



**NUAC Programme
Definition Phase Supplementary Report**

**Appendix 16
Business Model**

August 2007



NUAC – Programme

Supplementary Report Appendix 16: Business Model



Contents

- Introduction
- Analytical framework
- Description of the Business Model

Introduction

Introduction

- This document contains additional analysis to the findings conducted during the NUAC Definition Phase and presented in the Final Report (and Appendices 5 and 10). This work is a further shaping of the findings presented in the Final Report with primary focus on the development of the contour of a complete governance structure covering all three organisations
- The purpose of the document is to outline the high-level Business Model frame in order to highlight all aspects for the three scenarios: Merger, Alliance and a new Operational Alliance scenario, which has been formulated on the basis of the findings in the NUAC Definition Phase as well as inspiration from the stakeholder responses. It must be stressed that the details regarding the Business Model will be further developed in the Design & Development Phase. The final section in this report will outline the next step in order to complete the overall Business Model
- The presented Business Model contains a high level and coherent Business Model which covers the relevant elements on a high level. The Business Model consists of four different elements (as shown in the model page 9): a) company form and ownership structure, b) process and tasks, c) organisational structure and d) governance structure
- The description of the company form/ownership structure and governance structure will be identical in all scenarios; while the other Business Model elements differentiate in the scenarios (process and tasks, and organisational structure). Even though there will be some degree of variations in the governance structures for the different scenarios – only one generic description of governance structure cover all three scenarios in this document.
- This specific document will describe the Business Model for NUAC Company only

Readers guidelines

The report contains five different chapters:

- **Analytical framework** – a description of the purpose, scope, approach, and the overall business model framework
- **company form** – a description of analysis regarding company form and the ownership structure for NUAC including the next step in order to complete the ownership structure
- **Processes and tasks** – a description of NUAC tasks and processes in the three different scenarios
- **Organisational structure** – a description of the organisational structure of NUAC including the underlying design principles in the three scenarios
- **Governance structure** – a description of the overall governance framework including a specific description of its elements

Contents

- Introduction

- Analytical framework

- Purpose and scope
- Sources
- The scenarios
- Business Model framework

- Description of the Business Model

Analytical framework

Purpose and scope

Purpose

- To develop a high-level and coherent Business Model which covers all relevant elements on a high level, in order to secure that the organisations will be able to realise the NUAC vision

Scope

- The document will describe the Business Model for NUAC Company, while the Business Models for the retained organisations are out of scope
- The Business Model will describe the company form, process, organisational structure, and governance structure for NUAC Company
- The Business Model for NUAC Company will be described for the Merger, Alliance, and Operational Alliance scenario
- The work is based on a top-down approach, and the next step will be to adjust and finalise each element in the Business Model based on more detailed data, negotiation, and decision
- The top-down approach means that the described Business Model is based on following sources: relevant literature (see next page), comparable experiences, and the interviews and data regarding Naviair and LFV/ANS collected during spring and summer 2006

Outcome

- A high-level coherent Business Model including a clear and effective governance structure covering all three organisations is a prerequisite for the implementation of NUAC and the realisation of the NUAC vision
- The Business Model will be a guideline for the finalisation of the Business Model in the Design & Development Phase

Analytical framework

Sources

Existing material

- Final report and appendices accomplished during the Definition Phase including the underlying data (e.g. interviews with experts from both Naviair and LFV/ANS)
- Description of current organisations – e.g. Naviairhåndbogen, Naviair, 2006; Kvalitetshåndbogen, Naviair, 2006; and LFV's homepage
- Discussions with Steering Committee, industry experts etc.

Preliminary analysis of the regulation in force

- International legislations: SES, Common Requirements
- National legislation in Denmark and Sweden

Specific framework and Business Model developed for public organisations

- Statslige selskaber – tilsyn, ansvar og styring, Finansministeriet, 2003
- Staten som aktionær, Finansministeriet, 2004
- Statens selskaber, Finansministeriet, 2005
- Riksrevisionens styrelses redogørelse angående formerna för styrning av de statliga bolagen, Riksdagen

Comparable experiences

- Experiences from change projects in the existing organisations, e.g. EPN
- Experiences and best practice from comparable industries



Analytical framework

Scenario definitions: Merger, Alliance, and Operational Alliance

	Merger scenario	Alliance scenario	Operational Alliance scenario
Description	<ul style="list-style-type: none"> • Merger of relevant parts of the two organisations LFV/ANS and Naviair into one organisation • NUAC is responsible for the carrying out the Air Traffic Service provision within Danish and Swedish airspace and working in a FAB environment with possibility of one en-route charging zone and a common unit rate • Drive the cost base down through innovative approaches to organisational structure and resource allocation 	<ul style="list-style-type: none"> • 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 FAB environment with possibility of one en-route charging zone and a common unit rate 	<ul style="list-style-type: none"> • LFV/ANS and Naviair as co-owners of a NUAC Company carrying out the provision of Air Navigation Services within Danish and Swedish fully integrated airspace • The services cover all Air Navigation Services except MET, AIS, and TWR • Support functions will be provided in NUAC Company in accordance with Common Requirements and when necessary to reach the full potential of the operational core business
Rationales	<ul style="list-style-type: none"> • 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 strategies • To show clear and formalised lines of command in a merged company and entail management of all core processes and related support processes 	<ul style="list-style-type: none"> • The Scenario should to the largest possible extent be in alignment with Single European Sky regulations and the national strategic directions outlined in Denmark and Sweden • Find out to what extent the cost-effectiveness could be reached without influencing the core business within LFV/ANS and Naviair • To give the answer regarding to what extent the Strategic Rationales for the NUAC Programme could be met 	<ul style="list-style-type: none"> • To investigate the feasibility and effects of a scenario with focus on cost effectiveness and national corporate strategies without compromising SES and national strategic directions • To investigate to what extent the cost-effectiveness/cost reductions could be reached when only including the core business in the NUAC Alliance Company

Analytical framework

The Business Model contains four coherent elements

Area	NUAC	Retained organisations
<p>Company form including ownership structure</p>	<ul style="list-style-type: none"> Company form (Swedish aktiebolag AB, Danish aktieselskab A/S, SE) including an assessment of legal issues for NUAC (implications on Danish part of company if choosing AB and vice versa (subsidiary or other solution)) Ownership structure 	<ul style="list-style-type: none"> Company form Implications of different company forms for retained organisation (SOV, bolagisering) in relation to NUAC
<p>Processes/ tasks</p>	<ul style="list-style-type: none"> Tasks Processes in each scenario (process map level 0) 	<ul style="list-style-type: none"> Tasks Processes in each scenario (process map level 0)
<p>Organisational structure</p>	<ul style="list-style-type: none"> Organisational structure for NUAC Company including explicit design principles (for each scenario) FTE requirement 	<ul style="list-style-type: none"> Organisational structure for retained organisations including explicit design principles (for each scenario) FTE requirement
<p>Governance structure</p>	<ul style="list-style-type: none"> Design of internal governance structure for NUAC Company Relation architecture and interfaces NUAC relation to the owners (retained organisations) Legal aspects Design of external governance model for the governance of all three organisations Financial flow 	<ul style="list-style-type: none"> Design of internal governance structure for retained organisations Legal framework for retained organisations Role, tasks, and responsibility for the governance (regarding ownership and ANSP policy) of NUAC Company Design of external governance model for the governance of all three organisations

Analytical framework
Company form



Element	Content
Company form	<ul style="list-style-type: none"> ▪ The section describes the plausible company forms for NUAC Company including a preliminary analysis of the advantages and disadvantages of each form ▪ The section will describe three different forms, Swedish AB , Dansk Aktieselskab A/S, and European SE, and will not provide any recommendations regarding company form. By the beginning of the Design & Development Phase, a decision regarding company form must be taken ▪ The section is based on the analysis conducted by Deloitte Business Consulting in the NUAC Definition Phase Final Report and Appendix 5: Company form and the remaining work conducted during the Definition Phase ▪ The company form will be the same in all scenarios
Ownership structure	<ul style="list-style-type: none"> ▪ The section consists firstly of a description and evaluation of different ownership models including the recommended ownership model ▪ Secondly, the section describes the relevant ownership issues that must be addressed in the ownership document, e.g. terms of resignation, process for entry/exit of new partners etc. ▪ The ownership structure form will be the same in all scenarios

Analytical framework

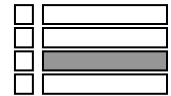
Processes and tasks



Element	Content
Tasks	<ul style="list-style-type: none">▪ The section will describe the major tasks for the NUAC Company▪ The specific tasks for the NUAC Company differ in the scenarios
Process map	<ul style="list-style-type: none">▪ The section will describe the process related to each major task for the NUAC Company▪ The process map will be limited to process level 0; the process level (level 1-2) will be conducted in the beginning of the Design & Development Phase▪ The specific processes for the NUAC Company differ in the scenarios

Analytical framework

Organisational structure



Element	Content
Organisational structure	<ul style="list-style-type: none">▪ The section describes the high-level organisational structure for NUAC Company including the underlying explicit design criteria▪ The specific organisational structure for the NUAC Company differ in the scenarios
FTE requirement	<ul style="list-style-type: none">▪ The section describes the required number of FTE due to the specific tasks and processes for NUAC Company▪ The specific number of FTE differs in the scenarios

Analytical framework

Governance structure



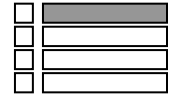
Element	Content
Internal governance structure	<ul style="list-style-type: none"> The section describes the high-level internal governance structure for the NUAC Company, e.g. management hierarchy, roles and responsibilities for the CEO management and design of board of directors Even though there will be some degree of variations in the internal governance structures for the different scenarios (as they outline different governance and management challengers) – only one generic description of governance structure covers all three scenarios in this document.
Ownership management	<ul style="list-style-type: none"> The section describes the roles and responsibility for NUAC related to the owners, e.g. policy, liabilities etc. There will not be any principal differences between the scenarios
Relation architecture	<ul style="list-style-type: none"> The section will describe NUAC relation architecture, e.g. NUAC contact points with major stakeholders including the clarification of the responsibility between NUAC and retained organisations for the relation Even though there will be some degree of variations in the relation architecture for the different scenarios – only one generic description of governance structure covers all three scenarios in this document.
Design of external governance structure	<ul style="list-style-type: none"> The section will describe the coordination framework in order to secure that the three organisations – LFV/ANS, Naviair, and NUAC Company – will be able to meet their specific goals and support the joint goal of delivering efficient and secure air traffic services in Danish and Swedish airspace in their daily operations as well as in their strategic planning Even though there will be some degree of variations in the external governance structure for the different scenarios – only one generic description of governance structure covers all three scenarios in this document
Legal framework for NUAC	<ul style="list-style-type: none"> The section will describe the legal framework for NUAC, e.g. which laws that are applicable and there content Even though there will be some degree of variations in the legal framework for the different scenarios – only one generic description of governance structure covers all three scenarios in this document
Financial flow	<ul style="list-style-type: none"> The section describes different models for the financial flow, i.e. the distribution of revenue and costs between the organisations Even though there will be some degree of variations in the financial flow for the different scenarios – only one generic description of governance structure covers all three scenarios in this document

Contents

- ❑ Introduction
- ❑ Analytical framework
- ❑ Description of the Business Model
 - Company form including ownership structure
 - Company form
 - Ownership relation
 - Process and tasks (scenario specific)
 - Organisational structure (scenario specific)
 - Governance structure

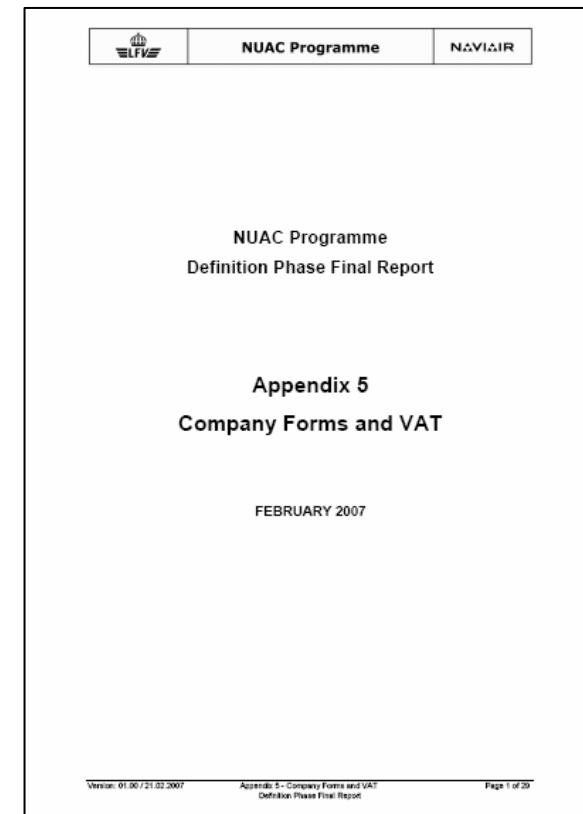
Company form

The Company form for NUAC Company



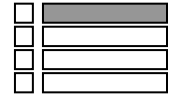
Scope

- The most likely company forms for the future NUAC Company have been addressed and analysed on a high level – the findings can be found in NUAC Definition Final Report and Appendix 5: Company Forms and VAT (the publication is written in Danish)
- Five different company forms have been analysed:
 - Company forms without limited liability: Dansk Interessent selskab I/S, svenskt handelsbolag, Euopæisk Økonomisk Firmagruppe
 - Company forms with limited liability: Dansk Aktieselskab, Svenskt Aktiebolag, Europæisk aktieselskab
- The summary of the analysis is presented in the next pages focusing on the advantages and disadvantages of company forms with and without limited liability
- The analysis has not yet resulted in a final decision regarding company form – which will be conducted during the early start of the Design & Development Phase – but has narrowed the options considerably. Currently, the option of a company form with limited liability seems to be the most plausible



Company form

Analysis of companies with limited liability



Fordelene ved et selskab med begrænset hæftelse er navnlig:

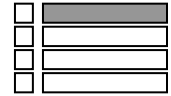
- Det er teknisk set relativt enkelt at optage nye selskabsdeltagere eller lade gamle selskabsdeltagere forlade selskabet.
- Selskabet er undergivet en udførlig offentlig regulering. Det øger gennemsigtigheden i selskabskonstruktionen og gør det nemmere for alle interessenter at forstå rettigheder og forpligtelser i forskellige relationer.
- Selskabet er undergivet offentlig registrering i et selskabsregister. Det øger gennemsigtigheden i selskabet og gør det nemmere for selskabets ledelse at dokumentere selskabets eksistens og deres egen rolle i relation til at tegne selskabet.
- Selskabet har begrænset hæftelse, således at selskabsdeltagerne som udgangspunkt ikke hæfter hverken for selskabets eller hinandens forpligtelser. Dette forhold er muligvis af mindre betydning, da det kan være vanskeligt at forestille sig, at offentlige selskabsdeltagere vil lade et af dem ejet selskab gå konkurs, men afhængigt af hvordan selskabets fremtidige aktiviteter udvikler sig, kan man måske ikke helt udelukke, at der kan optræde sammenhænge, hvor selskabet bliver mødt med krav i fremmede jurisdiktioner, som er så urimelige, at det kan være en overvejelse at udnytte den begrænsede hæftelse.
- For et SE-selskab er der endvidere den særlige fordel, at SE-selskabet reguleres af en særskilt og detaljeret EU-regulering. SE-selskabet har derfor ikke helt samme nationale karakter, som et dansk eller svensk aktieselskab vil have. Dette giver et tydeligt europæisk/internationalt signal, der kan være af stor psykologisk betydning, også i forhold til andre lande der fremover måtte ønske at blive selskabsdeltagere.

Ulemperne ved et selskab med begrænset hæftelse er navnlig:

- Den offentlige regulering vil sætte en række grænser for parternes aftalefrihed til frit at sammensætte konstruktionen og deres rettigheder og forpligtelser efter eget ønske. Der kan dog indgås en aktionæroverenskomst mellem selskabsdeltagerne, som i vid udstrækning kan genetablere aftalefriheden.
- Dispositioner med selskabsdeltagerne eller med omverdenen skal som udgangspunkt ske på "armslængdevilkår" såvel i selskabsretlig som i skatteretlig henseende. Dette kan dog også betragtes som en fordel.
- Selskabet er selvstændigt skattepligtigt af f.eks. overskud på selskabets aktiviteter, jfr. nærmere i skatteafsnittet nedenfor.
- Det kan være problematisk at overdrage myndighedsbeføjelser til selskabet, men det vil i givet fald bero på en nærmere vurdering om og under hvilke omstændigheder dette vil være lovligt i Danmark og Sverige såvel som efter gældende internationale regler.

Company form

Analysis of companies with no liability



Fordelene ved et selskab uden begrænset hæftelse er navnlig:

- Interessentskabet er skattetransparent, jfr. redegørelsen nedenfor under den skattemæssige gennemgang.
- Der er ingen særskilt lovgivning i Danmark, der regulerer interessentskabers forhold. Det betyder, at der som udgangspunkt er fuld aftalefrihed mellem selskabsdeltagerne med hensyn til, hvorledes de vil regulere deres indbyrdes forhold.
- Den ubegrænsede hæftelse for interessenterne medfører, at selskabet (i hvert fald hvis det har hhv. den danske og den svenske stat som interessenter) er meget kreditværdigt i forhold til omverdenen.

Ulemperne ved selskab med begrænset hæftelse:

- Den manglende offentligretlige regulering medfører et krav om, at man aftalemæssigt i interessentskabskontrakten skal forholde sig detaljeret til alle forhold vedrørende selskabet. Der er ingen klar udfyldende lovgivning, som besvarer spørgsmål, som parterne ikke har reguleret i interessentskabskontrakten.
- Interessenterne hæfter ubegrænset og solidarisk for interessentskabets forpligtelser. Dette er næppe i sig selv et problem for hverken Danmark eller Sverige i et interessentskab bestående af disse to interessenter - men kunne måske give en psykologisk bekymring for nye deltagerlande i fremtiden, ikke mindst hvis selskabets aktiviteter bliver meget omfattende.
- Det er væsentligt mere kompliceret for deltagerne at træde ind og ud af et interessentskab end at træde ind og ud af et selskab med begrænset hæftelse.
- I et interessentskab, hhv. handelsbolag, vil interessenternes indbyrdes forhold være undergivet dansk, hhv. svensk ret. Det vil afhænge af de nærmere omstændigheder, hvilket lands ret som vil finde anvendelse i en evt. konflikt mellem interessentskabet/handelsbolaget og tredjemand eller mellem selskabsdeltagerne og tredjemand, men det vil ligeledes kunne være dansk, hhv. svensk ret. Den direkte og ubegrænsede personlige hæftelse vil altså kunne medføre, at den danske stat principielt risikerer at blive undergivet svensk ret og svenske domstole, ligesom den svenske stat principielt risikerer at blive undergivet dansk ret og danske domstole. Dette kan formentlig give anledning til statsretlige betænkeligheder.

Company form

Design of ownership structure (1/2)



Current ownership structure:

- During the Definition Phase, different aspects of the NUAC ownership have been analysed – the main findings and conclusions regarding the ownership of NUAC are:
 - **Mutual ownership** (50%/50%) between the participating countries. During the Definition Phase, different ownership models were analysed, and the 50%/50% was the most plausible solution for all participating countries. This principle is implemented in all relevant areas of the Business Model
 - **The retained organisation will be responsible for managing the ownership.** The analysis – based on the experiences from comparable industries combined with preliminary negotiations between the relevant stakeholders – showed that the ownership is best managed through the retained organisations. The retained organisations become responsible for managing the national interests. The specific responsibility of managing the ownership has not yet been defined, but it should be mentioned that due to the code of practice regarding public owned joint stock companies in both countries, the responsibility will be extended compared to the management of regular shareholders (Finansministeriet, 2005, p.21). The setup for handling those tasks will be described in the section “Ownership management” in the Business Model for the retained companies and NUAC.

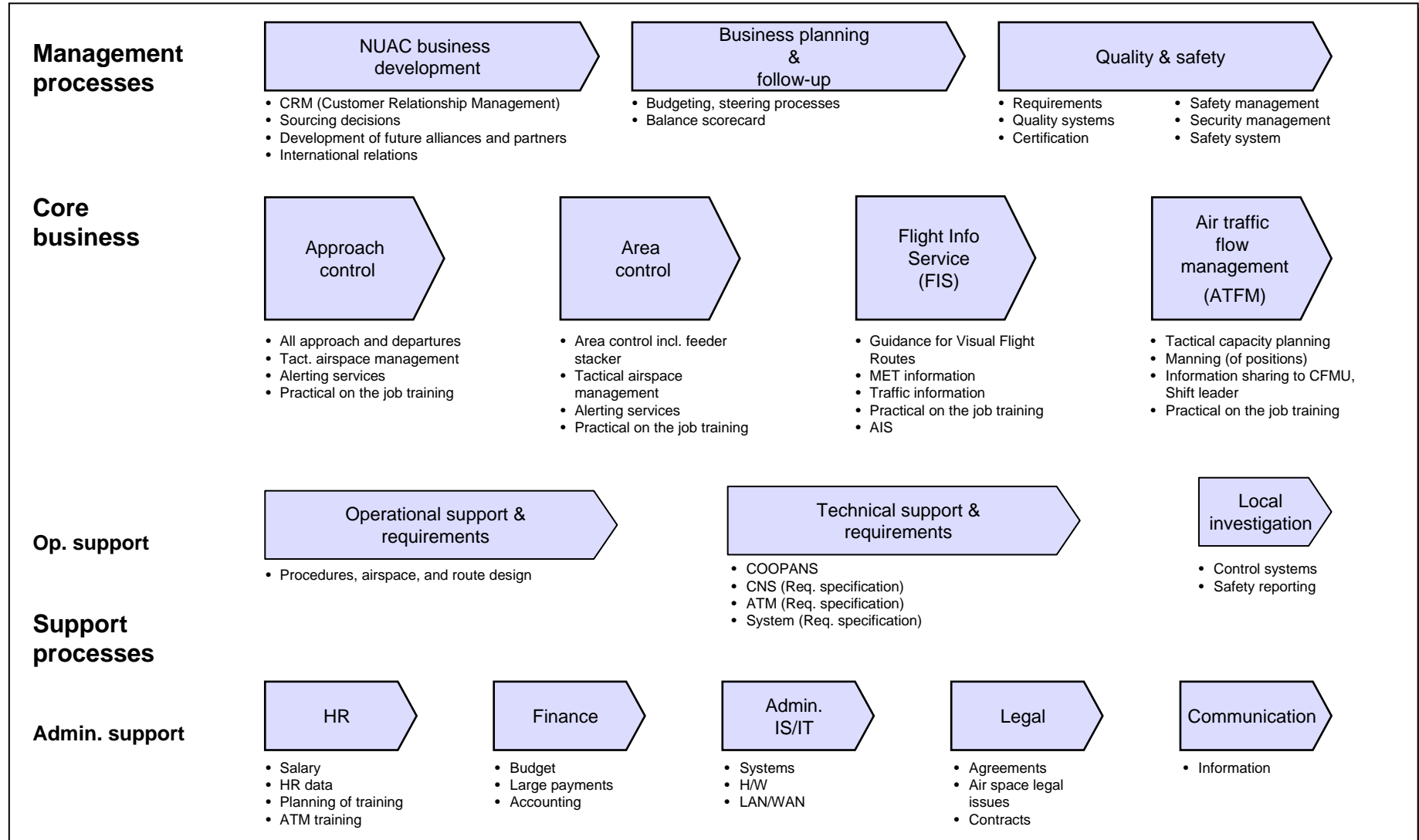
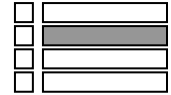
The next step in order to complete the ownership structure

- During the beginning of the Design & Development Phase, the following ownership dimensions will be finalised:
 - **Completing the ownership relation** – Many important aspects of the ownership relation need to be developed and determined during the Design & Development Phase; i.e. financial aspects, composition of employees in terms of background etc.
 - **Legal document** – During the Design & Development Phase an ownership document will be developed. The document will address all relevant aspects and dimensions by holding the ownership of NUAC Company. The legal document must address:
 - Terms of resignation
 - Payments and share owner agreements
 - The internal management hierarchy for NUAC Company; i.e. the responsibility of the general assembly, the composition and appointment of the NUAC Board etc.
 - Procedures and process for admission of new partners
 - Procedures for handling of fundamental disagreement between Denmark and Sweden (due to the fact that the balance is 50%/50%). The external governance model (se page 48) outline an escalation process, with the purpose to handle disagreement – This escalation process must – when finalised – be transposed in the legal document

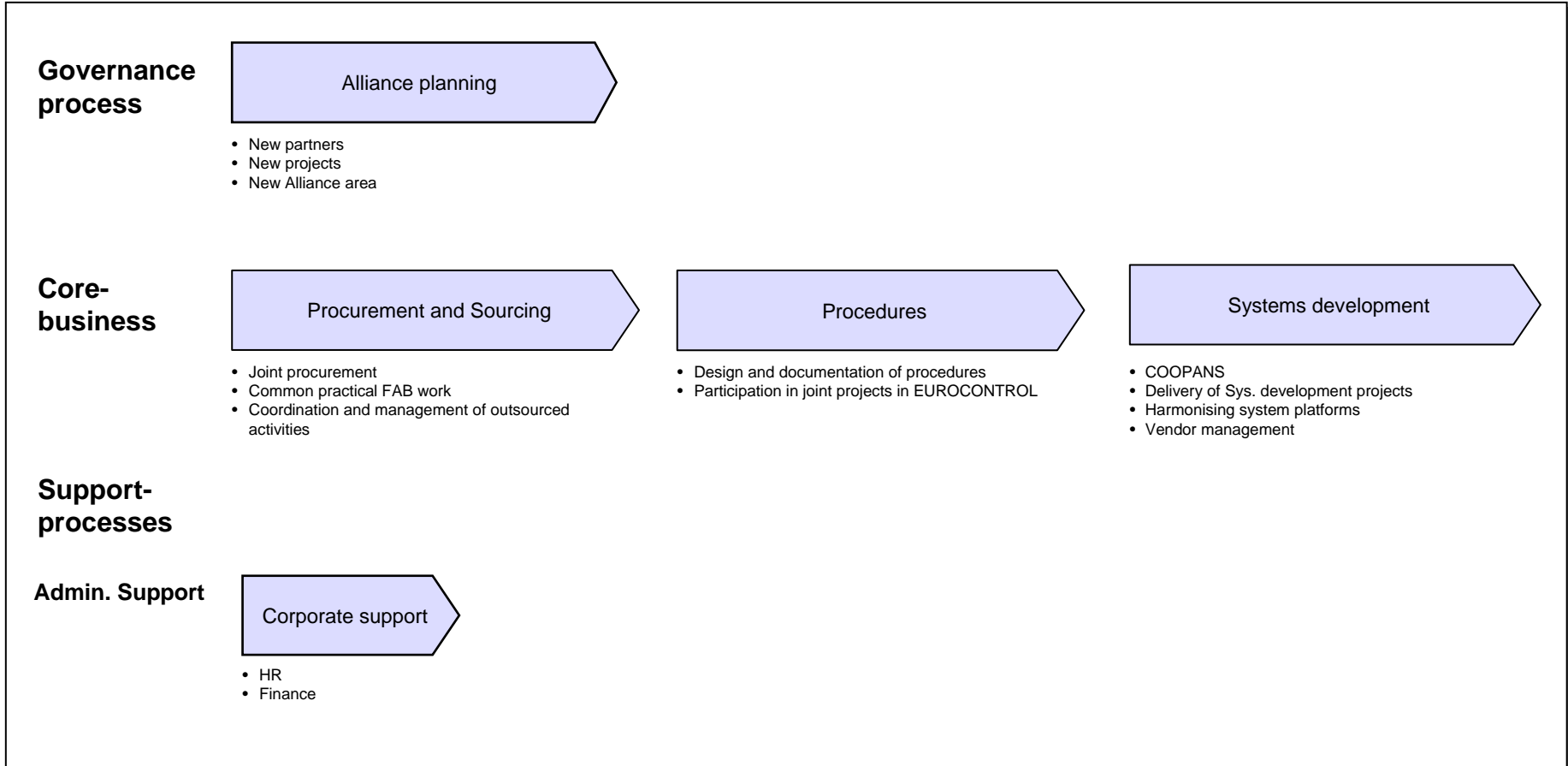
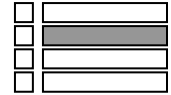
Contents

- ❑ Introduction
- ❑ Analytical framework
- ❑ Description of the Business Model
 - Company form including ownership structure
 - Process and tasks (scenario specific)
 - Merger
 - Alliance
 - Operational Alliance
 - Organisational structure (scenario specific)
 - Governance structure

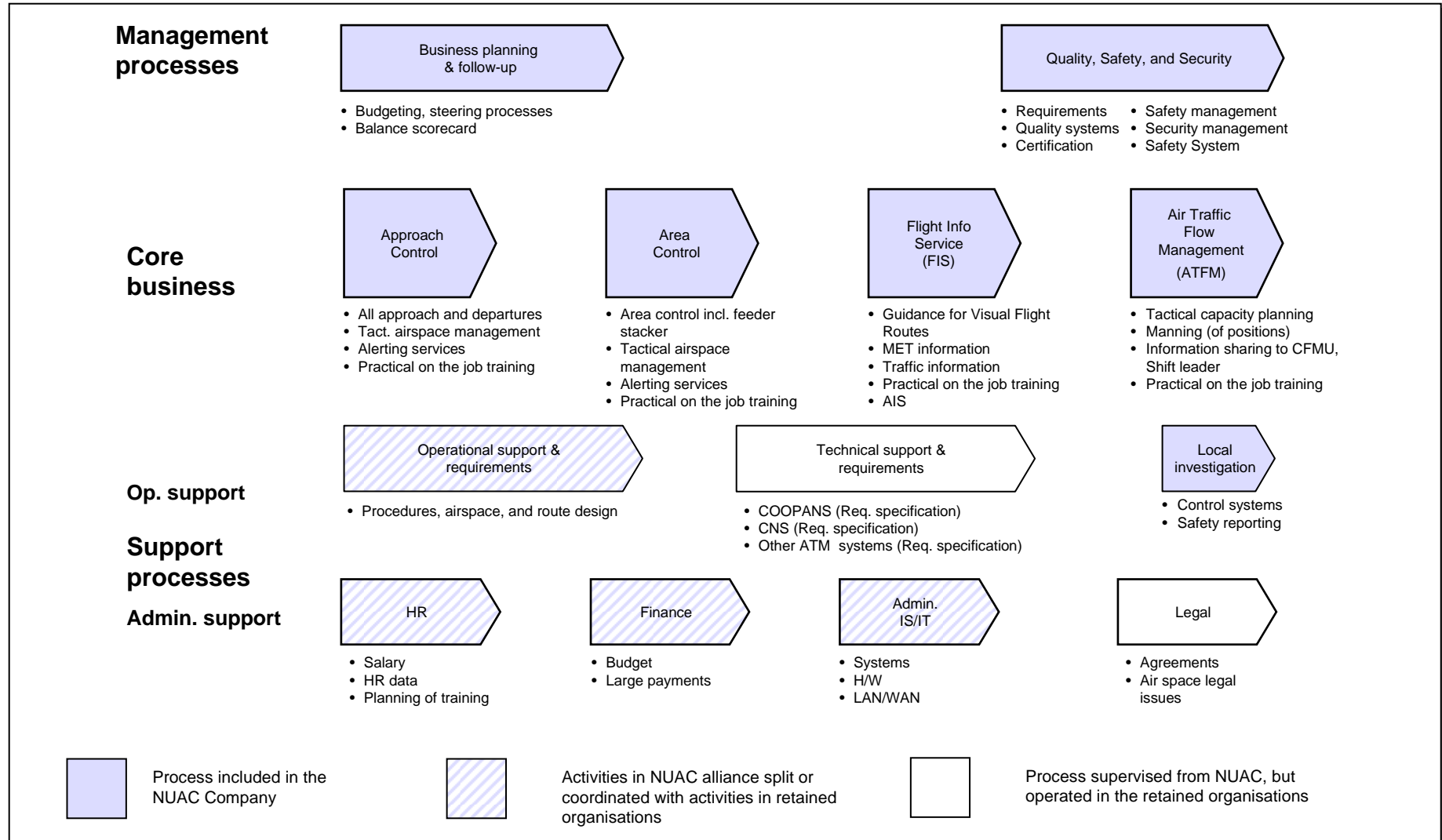
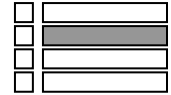
Process map Merger: NUAC Company



Process Map
Alliance: NUAC Company

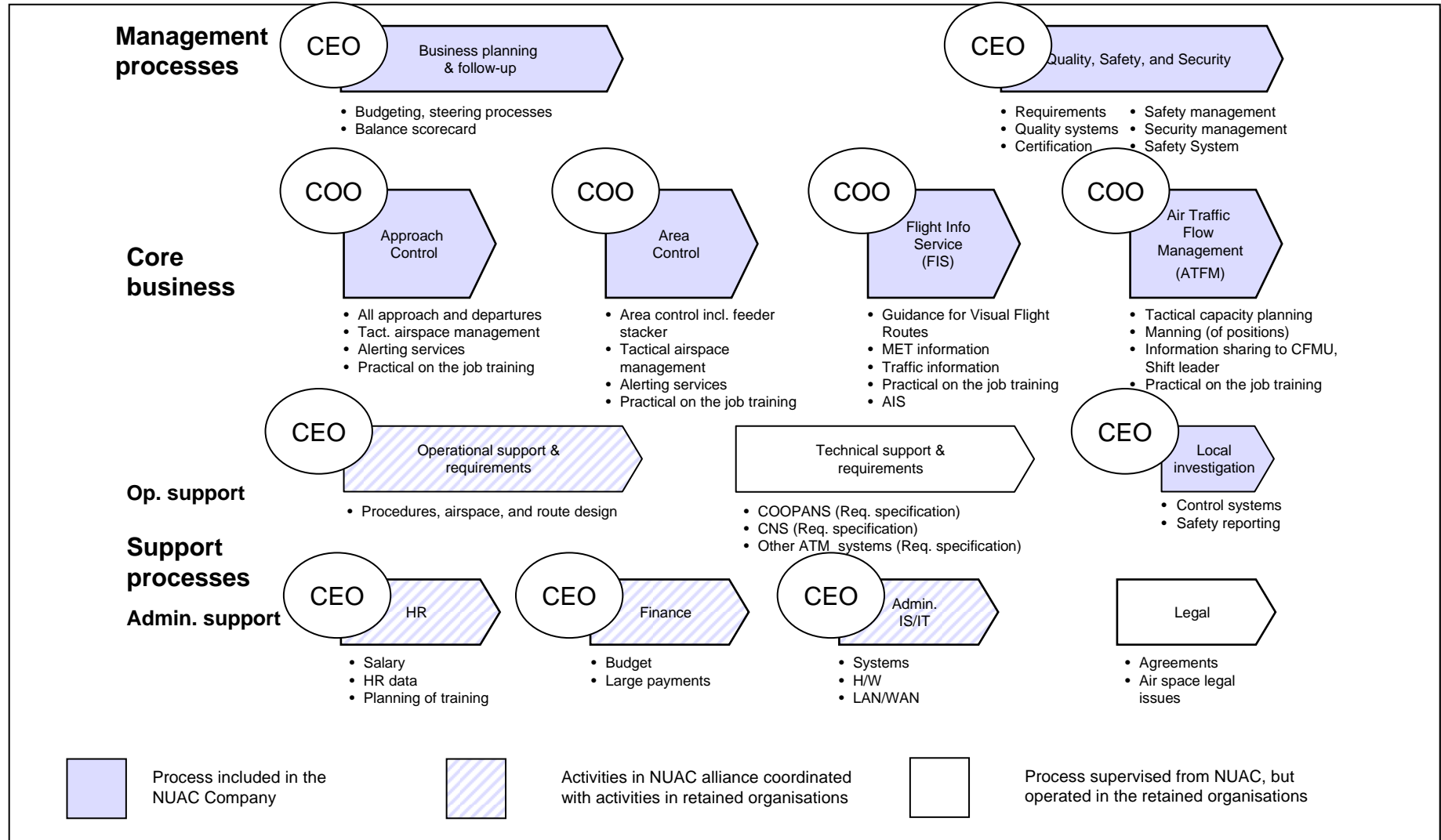
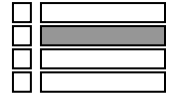


Process Map Operational Alliance: NUAC Company



Process owners

Operational alliance: NUAC Company



Contents

- ❑ Introduction
- ❑ Analytical framework
- ❑ Description of the Business Model
 - Company form including ownership structure
 - Process and tasks (scenario specific)
 - Organisational structure (scenario specific)
 - Merger (design principles, organisation chart, FTE requirement)
 - Alliance (design principles, organisation chart, FTE requirement)
 - Operational Alliance (design principles, organisation chart, FTE requirement)
 - Governance structure
- ❑ Additional material

Organisational Structure

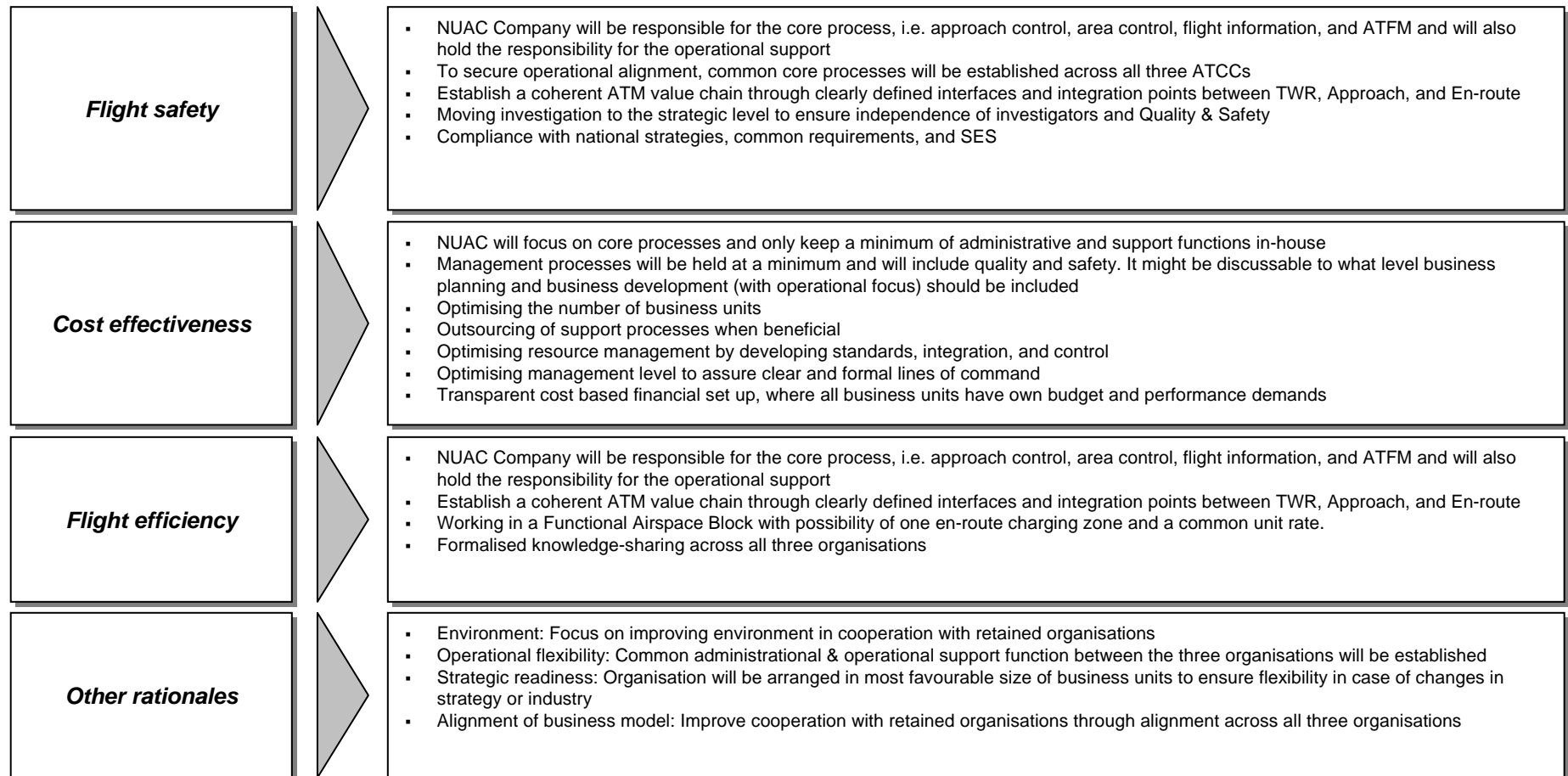
Merger: Design principles



- The design of NUAC Company is based on a set of design principles which reflect the **scenario rationales** (page 7) and the generic **strategic drivers** for NUAC Programme, i.e. flight safety, cost efficiency, and flight efficiency (for the complete list of the strategic rationales see NUAC Definition Phase Final Report page 58).
- The figure below shows in which way the most important strategic rationales are operationalised and affect the organisational structure.

NUAC strategic rationales

Implication for the organisational design





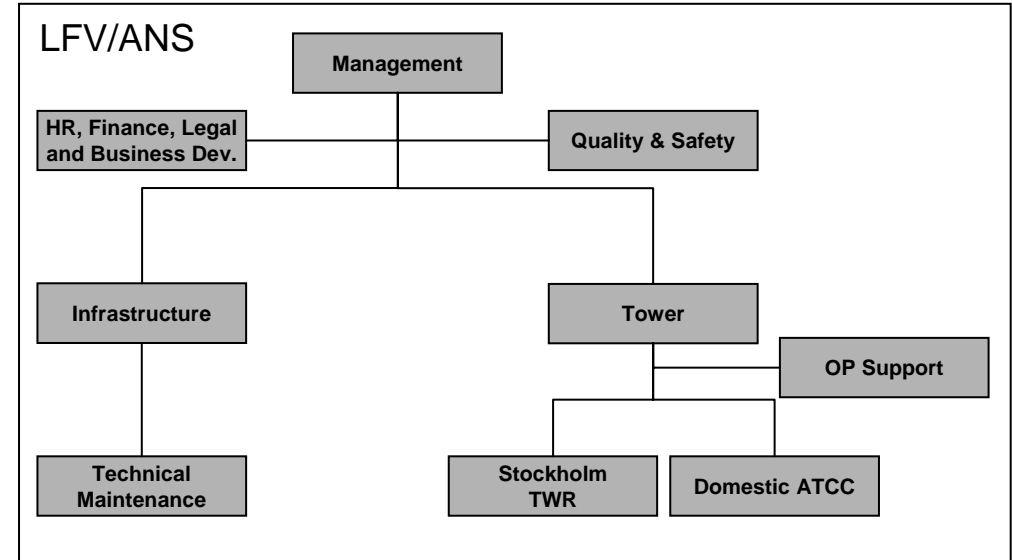
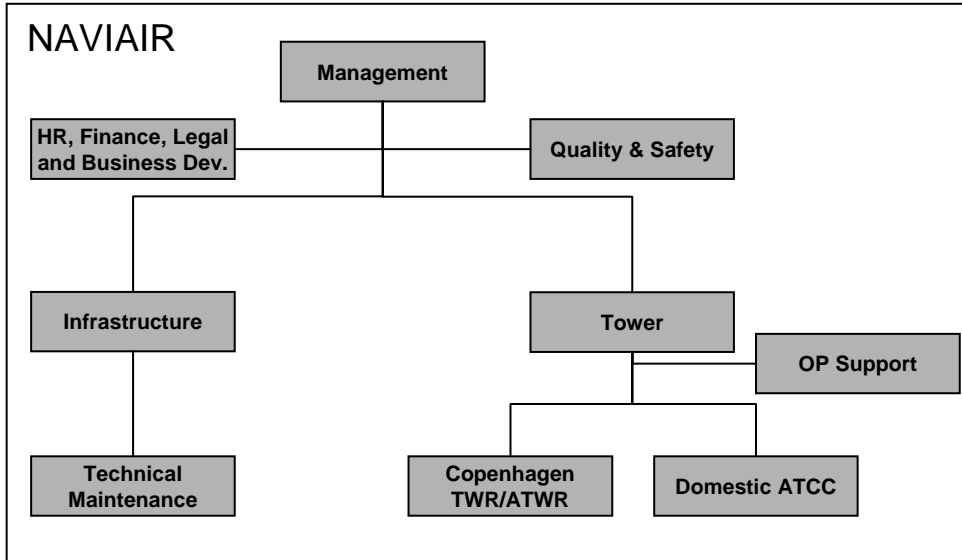
NUAC Programme



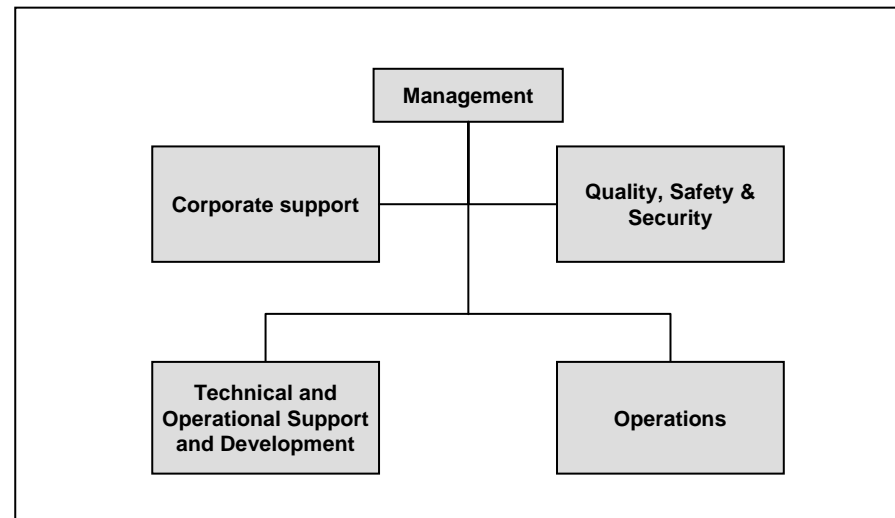
Organisational Structure

Merger: Organisational charts

<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>



NUAC



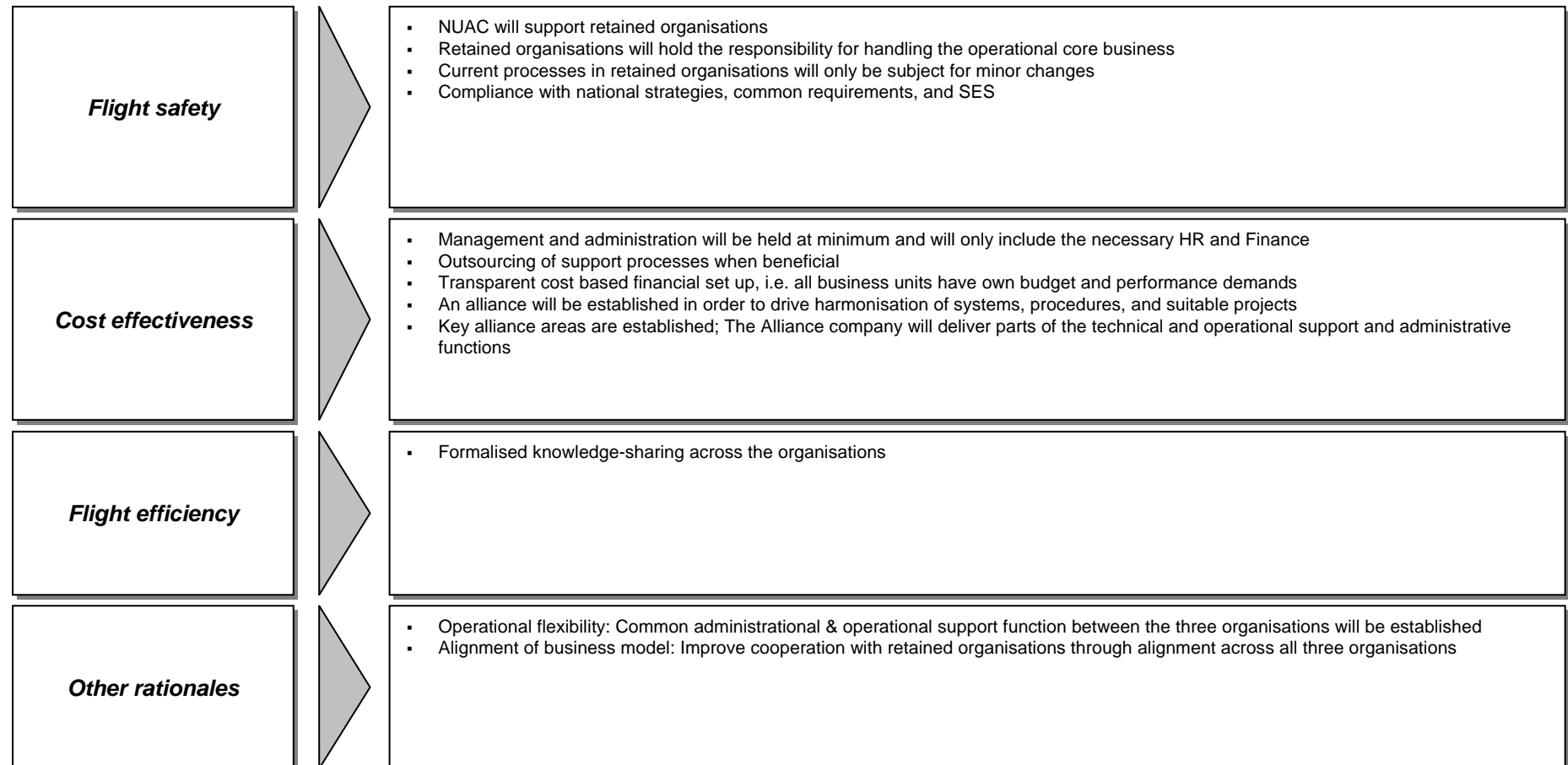
Alliance: Design principles



- The design of NUAC Company is based on a set of design principles which reflect the **scenario rationales** (page 7) and the generic **strategic drivers** for NUAC Programme, i.e. flight safety, cost efficiency, and flight efficiency (for the complete list of the strategic rationales see NUAC Definition Phase Final Report page 58).
- The figure below shows in which way the most important strategic rationales are operationalised and affect the organisational structure.

NUAC's strategic rationales

Implication for the organisational design

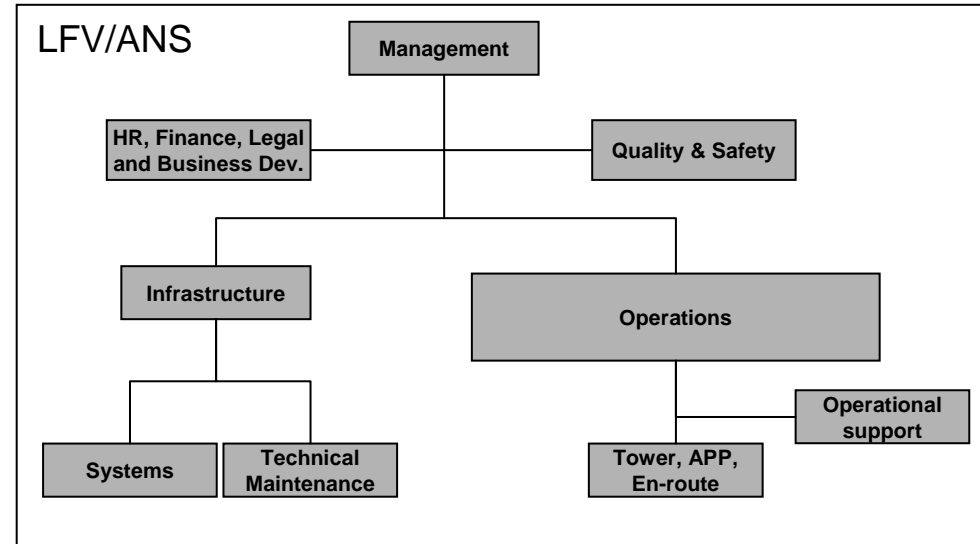
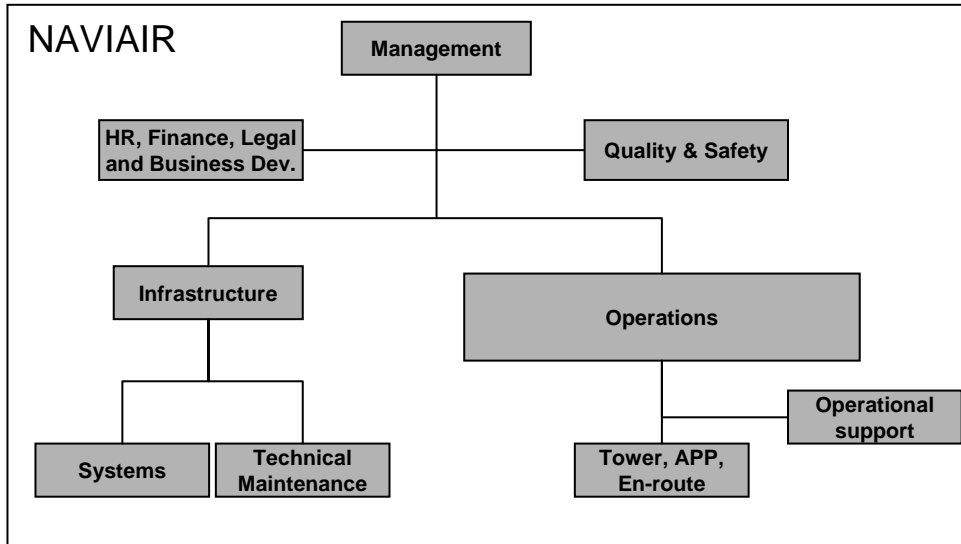




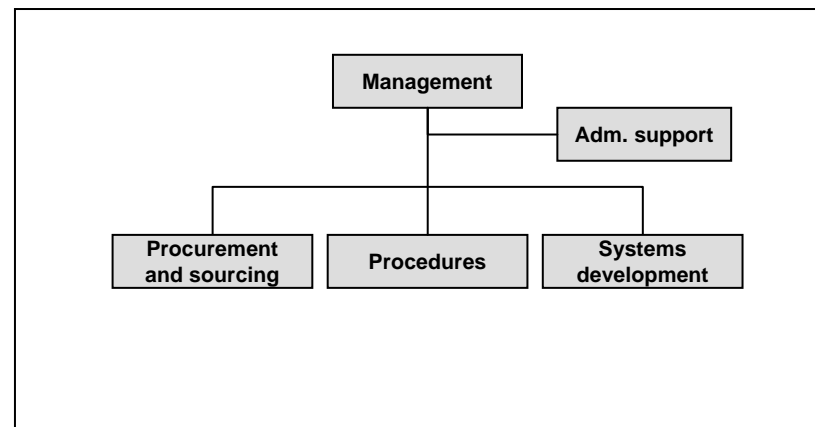
Organisational Structure

Alliance: Organisational charts

<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	



NUAC



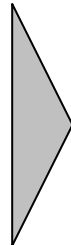
Operational Alliance: Design principles



- The design of NUAC Company is based on a set of design principles which reflect the **scenario rationales** (page 7) and the generic **strategic drivers** for NUAC Programme, i.e. flight safety, cost efficiency, and flight efficiency (for the complete list of the strategic rationales see NUAC Definition Phase Final Report page 58).
- The figure below shows in which way the most important strategic rationales are operationalised and affect the organisational structure.

NUAC's strategic rationales

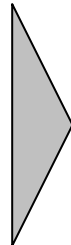
Flight safety



Implication for the organisational design

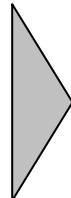
- NUAC Company will only hold the responsibility for the Air Navigation Service Provision, i.e. the organisation will include the following processes:
 - Core process in the form of approach control, area control, flight information, and ATFM
 - Management processes will be held at a minimum and will include quality and safety. It might be discussable to what level business planning and business development (with operational focus) should be included
- Compliance with national strategies, common requirements, and SES

Cost effectiveness



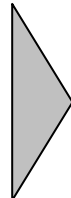
- The organisational structure of the NUAC Company will be based on the principles of a lean organisation delivering its core business – the ATM service provision
- Retained organisations will hold the responsibility for and the carrying out of all activities supporting Air Navigation Services both in terms of administrative support as well as operative and technical support, except what is necessary according to common requirements and common sense
- Support functions with relevance for Air Navigation Service will be handled in NUAC Company, e.g. systems requirements and deployment, technical planning and supplier management, and HR

Flight efficiency



- Formalised knowledge-sharing across the organisations

Other rationales



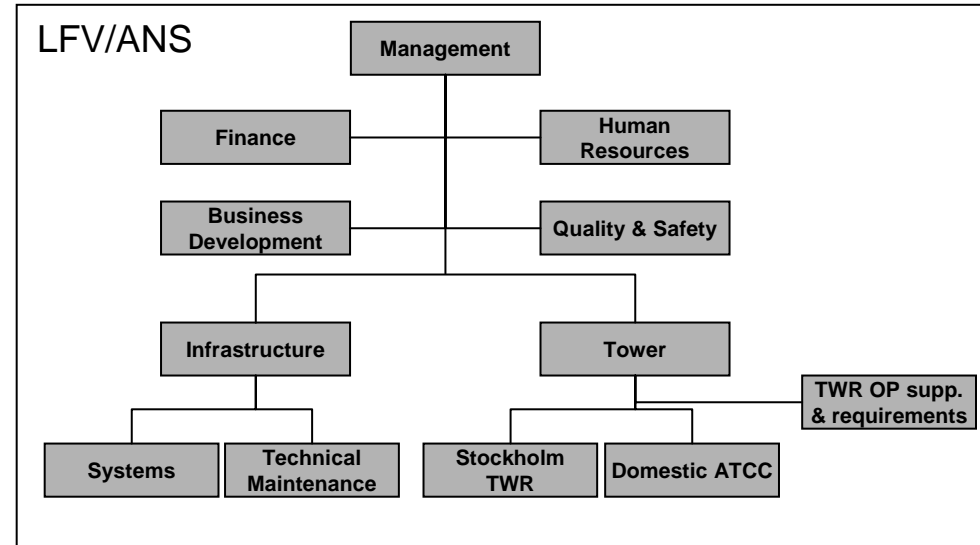
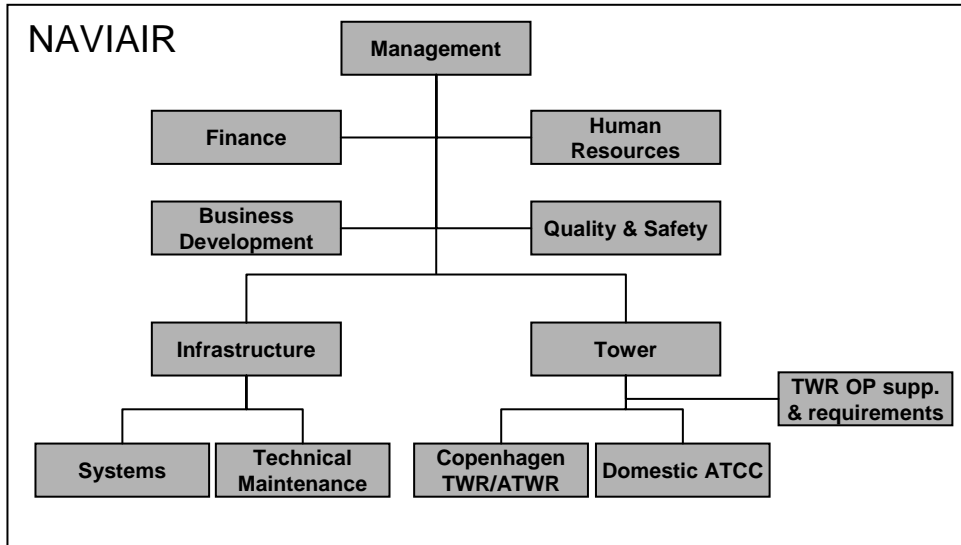
- Environment: Focus on improving environment in cooperation with retained organisations
- Strategic readiness: Organisation will be arranged in most favourable size of business units to ensure flexibility in case of changes in strategy or industry
- Alignment of business model: Improve cooperation with retained organisations through alignment across all three organisations



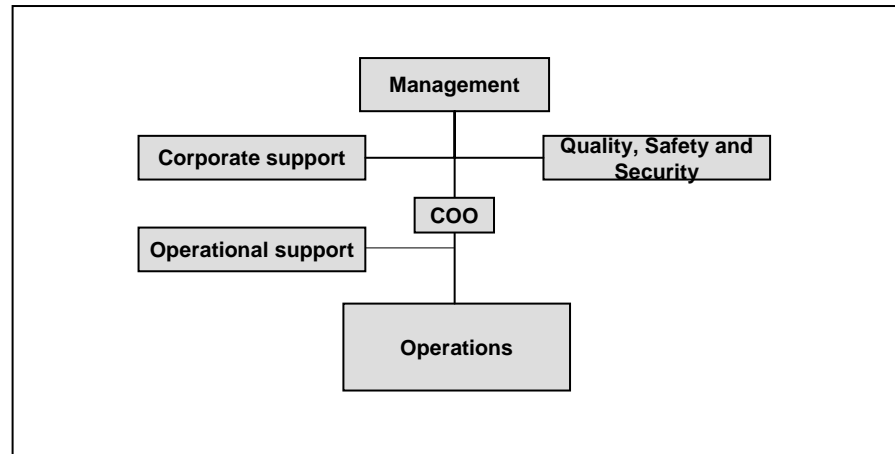
Organisational Structure

Operational Alliance: Organisational charts

<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	



NUAC



Contents

- ❑ Introduction
- ❑ Analytical framework
- ❑ Description of the Business Model
 - Company form including ownership structure
 - Process and tasks (scenario specific)
 - Organisational structure (scenario specific)
 - Governance structure
 - Purpose and structure including the governance principles
 - Internal governance structure
 - Legal framework
 - Ownership management and tasks
 - Relation architecture
 - External governance structure

Governance structure

Overview – purpose and structure



Purpose

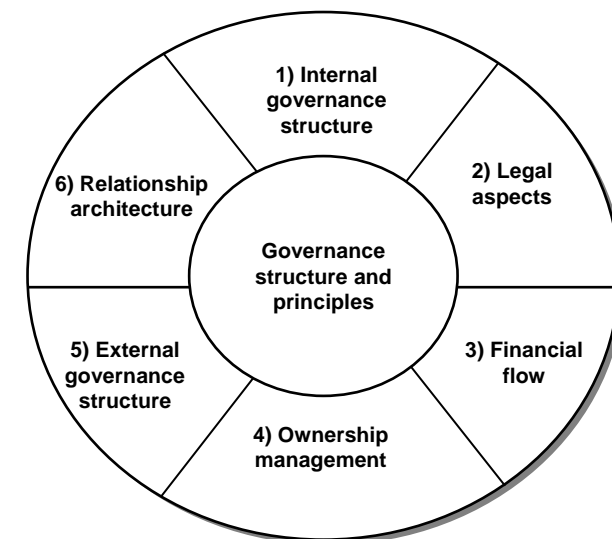
- The governance structure, as used in this report, is a broad term covering all governance aspects of the NUAC Company. It covers the internal governance aspects of the NUAC Company, the steering hierarchy, and legal aspects. It also covers external governance aspects, the coordination between the organisations, the relation between NUAC and the owners, as well as the relation architecture for NUAC
- The purpose of the presented governance structure is to outline the high-level governance frame in order to highlight all aspects. It must be stressed that many details in the governance structure will be further developed in the Design & Development Phase. For this reason, many governance elements will only be handled on a high level
- As mentioned the presented governance structure is based on a top-down approach (based on comparable experiences including literature studies and the legal frame). The next step will be to adjust and finalise each element in the governance structure based on more detailed data, assessment of the specific governance issues and challenges (depends on company form, ownership structure, functional areas included in NUAC etc) and negotiation and decision

Governance structure and principles

The governance structure consists of six different coherent elements, which together establish a robust governance model reflecting the generic governance principles:

1. **Internal governance structure** – description of the management hierarchy of the NUAC Company including the different management roles and responsibilities
2. **Legal aspects** – identification of the relevant current legislation including a review of how it affects NUAC operations
3. **Financial flow** – the administration of the financial flow between the three organisations and the customers
4. **Ownership management** – an assessment of ownership management seen from a NUAC perspective with specific focus on NUAC responsibilities in order to contribute to the ownership tasks (which the retained organisations are responsible for)
5. **External governance structure** – the organisational set-up in order to ensure coordination between the organisations
6. **Relation architecture** – description of the relation architecture including roles and tasks in NUAC in relation to major stakeholders.

The elements in the governance model cover different areas of the total organisational landscape (including all three organisations and their tasks) as shown on the next page



Governance structure

Overview – governance principles



The six elements of the governance structure reflect the same generic governance principles as described below. The overall aim of the principles is to address and handle the natural inherent complexity of the three organisations.*

The governance model will be:

- **Non-bureaucratic** – the governance model and structure must be as lean and simple as possible without any unnecessary control levels etc.
- **High level of formalised structure** – in order to embed the governance structure among the different organisations (LFV/ANS, Naviair, and NUAC) and cultures
- Ensuring a **coherent ATM value chain** between the three organisations despite the fact that the elements in the value chain are produced in different organisations. This inter-linkage will be established through mutual coordination as well as explicit interfaces and integration points between the organisations
- Establishing clear **management roles and responsibilities** – the content in different management roles will be explicit and well-communicated through the organisations.
- NUAC Company will have a clear **relation architecture**, i.e. each stakeholder will have one point of contact in NUAC, and NUAC's role and responsibilities for all stakeholders will be clearly defined
- All elements in the governance structure must support the realisation of the **NUAC Vision** by promoting flight safety and efficiency
- All elements must be in compliance with **Common Requirement**

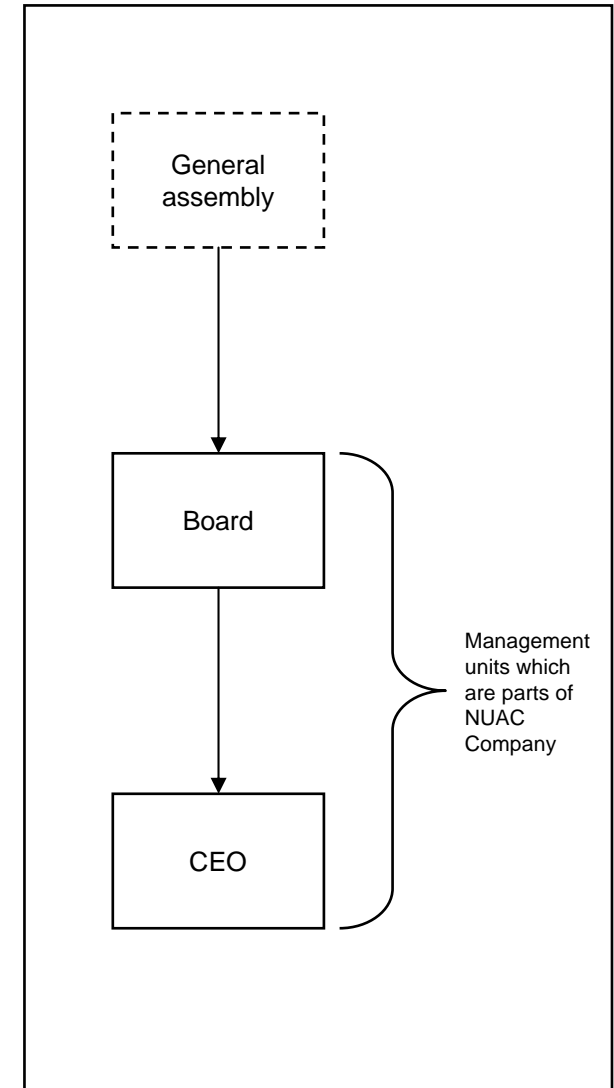
*The overall governance structure of the NUAC Company and the retained companies is complex, due to the fact that the organisations operate cross-border, a fragmented value chain and different financing bases. The natural complexity is handled through the governance design principles, which are reflected in all aspects of the governance structure.

Governance structure

1) Internal governance structure for NUAC Company



- The internal governance structure* must ensure that the management of the company acts and operates in accordance with the interests of the owners, customers, and other major stakeholders. The internal governance structure consists of the management hierarchy including a description of management roles and responsibilities.
- The NUAC Company will have a single-line management structure with a clear management hierarchy. This set-up will give NUAC's management the definitive responsibility for NUAC and ensure that the politicians and the owners (retained organisations) will not have direct access to the management of NUAC; they must go through the formalised units.
- The management hierarchy is inspired from the shareholder legislations; both states place great emphasis on following the rules regarding management and allocation of responsibilities (Riksdagen,2006:12). The main principle is that the state will manage its ownership through the general assembly, while the business will be handled by the management of the company (Finansministeriet, 2005, p. 21). However, a practice exists for giving the state privileges when they are the sole owner (i.e. communication and involvement in important strategic issues) – the management of the ownership including the roles and responsibilities should be clearly defined and as formalised as possible** (Riksdagen,2006:4) – this will be done during the Design & Development Phase.
- The management hierarchy consists of three units:
 - **General assembly** is the upper organ for the NUAC Company. The general assembly, which is appointed by the two owners, will be responsible for picking the board etc.
 - The **Board** will have the overall responsibility for the company including the operations, recruiting managements, strategic direction etc.
 - The **CEO** will have the daily responsibility for the overall running of the company. Must inform and interact with the board in situations regarding the strategic direction of NUAC.
- The different roles and responsibility for each management level are described in details on the next pages.
- It must be stressed that it has not yet been decided if NUAC should have a general assembly and which role and responsibility this assembly should have. Legislation only ensures a few minimum high-level tasks to the assembly such as appointment of board of direction, appointment of auditor etc. Due to the minimal number of shareholders (Naviair and LFV/ANS), a shareholders' agreement can be assigned, which gives the principal shareholders specific responsibilities such as appointment of board members.



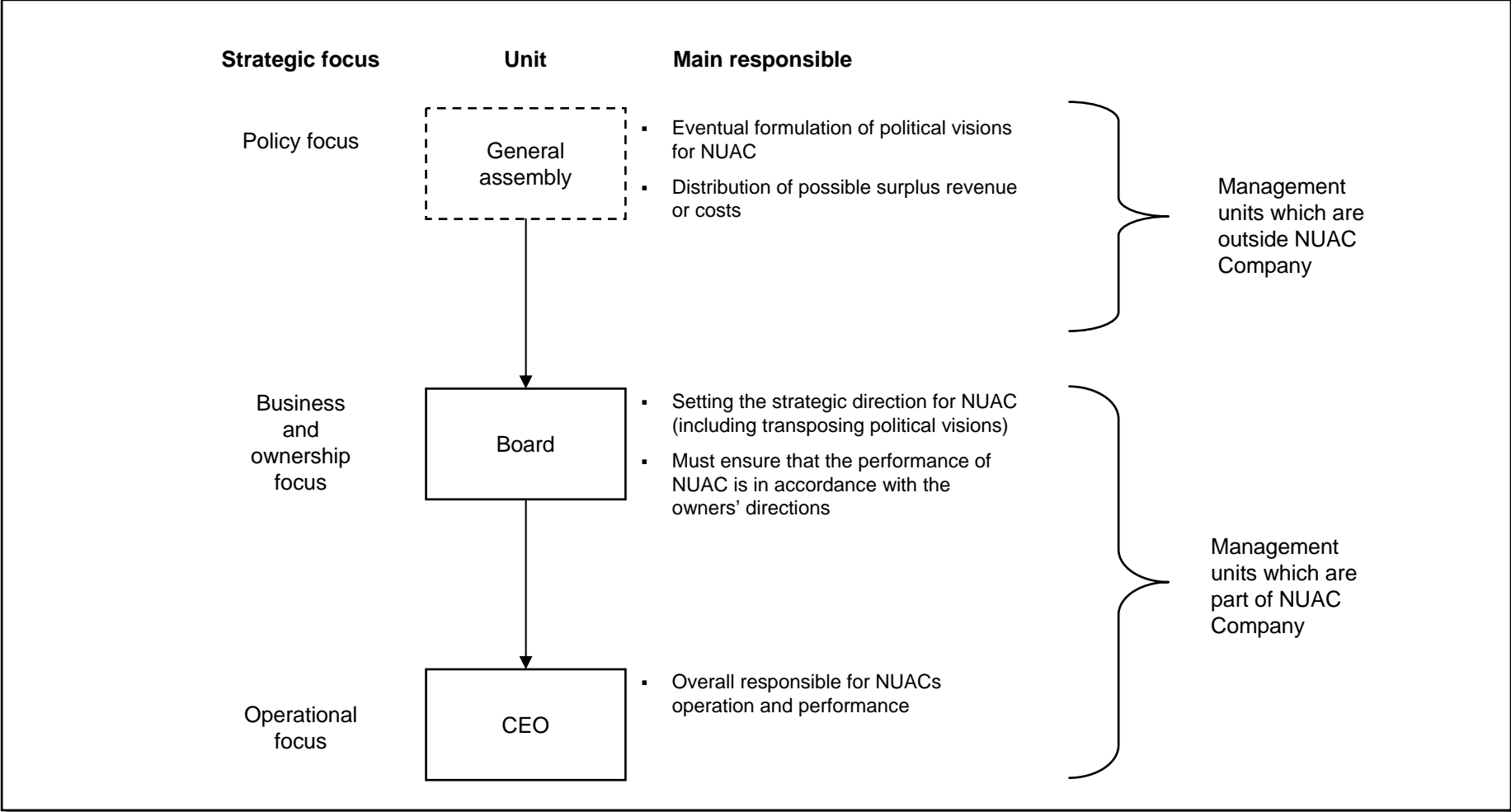
*The company forms in the retained organisations – which are yet undecided – will effect the internal governance structure

**The two states have recently developed explicit guidelines regarding how the state can manage its ownership and influence public owned joint-stock company (Finansministeriet,2004:21)

Governance structure

1) Internal governance structure for NUAC Company

The strategic focus areas related to the different levels of the management hierarchy



Governance structure

1) Internal governance structure – roles and responsibilities



Level	Roles	Responsibilities
CEO	<ul style="list-style-type: none"> The CEO is chosen by the board 	<ul style="list-style-type: none"> Holds the overall responsibility for NUAC operation and performance Will be responsible for the specific operation of NUAC and for new initiatives including interaction and communication with board. Can participate in board meetings
Board	<ul style="list-style-type: none"> Consists of an unknown number of members appointed by the general assembly or by the retained organisations Members must be able to act in double role, to both formulate professional demands for the board and act as sparring partner for the CEO The competence requirement of the board members must be professional insight and knowledge regarding ATM industry and management* capabilities and experience (in order to support the CEO in the challenging leadership task) Have regular meetings with a specific generic agenda 	<ul style="list-style-type: none"> Hire and evaluate the direction of management and the CEO Responsible for the overall decision regarding strategy and investments in the NUAC Company Must practice strategic management, i.e. development performance targets Responsible for setting up goals for the NUAC Company in dialogue with CEO, and following up on the targets and performance of NUAC Responsible for representing the owners' interests including communication with owners Must ensure that economic disposals for NUAC are approved by the retained organisations. (The retained organisations are responsible for ensuring this with departments and political levels)
General assembly	<ul style="list-style-type: none"> One general assembly meeting will be held per year where two shareholders will participate (Naviair and LFV/ANS have the decision-making power) Can formulate political goals for the NUAC Company; the experiences from comparable situations indicate that only a few goals should be formulated in order to have an impact Will be responsible for any surplus of the NUAC company (based on proposal from the board) The general assembly must respect the independence and decision-making authority of the board 	<ul style="list-style-type: none"> Manage the ownership of NUAC under liability for the retained organisations Practice supervision of the development of the company through formalised channels e.g. annual reports for NUAC Is responsible for NUAC following the strategic direction

*Denmark and Sweden have different traditions regarding the appointment of board members in public owned joint-stock company. Denmark does not appoint public servants, while Sweden often appoints those public servants responsible for the management of the company (Finansministeriet, 2005, p. 22)



Governance structure

1) Internal governance structure – roles and responsibilities



Level	Decision areas to be investigated further*
CEO	<ul style="list-style-type: none"> ▪ Define competence and management capabilities ▪ Define performance criteria and eventual bonus systems ▪ Define the responsibility in order to define the strategic direction of NUAC and target for the organisations ▪ Define responsibility and tasks for helping the board to manage the ownership etc ▪ Strategic direction and development
Board	<ul style="list-style-type: none"> ▪ The final set-up of the board including the appointment process and competence requirement will be designed when the management tasks for NUAC Company are known (depends on which functional areas that are placed in NUAC Company) ▪ Define number of members in board and the frequency of meetings ▪ Define role and tasks ▪ Define election process (who appoints the board members) ▪ Define competence and management capabilities ▪ Define backgrounds (should the board members be appointed from specific organisations like the departments, retained organisations etc) ▪ Define specific rules of procedure which cover the role both as sparring partner and as evaluator and control organ ▪ The payment of the board
General assembly	<ul style="list-style-type: none"> ▪ Define the role and responsibility of the general assembly – should the organ be responsible for the appointment of the board of directors, finance etc. or should it go through shareholders' agreement ▪ Define who will be participating in the general assembly
Other areas out of scope	<ul style="list-style-type: none"> ▪ Define performance management systems in the NUAC Company ▪ Define eventual bonus systems for the employees

*These are areas that will be decided in the next phase of the programme

Governance structure

2) Legal framework for NUAC Company



Purpose

- The NUAC Company must operate in accordance with relevant legislations in both Denmark and Sweden. At the current level of the Programme, it is not possible to elaborate on which legislations are relevant for the NUAC Company and how they affect the NUAC Company. These questions await final decision regarding company forms for NUAC Company and the retained organisations
- The table below shows the relevant legislation areas that must be considered

Legislation area	Decision areas to be investigated further
Shareholders	<ul style="list-style-type: none"> ▪ In which way will the legislation regarding the shareholders affect the internal governance of NUAC Company
Ministerial responsibility	<ul style="list-style-type: none"> ▪ In which way will the legislation regarding the ministerial responsibility affect NUAC and the retained organisations' management of state ownership ▪ Liability issues must be investigated due to different laws in Denmark and Sweden regarding investigation of air traffic incidents
Public companies	<ul style="list-style-type: none"> ▪ In which way will the laws relevant for public companies (like the law on administrative practices in public administration and Public Records Act) affect the administration in NUAC Company
Board	<ul style="list-style-type: none"> ▪ Due to different levels of decision-making in Denmark and Sweden it must be decided how this difference is handled in order for the board to function
Operations	<ul style="list-style-type: none"> ▪ In which way will the specific laws covering the operational areas affect NUAC
SES	<ul style="list-style-type: none"> ▪ In which way will the international legislation affect the work of NUAC
Common Requirement	<ul style="list-style-type: none"> ▪ Does the Common Requirement, which covers almost all elements in the ATM-value chain, effect the design of NUAC Company and its core process
National Air traffic legislations	
Competition law	<ul style="list-style-type: none"> ▪ Purchasing process for NUAC will be designed in order to be in compliance with the national and international competition laws

*These are areas that will be decided upon in the next phase of the Programme

Governance structure

3) Financial flow – overview (1/3)



Purpose:

- This section describe different models for the financial flow, i.e. the distribution of cost and revenue between the organisations including the responsibility for the administration of the distribution. This responsibility only includes administration (i.e. charging, administration of SLA agreements, rules etc), while the governance and management (i.e. adjustment of SLA agreement etc) are handled by the owners.

Principles:

- NUAC and the retained organisations will have a cost-based economy where the costs of each functional area in the organisations are well-known
- The overall allocation principle between the two current organisations (Naviair and LFV/ANS) is that there will be proportional relation between revenue and costs caused by their ownership of NUAC, i.e. relatively higher costs related to NUAC might be compensated for by higher revenue
- The organisational set-up for the administration and distribution of revenue and costs between NUAC and the retained organisations have not yet been developed.* As seen below two different models are under consideration

Model:

- During the Definition Phase two different models for the administration of the financial flow, i.e. NUAC respectively Retained organisations as responsible
 - **NUAC responsibility** – NUAC Company will administrate and distribute all revenue (generated by NUAC), i.e.:
 - Costs of own functional areas of the organisations (even though NUAC is responsible for the distribution and administration of the financial flow, functional areas for NUAC will still be governed through SLA agreement)
 - Costs of retained organisations
 - This model could be most relevant when NUAC Company holds the responsibility for the core business (Merger and Operational Alliance scenarios)
 - **Retained organisations responsibility** – retained organisations will administrate and distribute all revenue (generated by NUAC), i.e.:
 - Costs of own functional areas of the organisations
 - Costs of functional areas within NUAC (how governance and financing of the functional areas are to be administrated has not yet been finally decided; governance through SLA agreements is a possible solution)
 - This model could be relevant in all three scenarios as it does not depend on size of NUAC – but it might be more complex due to need for coordination
 - There will be a need for coordination between the people responsible in the two organisations

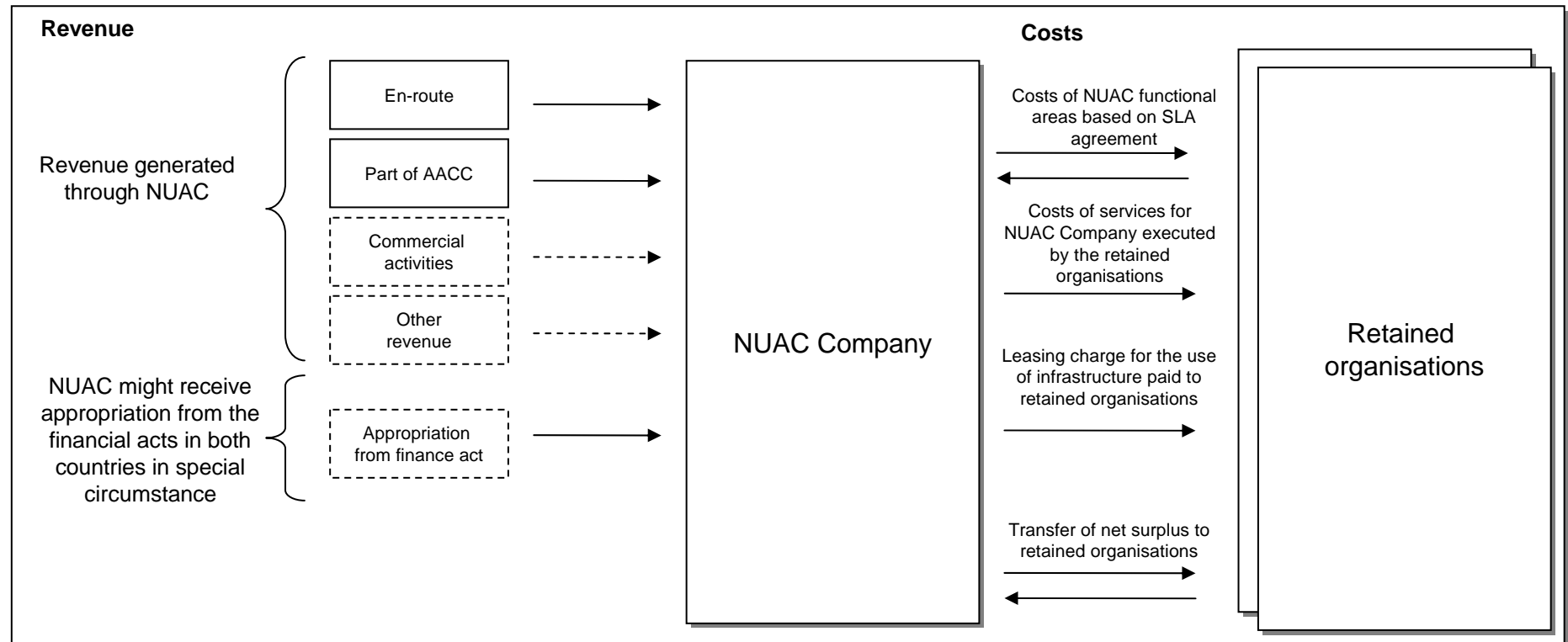
*The working groups in the retained organisation have therefore based their work on two preconditions: the current level of revenue and two different financing models

Governance structure

3) Financial flow – NUAC Company responsible (2/3)



- There are two different versions of the financial model where NUAC Company holds the responsibility for the administration of costs and revenue, i.e.:
 - all areas of the retained organisations are included
 - only areas connected to NUAC’s scope are included – shown below
- The “payment received from the retained organisations” and “the transfer of surplus to retained organisations” are proportionally connected and depend on two factors:
 - the distribution key agreed between the owners
 - the equation of costs and revenue in NUAC Company – which depends on which functional areas are included in NUAC (scenarios); some functional areas generate revenues

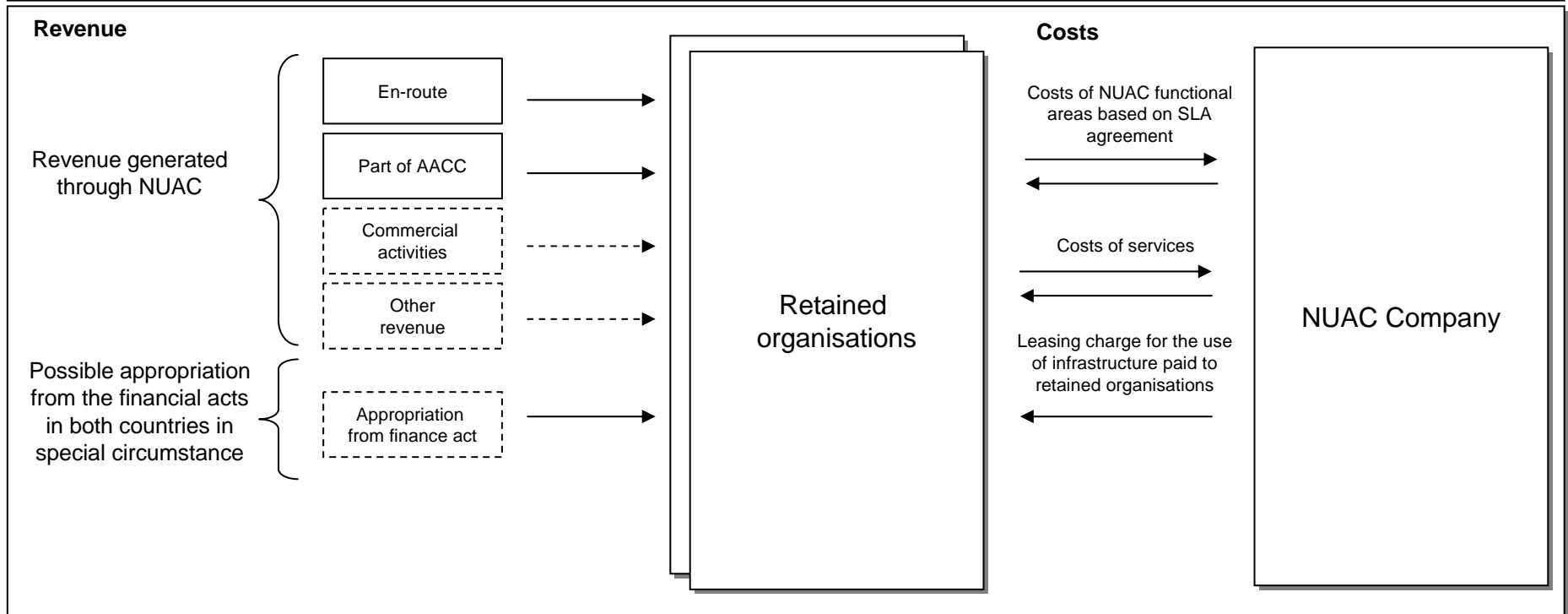


Governance structure

3) Financial flow – retained organisations responsible (3/3)



- There are two different versions of the financial model where retained organisations hold the responsibility for the administration of costs and revenue, i.e.:
 - all areas of the retained organisations are included
 - Only areas connected to NUAC’s scope are included – shown below
- There will be a need for coordination between the two organisations
- The “payment received from the retained organisations” and “the transfer of surplus to retained organisations” are closely connected and depend on two factors:
 - the distribution key agreed between the owners
 - the equation of costs and revenue in NUAC Company – which depend on which functional areas are included in NUAC (scenarios); some functional areas generate revenues





4) Ownership management and tasks

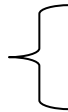
Purpose

- This section deals with management of the ownership seen from the NUAC perspective, i.e. tasks for NUAC in order to support the retained organisations with maintaining the ownership
- The retained organisations are responsible for managing the ownership of NUAC:
 - **Representing the national interests** – when establishing a joint-stock company such as NUAC Company, the state – due to legislations – has some specific tasks in order to manage the ownership of the shares in an financially proper way and to formulate sector policy. Those tasks are enclosed in the retained organisations, who have full responsibility for managing the ownership. The state and departments will not have direct control of NUAC Company. The retained organisations must handle the responsibility in accordance with the Common Requirement (Appendix 2, section 1) legislations and national guidance.
 - **Managing the ordinary ownership of NUAC** – the retained organisations are responsible for the operational outcome of NUAC and defining their tactical and strategic direction

Structure

- The Business Model for the retained organisations (which are under completion) describes in detail how the retained organisations will handle the management tasks. NUAC Company must contribute and support the execution of those tasks.
- The specific tools and units for the management of the NUAC Company have not yet been developed – this depends on further analysis and negotiations. This list below contains different tools – of both formal and informal character – which are under consideration:

Meeting fora



- **Board of NUAC**
- **Regular informal meetings** – with the purpose of discussing performance

Agreements regarding NUAC work



- **The management contract** (or similar management tools) – address specific roles and tasks for each year
- **SLA agreement** – a possible solution could be if the agreement between NUAC and the retained organisations are handled through SLA agreements
- **Budget/finance** – each year, NUAC must set up a budget in close dialogue with the retained organisations

Review of NUAC performance



- **Financial reports** – NUAC Company should make regular financial reports for the retained organisations
- **Management reports** – will be published each month covering the performance
- **Annual reports** – contents should be in compliance with Common Requirement (Appendix 10, section 9)

Governance structure

5) Relation architecture – principles (1/2)



Purpose

- The relation architecture describes the formalised structure for the interaction between NUAC and major stakeholders. The section covers the stakeholders' admission to NUAC and also NUAC tasks, roles, and responsibilities in relation to the stakeholders

Principles

- The overall principles are: Ownership and policies are handled through the retained organisations, while issues related to the operational areas (including the support) are handled directly through NUAC (except in the Alliance scenario)
- One entrance for all stakeholders across all three organisations – NUAC must coordinate stakeholder work with the retained organisations and cross-border in order to ensure the same level of communication, interaction etc., so that the stakeholders have the impression that they communicate with one organisation
- NUAC will have clearly defined roles and responsibilities for the handling of each stakeholder in order to avoid different intermingling of interests by different stakeholders (ownership, authorities etc.)



NUAC Programme



Governance structure

5) Relation architecture – roles and tasks for NUAC (2/2)



Stakeholder	NUAC roles and tasks
Customers (Airlines, non-commercial airlines, and airports)	<ul style="list-style-type: none"> ▪ NUAC will be responsible for the handling of the customers in matters related to NUAC operations ▪ The daily operational contact with customers will be handled by the operational units in NUAC Company ▪ NUAC will also establish a key customer forum where more tactical and overall questions can be addressed ▪ The contact-responsible in NUAC will on a regular and ad-hoc basis coordinate with the retained organisations ▪ NUAC will ensure a satisfying standard of their product by continuous dialogue with the customers and annual customer survey
Military	<ul style="list-style-type: none"> ▪ NUAC will have the responsibility for the cooperation with military in Denmark and Sweden regarding NUAC operational areas. The cooperation will cover both operational, tactical, and strategic levels as well as education of ATCOs ▪ The contact-responsible position in NUAC will coordinate with both retained organisations and board of directors
Authority	<ul style="list-style-type: none"> ▪ NUAC will be responsible for the contact with the Swedish and Danish authority relevant for NUAC operations. NUAC will give the authority the necessary support in their inspections. NUAC will also cooperate with the authority on all aspects of traffic handling relevant for NUAC and the respective national airspace ▪ The person responsible in NUAC will provide the necessary coordination with both the retained organisations and the NUAC owners
International	<ul style="list-style-type: none"> ▪ NUAC will only be responsible for the contact to international organisations (EU and EUROCONTROL) in matters relevant for NUAC operations ▪ The international contact-responsible in NUAC Company will ensure coordination with retained organisations both in terms of operational issues and more tactical/strategic matters

Governance structure



6) External governance structure – overview (1/3)

Purpose:

- The external governance structure will ensure that the three organisations – NUAC, Naviair, and LFV/ANS – will be able to meet their specific goals and support the joint goal of delivering efficient and secure air traffic services in Danish and Swedish airspace both in their daily operations and in strategic planning
- This purpose will be obtained through mutual coordination/cooperation and necessary adjustment of the functional areas of the organisations influencing the performance/service of the other organisations
- The external governance structure consists of three different coordination levels and is managed by an escalation principle:
 - **NUAC Company/retained organisations** (functional levels) consists of the functional area managers from the three organisations
 - **Management forum** consists of representatives from the directions
 - **Owners** consists of the top persons responsible from the departments

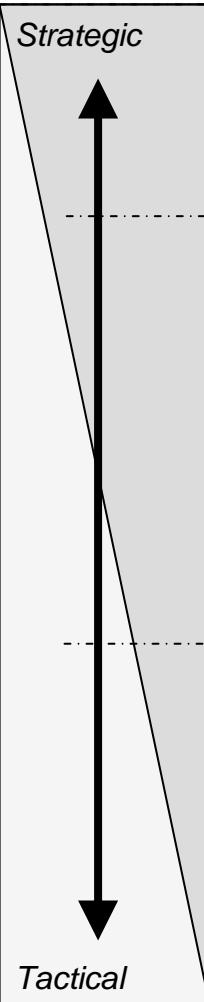
Principles behind the external governance structure:

- Ensuring optimal efficiency and safety through harmonisation and standardisation
- Avoiding counteract sub-optimisation
- Ensuring efficient and coherent ATM value chain (i.e. optimal interfaces between specific functional areas despite different organisation)
- Ensuring transparent and efficient decision-making process including an escalation project
- Ensuring joint development of Nordic ATM/ANSP
- Strengthening competitive power
- Ensuring adjusted legislation and development

Governance structure

6) External governance structure - escalation process (2/3)



Focus	Level	Responsibilities	Tasks	
			Operational	Strategic
	Owners	<ul style="list-style-type: none"> Strategic development of the area Solving strategic differences if they cannot be solved by the management forum 	<ul style="list-style-type: none"> Solving escalated matters 	<ul style="list-style-type: none"> Preparing changes in legislation Contact to authorities regarding national issues
	Management forum	<ul style="list-style-type: none"> Regular meeting forum with the management of the three organisations Solving operational differences and fundamental questions Ensuring stakeholder coordination, strategic proposals, developing strategic direction for development, legislation and other tasks 	<ul style="list-style-type: none"> Fundamental decisions Solving escalated matters 	<ul style="list-style-type: none"> Strategic development of the area Proposing changes in legislation Contact to authorities regarding company issues
	NUAC Company/retained organisations	<ul style="list-style-type: none"> Firmly defined roles and responsibilities in the three organisations in relevant function areas Ensuring necessary coordination of operations in function areas Maintaining ordinary business relations between organisations Ad hoc and regular meetings 	<ul style="list-style-type: none"> Regular as well as ad hoc dialogue regarding necessary coordination 	<ul style="list-style-type: none"> Contact to authorities regarding tactical/operational issues Stakeholder management

Governance structure

6) External governance structure - interfaces and collaboration



The external governance structure must ensure a coherent solution – although the various functional areas are located in specific organisations, i.e. the governance structure must ensure interfaces between coherent function areas.

Those coherent interfaces will be developed during the Design & Development Phase.

The main interfaces – which vary according to scenarios (and thus the different position of the function areas) are as follows:

Interfaces in administration (e.g. HR, Finance, and Facility Management)

- In some scenarios, administrative tasks are produced in an organisation and must apply in other organisations. This requires coordination so that the producing organisation receives input from the other organisations and vice versa

Interfaces between TWR and Approach/En-route

- In some scenarios, TWR and APP/En-route are separate areas – which requires a certain degree of coordination in relation to e.g. legislation, knowledge gathering, education, operational support etc.

Interfaces between Systems Development and Maintenance and operational functions

- In a number of scenarios, Systems Development and Maintenance are separated from the operational core areas and Infrastructure Management, which are the two main sources of initiating replacement, adjustment, and maintenance of systems/infrastructure – this requires a large degree of coordination
- There are four possible solutions to the position of Systems Development:
 - in NUAC Company
 - in retained organisations
 - as an independent company
 - based on function so that NUAC and retained organisations each handle ATM and TWR development