
NEFAB Strategy Implementation Plan 2017

Version 1.0

Revision history

Version	Date	Description/Change	Author	Approved
1.0	22.05.2017	Light editing according to decision in Council #10	FPC	8 December 2016

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Implementation of NEFAB State Strategy

1 INTRODUCTION

The NEFAB State Strategy was adopted by the Council in Tallinn 2014. The main points of the strategy are

Vision:	NEFAB is a functional airspace solution where service is optimised to customer expectations, with focus on safe, cost efficient and environmental performance.
Mission:	To achieve optimal efficiency through harmonization, shared services and integration to the highest extent possible while pursuing optimal civil-military coordination.
Target areas:	<ul style="list-style-type: none"> - Safety of Operations - Environmental sustainability - Capacity - Flight and cost efficiency - Military mission effectiveness
Strategic objective:	Continuous improvements in all target areas
Enablers and facilitators:	<ul style="list-style-type: none"> - Optimum use of airspace - Harmonized procedures and regulations - Interoperable technical systems / interoperable system operations - Enhanced cooperation with neighbouring FABs and States

The main actors to realise the strategy are the air navigation service providers and the national supervisory agencies, ANSPs and NSAs. They have limited resources for development projects so the realisation of the strategy will be incremental.

The purpose of this document is to describe the ongoing, planned and completed actions and guide further implementation of the strategy.

The NEFAB strategy document as well as this implementation plan will be reviewed regularly.

Information on NEFAB is published on a dedicated website: www.nefab.eu.

2 ONGOING KEY PROJECTS

2.1 NEFRA (Phase 1)

Short description:

The agreed target of NEFRA Phase 1 is to implement seamless FRA in DK-SE FAB and NEFAB from FL 285 and above.

Common activities are related to Steering and Planning, Design and Validation Phases, while the ANSPs are implementing.

NEFRA Phase 1 with Scenario 8 (continuous FRA) was postponed due to technical issues. Backup plan with Scenario 6 was implemented November 2015. Scenario 8 implementation with Norwegian interface planned as a second step of Phase 1 by May 2017.

Expected benefits:

- Option for airspace users to plan and execute flights according to user preferred trajectories (business trajectories)
- From users perspective a FRA encompassing two FABs (6 States) appear as one continuum of FRA
- Decrease costs for airspace users in NEFAB and DK-SE FAB
- Help decrease the environmental impact in NEFAB and DK-SE FAB
- Enhance compliance of NEFAB and DK-SE FAB with the requirements of European Commission (i.e. Performance Scheme and FAB legal requirements)

Relevance to NEFAB strategy target areas:

Safety of Operations	++
Environmental sustainability	++
Capacity	++
Flight and cost efficiency	+++
Military mission effectiveness	++

Main responsibility: ANSPs of NEFAB and DK-SE FAB

Timing: Start date Q2/2013
Planned finish Q2/2017

2.2 LARA implementation

Short description:

Airspace Management (ASM) improvements will continue in 2016 and beyond. Implementation of LARA by individual ANSPs will be finalized to support Free Route operations as part of the planned NEFAB Target Concept 2020+.

LARA is implemented by individual states and ANSPs, with the status monitored at NEFAB Programme level. In addition, NEFAB approach on coordinated LARA operations will be promoted within the Borealis Free Route Airspace Programme.

The NEFAB Programme is actively in cooperation with EUROCONTROL for further development of the LARA tool, and has submitted NEFAB LARA change proposals for enhanced coordination functions at tactical level.

Expected benefits:

LARA provides:

- User-friendly interface to allow online airspace reservation
- Transparent coordination and maximised automation of routine tasks
- Sharing of real-time airspace status display
- Improved situational awareness
- Enhanced flight safety

Relevance to NEFAB strategy target areas:

Safety of Operations	+++
Environmental sustainability	++
Capacity	+++
Flight and cost efficiency	+++
Military mission effectiveness	+++

Coordinating Committee: CMC

Implementation: NEFAB states/military and ANSPs

Timing: Start Q1/2012
Planned finish Pending LARA tool functions upgrade

2.3 PRISMIL implementation

Short description:

PRISMIL is a Civil-Military performance monitoring system that facilitates the combined monitoring of civil and military airspace management (ASM) processes at national or international level. PRISMIL is collecting user data from the LARA database and presents preset diagrams through a dashboard of Key Performance Indicators (KPI) or user set monitoring values.

PRISMIL transforms raw data into business information and creates the precondition for a performance-driven partnership between civil and military stakeholders.

Expected benefits:

PRISMIL provides:

- Data collection and integration
- Performance indicator aggregation at national, Functional Airspace Block (FAB) and EU level
- Online data querying and interactive reporting
- A multi-dimensional view of ATM performance
- Combined use of civil and military performance indicators
- Data access control

Relevance to NEFAB strategy target areas:

Safety of Operations	
Environmental sustainability	
Capacity	++
Flight and cost efficiency	++
Military mission effectiveness	+

Coordinating Committee: CMC

Main responsibility: NEFAB states/military and ANSP

Timing: Start date 01/2012
Planned finish

2.4 Common data link implementation

Short description:

The data link implementation involves both procurement of communication services and integration of data link functionality into the ATM systems. Requirements in EU-legislation sets the deadline of February 2018 for the ground part to be operational (Regulation (EC) No 29/2009).

Data link strategy and concept in the NEFAB Network Plan will be reviewed in the light of the amended data link Implementing Rule and specifications, reflecting the SESAR Deployment Manager's recovery plan of 17 October 2016 as part of its "DLS Implementation Strategy towards Initial Trajectory Information Sharing" which aims to ensure a stable and reliable ATN/VDL Mode 2 service.

NEFAB-level activities to explore common data link service area are planned to start in 2018.

Expected benefits:

Data link is one of the key enablers for providing enhanced concepts developed in the SESAR Programme and is supporting the timely deployment of AF6 (Initial trajectory information sharing) of the Pilot Common Project-regulation.

Transition to the trajectory based operations is not possible without the future data link applications, as 4D trajectory management.

Operationally, the use of data link would mitigate the majority of risks introduced by air-ground communication.

Data link is able to increase the ATM capacity by reducing the controller workload and increase the sector throughput.

Relevance to NEFAB strategy target areas:

Safety of Operations	++
Environmental sustainability	+
Capacity	+++
Flight and cost efficiency	++
Military mission effectiveness	+

Main responsibility: NEFAB ANSPs

Timing:

Start date	ANSP individual /depending on ELSA study results
from July 2016	
Planned finish	Q1/2018

2.5 Northern Europe Aviation Meteorology Consortium (NAMCON)

Short description:

The NAMCON cooperation will improve the coordination, harmonisation and production of aeronautical meteorological forecast products and services. In 2016 the work will focus on the following priority projects:

1. Launch of the NAMCON aviation weather briefing portal at <http://www.northavimet.com> combining all official MET products under one website hosted by the Danish Meteorological Institute
2. Joint production of a low-level Baltic Significant Weather Chart (BSWC) between ESTEA and LEGMC
3. Improved cross-border SIGMET coordination between all NAMCON members

Expected benefits:

NAMCON activities will harmonise the availability and content of the aviation weather forecast products currently produced by seven independent National Meteorological Services (NMSs), thereby improving the safety and reliability of service provision. Joint production increases the quality of the service in cases of service disruptions through the ability to move tasks between countries in a flexible way.

The overall development will enable the fulfilment of RP2 cost targets for NEFAB NMSs and ensures that future research and development requirements are met effectively. NAMCON serves as a global model for sub-regional service delivery within the context of WMO and ICAO.

Relevance to NEFAB strategy target areas:

Safety of Operations	+++
Environmental sustainability	+
Capacity	+
Flight and cost efficiency	+++
Military mission effectiveness	+

Main responsibility: NEFAB & DK-SE FAB designated Aeronautical MET forecast Service Providers

Timing:

Start date	Q3/2015
Planned finish	Individual projects between Q1/2016 and Q2/2017, NAMCON work plan revised annually

2.6 NEFAB Target Concept 2020+

Short description:

Objective of the proposed Target Concept 2020+ is to reduce ANSP costs by introducing new and dynamic sectorisation and service provision across state borders, enhance sustainability by operational contingencies and introduce common operational concepts that are interrelated and are contributing to cost efficiency improvements.

Target Concept 2020+ has been considered as the continuation of the NEFAB Target Concept 2015 for further improvements of operational efficiency in NEFAB and has been planned to integrate the main interrelated elements: Cross Border Concept, Common Flight Data Service and Contingency Concept.

Scenarios will be built on the basis of agreed business decisions on a case by case basis where it has been identified that the concept is feasible. The project will explore the feasibility and willingness to include service providers in adjacent FABs/States into the project, in particular DK-SE FAB.

Revision of the NEFAB 2015 Target Concept Network Plan was concluded in Q4 2016 and form a basis for further developments in the Target Concept 2020+ projects with revised NEFAB Network Plan and operational requirements.

Expected benefits:

Improved cost efficiency and capacity in ATS by implementing optimal sectorisation according to traffic flows and optimum use of ATCO and support function resources across state borders. Improved operational contingency arrangements in en route areas between the ACCs.

Relevance to NEFAB strategy target areas:

Safety of Operations	+
Environmental sustainability	
Capacity	+++
Flight and cost efficiency	+++
Military mission effectiveness	+

Main responsibility: NEFAB Programme

Timing:

Start date	Q4/2016
Planned finish	Pending individual projects extending between 2017 and 2025.

2.7 FinEst

Short description:

EANS and ANS Finland are developing a concept for Integrated Services in the FinEst Project. A pre-feasibility study including the high-level cost benefit analysis has been carried out, describing the potential target service concept that can be achieved in the years 2016-2020. The project for development is mobilised in Q4 2016.

The main co-operation areas are related to ATS cross-border services which is based on a concept of harmonised and integrated ATM infrastructure where required, as well as support functions related to ATS and system maintenance. Harmonised change and update processes of the concept between EANS and ANS Finland will ensure future developments.

Service concept elements can be considered as independent service areas and as such can be combined in different scenarios on the basis of agreed business decisions.

Expected benefits:

The overall results of the pre-feasibility study indicate a clear business potential and significant cost savings achieved by integrating specified service areas.

Implementing the proposed concept provides a common baseline for future implementation of e.g. SES-driven developments.

Relevance to NEFAB strategy target areas:

Safety of Operations	++
Environmental sustainability	++
Capacity	++
Flight and cost efficiency	+++
Military mission effectiveness	+

Main responsibility: ANS Finland and EANS

Timing:

Start date	Q2/2016
Planned finish	Q4/2020

2.8 Cross-border air traffic services in low-density airspace

Short description of the project:

Avinor Flysikring and ANS Finland are exploring the possibilities for providing a comprehensive ATS cross-border service for low-density airspaces. This should be seen as a complementary project to FinEst which looks at high-density airspace and also includes a wider range of integration of services. Both being pilot projects for cross-border initiatives identified in the NEFAB Target Concept 2020+ Case Study for enhancing operational efficiencies in NEFAB.

Scenarios need to be built on the basis of agreed business decisions and it might be useful to also explore the feasibility and willingness to accommodate for inclusion of the Swedish service provider into the project, either from the start or later.

Expected benefits of the project:

It is expected high potential for cost savings as current national sectorisation requires minimum ATCO-staffing on both sides of national borders with little traffic most of the time. Feasibility and cost savings is still to be verified in a cost benefit analysis.

Relevance to NEFAB strategy target areas: (subjective judgment, +, ++, +++)

Safety of Operations	+
Environmental sustainability	
Capacity	
Flight and cost efficiency	+++
Military mission effectiveness	

Main responsibility: Avinor Flysikring and ANS Finland

Timing:

Start date	Q4/2016
Planned finish	Q4/2019

2.9 NSA Handbook

Short description:

The NEFAB NSA Handbook aims to be a single reference document with information on the fundamental aspects of the NEFAB NSA tasks. Its main purpose is to assist NEFAB NSA personnel in fulfilling the NEFAB mission, vision and strategic objectives, and to deliver high-quality products and services through uniformed operations. The handbook is a living document which is regularly updated by the NEFAB NSA Committee.

Expected benefits:

The NSA Handbook is one way to ensure that the NSA activities in the FAB framework are properly arranged. It does not substitute individual/national NSA's handbooks since the Committee has no legal personality and cannot be considered as a competent authority. The handbook supports the NSAs on how to perform the tasks in a common, harmonised, co-coordinated and efficient manner in the NEFAB environment. The handbook is also expected to be of added value to the Air Navigation Service Providers operating within the NEFAB area by increasing the awareness of the NSAs' procedures. It is also important that procedures described in this handbook remain fully aligned with the respective ANSPs' procedures and that the interfaces between NSAs and ANSPs are well understood.

Relevance to NEFAB strategy target areas:

Safety of Operations	+++
Environmental sustainability	
Capacity	
Flight and cost efficiency	++
Military mission effectiveness	
Harmonization of processes	+++

Coordinating Committee: NSA Committee

Main responsibility: NSAs

Timing:

Start date	Q2/2014
Planned finish	Q2/2016

2.10 Borealis

Short description:

Borealis Alliance is an industrial partnership between nine northern European Air Navigation Service Providers (ANSPs). The partnership is based on an Alliance Framework Agreement, signed on 20 June 2012. Borealis Alliance includes the ANSPs of Denmark, Estonia, Finland, Iceland, Ireland, Latvia, Norway, Sweden and the UK. Borealis Alliance is a unique move to enable joint initiatives to improve flight efficiency and reduce environmental impact, delivered across the whole area in a move which will also streamline cost of services and operational/technical infrastructure.

Borealis Alliance will focus on strategic business cooperation between the member ANSPs, seeking economies of scale and projects that can be achieved on a commercial basis, complementing the work of the northern European Functional Airspace Blocks (FABs) but without the need for regulatory or state involvement.

Expected benefits:

Main Borealis projects: Borealis Free Route airspace (Part I: 2014-2016; Part II: 2016-2021)

- Complementary to NEFRA, extending interface of Free Route Airspace concept to UK/IRL and North Atlantic region – Borealis FRA subject to EU INEA CEF co-funding
- Option for airspace users to plan and execute flights according to user preferred trajectories (business trajectories) and by that decrease costs for airspace users and environmental impact
- From users perspective a FRA encompassing three FABs (8 states) + one state (Iceland) appears as one continuum of FRA
- Enhance compliance of NEFAB , DK-SE FAB and UK-IRL FAB with the requirements of European Commission (i.e. Performance Scheme)

Relevance to NEFAB strategy target areas:

Safety of Operations	
Environmental sustainability	+
Capacity	
Flight and cost efficiency	++
Military mission effectiveness	+
Harmonization of processes	++

Main responsibility: Borealis Executive Team – Director Ms Branka Subotic (NATS)
Borealis Board – Chairman Mr Martin Rolfe (NATS)

Timing: Start date N/A
Planned finish N/A

3 PLANNED PROJECTS

ANSP study on remote tower solutions. To be developed further after the ANSPs have agreed their 5-year rolling business plan (June 2017).

4 COMPLETED PROJECTS

4.1 *Common Safety Policy*

The NEFAB Safety Policy was adopted by the NEFAB Council in November 2014. The Policy summarises the main principles towards achieving the highest possible level of safety and outlines accountability of the States, National Supervisory Authorities, air navigation service providers, and the Council itself.

The document is available at www.nefab.eu

4.2 *Common Airspace Policy*

The NEFAB Airspace Policy was adopted by the NEFAB Council in January 2016. It is a high level framework document to be considered and used together with the national airspace policies and related provisions of the NEFAB States. The main objectives of the policy is to demonstrate how NEFAB airspace is managed and designed, increasing transparency of these processes and hence supporting stakeholders in their own investment and project planning.

The document is available at www.nefab.eu

4.3 Assessment on the benefits of FUA harmonisation

Short description

To analyse the level of FUA implementation in NEFAB States including the analysis of possible national differences regarding FUA application.

To conclude whether there is room for further harmonisation and whether it is beneficial for respective states.

Expected benefits of the project:

- Efficient use of cost benefit analysis
- Better predictability of national airspace management via harmonised and transparent airspace management-procedures in all NEFAB States.

Outcome of the project:

FUA implemented in all NEFAB States, but some differences in application. For example there are some indications of challenges over the use of cost benefit analysis between Latvia and Estonia.

Complete harmonisation of FUA procedures is not applicable nor appropriate due to national differences (e.g. defence structures/strategies). Further harmonisation will be beneficial, but it should be based on and according to case-by-case needs to avoid unnecessary effort.

Enhanced co-operation and co-ordination between Airspace Management Cells is desirable and should create benefits.

Relevance to NEFAB strategy target areas: (subjective judgment, +, ++, +++)

Safety of Operations	+
Environmental sustainability	+
Capacity	
Flight and cost efficiency	+++
Military mission effectiveness	+++

Coordinating Committee: CMC

Main responsibility: NEFAB CMC

Timing: Start date Q1/2015
Planned finish Q4/2016

5 OTHER ACTIVITIES

5.1 Ministerial level network between NEFAB and DK-SE FAB

Since the ministers responsible for transport issues from Denmark, Estonia, Finland, Latvia, Norway and Sweden in 2013 signed the political declaration of commitment for co-operation in airspace development, the realisation of NEFRA has been achieved.

In the declaration the ministers confirmed their commitment for a continued co-operation in enhancing the functionality in the airspace and expressed the commitment to explore closer cooperation at FAB level between NEFAB and DK-SE FAB. They agreed to establish a co-operation network at ministerial level with the purpose of facilitating and monitoring the enhanced co-operation.

The aim being a possible future consolidation of the two FABs when a comparable level of ambition regarding the achievements to be realised through a FAB cooperation is reached, inter alia harmonisation of operational concepts, performance of the ANSPs and related cost-efficiency.

Also it was highlighted support and encouragement for co-operation between the air navigation service providers in NEFAB and DK-SE FAB in achieving synergies and economies of scale related to the provision of Air Traffic Services across national borders.

The focus since the signing of the political declaration in 2013 has been on monitoring NEFRA implementation and facilitating joint reporting towards the EU Commission on progress.

There have been discussions on further co-operation targets but as long as NEFRA was not fully achieved, further initiatives have been put on hold.

6 SUMMARY OF CONTRIBUTIONS TO TARGET AREAS

Project	Safety	Environment	Capacity	Cost-efficiency	Military mission effectiveness	Optimum use of airspace	Harmonised procedures and	Interoperability	Co-operation with neighbours
NEFRA 1	++	++	++	+++	++				
Lara	+++	++	+++	+++	+++				
Prismil			++	++	+				
Common data link implementation	++	+	+++	++	+				
NAMCon	+++	+	+	+++	+				
NEFAB Target Concept 2020+	+		+++	+++	+				
NSA Handbook	+++						+++		
Borealis		+		++	+		++		
FinEst	++	++	++	+++	+				
Cross-border ATS in low-density airspace	+			+++					
Common Safety Policy									
Common Airspace Policy									
Assessment on FUA harmonisation	+	+		+++	+++				
Ministerial level DK-SE FAB									+

7 RECOGNISED DEVELOPMENT NEEDS

7.1 Common charging policy

Short description:

From the NEFAB-agreement stems an obligation to develop and apply common principles governing charging policy, taking into account the possibility of national exemptions.

The states are already under common obligations through SES-implementing legislation. Still, interpretations of these common rules and principles might differ and in any case differences exists in terms of exemptions and incentives, VAT, number and size of aerodromes, traffic levels and complexity, the scope of ANS provided, the charging policy (in a narrow sense) including the applied cost allocation between en-route and terminal.

All this makes comparability issues when analysing and benchmarking ANS performance levels across states difficult. Therefore harmonisation and alignment should be sought to the largest extent possible throughout NEFAB.

Expected benefits:

The development and application of common charging principles for NEFAB is expected to lead to a gradual harmonisation of existing charging policies between the states and should facilitate further cooperation between the ANSPs.

Establishment of cross-border charging zones for en-route would possibly be linked to future cross-border ANS operations.

We would expect more appropriate and accurate analysis and benchmarking of en-route and terminal ANS performance levels across states/TCZ/airports.

Relevance to NEFAB strategy target areas:

Safety of Operations	
Environmental sustainability	++
Capacity	
Flight and cost efficiency	++
Military mission effectiveness	

Main responsibility: States/Ministries of Transport

Timing:

Start date	Q2/2016
Planned finish	Q4/2019

7.2 Harmonisation of state level safety programmes

Initial NEFAB member state exchange of experiences in the state safety program implementation progress would benefit further in preparation for the implementation of the updated Basic Regulation which would contain requirements regarding state safety program implementation. Basis for initial harmonisation lies in the joint ICAO Framework for state safety programs.

7.3 English only air-ground communication

The standardised European rules of the air (SERA) mandates the use of English only for use in air-ground communication between ATC and pilot.