



**NUAC Programme
Definition Phase Final Report**

**Appendix 4
Business Model**

FEBRUARY 2007

NUAC Programme – Establishing the Business Model (All Scenarios)

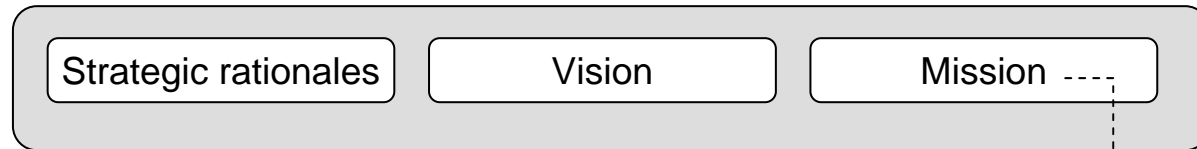
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Bo Højer Damsted

Prepared for: NUAC Programme
Sponsor: Nils Sprenger

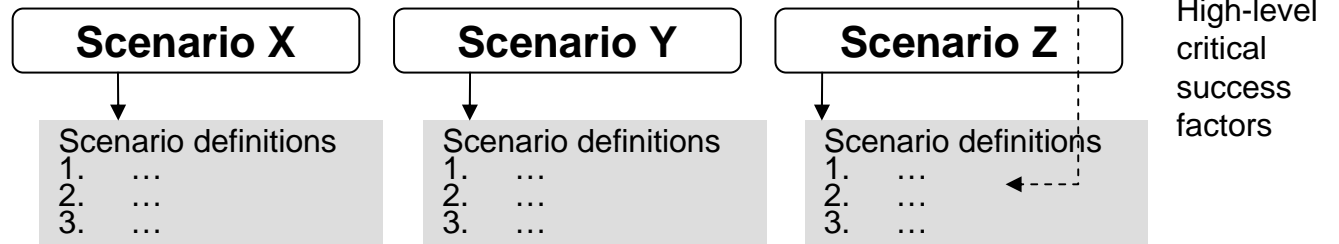


Business Model – framework

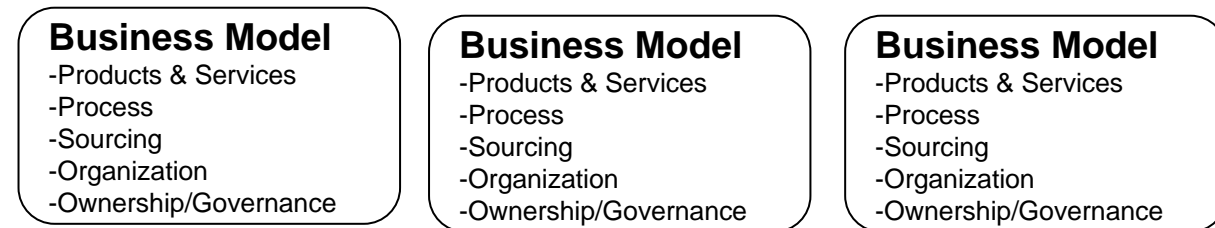
The Programme defines strategic rationales, vision and mission



Each scenario represents a unique strategy to reach the same vision

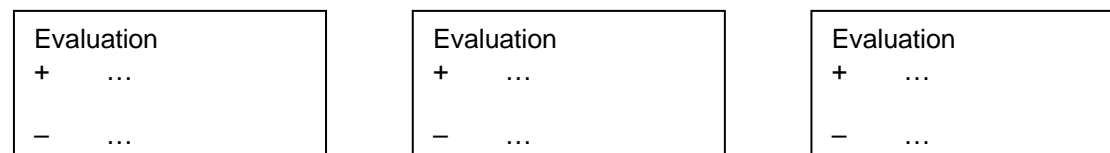


CSFs for each separate scenario result in a number of design principles



A Business Model and Business Concept will be the tools that realize the strategy

The Programme evaluates the separate scenarios and their Business Model, Business Case, HR Aspects and Integration strategy



Design principles in creating the new Business Model

- A Business Model is defined as:
 - Products & Services
 - Processes
 - Sourcing
 - Organisation
 - Ownership and legal entity
- The Business Model is designed based on scenario descriptions, complementary interviews and best practice in business design
- 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.

Content

1. Products & Services
2. Processes
3. Organisation
4. Sourcing

Products & Services (All scenarios)

NUAC's core offering will be*:

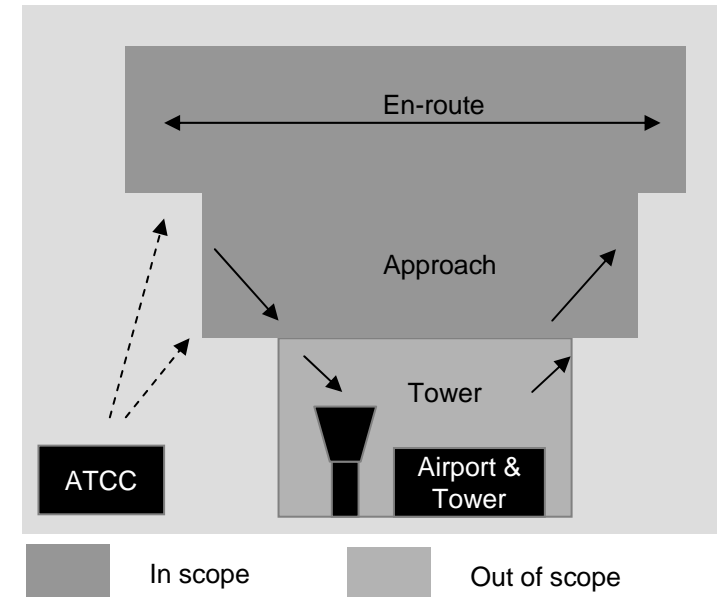
1. Approach services
2. En-route services

Besides that, NUAC will offer:

1. Flight information services
2. Air Traffic Flow Management services

Our customers are defined as:

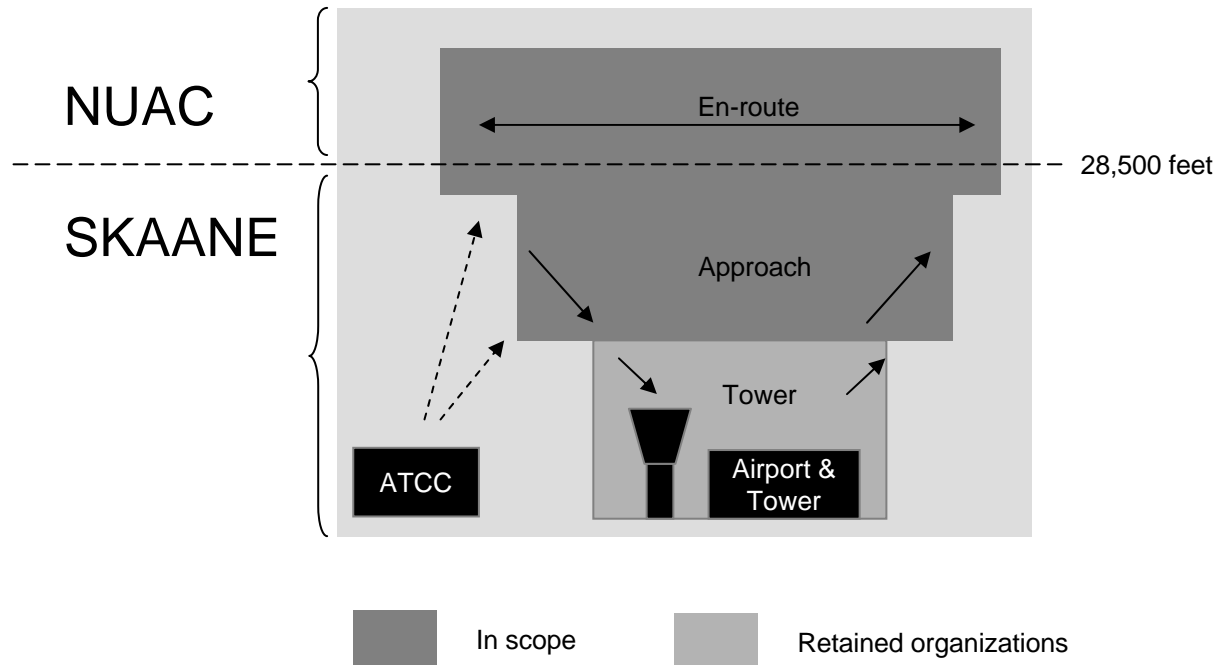
- Airlines
- The armed forces
- Other airspace users



*Out of scope

TWR control zone (CTR) below 8-10km/600-1500

Products & Services (NUAC/Skaane)



Content

1. Products & Services

2. Processes

→ Scenario 1 – Merger

3. Organisation

4. Sourcing



Merger Scenario:

NUAC Process

NUAC Programme

NAVIAIR

Design principles:

- A new process framework will be defined in order to secure the same way of working across operation
- NUAC will focus on core processes and only keep a minimum of administrative and support functions in-house
- To secure operational alignment, common core processes will be established across all ATCCs
- Common administrative & operational support function will be established

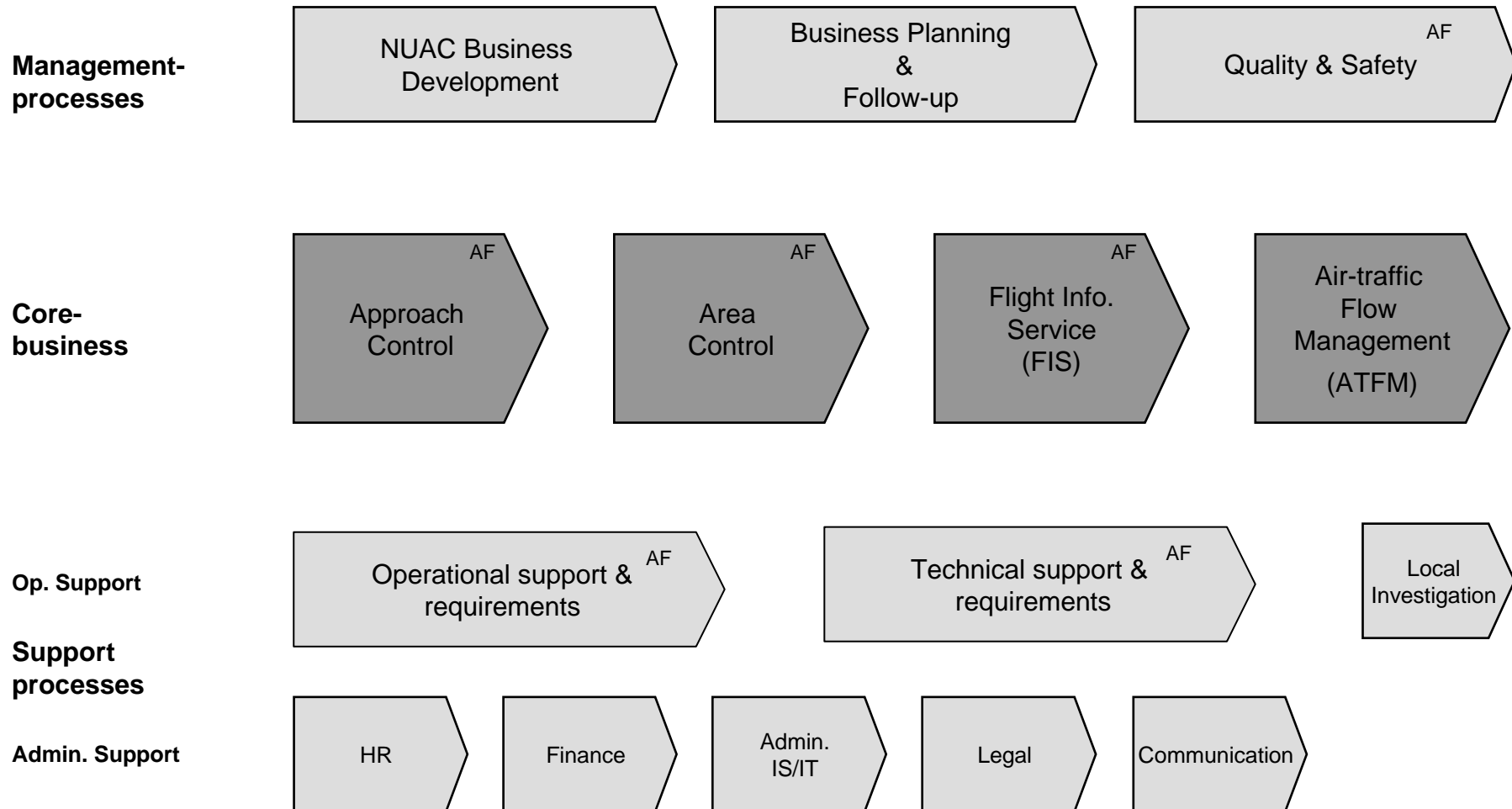


NUAC Programme



Merger Scenario:

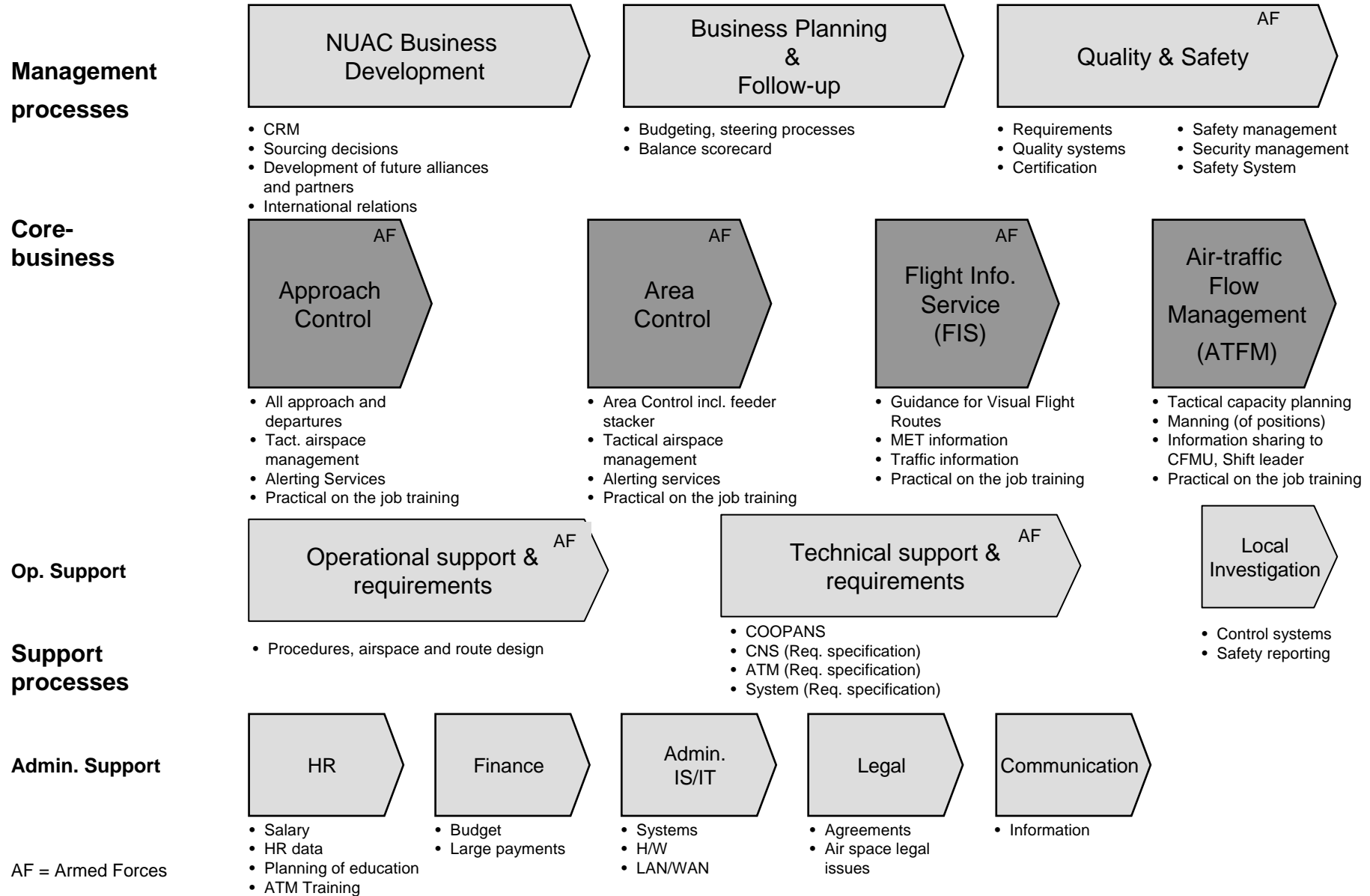
NUAC Process map – Level 0



AF = Armed Forces

Merger Scenario:

NUAC Process map – Level 0 and 1





Merger Scenario:

NUAC Process map – Activities not included and potentially outsourced

Areas not included in process framework:

- MET
- AIS
- NOF
- ARO

Content

1. Products & Services

2. Processes



Scenario 2 – NUAC/SKAANE

3. Organisation

4. Sourcing

Design principles:

- Current Process maps will be unchanged in LFV & Naviair
- NUAC SKAANE includes En-route, Approach + Tower in Malmö
- NUAC: A lean production company, hence no support functions will be transferred (though a general admin. staff & management must be established)
- SKAANE: Approach is moved from Malmö to Copenhagen, En-route from Copenhagen to Malmö, the rest remains AS-IS

NUAC/SKAANE Scenario:

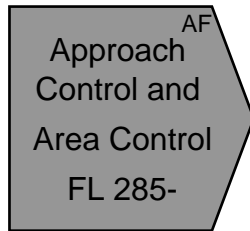
NUAC Process map – Level 0 and 1

Management-processes



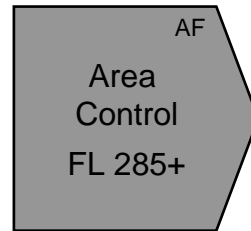
Core-processes

Copenhagen/
Stockholm



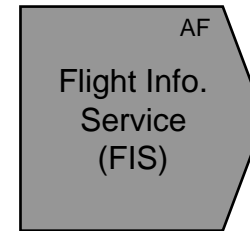
- AACC
- All approach and departures
- Tact. airspace management
- Alerting Services

Malmö



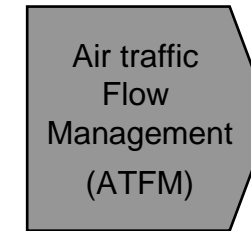
- En route incl. feeder stacker
- Tactical airspace management
- Alerting services

All



- Guidance for Visual Flight Routes
- MET information
- Traffic information

All

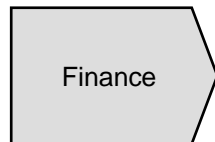


- Tactical capacity planning
- Manning (of positions)
- Information sharing to CFMU, Shift leader

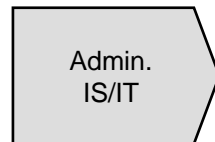
Support-processes



- Salary
- HR-data
- Planning of Education



- Budget
- Large payments



- Agreements
- Air space legal issues



- Information



- Cleaning
- Local security

Support Processes will be retained in current organizations

Content

1. Products & Services

2. Processes

→ Scenario 3 – Alliance

3. Organisation

4. Sourcing



Alliance Scenario:
NUAC Process

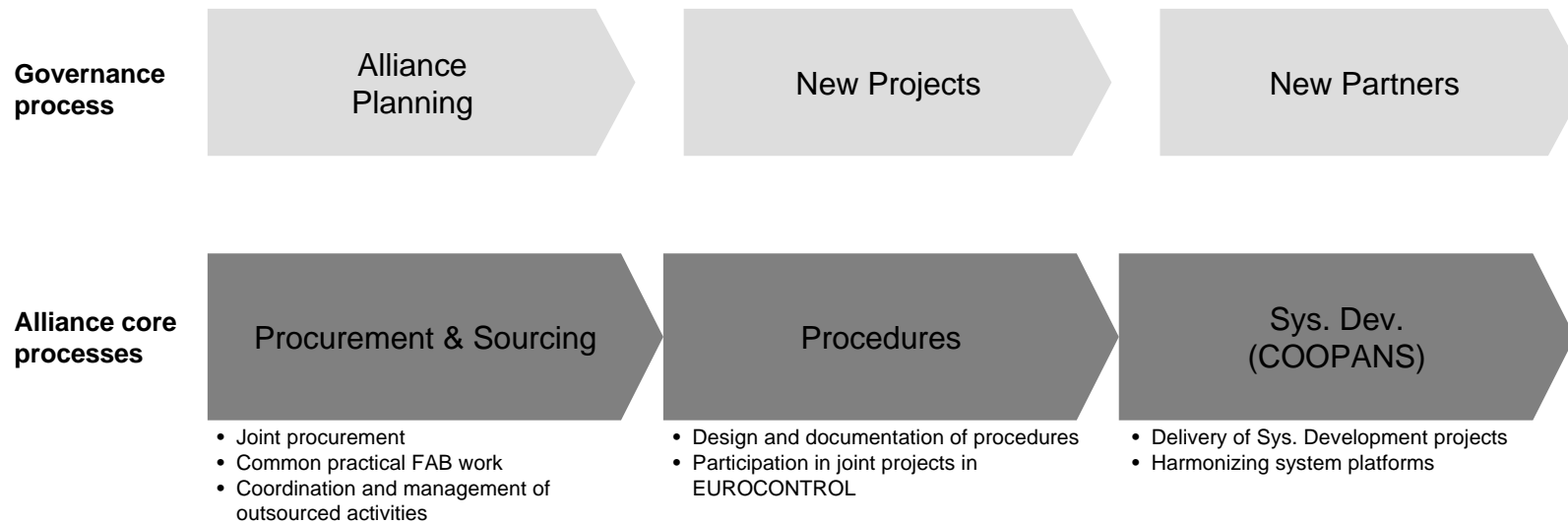
Design principles:

- Current Process maps will be unchanged in LFV & Naviair
- An alliance will be established in order to drive harmonization of systems, procedures and suitable projects
- A set of principles for managing the Alliance is established
- Key alliance areas are established

Alliance Scenario:

NUAC Process map – Level 0 and 1

NUAC Alliance



Content

1. Products & Services
2. Processes
3. Organisation → Scenario 1 – Merger
4. Sourcing



Merger Scenario:

NUAC Organisation – Design principles

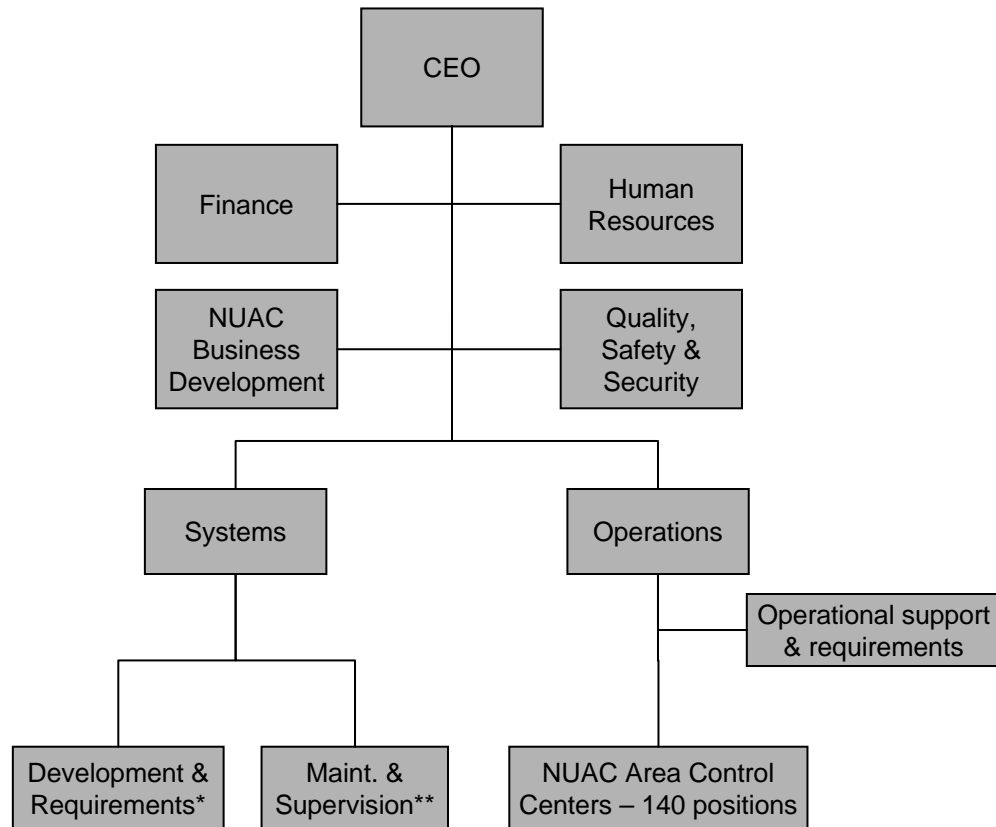
Design principles

- A new organisation is created
- The organisation will be designed in alignment with the process map and dedicated process owner roles are appointed
- Ownership of NUAC will initially be 50/50, to be adjusted when new joiners enter
- The NUAC organisation headquarters will be established in accordance with forthcoming negotiations
- Local branches, which will be employer of local staff, is expected to be established



Merger Scenario:

NUAC's operational organisation (level 0)



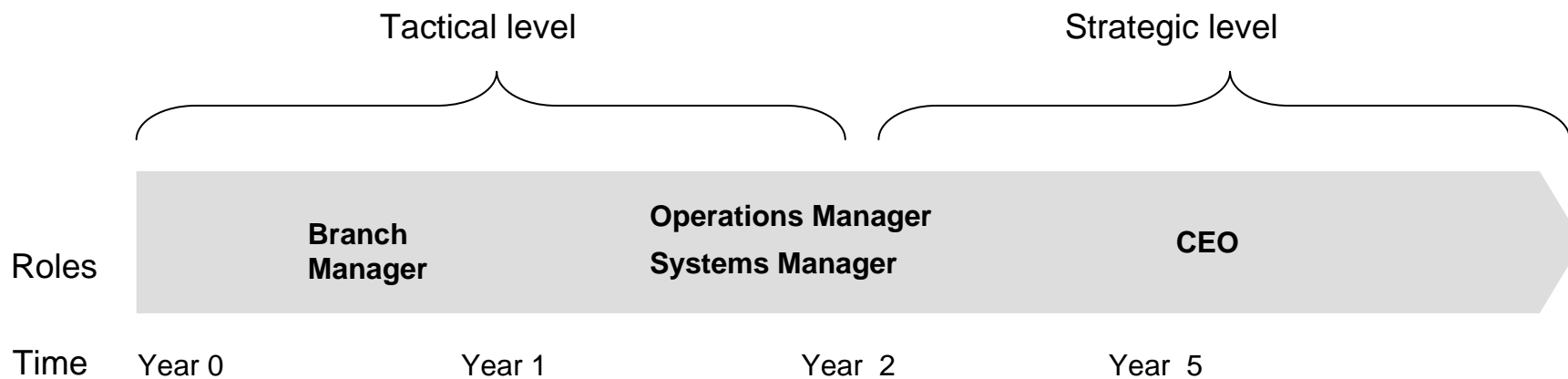
*Including administration of COOPANS

**Including management of outsourcing

Merger Scenario:

NUAC Organisation – Time perspective

- The Board makes decisions regarding long strategic initiatives
- The CEO, in cooperation with group management, secures the alignment of strategic direction and vision
- The COO secures harmonization of all branches in order to achieve one company policy for procedures on an operative level
- Branch managers are responsible for branch performance



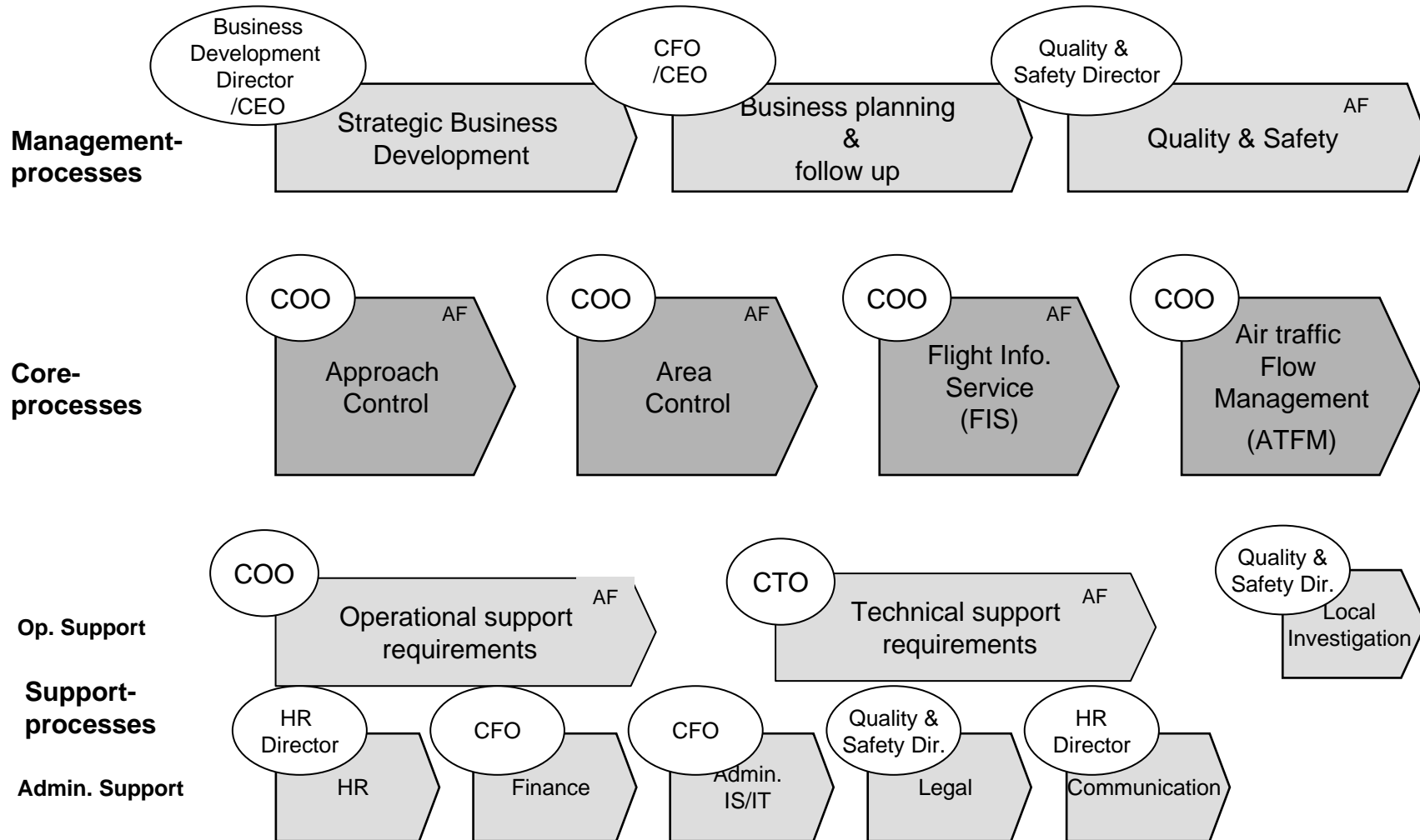


NUAC Programme



Merger Scenario:

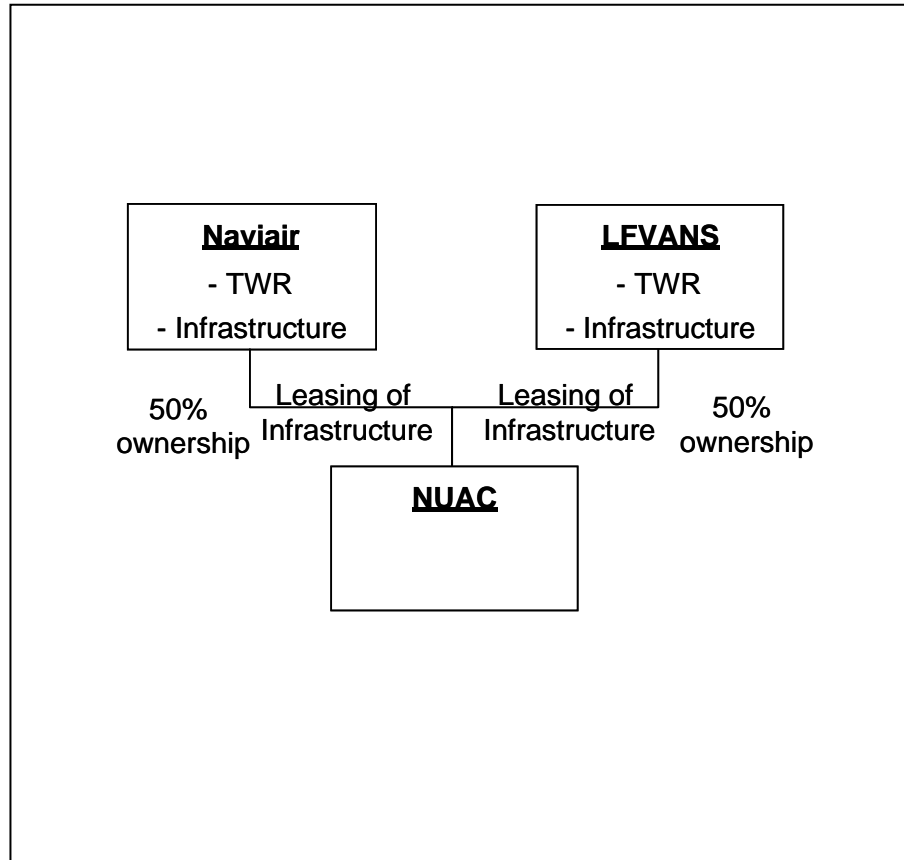
NUAC Process ownership



AF = Armed forces

Merger Scenario:

NUAC's legal organisation



- **TWR and Infrastructure's** ownership continues in Naviair and LFV/ANS respectively and infrastructure "leased" to the NUAC Company on the basis of SLA agreement. A possible future separation of infrastructure or TWR activities have not been taken into consideration
- **The NUAC Company** handles En-route and Approach activities (operational air navigation services) in Denmark and Sweden with the necessary support processes to ensure effective handling of this
- **Ownership** of the NUAC Company resides with Naviair and LFV/ANS with a 50/50% ownership of NUAC
- **The NUAC main company contains primary** concern functions and support processes
- **Local "subsidiaries" exist** in Copenhagen, Malmö and Stockholm respectively and handles operational service within these (positions) locations

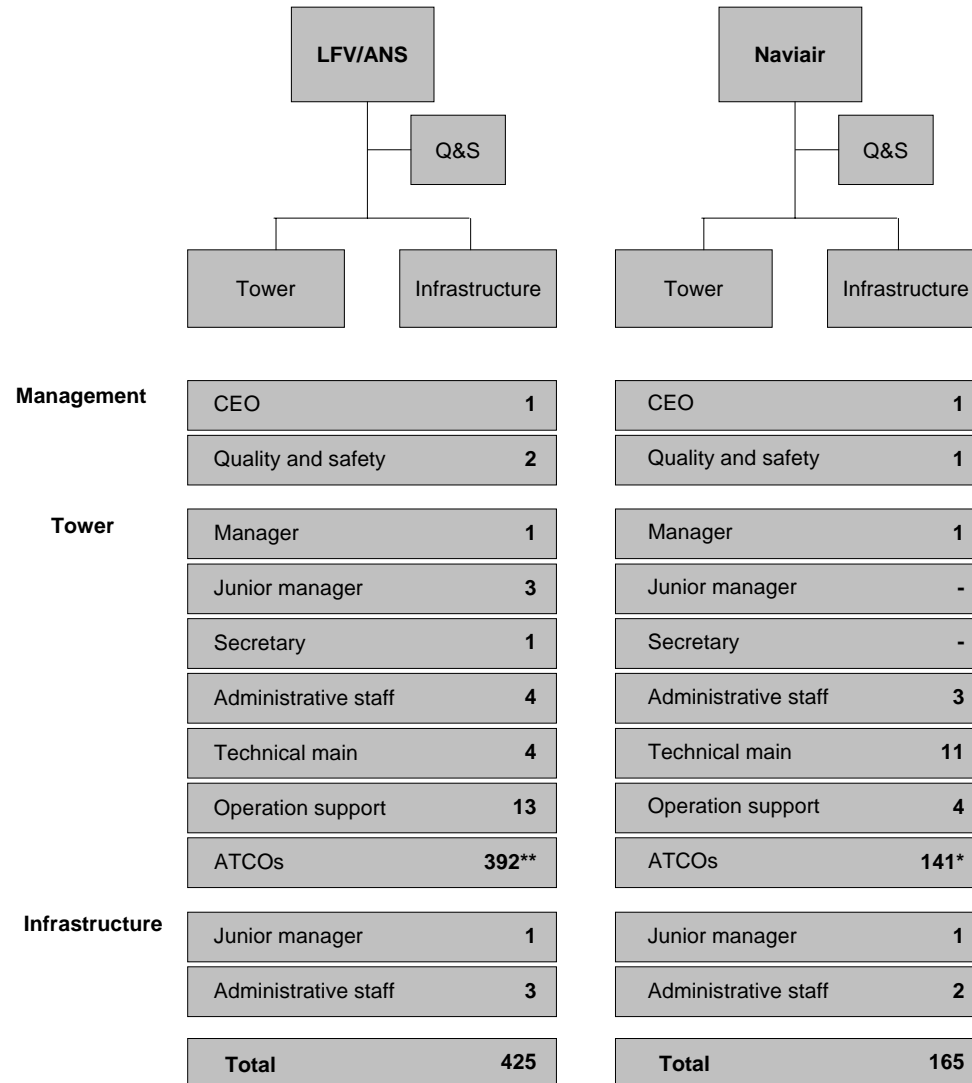


NUAC Programme



Merger Scenario:

Retained organisations



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

**Incl. 14 FTE APP-ATCO's performing tower operations

Content

1. Products & Services

2. Processes

3. Organisation

→ Scenario 2 – NUAC/SKAANE

4. Sourcing

Design principles

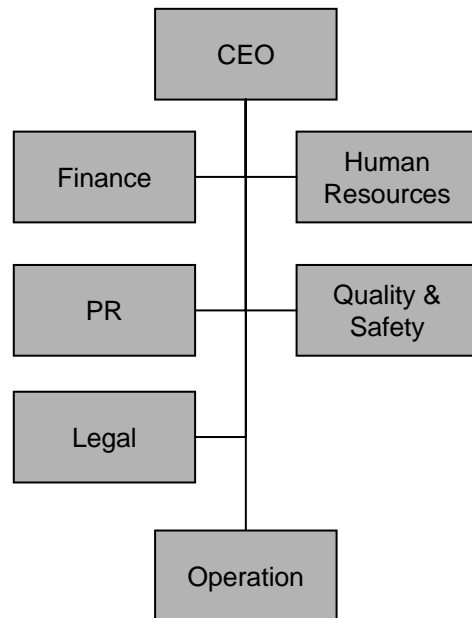
- The prerequisites for NUAC/SKAANE projects form the basis
- A new Swedish legal entity is created with headquarters based in Malmö
- Ownership of NUAC will be 50/50 to Sweden and Denmark
- The organization focuses on provision of Air Navigation Services in Danish and Swedish Upper Airspace (+28,500 FT). The majority support functions will be delivered from LFV/ANS and Naviair
- LFV/ANS and Naviair will remain as independent legal entities

NUAC/SKAANE Scenario:

NUAC Organization – Level 0 & 1

Organization required for the NUAC scheme

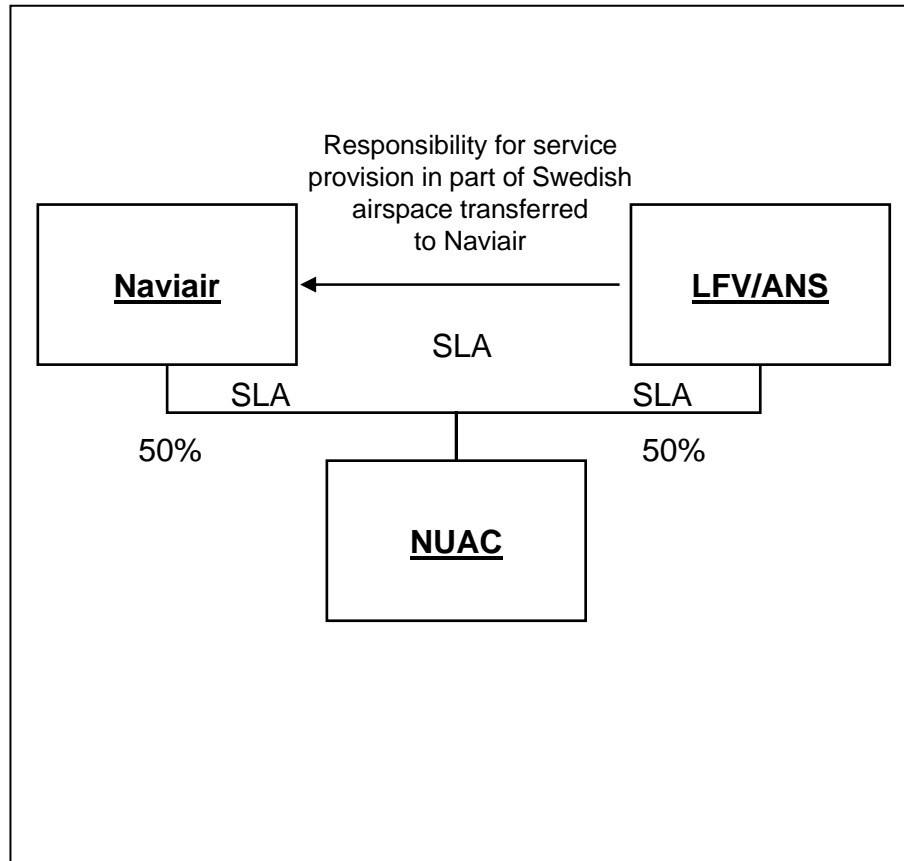
DRAFT



Function	Responsibility
CEO	Responsible for the business
Finance	Accounting, budgeting, Economical planning
Human Resources	Salary, Personnel development, travel, recruiting
Legal	Legal advisory services
Quality & Safety	Quality system, Certificates, Legal, Security, Safety
PR	Public relations & internal information
Admin. support	Facility management, reception, administration etc
Operational support	Duty roster planning, operational planning, coordination, Level 2 system maintenance, development, contracting
Operation	FDO, operational supervisors, ATC, students, Conversion controllers, Controllers

NUAC/SKAANE Scenario:

Ownership NUAC legal entity



- **The NUAC Company** handles En-route activities over flight level 285+ (operational air navigation services) in both Danish and Sweden airspace*
- **Ownership** of the NUAC Company resides with Naviair and LFV/ANS with a 50/50% ownership of NUAC
- **Cost bases** will still reside with Naviair and LFV/ANS. The NUAC Company has no separate cost base
- **Certification and designation**
Designation is granted to Naviair and LFV/ANS
Certification is granted to Naviair, LFV/ANS and NUAC (all three companies)
- The main part of the activities of **Support and administration** is delivered from Naviair and LFV/ANS.
- LFV/ANS and Naviair will remain as independent legal entities

***Transfer** of responsibility for delivery of service provision in parts of Southern Swedish airspace (-28,500 FT) to Naviair

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1. Products & Services

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→ Scenario 3 – Alliance Solution

4. Sourcing



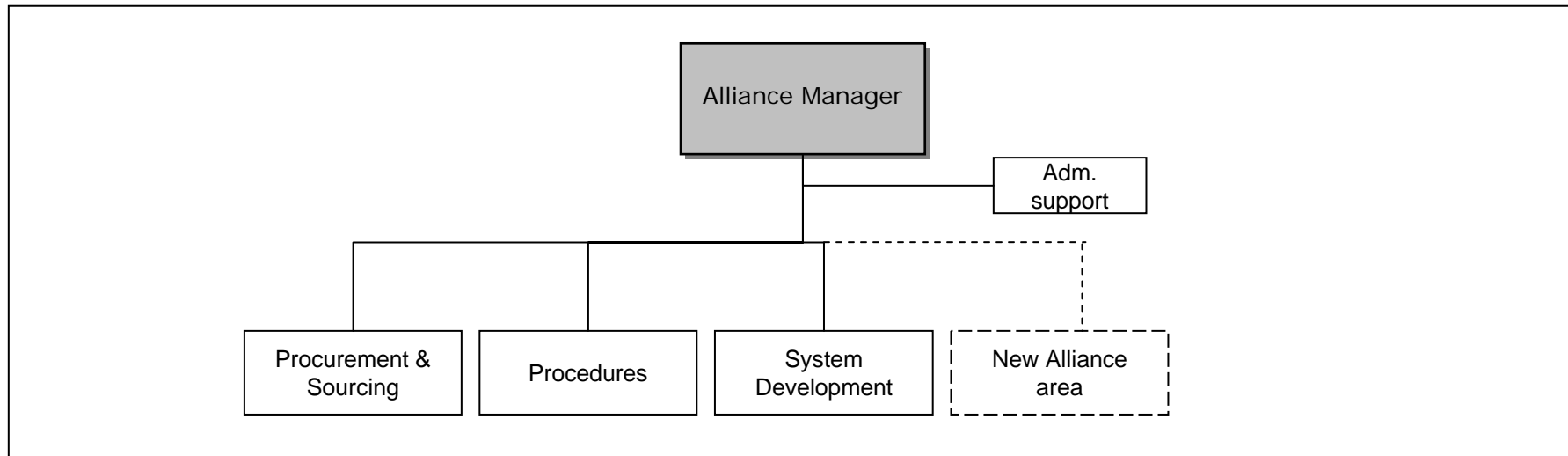
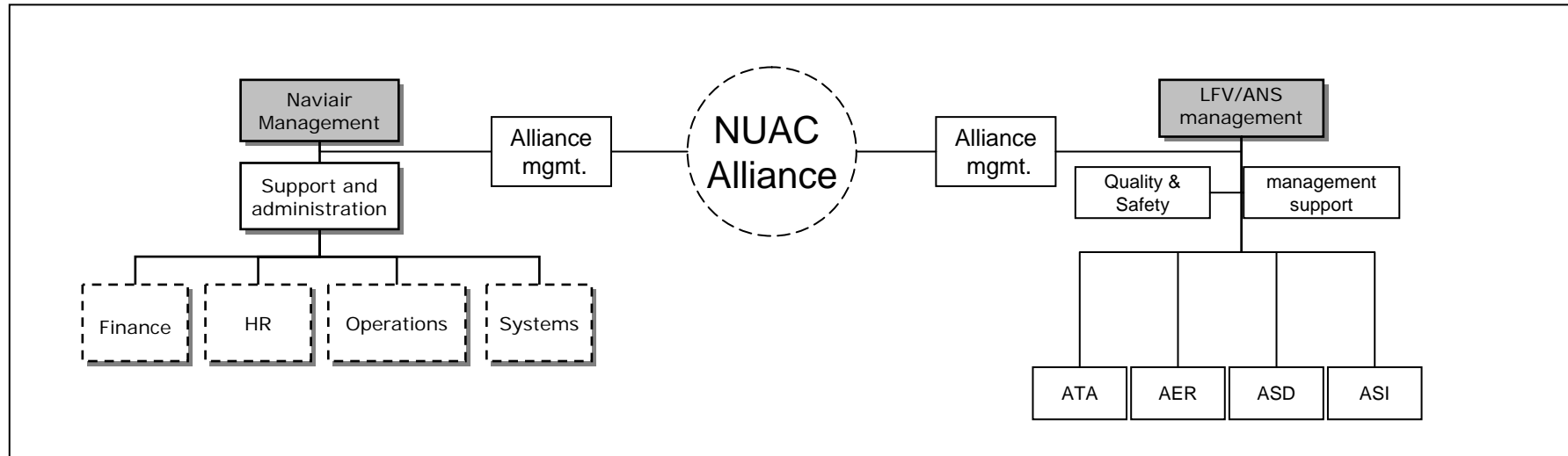
Alliance Scenario:

NUAC Organisation – Design principles

Design principles

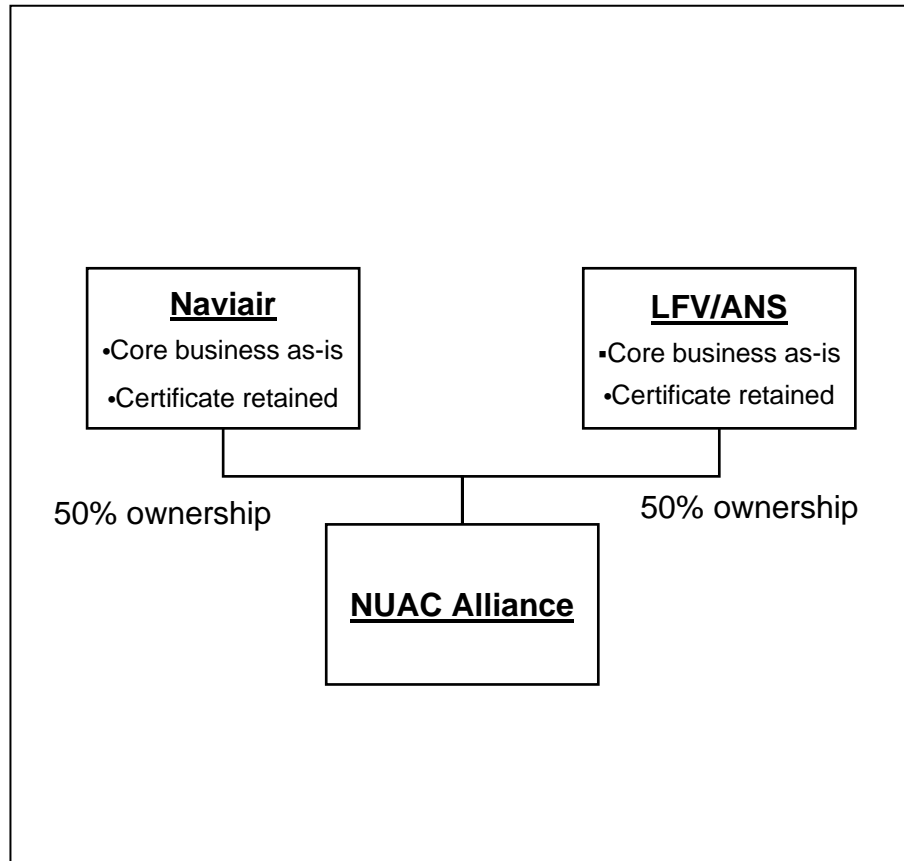
- A separate co-owned Alliance Company will be established as a legal entity
- The members will create a support function (Alliance management) managing all alliance projects
- The Alliance Company will be governed from LFV/ANS and Naviair
- All alliance projects will run through a formal decision process establishing legal binding agreements

Alliance Scenario: NUAC Organisation – Level 0 & 1



Alliance Scenario:

Legal organisation



- **The NUAC Alliance** handles only shared services tasks, which are not part of operational air navigation services. The provision of Air Navigation Services remains within LFV/ANS and Naviair.
- **Ownership** of the NUAC Alliance Company resides with Naviair and LFV/ANS with a 50/50% ownership
- **Cost bases** still resides with Naviair and LFV/ANS. The NUAC Company has no separate cost base
- **Certification and designation** are still granted to the respective companies – there are no changes to the present situation

Content

1. Products & Services

2. Processes

3. Organisation

4. Sourcing

→ Scenario 1 – Merger



Merger Scenario:

Sourcing strategy

NUAC Programme

NAVIAIR

The NUAC Company will strive for maximizing cost-effectiveness with constant focus on flight safety and search for sourcing solutions when financially efficient. Sourcing is considered the best solution in the following areas:

- System maintenance and supervision for both ATM and CNS systems
- System development, both for ATM and CNS systems
- Administrative IT and facility management

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2. Processes
3. Organisation

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→ Scenario 2 – NUAC SKAANE



NUAC/SKAANE Scenario:

Sourcing strategy

The prerequisites for the NUAC/SKAANE Scenario is given in the Final Report of each project and do not include sourcing strategies.

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1. Products & Services
2. Processes
3. Organisation

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→ Scenario 3 – Alliance Solution



Alliance Scenario:

Sourcing strategy

In the Alliance Scenario, the partners will strive for maximizing cost-effectiveness with constant focus on flight safety and search for sourcing solutions when financially efficient. Sourcing is considered the best solution regarding ATM maintenance and supervision.

The governance and coordination of the sourcing contract will be managed within the Alliance in order to ensure benefit potential.