång av del av verksamhet”, vilket då innebär en rätt för de anställda att följa med vid verksamhetsövergången till Alliansbolaget (se Appendix 9 och ovan avsnitt 6.5.4.2.1 Övergång av verksamhet).

För det fall Alliansbolaget placeras i Danmark, uppkommer frågan om reglerna om övergång av verksamhet (6b § LAS) är tillämpliga vid en gränsöverskridande verksamhetsövergång. För detta redogörs i Appendix 9.

6.5.4.2.5 Förändringar av arbetsuppgifter

Vissa mindre förändringar av arbetsuppgifterna som kan aktualiseras torde rymmas inom ramen för de anställdas arbetsskyldighet, och kan således ensidigt anvisas av LFV/ANS efter det att samverkan skett se Appendix 9.

För ytterligare information se Appendix 9

6.5.4.3 Skat og social sikring

I Alliance-scenariet indgås en strategisk alliance mellem LFV/ANS og Naviair. I den forbindelse etableres et allianceselskab af de to enheder.

Det forudsættes i det følgende, at dette selskab etableres som et svensk eller dansk registreret aktieselskab, samt at en del af det administrative personel overflyttes til at udføre arbejde i dette selskabs hjemstedsland for mindst ét år.

Hvis dette ikke skulle være tilfældet og de ansatte i Allianceselskabet er at betragte som offentligt ansatte, har vi i afsnit 5.5.3 Specielle regler for offentligt ansatte skitseret

hovedreglerne for arbejde på tværs af Øresund for offentligt ansatte. Det skal her bemærkes, at reglerne for arbejde på tværs af Øresund kan være forskellige for henholdsvis offentligt og privat ansatte samt at der generelt er flere planlægningsmuligheder for privat ansatte.

For så vidt angår skat og social sikring, vil implementeringen af Alliance-scenariet ikke som udgangspunkt have betydning for medarbejdere, som ikke skifter arbejdsland.

For medarbejdere, som helt eller delvist flytter arbejdsland, og som er ansat af et svensk eller dansk registreret selskab, vil der imidlertid ske ændringer i den skattemæssige situation, samt evt. med hensyn til social sikring. Imidlertid kan lønindkomsten svensker som flytter arbejdssted til Danmark ikke blive beskattet efter arbejdsudlejebeskatning.

Idet den endelige udformning af et Allianceselskab ikke er klarlagt endnu, er det på nuværende tidspunkt ikke muligt at fastlægge de personskattemæssige og social sikringsmæssige konsekvenser af oprettelsen af et Allianceselskab. Det skal her særligt bemærkes, at medarbejdere, der som udgangspunkt er offentligt ansatte, efter en konkret vurdering af det endelige set-up kan blive omfattet af enten de almindelige regler (helt eller delvist) eller alternativt af reglerne for offentligt ansatte.

I afsnit 5.5 Skat og social sikring opsummeres de væsentligste ændringer vedrørende skat og social sikring. For en detaljeret gennemgang af regelsættet med illustrative konsekvensberegninger mv. henvises til Appendix 9, som indeholder to detaljerede baggrundsrapporter om udsendelse af medarbejdere til arbejde i henholdsvis Sverige og Danmark.

6.5.4.4 Working Environment

6.5.4.4.1 Effects on the Psycho-Social Working Environment

The psychosocial working environment is likely to be affected. There may e.g. be increased demands on the employees to acquire certain competencies due to the increased and Alliance form of cooperation, changes of key processes and work roles and efficiency through specialisation. Consequently, the development opportunities increase.

Furthermore, it is stated in the Scenario description that there will be more cooperation across the organisational borders. Different languages and national and corporate cultures may complicate the cooperation and lead to disagreement. However, lingual and cultural differences may offer learning and development opportunities as well.

When it comes to effects on the psychosocial working environment due to a changed level of predictability, there may primarily be changes for individual employees who chose to change either workplace or tasks, alternatively may see the future as less certain.

In general, there is a risk that the possibilities of influence may change since there, according to the Scenario description, will be some shared initiatives and development programmes, as well as some standardisation and harmonisation of systems, processes and contractual agreements.

For individual employees, the stress level may rise if they chose to relocate their workplace, or if they find it difficult to live up to new demands. Some employee groups may also experience a higher stress level as they may see the future as less certain. On the other hand, motivation may rise too as a result of possibly increased development opportunities.

Finally, it is unlikely that there will be any effects in the psychosocial area due to changes in how the organisations deal preventively with working environmental issues. However, individuals who voluntarily have their workplace relocated may experience that they deal differently with working environment issues in their new workplace.

6.5.4.4.2 Effects on the Physical and Chemical Working Environment

Possible effects on the physical and chemical working environment would primarily influence employees voluntarily relocating their workplace or employees performing other tasks than before.

6.5.4.4.3 Effects on Working Environment in the Alliance Scenario

In general, effects on the working environment will be caused by voluntary changes of either workplace or tasks. The effects that are most likely to be experienced will be in regard to cooperation, influence, development, and demands on the employees. In the table below the effects on the working environment are summarised:

Figure 75 Summary of working environment in the Alliance Scenario

Working environment	Alliance Scenario
Psychosocial working environment	There may be effects on the psychosocial working environment due to possible increased demands, new conditions for the cooperation, reduced predictability, changed possibilities of influence, increased development opportunities, changes of the level of motivation and an increased stress level. The individuals' perception of their new situation and their ability to handle several changes at once will most likely decide whether they feel more or less stressed, respectively motivated.
Physical and chemical working environment	Possible effects would primarily regard employees performing other tasks than before or employees voluntarily having their place of work moved.
Conclusion of the effects on the working environment	In general, effects on the working environment will be caused by voluntary changes of either workplace or tasks.

For further information, refer to Appendix 9.

6.5.4.5 HR Programs

6.5.4.5.1 Recruitment

Overall the standard recruitment processes for support and administrative personnel in LFV/ANS and Naviair are fairly identical. In the Alliance solution Scenario it is planned that an increased or more formalised cooperation between Naviair and LFV/ANS is to take place. The cooperation is to be on a voluntary basis.

Based on an examination of the recruitment process in both organisations, a future cooperation on a common recruitment process may be possible. However, legal requirements in both countries must be taken into account.

In Denmark, considerations must primarily be taken to the Tjenestemandsloven (Statute relating to Public Servants), which regulates the employment procedures for some administrative personnel. Moreover, as is the case with the Merger Scenario, a decision on the subject of Swedish applicants – as the Danish applicants – should have the right/possibility to an assessor during the employment interview.

In Sweden legislation is far more complex and regulating as regards the recruitment process of new employees and thus it will be important when establishing a common recruitment procedure that these considerations are incorporated in the arrangement of a common process.

6.5.4.5.2 Competence development

On the whole, the overall competence development processes are more or less identical in both Naviair and LFV/ANS. At the same time, the present supply of courses, training etc in Naviair and LFV/ANS respectively seems to be identical.

When deciding on an alliance, it has to be decided whether the two legal units should standardise education or whether education should be offered separately and adapted to the two legal units.

6.5.4.5.3 Performance management

A formalised cooperation between LFV/ANS and Naviair under the Alliance solution Scenario does not basically imply the need of a common performance management system. Moreover it is important to notice that the performance management structures today are not identical.

If it is expected that KPIs and other performance goals are collected in one overall system, it is estimated that it is advantageous to draw inspiration from the contracts already formulated by Naviair and LFV/ANS.

For further information, refer to Appendix 9.

7 Socio-Economics

As major changes in airspace structure and/or the actual provision of Air Navigation Services potentially can have an effect on both the level for flight safety and the socio-economics in the region where the changes are implemented. The NUAC Programme have conducted Fast Time Simulations on the airspace suggested for the three Scenarios in the airspace design report (Appendix 7).

The airspace in the report is a high level description of possible future airspace design for the three Scenarios investigated – enabling the composition of the Business Case. The analysis of the simulation (Appendix 8) provides clear indications that the airspace designed is a viable solution in terms of creating a Functional Airspace Block with potential positive effects also in a socio-economic perspective without jeopardising the level of flight safety.

The analysis shows that there could be reductions in flying time, flown distances and thus also in fuel consumptions and emissions of carbon dioxide and other greenhouse gases within Danish and Swedish airspace, this having positive effects on both customers and society in general.

The fuel savings related to the above will be seen as a further enhancement for our customers, the airlines, as the cost of fuel is steadily becoming a higher part of the cost per passenger with rising fuel prices as the major cost for airlines today.

Beside economics and emissions, the total amount of noise imposed upon society by aircrafts will be reduced by shorter flight time/distance.

7.1 The Regional Perspective

Establishment of a common enterprise/company, with headquarters in the Oresund region as outlined in the Scenarios investigated, for the provision of Air Navigation Services in Danish and Swedish airspace is deemed as having potential positive socio-economic effects and ensuring development of specialised working positions in the region. Danish and Swedish influence on the future development of European Air Traffic Management will enable the common enterprise/company to react promptly to costumer needs and society's demands and thereby give more value to society in general.

Copenhagen Airport, Kastrup and the Stockholm-Arlanda Airport continue to be major gateways to and from the Nordic and Baltic region and overseas destinations. Passengers transit through the Airports on their way to and from other European and overseas destinations. The status as gateway makes for little spread of peak hour traffic as transit passengers wish to spend as little time as possible waiting for their connection.

Therefore, it is essential for the economy of the airlines operating in and out of Copenhagen Airport, Kastrup and Stockholm-Arlanda Airport that as much capacity as possible without constraints like national boundaries can be provided by the Air Navigation Service provider.

Today, the boundary between Denmark and Sweden is close to Kastrup and hence the airspace is controlled from air traffic control positions in units on both sides of Oresund.

A possible establishment of a common enterprise/company for the providing of Air Navigation Services in that airspace ensures that this complex airspace can be controlled from only one unit and the airspace structure can be enhanced, ensuring seamless operations in the airspace with limited need for co-ordination between units and integration of the operations to and from Kastrup, Malmoe-Sturup and Roskilde.

This provides a window of opportunity for cooperation between the three airports and solves a problem of potential saturation of Kastrup due to additional capacity for the overall area with efficient passenger handling in the Oresund region without having to invest in costly additional runways at Kastrup.

Such cooperation between the three airports is well supported infrastructurally by the existence of the Oresund Bridge, train connections, highways etc.

A future possible development of NUAC to include also Finland, Norway and the Baltic countries would give opportunity to further promote the efficiency in the Functional Airspace Block of the Nordic Region.

Such a development could give a higher efficiency regarding flights in and out of Stockholm-Arlanda Airport as a consequence of handling the traffic to and from Stockholm-Arlanda Airport without constraints like national boundaries.

7.2 Indications from the Simulations

As stated above, the analysis from the Fast Time Simulations (Appendix 7) carried out indicates possible reduction in time and flown miles that will decrease fuel consumption in an enhanced joint airspace.

Calculating the value and effect of (e.g. time and fuel savings as well as emission reduction) enhanced routing has been indicated possible as an outcome of the simulations. The findings and indications should be further elaborated in the continued work of the NUAC Programme to cover the total issue of socio-economic improvements for the society in e.g. the Oresund region but also in Denmark and Sweden in general.

In the simulation analysis, four cases have been described.

The baseline case – simulation A – is used for comparison with present use of the airspace and the two optimised uses of airspace – simulations B and C. Furthermore, a city pair (Stockholm and Copenhagen) analysis and a high density route analysis (northeast – southwest and vice versa) have been performed for reasons of showing possible specific gains on high density routes.

As stated, the analysis of the simulations indicates that there can be expected yearly customer and society benefits for the city-pair Stockholm and Copenhagen and other routes and these indications have been found using parameters as follows:[96]

The indications from the simulation analysis is based on passengers per flight, calculated as an average of a standard 130 seat aircraft with 65% usage of the aircraft capacity and the saved society hours is derived from that figure. This averages 80 passengers per flight or 160 passengers per return flight.

The fuel savings has a consequential impact on the amount of pollution released by the combustion of aviation fuel. Emission of mainly CO2, SO2 (small amounts of NOx, CH4 and NO2) will, using a relatively simple standard average methodology developed by EUROCONTROL and UN[97] for the “representative aircraft” as described in the fuel calculation, be an average of 3,99 kg per kg fuel.

Thus the indications show a possible society time saving, fuel consumption and emission reduction and these indications above needs to be further investigated in a full socio-ecomomic analysis using real aircraft operator figures in the period after this delivery.

7.3 Conclusion

The indications from the work conducted are that there could be substantial socio-economics benefits in the realisation of the NUAC Programme.

As a consequence, the NUAC Programme Management Team deems it of great value for the decision process to ensure the conduction of a detailed Socio-Economic Analysis in order to consolidate the indications/findings of all the Programme work. This including more detailed calculations on the effects of the proposed airspace and proposed organisations in a socio-economic perspective.

[96] The calculations indicated in the simulations will be specified further by SAS DK and a full socio-economic analysis will be carried out and the indications will then be more accurate figures after these deliveries.

[97] Standard Inputs for EUROCONTROL Cost Benefit Analyses, 2005 Edition and UNFCCC Emission Inventory Guidebook

8 Glossary[98]

A	"A" is the system delivery section in Naviair
ACC	Area Control Centre (ACC) A unit established to provide air traffic control service to controlled flights in control areas under its jurisdiction.
Administrative development support	Support staff related to system development functions e.g. program office, project management etc.
Administrative IT	Administrative IT in this project is defined as all non-operational IT (e.g. Office computers and SAP) related hardware and software.
Administrative processes	Administrative processes support all administrative functions in an organisation, which in this project includes the following functions: HR, Finance, Administrative IT, Legal services, Communication and Facility Management.
Administrative staff	Administrative staff is defined as staff working in administrative processes e.g. "Business development", "PR Communication", "Legal services", "Quality and safety", "Finance", Administrative IT", "Human resource" and "ATM Training" and "other administrative staff".
AER	LFV/ANS Business Area En Route The en-route business area provides Air Traffic Services en-route and has approximately 500 employees placed within 3 units. These units are the two control centres in Malmoe, Stockholm, and the Flight Planning Centre.
AIS	Aeronautical Information Services (AIS). A service provided for the collection and dissemination of information needed to ensure the safety, regularity and efficiency

[98] The glossary are, where ever possible, based on the international definitions and acronyms from the international organisations ICAO, EUROCONTROL and furthermore the SES legislations. Following publications have been used "EATM Glossary of Terms", Eurocontrol, 2004, "The impact of fragmentation in European ATM/CNS", PRC, "Doc 9426-AN/924 Air traffic planning manual", ICAO, 1984, "Annex 10: Areonautical Telecommunication",ICAO,2001, "Annex 11: Air Traffic Services" ICAO,2001, "Annex 13: Aircraft Accident and Incident Investigation",ICAO,2001, "Annex 15: Aeronautical Information Services",ICAO,1997, "Annex 17: Secruity", ICAO,2002 and "Regulations of the European Parliament and of the Council of 10 March 2004 (nos 549/2004, 550/2004, 551/2004, 552/2004) laying down the framework for the creation of the Single European Sky", EU, 2004

	of air navigation. Such information includes the availability of air navigation facilities and services and the procedures associated with them, and must be provided to flight operations personnel and services responsible for flight information service.
AMC	Airspace Management Cell (AMC) A centralised body providing the day-to-day management and temporary allocation of the airspace.
ANS	Air Navigation Service (ANS). Air Navigation services means air traffic services; communication, navigation and surveillance services; meteorological services for air navigation; and aeronautical information services.
ANSP	Air Navigation Service Provider (ANSP). ANSP means any public or privat entity providing air navigation services for general air traffic.
Approach Control Service (APP)	Approach control service. Air traffic control service for arriving or departing controlled flights.
Area Control Service	Area traffic control for controlled flights in control areas.
ARO	Air Traffic Service Reporting Office (ARO) A unit in LFV/ANS established for the purpose of receiving reports concerning Air Traffic Services and flight plans submitted before departure.
ASD	LFV/ANS Business area Support The Support business area includes the Air Navigation Services Support and Development section, which employs about 200 people. This area is the competence centre within the Division and has responsibility for providing support, consultants and assignment staff. The area is also responsible for providing competence and resources for all the simulators under the control of the division.
ASI	LFV/ANS Business area System The System business area includes the ANS System and Infrastructure - ASI and is responsible for the Air Navigation Services infrastructure, which consists of 500 systems and establishments. ASI tasks include maintaining an infrastructure, providing availability, quality, function, capacity, development of

	on-line systems as well as maintaining international harmonisation.
ATA	LFV/ANS Business area TWR/APP The TWR/APP business area (Tower/Approach) provides aerodrome and approach control services and has 450 employees located in 37 different places around the country.
ATC	Air Traffic Control Service (ATC). A service provided for the purpose of preventing collisions between aircrafts on manoeuvring area between aircraft and obstructions; and expedition and maintaining an orderly flow of air traffic.
ATCO	Air Traffic Control Officer (ATCO)
ATFM	Air Traffic Flow Management (ATFM). Air Traffic flow management service is established to support ATC in ensuring an optimum flow of traffic to, from, through or within defined areas during times when demand exceeds, or is expected to exceed, the available capacity of the ATC system, including relevant aerodromes. ATFM should be developed as necessary to ensure this optimum flow.
ATM	Air Traffic Management (ATM) ATM means the aggregation of the airborne and ground based functions (air traffic services, air space management and air traffic flow management) required to ensure safe and efficient movement during all phases of operations.
ATM systems	Air Traffic Management System ATM system means the aggregation of airborne and ground based constituents, as well as space-based equipment, that provides support for air navigations services for all phases of flight.
ATS	Air Traffic Services (ATS). A generic term meaning variously, flight information service, alerting service, air traffic advisory service, air traffic control service, area control service, approach control service or aerodrome control service.
ATWR	Apron TWR (ATWR)

	Regulates the activities and the movement of aircraft and vehicles on an apron.
Avinor	The Norwegian ANS provider.
Baseline	The baseline is the budget for the "business as usual" situation. The baseline is established by consolidating current 2006 budgets of Naviair and LFV/ANS (referred to as "baseline").[99] The 2006 budgets of Naviair and LFV/ANS have been projected to 2020 in order to cover the analysis period.
Briefing Officer	Staff at LFV Flight Planning Centre (FPC) providing Integrated Aeronautical and Meteorological Information Services of operational significance prior to flight for pre-flight planning purposes, Flight Plan handling and operation of the International NOTAM Office. In addition they provides ATCC Stockholm with Flight Data Operations (FDA) Staff in Naviair providing Aeronautical Information of operational significance prior to flight for pre-flight planning purposes, Flight Plan handling, issue NOTAM for Denmark and operation of the International NOTAM Office
Business as usual	The "business as usual" is the situation where Naviair and LFV/ANS carry on as planned, in accordance with their current strategies and plans. As a consequence, current procedures, practices, systems etc. remain in place in Naviair and LFV/ANS respectively during the analysis period. As COOPANS is part of the current strategies and plans for both Naviair and LFV/ANS, the implementation costs of COOPANS is included in the "business as usual".
Business Model	A Business Model is a description of how an organisation functions, a general template that describes its major activities. It identifies the firm's customers and the products and services it offers. A model also provides information about how a firm is organised and how it generates revenues and cover budgeted costs. Business Models combine with strategy to guide major decisions at a firm. The model also describes products and services, customer markets and business process. In this project a Business Model contains the following four elements: • Product and services, • Processes, • Sourcing strategy and

[99] All tower and Local Approach unit/ATS related costs and revenues are excluded in the Business Case, since these areas are out of scope for the NUAC Programme. For further details and assumptions related to baseline, see Data Sources and Methods section in "Appendix 1: Business Case".

- Organisation & structure.

Business Model risks	The term Business Model risk in this project is used for risks related to the implementation of the new Business Models.
CAA	Civil Aviation Authority (CAA) A national supervisory for civil aviation.
CATCAS	Copenhagen Air Traffic Control Automated System (CATCAS) The present Flight Data Processing and Radar Data Processing System used to be Copenhagen ACC and APP.
CEO	Chief Executive Officer (CEO)
Certification	The process by which a national supervising body gives formal recognition that an ANS Provider conplies with the Common Requriments (No 2096/2005 of 20 December 2005).
CNS systems and infrastructure	Communication, Navigation, and Surveillance (CNS) Communication means aeronautical fixed and mobile services to enable ground-to-ground, air-to-ground and air-to-air communication for ATC purpose. Navigation means those facilities and services that provide aircraft with positioning and timing information Surveillance means those facilities and services used to determine the respective positions of aircraft to allow safe separation
Common requirement	EU Commission Regulation (No 2096/2005 of 20 December 2005) laying down common requirements for the provision of Air Navigation Services in Europe.
COO	Chief Operation Officer (COO) Responsible for operation and operational support. Process owner of core processes in the organisation.
COOPANS	Cooperation in the Procurement of Air Navigation Systems (COOPANS) COOPANS is the acronym of a contractual agreement between IAA, LFV/ANS and Naviair regarding common development of future upgrading of ATM systems.
Core business	Core business is the main activities in an organisation that, from the customers' perspective, create value and customer satisfaction.

	It is e.g. assumed that core business in new NUAC Company in the merged Scenario include the following four activities • Approach control, • Area Control, • Flight info service (FIS) • Air-traffic Flow Management (ATFM).
Customer	In this project it is assumed that Air Navigation Service Providers have four different customers • Airlines, • The armed forces, • Other airspace users
DATMAS	Danish Air Traffic Management System (DATMAS) The contracted future ATM system for Copenhagen ACC and APP and Roskilde and Billund APP.
Designation of ATS providers	EU Member States shall ensure the provision of Air Traffic Services on an exclusive basis within specific airspace blocks in respect of the airspace under their responsibility. For this purpose, Member States shall designate an Air Traffic Service provider holding a valid certificate in the Community.
Development staff	Development staff in this project is defined as staff working with CNS and ATM-system development.
DFS	Deutsche Flugsicherung (DFS) The national German Air Navigation Service Provider.
Duty roster planning	The daily operative allocation of human resources in order to ensure services for the scheduled working hours in accordance with legal and local procedures.
ECAC	European Civil Aviation Conference (ECAC) ECAC, which was founded in 1955, is an intergovernmental organisation. ECACs objective is to promote the continued development of a safe, efficient and sustainable European air transport system. There are 38 member states in ECAC (year 2000).
ELTEL	ELTEL is an international company working within electricity, telecommunications, railway, aviation, public safety, and enterprise networks.
En-route	A term used in connection with charging for service provision between the departure and the approach phase of a scheduled

	flight or a phase of navigation covering operations between a point of departure and termination of a mission.
Entry Point North	Entry Point North (EPN) is a common Danish, Swedish and Norwegian school for ATCO's including educational standards for intial ATCO training.
ERP	Enterprise Resource Planning (ERP) An integrated information system that serves all departments within an enterprise. Evolving out of the manufacturing industry, ERP implies the use of packaged software rather than proprietary software written by or for one customer.
ESRA	The EUROCONTROL Statistical Reference Area (ESRA) ERSA is designed to include as much as possible of the ECAC area for which data are available from a range of sources within the Agency sources.
EUROCAT	The new Swedish ATM-System called "Eurocat 2000". It became operational at LFV/ANS by 2004.
EUROCONTROL	EUROCONTROL is the European Organisation for the Safety of Air Navigation. This civil and military Organisation, which currently numbers 36 Member States, has as its primary objective the development of a seamless, pan-European Air Traffic Management (ATM) system.
FAB	The key to a more rational organisation of airspace is integration across borders through functional airspace blocks (FABs) in order to improve capacity, enhance safety, and lower costs of Air Traffic Services. These FABs should be based on operational requirements – in particular traffic flows – rather than existing national borders. The airspace regulation (551/2004) of the EU made by the EU Commission foresees in its article 5 that FABs shall respect the following criteria: • Be supported by a safety case, • Enable optimum use of airspace, taking into account air traffic flows, • Be justified by their overall added value, including optimal use of technical and human resources, on the basis of cost-benefit analyses, • Ensure a fluent and flexible transfer of responsibility for air traffic control between Air Traffic Service units, • Ensure compatibility between the configurations of upper and lower airspace, • Comply with conditions stemming from regional agreements concluded within the ICAO, and

	• Respect regional agreements in existence on the date of entry into force of this Regulation, in particular those involving European third countries.
FDO	Flight Data Operator (FDO) A flight data operator supports the operational ATM system with manual updates and corrections to flight plans not automatically accepted by the system, furthermore the FDO can be responsible for handling of certain sub-systems The following responsibilities are foreseen to be handled by the Flight Data Operator: • Normal Flight Data Operator's duties carried out from a FDO position, • Administrative and operational duties for the SUP, • Flight Plan Updates/Corrections to support the operational ATM system, • Administrations of sub-systems.
Finavia	The Finnish ANS provider.
FIS	Flight Information Service (FIS) A service provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights.
Flight Safety	Flight safety is a broad term encompassing the theory, investigation and categorisation of flight failures, and the prevention of such failures through appropriate regulation, as well as through education and training. It can also be applied in the context of campaigns that inform the public as to the safety of air travel.
FPC	Flight Planning Centre (FPC) A unit in the AER department in LFV/ANS.
FTE	Full Time Equivalents (FTE) One FTE is defined as employment of 1749 hours/year in Sweden and 1865 hours/year in Denmark.
General Administrative Staff	See Administrative Staff
HR Aspect risks	The term HR aspect risks in this project are used about risk related to the HR consequences of the integration (personnel, conditions, legal aspects, competencies, environment, etc.).

ICAO	International Civil Aviation Organisation (ICAO) ICAO in its responsibility for the adoption of international standards procedures and recommended practices supports the direction of the Air Navigation Commission.
Initiative	The term “initiative” is defined by one or several projects driven by the establishment of a formalised cooperation. As a consequence, the initiatives cannot in general be implemented as individual cost reduction projects.
Initiative risks	The term initiative risk is used for risks specifically related to the implementation of the different integration initiatives.
IRR	Internal Rate of Return (IRR) is a financial metric that reflects the time value of money (like NPV). The IRR for an investment is the discount rate for which the total present value of future cash flows equals the cost of the investment. It is the interest rate, which produces a 0 NPV i.e. the IRR describes the maximum rate that would result in the investment being defined as beneficial.
IAA	Irish Aviation Authority (IAA) The Irish ANS providers and national supervision authority.
Junior Manager	Third level manager with responsibility of functional teams e.g. team leader of Staff Planning (OSS) in Naviair.
Lifecycle of IT systems	A life cycle of IT systems is the estimated length of system. Its length depends on the nature and volatility of the business, as well as the software development tools used to generate the databases and applications. It is assumed that when a life cycle of a system is completed, it would be efficient to replace it. In practice the replacement of systems does not always follow the estimated life cycle.
Local investigation	Local investigation is a part of the Safety Management System. A safety reporting system supports the local investigation process in order to comply with safety standards and carry out investigations of air traffic incidents or other occurrences that might have an impact on the flight safety in order to use the findings to prevent a recurrence.
Management processes	Processes for managing, governing and pointing out the strategic direction of the business in an organisation. It is assumed that the NUAC Company in Merger Scenario will have three different management processes: • NUAC Business Development, • Business planning & follow up, and

	• Quality and Safety.
Manager	Second level manager (head of sub-functional areas) with responsibility of e.g. head of the ATM Systems (OT) in Naviair.
Merger Scenario	The Merger Scenario has been evaluated in NUAC Definition phase. The Scenario is defined as a merger of relevant parts of the two organisations LFV/ANS and Naviair into one organisation with responsibility for the carrying out the Air Traffic Service provision within Danish and Swedish airspace and working in a Functional Airspace Block with one en-route charging zone and a common unit rate.
MET	Meteorological Services for Air Navigation (MET) Meteorological service means those facilities and services that provide aircraft with meteorological forecasts, briefs and oberservation as well as any other meteorological information and data provided by States for aeronautical use.
MSSR	Monopulse Secondary Surveillance Radar (MSSR)
NALLA	National Long Lines Agency (NALLA) As a consequence of the Danish NATO membership, all data communication must be covered by NALLA. The executive order: “Bekendtgørelse nr. 1045 af 13. december 2001” contains detailed information about NALLA.
NATS	National Air Traffic Services (NATS) The nation Air Navigation Service Provider in United Kingdom.
NOF	International NOTAM Office International NOTAM office. An office designated by a State for the exchange of NOTAM internationally.
Non-financial benefits	Non-financial benefits are benefits, which cannot be quantified in financial terms e.g. safety improvement, operational flexibility etc.
NPV	Net Present Value (NPV) represents total cash flow across the analysis period, adjusted to reflect the time value of money. Other things being equal, the action or investment with the larger NPV is the better option.
NUAC/SKAANE Scenario	The NUAC/SKAANE Scenario has been evaluated in NUAC Definition phase. The original NUAC and SKAANE concepts as stated by the original projects. This with LFV/ANS and Naviair as co-owners of a NUAC company carrying out the Service Provision in a common Functional Airspace Block above FL. 285, but otherwise remaining as independent organisations.

OCHB	OCHB is the Briefing unit in Naviair.
Operational staff	The staff working in the operational environment of ATS comprising ATCOs, flight data assistants, flow managers, operations room supervisors and ATS support staff.
Operational Support and Requirements	Support processes in new NUAC Company (in Merger Scenario) regarding developing and maintaining ways of working within the operation (IS/IT excluded). Examples are procedures, airspace and route design.
Operational Support Processes	Operational support processes cover activities directly supporting the core business. It is assumed that operational support processes in the NUAC Company in Merger Scenario contains three different activities • Operational Support and requirement, • Technical support and requirement and • Local investigation.
Operational support staff	Function supporting operational activities e.g. development of procedures, local investigation, roster planning etc.
OT	Unit in Naviair working with ATM-Systems.
Other administrative staff	See Administrative Staff
Other ATM systems	The category ‘other ATM systems’ covers all relevant ATM systems except CNS systems, tower systems and systems covered by the COOPANS co-operation. The category contains among other systems: The MAESTRO (Arrival Management System), internal TV-systems for distributing MET- information and flight-data from TWR to APP and systems for distribution of ”correct time” in ATC.
Overhead costs	Overhead costs in this project are defined as costs not directly related to payrolls or operation costs, but dependant on the number of staff. More specifically: • Recruitment and training costs per employee, • Administrative IT costs (HW, software licenses, help desk etc.) per employee, • Office costs (furniture, office supplies etc) per employee, • Building related costs (maintenance, rental etc.).
Position	Predetermined work related tasks. These tasks may be controlling tasks as that of an executive or planner, data processing tasks, coordinating tasks, of supervisory or technical character.

Primary radar	A radar system, which uses reflected radio signals.
Procedure functions	Functional unit with primary focus on developing operational procedures etc.
Scenario	A Scenario in this project is defined as a plausible description of how the future cooperation can develop, based on a coherent and internally consistent set of assumptions about key relationships and driving forces of the ATM industry and the specific characteristics of Naviair and LFV/ANS. The NUAC definition phase has evaluated three different Scenarios: • The Alliance Scenario, • Merger Scenario and • NUAC/SKAANE Scenario.
Secondary Radar	Secondary Radar A radar system wherein a radio signal transmitted from the radar station initiates the transmission of a radio signal from another station.
Secondary Surveillance Radar	A surveillance radar system, which uses transmitters/receivers (interrogators) and transponders. In contrast to Primary radars, SSR requires the aircraft to send back (using a transponder) a signal to the radar and thus actively participate in the detection process.
Sector	A sector is a predetermined block of airspace. The air traffic in a sector will be handled from one or more ATC working positions.
Senior Management	A senior manager is defined as a first-level manager (Director). The senior manager is typically responsible for functional areas like HR, Finance, Business Development etc.
SESAR	Single European Sky Implementation Programme (SESAR) The program focuses on aligning and standardising the future development and functionality in the ATM systems used by the European air navigation service providers.
Single European Sky	Single European Sky (SES) The objective of the Single European Sky initiative is to enhance current safety standards and overall efficiency for general air traffic in Europe, to optimise capacity meeting the requirements of all airspace users and to minimise the delays. In pursuit of this objective, the aim of this regulation is to establish a harmonised regulatory framework for creating of the single European sky.

SLA	Service Level Agreement (SLA)
System development	System development is activities referred to achieve effective and efficient new and existing CNS- and ATM-systems. It is assumed that the main activities related to system development in the NUAC Company in the Merger Scenario will be • Requirement, • Project management, • Technical architecture, • Vendor management regarding third parties, • System testing, • Technical procedure for ATM systems, • Implementation of ATM enhancement.
System maintenance	System maintenance is activities related to maintaining the existing ATM and CNS systems with purpose to correct faults, to improve performance, or to adapt the system to a changed environment or changed requirement. It is assumed that the main system maintenance activities in NUAC Company in the Merger Scenario will be: • Vendor management regarding third parties, • Validation.
System supervision	Activities related to supervision of ATM and CNS systems performed by technical supervisors.
Technical staff	A general term referring to personnel working within “system development”, “system maintenance” or “system supervision”.
Technical Support and Requirements	A common term for processes in new NUAC Company (in Merger Scenario) regarding “System maintenance” and “System development” covering CNS- and ATM-systems.
Technical watch supervisors	An operative role necessary to execute operations. It covers the following responsibilities: • Monitor and safeguard those parts of the technical system that can be maintained from the TECH SUP position, • Identification and reporting of technical problems, • Perform necessary re-start, re-configurations and adjustments of technical equipment, • Perform limited replacement of hardware, • Provide advice and necessary liaison with the SUP and Level 2 competences.

TMA	Terminal Manoeuvering Area (TMA) A volume of airspace of defined dimensions usually established at the confluence of ATS routes in the vicinity of one or more aerodromes.
TRACON	Terminal Radar Approach CONtrol (TRACON). Radar control unit handling airspace associated with tower control of one or several major airports. The airspace will be divided into feeder/stacker sectors and approach/departure sectors.
TWR	Tower Control Unit (TWR). Aerodrome control tower. A unit established to provide air traffic control service to aerodrome traffic.
Vendor Management	Activities related to management of vendors.
Alliance Scenario	The Alliance Scenario has been evaluated in NUAC Definition phase. The Scenario is defined as independent organisations in a closer cooperation LFV/ANS and Naviair are establishing a co-owned Alliance Company for the carrying out of certain support functions. This with only minor changes to the operational parts of the two organisations working in a Functional Airspace Block.
Watch supervisors	An operative role necessary to execute operations. It covers the following responsibilities: Be responsible for the over-all operational work performed in the centre. • Monitor and safeguard those parts of the technical system that can be maintained from the SUP position, • Conduct briefing and debriefing with the operational staff, • Be responsible for the correct manning of each shift in the centre, • Flow Management duties.

9 List of References

9.1 Project and Work Stream Reports made by the NUAC Programme

Area	*Title*
Business Case	Appendix 1: Business Case
	Appendix 2: Business Case – Initiatives
	Appendix 3: Business Case – Documentation
Business Model	Appendix 4: Business Model
	Appendix 5: Consideration regarding Company Forms and Value Added Tax
Integration Strategy	Appendix 6: Integration Strategy
Airspace	Appendix 7: Airspace Design
	Appendix 8: Fast Time Simulation
HR Aspects	Appendix 9: HR Aspects
General	Appendix 10: Terms of references
	Appendix 11: Stakeholder Care Programme and Communication Plan
	Appendix 12: Risk Management Plan
	Appendix 13: Strategic Framework

9.2 References

Source	*Title*
EUROCONTROL, 2005	“Performance Review Report - An assessment of Air Traffic Management in Europe during the calendar year 2005”
EUROCONTROL, 2005	“CFMU Yearly Summary 1999-2005”
EUROCONTROL, 2006	“ATM Cost-Effectiveness (ACE) 2004 Benchmarking Report”
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EUROCONTROL, 2004	“EATM Glossary of terms”
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9.3 Interviews

9.3.1 *Interviews and data validation with experts from Naviair*

Functional area in Naviair	***Person***
Finance	Søren Stahlfest Møller
	Jørgen Badsberg
Infrastructure	Niels La Cour Dragheim
	Bent Fog
ATM and CNS system/infrastructure	Flemming Tidselholdt
	Bent Fog
	Finn Skov
	Lisa Brenting
	Jon Tallbacka
TMC	Bent Fog

	Jan Hartmann
HR	Ghitta Skjærbek Bonde
	Annette Høyen
Administrative IT	Troels Høgh
	Søren Stahlfest Møller
	Peter Eghøje
Processes	Lars Bech Madsen
General	Bjarne Berlin
	Sten Halvorsen
	Jesper Skov
	Lise Kronborg

9.3.2 *Interviews with experts from LFV/ANS*

Functional area in LFV/ANS	***Person***
Finance	Urban Trygg
	Mikael Larsson
Infrastructure	Rolf Norman
	Kennet Johansson
ATM and CNS system/infrastructure	Rolf Norman
	Kennet Johansson
	Evelyn Darvå
	Nathali Asp-Schneider

TMC	Rolf Norman
	Roland Sandelin
HR	Evalott Ytterström
	Ingrid Wahlberg
Administrative IT	Rolf Norman
	Urban Trygg
	Mathias Persson
	Matts Bergwall
Processes	Sandra Jansson
	Håkan Fredriksson
General	Anders Österlund
	Michael Standar
	Kimmy Bech
	Alf Månsson
	Sam Jacobsson
	Yvonne Boussard-Andersson