



NEFAB PROGRAMME BUSINESS PLAN 2016 - 2020

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1. INTRODUCTION

Dear reader,

The Air Navigation Services Providers (ANSPs) of the North European Functional Airspace Block (NEFAB) hereby present the Business Plan for 2016 – 2020 to serve as a strategic roadmap for further five years.

The key focus of these coming years are requirements set forth by the SES II+ and the Reference Period 2 of the Performance Scheme, contribution to the Borealis Free Route Airspace Programme, arising competing markets, and enhanced business angle of the NEFAB Programme.

The NEFAB air navigation airspace providers will continue series of activities aimed to improve airspace and service performance in terms of cost efficiency, airspace efficiency for civil and military users, and reduced environmental impact.

These five years will bring greater scale benefits for our airspace users, through seamless Free Route operations within the NEFRA region, i.e. NEFAB and DK/SE FAB, and the Borealis Free Route Airspace programme extending Free Route operations to a large portion of the Northern Europe by 2020.

Enhanced business angle of NEFAB Programme will be another priority in the coming years. ANSPs will team up within NEFAB to enhance internal business arrangements and exploit common business opportunities. NEFAB Programme will work closely with the states and NSAs to agree and align ANSPs and States strategies and implementation plans, and enable feasibility of decided strategic and business targets.

These activities are the best example of commitment to our customers and the initiative of the Single European Sky, working to improve the performance of air traffic management in Europe.

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2. EXECUTIVE SUMMARY

NEFAB 5-years Business Plan has been developed with full regard of the regional and European trends and future perspectives that are likely to impact the operations and business.

Changes in the European Air Traffic Management are driven through the **Single European Sky** initiative. The **SES Performance Scheme** is one of the key instruments of the initiative aiming at achieving the general objectives of the SES and hence setting performance targets within four key performance areas (safety, capacity, cost-efficiency, and environment). The targets require air navigation service providers to be more efficient, while ensuring adequate safety levels. The EC in its decision 2015/348 on consistency of certain targets included in the functional airspace block plans for the RP2 has acknowledged that the targets submitted by Member States, as regards NEFAB, are consistent with the relevant Union-wide performance targets. NEFAB has a well-established and robust structure for achieving the established targets, and its performance and ambitions are above the European average.

NEFAB targets are likewise built with regard to the expected focus of the interim update of the Single European Sky rules, the **SES II+**. New requirements are in pipeline to refine the existing legal framework, bridge the gaps and overlaps in legislation and considerably shift the focus towards performance oriented model. The existing constructions of FABs will be made more flexible, industry led, and more focused on performance hence challenging them to prove their overall added value, including in the use of airspace, as well as technical and human resources. It will demand for more integrated service provision and joint arrangements.

The coming years are marked with the transfer to the **SESAR Deployment** launched in December 2014 with establishment of SESAR Deployment Alliance to the EC-mandated role of the Deployment Manager, to plan and coordinate a major modernisation of European airspace. The contents of the full Deployment Programme are not available yet, and the most up to date basis of it is available in v1 of the Preliminary Deployment Programme. Large mandatory European wide investments can be burdensome for small ANSPs; therefore NEFAB partners recognise an importance of common representation of their interests towards the DM.

Competitive market in Europe is growing persistently. The number of airports in Europe which are now open for competition for delivery of air navigation services has been rising. It is challenging the conservative way of thinking, requiring new business-minded approach. In addition, continued heavy competition among customers in the aviation sector puts more expectations on air navigation service providers as well. Reduction of service delivery costs while maintaining high safety level is the primary expectation, to be met in NEFAB through exploration of areas for joint activities. As NEFAB ANSPs may be relatively small to compete individually, teaming up could give better position in the market.

NEFAB Business planning is a tool for meeting these challenges through agreed deliverables.

3. VISION AND MISSION

▲ NEFAB vision

NEFAB is a functional airspace solution, where service is optimized to customer expectations, with focus on safe, cost efficient and environmental performance

▲ NEFAB mission

The mission is to achieve optimal efficiency through harmonization, shared services and integration to the highest extent possible while pursuing optimal civil-military coordination.

4. NEFAB ORGANISATION, CUSTOMERS AND SERVICES

4.1. NEFAB Programme organisation

NEFAB ANSP Programme is based on the ANSP Cooperation Agreement and Business Model. The Programme is the planning and execution of common activities, including business planning, budget and cost management, project initiation and execution, and communication, resourced by the NEFAB air navigations service providers. The Programme is organised on several levels to ensure strategic and tactical decisions and daily management:

- NEFAB ANSP CEO Board
- NEFAB Management Board
- NEFAB Programme Management Office
- Joint activities and projects

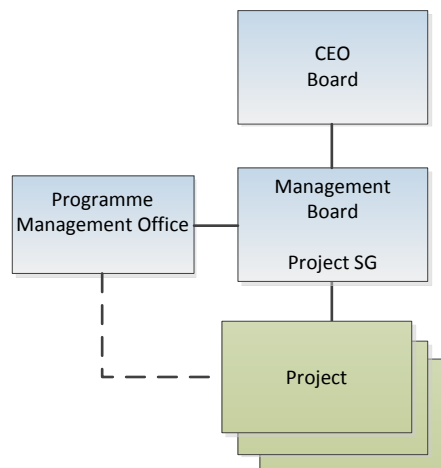


Figure. NEFAB ANSP Programme governance structure

NEFAB CEO Board is the ultimate and strategic decision making body for the NEFAB ANSP cooperation. The CEO Board provides scope decisions for the strategic, business and financial developments and acts as a link ensuring anchoring of strategic cooperation and communication with NEFAB key stakeholders and strategic partners.

NEFAB Management Board is the supervisory body for the performance and execution of the Business Plan. Management Board executes tactical decisions and guidance, supervises the progress of the NEFAB Programme and provides decisions related to NEFAB projects and their execution.

NEFAB Programme Management Office (PMO) manages the NEFAB Programme and supports the air navigation service providers and states to reach the NEFAB objectives and performance targets, including information exchange and stakeholder engagement.

Projects are established as separate project structures, whenever feasible, in the areas which are recognised as collaborative activities to bring benefits and improve performance of the FAB. Such activities are resourced and implemented jointly by ANSPs on the NEFAB level and monitored by the Management Board.

4.2. NEFAB airspace

NEFAB airspace is composed of the following flight information regions (FIR) and upper information regions (UIR) of the North European airspace: Estonia, Finland, Latvia, Norway, and Bodø Oceanic.

The map below shows the NEFAB airspace:



NEFAB airspace

4.3. NEFAB ANSPs - services, facts and figures

The **NEFAB ANSPs** cover a large geographical area and serve air traffic to and from a wide range of airports, from small remote regional airports to national hubs with considerable traffic volumes. In addition there are also considerable amounts of overflying traffic in NEFAB airspace, including ultra-long haul operations. Hence the role of air transport in NEFAB area is considerable.

The NEFAB air navigation service providers are:

- ▲ AVINOR (Avinor Air Navigation Services AS, Norway)
- ▲ EANS (Lennuliiklusteeninduse AS, Estonia)

- ▲ FINAVIA (Finavia Corporation, Finland)
- ▲ LGS (Latvijas gaisa satiksme SJSC, Latvia)

Avinor (Avinor Air Navigation Services AS) provides aerodrome control and approach control services at airports, air traffic services in Norwegian airspace and maintenance and operation of the technical infrastructure for air navigation. It is a wholly-owned subsidiary of the Avinor Group.

EANS (Lennuliiklusteeninduse AS) provides air traffic management services in Estonian airspace. Services include Air Traffic Services, CNS/ATM technical support, aeronautical information, consultancy services, and training

Finavia (Finavia Corporation) provides airport and air navigation services, and maintains and develops the network of 24 airports and Finland’s air navigation system. Finavia’s air navigation services are responsible for controlling the use of Finnish airspace and for providing the related en-route services and air navigation services at Finavia’s airports.

LGS (Latvijas gaisa satiksme SJSC) provides air traffic management services in Latvian airspace. Services include Air Traffic Services, CNS, (including MET services), CNS/ATM technical support, and aeronautical information.

NEFAB ANSP services:

	ATC en-route	ATC Oceanic	ATC approach	ATC aerodrome(s)	AIS	CNS	MET	ATCO TRAINING	
Avinor Flysikring AS www.avinor.no	Y	Y	Y	Y	Y	Y	N	Y	A wholly-owned subsidiary of the Avinor Group
EANS www.eans.ee	Y	N	Y	Y	Y	Y	N	Y	Joint-stock company as of 1998 100% State-owned
Finavia www.finavia.fi	Y	N	Y	Y	Y	Y	N	Y	Public Limited Company Integrated civil/military ANSP 100% State-owned
LGS www.lgs.lv	Y	N	Y	Y	Y	Y	Y	Y	Joint-stock company as of 1997 100% State-owned

NEFAB unit cost forecast for RP2:

The Performance Review Body (EUROCONTROL) has noted that by 2019 NEFAB unit cost (€2009) will be -31.7% lower than the Union-wide aggregated determined unit cost, DUC (51.26 €2009).

	2015	2016	2017	2018	2019
Real en route UCs/DUCs (in €2009 prices)	39.47	38.36	37.45	36.14	34.99

Trend in real en route UCs/DUCs (in €2009 prices) % n/n-1	-1.83%	-2.80%	-2.36%	-3.50%	-3.19%
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Table. Determined unit cost (DUC) for en route ANS aggregated at FAB level (€2009 prices) for second reference period (RP2). Source: NEFAB Performance Plan 2015-2019

4.4. NEFAB customers

The customer groups of the NEFAB ANSPs vary across the states.

Estonia

Overflying traffic with major European and Asian carriers constitutes a large portion of the en-route revenue. Main customers of EANS in 2014 were Finnair (8 percent), Deutsche Lufthansa (7 percent), British Airways and KLM (5 percent each). These airlines together with Air France, Russia Airlines, Nordic Regional Airlines (former Flybe Finland), and Estonian Air (4 percent each), count for 39% percent of the total en route revenue.

Finland

One major national carrier Finnair represents 60% of the total traffic at Finnish airports. The main focus is on international traffic into/out of Helsinki. Finavia ANS provides services to global carriers on overflights between Asia and central Europe and between Russia/Middle East and the North American continent, representing ca 40 % of en route volume/revenues for Finavia ANS.

Latvia

Overflying traffic with major European and Asian carriers constitutes large portion of the en-route revenue. Air Baltic is the largest customer for LGS counting for around 23 percent of the total en-route revenue. Together with Finnair, Lufthansa and Aeroflot, this group of airlines currently count for approximately 44 percent of the total en-route revenue of LGS.

Norway

The three national carriers (SAS, Norwegian and Widerøe) constitute slightly more than 40 percent of the total en-route revenue for Avinor ANS. The number of overflights is increasing and in 2014 overflights represented slightly less than 14 % of the total number of movements. Emirates and United Airlines are the two largest overflying customers.

The traffic flows in NEFAB airspace are mainly:

South-West – North-East flow between Europe and Asia or opposite, through Latvian, Estonian and Finnish airspace,

South-East – North-West flow between Russian airspace towards destinations in the US and Canada or opposite, through the airspace of all the NEFAB states,

North-South flow between Finland and South Europe, through Latvian, Estonian and Finnish airspace,

domestic traffic flows between Oslo and the major Norwegian destinations and between Helsinki and the major Finnish destinations,

traffic flows to and from the major airports in NEFAB.

Military airspace users constitute the other customer segment for the NEFAB ANSPs. Hence the airspace must be of sufficient dimensions and designed to support military missions.

NEFAB ANSPs are seeking solutions to balance safety and flight efficiency of civil airspace users with the military mission effectiveness of the military users. The **NEFAB Target Concept 2015**, a number of activities in both civil and military domains, will be finalized in November 2015. It will provide for design of the military airspace to accommodate the military user requirements while at the same time limiting the effect on the major civil traffic flows. The management of the airspace reservations will be harmonized and supported by an Airspace Management System tool. Activation of reserved areas will be published in accordance with the Flexible Use of Airspace (FUA) concept, transparent and planable for all airspace users.

4.5. NEFAB customer services

According to STATFOR, the EUROCONTROL Statistics and Forecast Service, the NEFAB airspace handled a total of 1,030 thousand IFR flight movements in **2014**. Hence Estonia handled 191,000; Finland – 248,000; Latvia – 243,000; and Norway- 619,000 IFR flight movements, which is accordingly 4.6%, 2.0%, 2.8%, and 1.4% more when compared to the previous year.

The baseline scenario forecast for **2015** shows a positive growth trend of 0.9% for Estonia, and negative trends of -0.9% for Finland, -0.4% for Latvia, and -3.2% for Norway.

The projected growth **2021/2014** is 1.0% for NEFAB and, respectively, 2.2% for Estonia, 1.2% for Finland, 1.7% for Latvia, and 0.8 % for Norway.

The forecast of number and growth (%) of the IFR Flight Movements (as per baseline scenario) for the business planning period **2016-2020** is provided in the table below.

	2016	2017	2018	2019	2020
NEFAB	1,014,000 (1.0%)	1,031,000 (1.6%)	1,049,000 (1.8%)	1,064,000 (1.4%)	1,091,000 (2.6%)
Estonia	193,000 (0.1%)	199,000 (2.9%)	205,000 (2.8%)	211,000 (3.1%)	218,000 (3.2%)
Finland	248,000 (1.1%)	252,000 (1.4%)	256,000 (1.9%)	261,000 (1.7%)	266,000 (2.0%)
Latvia	242,000 (0.2%)	248,000 (2.5%)	254,000 (2.5%)	261,000 (2.6%)	268,000 (2.6%)
Norway	607,000 (1.3%)	615,000 (1.3%)	624,000 (1.3%)	629,000 (0.9%)	647,000 (2.9%)

Table. IFR Flight Movements and growth compared to previous year in % (baseline scenario). Source: 7-year IFR Flight Movements and Service Units Forecast: 2015-2021 by STATFOR, EUROCONTROL

In addition to the service provision to the civil air traffic, all NEFAB ANSPs provide en-route services to military traffic. The military traffic is either operating within segregated military training or exercise areas or operating as regular traffic in the same airspace as civil traffic.

5. ENVIRONMENT MAPPING: TRENDS AND CHALLENGES

▲ **SES II+: Single European Sky**

The SES II+ aims at speeding up the implementation of the Single European Sky to make the European air transport system less fragmented and more competitive. NEFAB targets are built in light of the expected focus of the SES II+ initiative. The integrated airspace concept and the most efficient Flexible Use of Airspace are calling for services provided to the maximum extent possible on the basis of the same concept of operation, as well as, for the most efficient airspace design. Consistency with the European network and compatibility between the different airspace configurations are also regarded as important enablers.

In addition, the SES II + enhances focus on competition by proposing a competitive approach to the provision of support services and enhancing industrial partnership, i.e. cooperative arrangements set up for the purpose of improving the performance in at least one of the key performance areas of the performance scheme.

The overall added value of a FAB is another important focus requiring proofs that a functional airspace block has the potential to progressively deliver overall added value, including in the use of airspace, as well as technical and human resources

▲ **Performance targets and levels (RP2 and beyond)**

Pursuant to Regulation (EC) No 549/2004, NEFAB Member States have adopted a Performance Plan at FAB level for the second reference period (RP2, 2015-2019), including binding national targets or targets at the level of the FAB, ensuring consistency with the Union-wide performance targets. The targets set a framework for further performance in the key areas of safety, capacity, cost-efficiency, and environment.

The EC in its decision 2015/348 on consistency of certain targets included in the functional airspace block plans has declared that NEFAB targets for RP 2 set in all four key performance areas are consistent with the relevant Union-wide performance targets.

Low cost and high efficient ANSPs in NEFAB are a strong outset for meeting requirements in RP2 and in the years beyond. However, it can be a difficult starting point for further cost-cutting requirements to meet the performance scheme beyond the RP2.

No capacity constraints are foreseen in NEFAB airspace owing to the robust organisational structure and good capacity potential.

▲ **Challenges of the geopolitical situation**

A number of conflict zones in Europe and in vicinity of NEFAB may under certain circumstances have an impact on the performance of individual NEFAB ANSPs resulting in changed revenue patterns or additional strains on capacity due to flight re-routing.

NEFAB ANSPs recognise the potential impact of radical reduction or increase of traffic volumes. This may raise further discussion of a NEFAB level approach for business continuity, e.g. airspace structures allowing adaptation to changes, and cooperation within NEFAB to mitigate the impact.

▲ **Competitive trends impacting business**

Competitive market in Europe is growing persistently. The number of airports in Europe which are now open for competition for delivery of air navigation services has been rising. Competition is increasing in the Borealis region (Sweden, UK), and will start up in Norway in 2015 as well by opening Tower services in two regional airports,

Torp and Rygge It is a challenge to ANSPs in Europe, changing the conservative way of thinking for new business-minded approach. In addition, continued heavy competition among customers in the aviation sector puts more expectations on air navigation service providers as well. Reduction of service delivery costs while maintaining high safety level is the primary expectation, to be met in NEFAB through exploration of areas for joint activities. Competitive capacity is also in the spotlight of the EC in the SES II+ draft regulation and in the Aviation Package which will examine ways to improve the conditions of the aviation sector by bolstering its competitiveness.

▲ Cooperation with the Network Manager and Deployment Manager

Network Manager has been created by the EC as a function to optimise the aviation network performance, with Eurocontrol nominated in this capacity until the end of the RP2. NM is recognised by NEFAB ANSPs as a support to their daily business, with Network Operations Plan and Network Strategy Plan supporting NEFAB Target Concept 2020+.

The SESAR Deployment Alliance was appointed in the end 2014 to the EC-mandated role of the Deployment Manager (DM), to plan and coordinate a major modernisation of European infrastructure. This will take place according to Deployment Programme that will be updated when mature solutions for implementation are recognised. The DM is another opportunity for seeking co-funding. Hence NEFAB partners recognise an importance of common NEFAB-voice towards the DM.

▲ Cooperation with states and NSAs within NEFAB

Political influence at state level is of high importance as all NEFAB ANSPs are state owned and their developments are dependent on political decisions of their owners. In addition, the progress of functional airspace blocks is monitored by the EC and underperformance may result in the EU Pilot or court process.

Given the overlap of politics and business, a timely involvement of state stakeholders is crucial to the success of the NEFAB Programme activities, through monitoring and overviewing the ongoing activities at the state level and establishing a common platform and strategy with the owners.

NEFAB Programme recognises the need to get more involved in the development of states strategy and its implementation plans, to align inputs and enable feasibility of decided strategic targets

▲ Industrial partnerships

Industrial partnership is vital for NEFAB as proper cooperative arrangements can help become more visible, improve performance, and get promoted in the external markets. Based on purely commercial grounds such partnerships are flexible and responsive to needs of their members.

All NEFAB ANSPs are members of the Borealis alliance together with IAA, Isavia, Naviair, NATS and LFV. Borealis Alliance is a strategic business cooperation between the ANSPs covering the northern hemisphere from west of Greenland to the Russian border and from the North Pole to the continental part of Europe. The Vision of Borealis is to be the leading ANSP Alliance that enables its Members to drive better performance for stakeholders through business collaboration.

The primary objective of the Alliance is to facilitate cooperation between the Members, on commercially-recognised business partnering principles that make a contribution to the operational and financial performance of Members' air traffic services. The secondary objective is to enable Members collectively to be more influential with relevant trade, regulatory and policy bodies in Europe and

internationally by developing a common position on major issues and expressing it jointly.

NEFAB ANSPs (except LGS) are today partners in SESAR through the NORACON consortium.

6. SETTING STRATEGIES

The objective of NEFAB is to achieve optimal performance in the areas of safety, environmental sustainability, capacity, cost-efficiency, flight efficiency and military mission effectiveness, by the design of airspace and the organization of air traffic management in the airspace concerned regardless of existing boundaries.

To achieve optimal performance, both internal potentials and external opportunities are being sought. The targets and associated business deliverables are therefore built from the inbound perspective, i.e. focusing on cost savings internally. The activities planned during the 5 years cycle fall within those areas that could enable potential savings of costs and resources. The aim is to reduce these costs through a FAB-level cooperation and exploitation of expertise and best practices within the areas of AIS/AIM, FDO, Research and Development, and others.

These plans are being built in the context of the EU requirements as they set the framework for the ATM in Europe.

Performance targets set by the EU and the states need to be met to fulfill expectations of customers and owners, and to avoid sanctions. The mandatory requirements stem from the legislative framework of the Single European Sky and other EU rules, aiming at building European network performance. These mandatory requirements urge to increase operational efficiency and FAB-wide performance. In addition, NEFAB is building on ambitions to exploit business opportunities and develop working arrangements to achieve more results from the FAB resources.

The Deployment Programme (DP) will set the roadmap by industry how to get organised to ensure synchronised, coordinated and timely PCP implementation. It is therefore crucial that ANSPs are aware what they are expected to implement in order to comply with PCP regulation, and recognise that their investment plans are aligned enough with DP so that they could be in position to use possible co-funding opportunities.

NEFAB strategies are built with full regard of these objectives. The strategies are built on two levels, the states and ANSPs. The state strategy comprises the vision and strategic objectives of the NEFAB cooperation from the perspective of the participating States. The ANSPs strategy captures strategic targets and associated business tasks, focusing on working arrangements and structures to achieve more results from the resources put into the FAB work.

NEFAB Programme Business Plan identifies three strategic target areas and associated business deliverables for further 5 years business planning cycle, to manage the expectations and requirements stemming out of the NEFAB strategies and EU legal framework.

These target areas are:

- ▲ **EXPLOITATION OF BUSINESS OPPORTUNITIES**
- ▲ **OPERATIONAL EFFICIENCY**
- ▲ **ROBUST NEFAB STRUCTURE**

The strategic target areas have been built with account of various perspectives, from the inbound, as NEFAB structure, to business angle, state regulatory perspective, operational (internal) ANSP business and European network perspective. In addition,

targets are based on agreed cooperative arrangements among NEFAB ANSPs and hence decided to be of a common interest for achieving win-win situations for NEFAB partners.

6.1. Exploitation of business opportunities

6.1.1. Strategic rationale: Buying services/ selling know-how/ services would enable NEFAB ANSPs to become market players.

6.1.2. Strategic targets/goals:

	Strategic targets/goals	Enablers (ref 6.1.3 below)	EU requirement (yes/no)	Reference	Timeline				
					2016	2017	2018	2019	2020
1	Target Concept 2020+								
1.1	Shared services/ Integration of services Case by case based on Business Case and States ownership acceptance for ANSPs for integrated services	a, b, c, d, e	no	NEFAB States Strategy/ NEFAB ANSPs Strategy					
1.2	Markets and opportunities Case by case based on analysis of markets and individual business cases	a, b, c, d	no	NEFAB ANSPs Strategy					
1.3	Internal business arrangements Work on NEFAB internal business arrangements; Identify legal barriers for decided business cooperation model	a, b, c, d	no	NEFAB ANSPs Strategy					
2	Industrial partnerships								
2.1	Seeking business opportunities and co-funding through partnerships on a larger scale e.g. Borealis Alliance	b, e	no	NEFAB ANSPs Strategy					

6.1.3. Enablers:








- a) New business development structures and business-oriented deliverables
- b) Joint business arrangements
- c) Coordinated strategic investments and business planning within NEFAB
- d) Business dialogue with the owners
- e) External financing/co-funding opportunities

6.2. Operational efficiency

6.2.1. Strategic rationale: Developing operational efficiency together to be more efficient in the competing market

6.2.2. Strategic targets/goals:

	Strategic targets/goals	Enablers (ref 6.2.3 below)	EU requirement (yes/no)	Reference	Timeline				
					2016	2017	2018	2019	2020
1	Industrial partnerships for improved network performance								
1.1	Multi FAB Free Route Airspace (Borealis Free Route Airspace Programme)	b, f, g	yes	IR (EU) No 716/2014 (Pilot Common					

				Project) ¹ ;					
2	NEFAB Target Concept 2015 (beyond 2015)								
2.1	Datalink Strategy and Concept	-	yes	IR (EU) No 716/2014 (Pilot Common Project); (EC) No 29/2009 and (EU) 2015/310 (Datalink) ²					
2.2	Airspace Management (ASM) improvements	g	no	NEFAB TC 2015					
2.3	ATM/CNS improvements (AFP integration, OLDI to support FRA, FRA post-implementation monitoring)	a, b, e, f, g	yes	(EU) No 255/210 (ATFM rule) ³ NEFAB TC 2015;					
3	NEFAB Target Concept 2020+								
3.1	Borealis Free Route Airspace Programme	b, f, g	yes	IR (EU) No 716/2014 (Pilot Common Project) ⁴ ;					
3.2	Cross-border operations Study of new sectorisation with objective of improved cost efficient service provision in NEFAB based on traffic flows and CBA	a, b, d, e, f, g	no	NEFAB States Strategy; NEFAB ANSPs Strategy; NEFAB TC 2020+; NEFRA Strategy/ Borealis					
3.3	ASM/ATFCM Concept	b, f, g	yes	IR (EU) No 716/2014 (Pilot Common Project); NEFAB States Strategy; NEFAB TC 2020+					
3.4	Traffic synchronization Concept (Implementation of AMAN/DMAN with states and NSAs, in response to legal requirement)	f	Yes (in NEFAB mandatory for Oslo (ENGM))	IR (EU) No 716/2014 (Pilot Common Project); NEFAB States Strategy; NEFAB TC					

¹ Commission Implementing Regulation (EU) No 716/2014 of 27 June 2014 on the establishment of the Pilot Common Project supporting the implementation of the European Air Traffic Management Master Plan

² Commission Implementing Regulation (EU) 2015/310 of 26 February 2015 amending Regulation (EC) No 29/2009 laying down requirements on data link services for the single European sky

³ Commission Regulation (EU) No 255/2010 of 25 March 2010 laying down common rules on air traffic flow management

⁴ Commission Implementing Regulation (EU) No 716/2014 of 27 June 2014 on the establishment of the Pilot Common Project supporting the implementation of the European Air Traffic Management Master Plan

				2020+					
3.5	VoIP		Yes	ESSIP; NEFAB States Strategy; NEFAB ANSPs Strategy					
3.6	Remote TWR concept	a, b, d, e, f, g	no	NEFAB ANSPs Strategy					
3.7	NEFAB Contingency Concept (based on scope definition, cost and impact analysis)	a, b, d, e, f, g	Yes (for individual ANSPs only) No EU requirement FAB-wide	IR (EU) 1035/2011 ⁵ ; NEFAB States Strategy;					
3.8	Interface between NEFAB and DK/SE airspace volumes at FL 245+	g	no	NEFRA Strategy					
3.9	Common Datalink service area	f, g	no	NEFRA Strategy					
3.10	Common harmonised OLDI concept to reduce coordination	f, g	no	NEFRA Strategy/ NEFRA Phase 2					
3.11	Implementation of PBN (with states and NSAs; state by state and case by case, in response to legal requirement)	f	yes (in NEFAB mandatory for Oslo (ENGM))	IR (EU) No 716/2014 (Pilot Common Project)					
3.12	Advanced FUA (AFUA) (implementation of AFUA together with states – NEFAB Civil Military Committee, in response to legal requirement)	b, f, g	yes (in NEFAB mandatory for all)	IR (EU) No 716/2014 (Pilot Common Project);					
4	Compliance with the Performance scheme								
4.1	Monitoring of RP2 developments and ANSP performance	-	yes	IR (EU) No 390/2013 (Performance Scheme) ⁶					

6.2.3. Enablers:

- a) Harmonisation and integration of SMS (- based on Business Case and study and ownership assessment of the states)
- b) Harmonisation of national legislative acts (- together with states and NSAs)
- c) Joint specification for VoIP implementation (- assessed under Borealis)
- d) Revenue sharing model and principles (- in context with TC2020+ cross border sectorisation and services)
- e) Optimized contingency arrangements (- NEFAB Contingency Concept based on scope definition, cost and impact analysis in NEFAB TC2020+; NEFAB to support NSAs)
- f) External financing/co-funding opportunities
- g) Cooperation with neighboring FABs/states

⁵ Commission Implementing Regulation (EU) No 1035/2011 of 17 October 2011 laying down common requirements for the provision of air navigation services (ref 8.2: „Air navigation service providers shall have in place contingency plans for all the air navigation services they provide in the case of events which result in significant degradation or interruption of their operations”).

⁶ Commission Implementing Regulation (EU) No 390/2013 of 3 May 2013 laying down a performance scheme for air navigation services and network functions

6.3. Robust NEFAB structure

6.3.1. Strategic rationale: Better working arrangements and structures to achieve more results from the resources put into the FAB work

6.3.2. Strategic targets/goals:

	Strategic targets/goals	Enablers (ref below)	EU requirement (yes/no)	Reference	Timeline				
					2016	2017	2018	2019	2020
1	New business development structures and business-oriented deliverables								
1.1	NEFAB management structures to support new business arrangements	a	no	NEFAB ANSPs Strategy	→				
2	FAB wide investment and business process and plans								
2.1	Integration of ANSP BPs and NEFAB BP	a, c	no	NEFAB ANSPs Strategy	→				
3	Building/supporting network performance								
3.1	Close and interactive cooperation with NM to support ATM in NEFAB	a, c	no	NEFAB ANSPs Strategy	→				
3.2	Close and interactive cooperation with DM	a, c	no	NEFAB ANSPs Strategy	→				
5	Stakeholder engagement								
5.1	Continuous dialogue with the owners	b, c		NEFAB ANSPs Strategy	→				
5.2	Interaction between the States and ANSPs	b, c		NEFAB ANSPs Strategy	→				

6.3.3. Enablers:

- a) Joint business/ working arrangements
- b) Business dialogue with owners
- c) Stakeholder engagement

7. KEY ENABLERS TO ACHIEVE TARGETS

The section describes key enablers which are high level drivers to achieve the agreed strategic targets. The key enablers are supported by more detailed enablers, which refer to particular activities stemming out of the three key target areas and are prerequisites for their fulfillment.

7.1. NEFAB Target Concept 2020+

NEFAB ANSP partners will continue the development of the Target Concept beyond the year 2015 as interim step towards the 2020+ targets, for realizing further improvements and benefits. The 2020+ project will be mobilized as the continuation of the current 2015 concept.

The Concept Phase of the Target Concept 2020+ will be started in 2015. The Concept of Operations will be developed to gradually encompass the higher ambition level described in the NEFAB Feasibility Study for the year 2020 as well as to include different elements of the SESAR ATM Target Concept and its Concept of Operations, which represent a paradigm shift from an airspace-based environment to trajectory and performance based environments.

The Target Concept 2020+ will be based on the identified improvement areas in alignment with European ATM Master Plan and the Borealis vision of a large Free Route Airspace. The Programme is initiated by the cooperating partners in the Borealis Alliance - Avinor (Norway), EANS (Estonia), Finavia (Finland), IAA (Ireland), Isavia (Iceland), LfV (Sweden), LGS (Latvia), NATS (United Kingdom) and NaviAir (Denmark), aiming to implement seamless Free Route Airspace across all the states in the Alliance, covering a large portion of the Northern Europe by 2020.

7.2. Cooperation with neighboring FABs and states

NEFAB ANSPs will continue close cooperation with DK/SE FAB and Iceland pursued at ministerial, NSA and ANSP levels for further support and enhancement of the NEFRA Programme.

Cooperation with other FABs and states will be enhanced, in particular, with FABs within Borealis Alliance in order to support the major Free Route Airspace Programme.

NEFAB ANSPs will in addition seek cross-border cooperation aiming at increased performance within the FAB and contribution to the overall improvement of the European network.

7.3. External financing/co-funding opportunities

The EU co-funding opportunities are essential to support development and deployment within NEFAB, for more efficient use of the R&D resources.

NEFAB development initiatives are linked with the ATM Master Plan that outlines the essential operational and technological changes that are foreseen to provide SESAR contributions (besides other initiatives) to achieve the European SES performance objectives. To drive the deployment, SESAR Deployment Manager has been appointed and will work to ensure that new technologies and solutions that have already been tested and validated through the SESAR Joint Undertaking are delivered into everyday operations across Europe, delivering significant benefits to airspace users and the environment. The SESAR Preliminary Deployment Programme (PDP) has been set up to support a successful implementation of first common project, so called Pilot Common Project, six essential ATM functionalities in the ATM Master Plan that have demonstrated their readiness for deployment and to produce benefits.

NEFAB ANSPs will seek an active role on the FAB-level at the Stakeholder Consultation Platform established by the DM. The Platform will be open to all current and future operational stakeholders in the European ATM that are required to implement Common Projects. The FAB representation is regarded important to support investments relevant for NEFAB in the future deployment plans hence ensuring the co-financing for our investments.

7.4. Coordinated strategic investments and business planning within NEFAB

The NEFAB Performance Plan includes a list of planned investments that each NEFAB ANSP has reported for the 2015 – 2019 period. These and future investments will be cross-checked for their potential alignment to identify cost-savings. A NEFAB-wide perspective on the investment plans can ensure more efficient and cooperative solutions.

ATM systems

Implementation of NEFAB Target Concept 2015 has demanded considerable investments into ATM systems. The functionalities enabling Free Route Airspace are the major portion of these improvements. Controller-Pilot-Datalink Communication (CPDLC) is another major investment, the function to be operational by February 2018 in response to the EU Regulation.

In addition, from the long-term planning perspective, it is important that the operational concepts are known and agreed well before the implementation dates to allow react to these requirements properly.

Communication

During the current planning period, NEFAB ANSPs expect a shift in the investment profile for communication infrastructure from traditional voice communication to datalink communication. The datalink implementation involves both procurement of communication services and integration of datalink functionality into the ATM systems, to be operational by February 2018.

In addition, investments are foreseen in the ground-ground communications infrastructure. Transition from Aeronautical Fixed Telecommunication Network (AFTN) to AFTN Message Handling System (AMHS), subscription to Pan European Network Services (PENS), Voice over IP (VoIP), network support to System Wide Information Management (SWIM), and Collaborative Decision Making (CDM) constitute the major projects related to ground-ground communications infrastructure and services.

Surveillance

New surveillance technologies are emerging and will gradually replace the current radar technology. Both Wide Area Multilateration (WAM) and Automatic Dependant Surveillance–Broadcasting (ADS-B) projects are already ongoing at individual ANSPs within NEFAB. This is expected to accelerate further during the business planning cycle.

Sharing of surveillance data with partners improves the required coverage and reduces the need for investments in surveillance infrastructure. That also supports the contingency arrangements.

Navigation

In the future, airspace users will become less dependent on ground based navigation infrastructure. The investments into ground based navigation are expected to be gradually reduced as satellite based navigation plays more important role.

NEFAB ANSPs will coordinate implementation of the Performance Based Navigation (PBN) according to ICAO specifications in en-route airspace and in terminal airspace where considered feasible.