UK-Ireland FAB

Plan 2012-15

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Joint Chief Executive Forward

We are pleased with the continued success and progress of the UK-Ireland FAB. Its underlying objective is to provide added value to our customers through operational integration. This is in response to customers' identified priority for greater operational efficiency.

The focus of our fourth annual FAB Plan for the period 2012-15, and the results outlined in our third annual FAB Report for 2011 reaffirms our commitment towards meeting these central objectives.

Work has been undertaken by the ANSPs, the airlines and military participants, which is delivering measurable, sustainable benefits. The savings are outlined in our rigorous Cost Benefit Analysis (CBA) conducted last year to support compliance with the European Commission's FAB Implementing Rule.

Importantly, the methodology of the CBA was independently reviewed and verified by KPMG.

The CBA shows that;

- The FAB has provided customers with €43.5m in enabled savings (2008-2011), including a reduction of 48,000 tonnes of fuel (152,000 tonnes of CO2 emissions)
- During 2011 alone, the enabled customer savings totalled €24.5m, including 24,000 tonnes of fuel worth €17.8m and €6.7m of non-fuel costs, such as reduced maintenance and crew costs.
- This is more than double the savings targeted when it became the first operational FAB in 2008 (the original target set in 2008 was for €12m in annual savings by 2013).
- During the lifetime of the 2012-15 FAB Plan, it is estimated that total enabled customer savings will be €120m, a reduction of 116,000 tonnes of fuel and a reduction of 370,000 tonnes of CO2.
- The FAB is very cost effective. In 2012 the costs for implementing and managing the FAB are estimated at €3.1m, compared with the enabled customer savings of €26.6m.

The results of the CBA have proved the "design and build" model, which we adopted at the outset for the FAB, to focus on short term operational improvements while working towards closer integration. Validating these results has been immensely rewarding for the whole FAB team, including our participating customers and military partners, and reflects the hard work they have all put into delivering real and meaningful benefits over the past four years.

Our customers are at the heart of the UK-Ireland FAB and they contribute to it extensively and are intrinsic to the successful implementation of the

FAB. Two airline representatives Co-chair the Service Provision Working Group and are also members of the FAB Management Board.

We hosted our second joint customer Forum in Dublin last December and our new FAB Plan for 2012-15 reflects customers' continued expectation for fuel efficiency measures, and lower user costs. This highlights the benefit of conducting this type of customer engagement and the FAB's ability to deliver and fulfil customer priorities and expectations.

As well as continuing our work on more than sixteen current projects, the new FAB Plan includes nine new projects. For the first time, we have included a UK-Ireland FAB Strategic Planning section, which commits the FAB to the development of three strategic planning documents during 2012 in relation to the evolution of FAB operations, technology and network management.

We are very proud that the UK-Ireland FAB was the first FAB to become operational. FABs continue to play an important role in the Single European Sky vision and we continue to be at the forefront by making progressive improvements and delivering real benefits to our customers against the priorities which they set for us.

The new FAB Plan is the next vital step in that process and we commend it to you.

Eamonn Brennan
Chief Executive
Irish Aviation Authority

Richard Deakin
Chief Executive
NATS

Table of Contents

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Executive Summary

The underlying objective of the UK-Ireland FAB is to provide added value to its customers through the development of seamless airspace throughout the Ireland and the UK flight information regions. Focusing on the operational efficiency and the integration of air traffic management services between Ireland and the UK, many projects have been implemented successfully since the FAB was established in June 2008.

Delivering Added Value to Customers

During 2011, the UK-Ireland FAB conducted a detailed Cost Benefit Analysis[1] (CBA) of the FAB in compliance with part of the FAB Implementing Rule on the establishment and modification of FABs. Although the UK-Ireland FAB has been established since June 2008, a distinct advantage in conducting this CBA exercise was that it enabled the FAB to review its progress to-date, which helped to revalidate the positive and increasing net contribution to airspace users. The CBA confirmed that the UK-Ireland FAB is delivering significant added value to airline customers, which is being achieved at minimal cost. For example;

- As it presently stands, it is estimated that during 2012 alone, total enabled customer savings will be €26.6m, including 25,000 tonnes of fuel, equivalent to €18.7m in fuel costs. Customers will also save over 80,000 tonnes of CO2 and €1.0m in reduced CO2 emissions (ETS) charges. Additional non-fuel savings (reduced maintenance, crew and aircraft ownership costs) are estimated at €6.8m.
- Furthermore, during the lifetime of this FAB Plan (2012-15), it is estimated that total enabled customer savings will be €120m, a reduction of 116,000 tonnes of fuel and a reduction of 370,000 tonnes of CO2.
- Since the FAB was established, it has already provided customers with €43.5 in enabled savings (2008-2011), including a reduction of 48,000 tonnes of fuel and a reduction of 152,000 tonnes of CO2 emissions.
- The analysis confirmed that the costs of the FAB are comparatively very low relative to the enabled customer savings. For example, the costs during 2012 are estimated at €3.1m, whilst the enabled customer savings will be €26.6m.
- Based on the existing FAB projects (as of the end of 2011), the baseline enabled annual savings projected to 2020 are estimated to reach €36.2m, which comprises 35,000 tonnes of fuel and 111,000 tonnes of CO2.

[1] Information relating to the FAB CBA has been included in the Executive Summary of the UK-Ireland FAB Plan 2012-15 for illustrative purposes only. For further details, please review the UK-Ireland FAB Annual Report 2011 which contains more detailed information on the FAB CBA.

- In the baseline scenario, the total cumulative enabled savings from 2008-2020 amounts to €336.5m, including reduced fuel burn of 332,000 tonnes and reduced CO2 emissions of 1.06m tonnes.

How the UK-Ireland FAB Plan is helping to meet SES FAB Expectations

SES FAB Expectation	UK-Ireland FAB Plan Activity
1. Optimum Use of Airspace	This is being delivered through the new integrated Network Management Function between Ireland and the UK (SPWG-14) as well as A number of airspace changes and enhancements to operational including; • Direct Fuel Saving Routes, • ENSURE, • Point Merge (ADWG-16), • CDA for Manchester, • Reduced Longitudinal Separation on the North Atlantic (SPWG-13), • Reduction in NERS airports (North Atlantic Europe Routing Scheme) • Queue Management for the FAB (SPWG-22) • FAB Free Route Airspace (ADWG-25) Our operational evolution plan and Network Management evolution plan will ensure long term optimisation against customer and regulatory performance requirements
2. Optimum use of technical resources	A Technical Convergence Plan will be developed in 2012 (C3-3), as well as other Technology collaborative projects. Both ANSPs have secured ATM system cost savings through inter-ANSP cooperation; ▪ IAA: ATM cost savings through **COOPANS**, ▪ NATS: ATM cost savings through **iTEC**. Both of these cooperation's are major cost avoidance initiatives to deliver SESAR capability and are ensuring interoperability across and between FABS. The new UK-Ireland FAB Network Management function is using a common information system (TLPD).
3. Optimum use of Human Resources	A new project assessing the opportunities for common ATCO training has been included (SPWG-25). The FAB utilises existing resources at Swanwick to facilitate Network Management for the whole FAB. We have a study underway funded by TEN-T on future

	management of high level airspace , specifically aimed at efficient deployment of operational ATCOs (ADGW-21)
4. Deliver added Value	This is illustrated in the UK-Ireland FAB Cost-Benefit Analysis, developed for the FAB IR compliance (see above section).
5. Inter-FAB coordination	The FAB is engaged with the Danish/Swedish FAB to identify opportunities from further integration of FAB activities under the project 'FAB-4' The FAB, through the UK collaborative partner status, is engaged with FABEC on numerous operational collaborative activities (including the London TMA link with the FABEC airspace changes, Free route airspace, and Queue Management). This also includes involvement in FABEC technology alignment activities. At an ANSP level, the Borealis programme is focused on creating efficiencies on a commercial basis between the ANSPs across the ANSPs of 3 FABs, UK-Ireland, Danish/Swedish, and NEFAB.
6. FAB Performance Plan	The FAB is assessing the feasibility of common FAB targets and metrics for the various KRAs for the RP2 period.

Focus for this FAB Plan

The previous UK-Ireland FAB Plan (for the period 2011-14) contained 25 distinct projects for implementation. During 2011, progress was made in virtually all of these projects. To maintain the strong momentum, the UK-Ireland FAB will continue its focus on adding customer value through operational airspace integration. This will help ensure that the projected benefits contained in the FAB CBA can and will be realised. We have been and will continue to target ANSP cost reduction activities through joint procurement where valuable, efficient deployment of our staffs, and cost avoidance through effective planning and change management. This is a natural outcome of enhanced collaboration and the evolution of our FAB.

The geographically scope of UK-Ireland FAB remains the en route airspace under the control of the IAA and NATS within the Irish and UK FIRs, including NOTA and SOTA. This formally excludes Oceanic and Terminal airspace. However, we have agreed between the ANSPs and airlines that our service improvement approach will address all of the area of responsibility of the ANSPs to ensure both consistency and most benefit. Therefore many deliverables form the ANSP activities are aimed at ensuring the best end to end service for our customers.

(A) FAB Strategic Planning:

For the first time, this Plan includes a Strategic Planning section, which commits the UK-Ireland FAB to the development of three strategic planning documents during 2012, which will be supported by a summary Roadmap reference document for the UK-Ireland FAB. The content will be based on;

- **Strategic Operations Plan:** This is a 5-year time horizon which outlines the operational evolution of the FAB up until 2017 and which commences the transition of the FAB operations towards the delivery of the SESAR concept of operations.

- **Technical Convergence Plan:** This is a technical evolution roadmap for the FAB based on known operational functional requirements. The first stage will be a comparison of existing roadmaps and an assessment of planned deployments arising from SESAR work. Future activities will be planned on the basis of those assessments.

- **Network Management Evolution Plan:** This is a plan which illustrates how the UK-Ireland FAB network management will continue to evolve over the next 5 years to support the FAB. A key building block from this evolution plan is the greater integration of the UK-Ireland FAB network management, which became operational on the 31st March 2012.

(B) Customer Priorities

Our customers are at the heart of the UK-Ireland FAB and they contribute to it extensively and are intrinsic to the successful implementation of the FAB. Two airline representatives Co-chair the Service Provision Working Group and are also members of the FAB Management Board.

During the lifetime of this FAB Plan, 2012 – 2015, it is the intention of the UK-Ireland FAB to further enhance our customer consultation and engagement processes and procedures.

Many new projects contained in this FAB Plan are as a direct result of the suggestions provided by our customers. This highlights the benefit of conducting this type of customer engagement, as well as the FAB's ability to deliver and fulfil customer priorities and expectations.

(C) Implementation of new and follow-through projects:

The document provides an outline of each of the projects that will be implemented by the FAB during the lifetime of the FAB Plan. This work is monitored by the FAB Management Board and implemented by the Groups:

- SPWG: Service Provision Working Group
- ADWG: Design Working Group
- SWG: Safety Working Group
- TCG: Technology Coordination Group
- C3: Co-chair Coordination Committee

As well three strategic plans mentioned above in section (a), six distinct new projects have been added to the FAB Plan. These projects have been added as a result of customer priority identification or ANSP priority identification (or both):

- SPWG-21: Service Resilience and Contingency: Conduct a limited scoping project (assessment / likelihood) for resilience across the FAB, e.g. AFTN / radar loss.
- SPWG-22: Queue Management for the FAB: Conduct a scoping project for Queue Management (QMAN) for the FAB.
- SPWG-23: H24 Operations Vs Quiet Hours: Review and consider the removal of H24 ATC procedures where feasible and/or provide flexibility of procedures for quiet hours.
- SPWG-24: Enhanced OLDI: Review the potential feasibility of increased 'forward coordination of messages beyond the OLDI boundary', e.g. from iFACTS (NATS system) on COOPANS (IAA system) and from COOPANS on EFD (NATS system).
- SPWG-25: Analysis of potential for collaboration on Air Traffic Control Training functions within the FAB: The FAB partners will conduct a scoping exercise to determine if joint cooperation or collaboration on the provision of ATC training can provide a more efficient service with better use of resources.
- ADWG-25: FAB Free Route Airspace (FRA): Investigate the introduction of FRA as a progression from High Level Sectors and consider its extension to complement neighbouring ANSPs. This will initially be applied to less dense and more complex airspace.

Further to the above, there are a total of sixteen projects which were contained in the previous FAB Plan (2011-14), which feed through into the lifetime of this new FAB Plan (2012-15).

(D) Key supporting areas:

There are a number of activities which support the implementation of the FAB Plan and day-to-day management of the FAB. The FAB Plan outlines our commitments in relation to these key areas including;

- ANSP/NSA Coordination
- Inter-FAB Coordination
- Commercial framework development
- SES Activities

Conclusion

Following three years of continuous operations, this is the fourth published UK-Ireland FAB Plan. To date, a substantial amount of work has been undertaken by the ANSPs, the airlines and military participants. Furthermore, there has been considerable engagement between the Irish and UK Governments and respective National Supervisory Authorities (NSAs).

The results of the FAB CBA clearly show that the FAB has delivered added value to its customers through operational airspace integration. This FAB Plan seeks to maintain that momentum and success.

1. UK-Ireland FAB Strategic Planning

1.1. Introduction

The underlying objective of the UK-Ireland FAB is to provide added value to its customers through the development of seamless airspace throughout the Ireland and the UK flight information regions. Focusing on the operational efficiency and the integration of air traffic management services between Ireland and the UK, many projects have been implemented successfully since the FAB was established in June 2008.

The results of the FAB cost-benefit analysis[2] illustrate the enabled savings which are being delivered to customers from the significant collaboration and partnership between the IAA, NATS, CAA, Airline Operators and the Irish and UK Military.

In order to maintain the momentum of delivering additional savings to customers the FAB is engaged in various strategic planning activities, including;

- **Strategic Operations Plan:** This is a 5-year time horizon which outlines the operational evolution of the FAB up until 2017 and which commences the transition of the FAB operations towards the delivery of the SESAR concept of operations.

- **Technical Convergence Plan:** This is a technical evolution roadmap for the FAB based on known operational functional requirements. The first stage will be a comparison of existing roadmaps and an assessment of planned deployments arising from SESAR work. Future activities will be planned on the basis of those assessments.

- **Network Management Evolution Plan:** This is a plan which illustrates how the UK-Ireland FAB network management will continue to evolve over the next 5 years to support the FAB. A key building block from this evolution plan is the greater integration of the UK-Ireland FAB network management, which became operational on the 31st March 2012.

It is the intent to finalise these three strategic planning documents by the end of Q3 2012, which will be supported by a summary Roadmap reference document for the UK-Ireland FAB. The following sections contain more detail in relation to each of the above planning activities.

[2] Information relating to the FAB CBA has been included in the Executive Summary of the UK-Ireland FAB Plan 2012-15 for illustrative purposes only. For further details, please review the UK-Ireland FAB Annual Report 2011 which contains more detailed information on the FAB CBA.

1.2. Strategic Operations Plan

A strategic operations plan will be developed which will describe how the FAB airspace and operations evolve towards the Single European Skies framework while implementing the SESAR concepts. The following principles will underpin this evolution:

- The plan will be performance driven and will allow consistent approach to meeting expected performance targets and to deliver continuous safety improvement.
- Terminal airspace will evolve into a highly systemised and efficient environment operating Continuous Climb and Continuous Decent profiles as well as other SESAR concepts in the development plans
- High level airspace will evolve and develop free route airspace with enhanced user preferred routings and profiles, which require minimal human intervention, across the whole of the airspace under the responsibility of our FAB.
- The task of transitioning from the high level free route airspace to the systemised airspace will be managed in such a way as to reduce the need for holding through the effective management of streams of traffic, in particular through the use of our Network Management Function.
- Our operations will be managed as a network in close cooperation with the European Network Manager and adjoining ANSPs both in Europe and across the North Atlantic in order that customers continue to be assured of a safe operation, delivering measured benefits in: capacity, environmental impact and cost reductions for all Airspace users and ANSPs alike.
- We will agree levels of resilience and service provision through effective strategic and tactical collaborative decision making with airports, airlines, military and all other airspace users.
- Our operations will be underpinned by consistent application of standardised rules and consistent regulation.
- The operations plan will be supported through the implementation of joint technological solutions where appropriate.

[For further information please see Annex 1 project reference C3-1]

1.3. Technical Convergence Plan

As the deployment of the SES concepts progress, there will be opportunities to derive benefits from an interoperability in technical systems and common, shared technical services throughout the FAB. In this plan a new Co-chair Coordination Committee project, 'C3-3: Technical Convergence Plan', will produce a long-term strategy for technology in the FAB. It will incorporate two previously planned TCG projects (TCG-4 and TCG-6, both due to start in April 2012) that were going to review

opportunities for surveillance sharing and infrastructure convergence and will look at the broader technology picture across all functional areas.

The first stage will be a comparison of existing roadmaps and an assessment of planned deployments arising from SESAR work. Future activities will be planned on the basis of those assessments.

[For further information please see Annex 1 project reference C3-3]

1.4. Network Management Evolution Plan

April 2012 Status

At the end of March 2012, the UK-Ireland FAB successfully introduced an integrated Network Management function across the UK-Ireland FAB Airspace. The four ATC centres (Dublin, Prestwick, Shannon, and Swanwick) now participate on a daily basis in providing Network Management for all FAB traffic. The planning functions will be fully integrated by the end of 2012. Information will be promulgated from a central website for ease of use (this will come on stream later in 2012). Airspace management, Standard Routing Document, Strategic traffic planning and Pre-tactical traffic planning have already been introduced.

Next phase

In order to maximise the operational benefits of Network Management, a five-year evaluation plan will be developed for this new FAB function, alongside the new Strategic Operations and Technology Convergence Plans. The Network Management Evolution Plan will develop towards the SES aspirations, including SESAR concepts and the Network Management Function.

It will be underpinned by the following principles:

- Increased and better use of existing network capacity through the advanced flexible use of airspace and dynamic sectorisation in order to reduce complexity, whilst facilitating the sharing of airspace between civil and military airspace users.
- Improvement on flight efficiency by limiting ATC constraints on optimum flight profiles (only when required), reducing fuel burn, noise, and CO2 emissions.
- The introduction of Queue Management techniques covering all aspects related to improved Arrival/Departure Management and sequenced delivery in en-route and TMA environments in order to achieve an optimum traffic sequence.
- If ATM constraints are necessary, the preferred way to integrate them is through a collaborative process with airspace users and airports in order to achieve the best business or mission outcome.

- The evolution from current fixed route structures to a performance-based operations environment based upon user preferred trajectories and users business needs
- A collaborative planning process is applied to trajectories in a number of iterations, refining it with constraints arising from new and more accurate information.
- Enhanced Network Management through a dynamic on-line, collaborative Network Operations Plan fully integrated with AOP and considering all relevant actors planning aspects.
- The ability for customers to contact and interface with Network Management in cohesive and simple forms across all areas from pre-tactical, to tactical, to planning.

[For further information please see Annex 1 project reference C3-2]

2. Customer Priorities

2.1. Participation of our Customers in the FAB

Our customers are at the heart of the UK-Ireland FAB and they contribute to it extensively and are intrinsic to the successful implementation of the FAB.

Two airline representatives co-chair the Service Provision Working Group and are also members of the FAB Management Board. The IAA has participated in the NATS Safety Partnership Agreement (SPA) with the airlines since the FAB was established in 2008.

During 2011 and early 2012 several developments took place to enhance the customer communications and consultation activities, including:

- **FAB Customer website:** Since October 2011, customers can access a secure UK-Ireland FAB website via the existing IAA and NATS customer websites, which provide access to all relevant FAB documentation.

- **IAA 'Observer' participation in the NATS OPA (Operational Partnership Agreement):** The IAA now participates in this NATS customer driven forum as an Observer.

- **Joint CEO/Customer Forum:** On the 6th December 2011, the IAA and NATS held their second annual Joint CEO/Customer Forum in Dublin. This was used as an opportunity to engage directly with our customers and further understand their priorities and expectations (see section 2.2 below for further details).

During the lifetime of this FAB Plan, 2012 – 2015, it is the intention of the UK-Ireland FAB to further enhance our customer consultation and engagement processes and procedures, by moving towards the introduction of a FAB OPA facility to complement the exiting IAA and NATS customer consultation procedures. Customer support for network management will also be facilitated.

Finally, many new projects contained in this FAB Plan are as a direct result of the suggestions provided by our customers. This highlights the benefit of conducting this type of customer engagement, as well as the FAB's ability to deliver and fulfil customer priorities and expectations.

2.2. Customer expectation and FAB position

The joint CEO/Customer forum held on the 6th December 2011 was used as an opportunity to further understand our customers' priorities and expectations.

There was resounding support to increase the profile of the FAB through targeted engagement and also to increase customer engagement. Activities have been initiated to fulfil these expectations.

In terms of operational priorities, the primary expectation from customers was to ensure that the FAB focuses on the development of fuel efficiency measures and reducing users' costs.

There were also a number of common themes which have been reproduced in the table below. These common themes have been assessed by the FAB, some of which have resulted in the development of new projects. The position of the FAB on these common themes is also presented in the table below.

Customer Identified Operational Priorities	UK-Ireland FAB Position and Assessment
1. FAB free route airspace (cross-border) (FRA)	• The FAB High Level Sectors Feasibility Study will contribute towards the development of FAB FRA. [Please see ADWG-21 Feasibility Study for FAB HLS within FAB] • The UK-Ireland FAB is also progressing this as a new stand-alone activity, in terms of outlining its plans to deliver FRA in the future. [Please see ADWG-25 "FAB Free Route Airspace"]
2. Continuous Climb Operations (CCOs), Continuous Descent Operations (CDOs) and Continuous Descent Approaches (CDAs)	• The FAB is committed to Continuous Climb Operations (CCOs) and Continuous Descent Operations (CDOs) at all airports within the scope of our FAB. The FAB also acknowledges the differentiation between CDOs and CDAs. • In the terminal airspace we are focusing on enabling CCOs and CDOs to optimise terminal profiles with the priority being given to optimising climb profiles as this delivers greatest benefits in reducing fuel and emissions as well as reducing noise. Our aim is to deliver continuous descent operations from cruise level and we will develop techniques and tools to allow this whilst

	protecting the capacity of the airspace • Airspace changes undertaken within the FAB will incorporate CCOs/CDOs as a priority and modern control techniques the use of Arrival/Departure Management procedures will be implemented in support of optimising customer profiles.
3. Common Transition Altitude	• This activity is currently being led by UK CAA, and is a common objective for the UK-Ireland FAB. Detailed implementation plans and timescales are currently being worked up. In January 2012, consultation was initiated by the UK CAA to introduce a harmonised TA of 18,000 feet across UK airspace with an aspirational date of winter 2013/2014 for UK. The FAB is considering a staged implementation. • From an ANSP perspective, the raising of the TA is being monitored through ADWG-15 "Deliver Plans for Long Term Operations at TMAs within the FAB maximising the efficiency of design".
4. Service resilience (cross-FAB to minimise disruption)	• Service Resilience and Contingency was previously retained on the UK-Ireland FAB Opportunities Register and, in accordance with customer requests, it has now been reactivated as it warrants further investigation. • The FAB will examine smaller scale resilience across the FAB, which could be justified, e.g. AFTN / radar loss. [Please see SPWG-21 Service Resilience and Contingency]
5. Dynamic sectorisation	• The FAB management team acknowledges the value of implementing FAB-wide dynamic sectorisation. • Currently, this is being examined as one of the possibilities through the ADWG-21 "Feasibility Study for FAB High Level Sectors within FAB". Furthermore, the new project, ADWG-25 "FAB Free Route Airspace" will be assessing dynamic sectorisation as part of the Free Route Airspace concept.
6. DataLink (CPDLC)	• A FAB project is in place [See SPWG-19 CPDLC ConOps Alignment] in relation to the CPDLC 2013 mandate. • The FAB is committed to the application of

	CPDLC within the same types of airspace in a consistent way. Work will commence to ensure "benefits led use of CPDLC" from Feb 2013 onwards, which exploits increasing airline equipage.
7. Improve efficiency of LTMA-NAT Departures/Arrivals	• The FMB does not intend to introduce a stand-alone project in relation to this area as improvements are continually being applied to benefit access to and from the NAT. • The collective output from other pre-existing or new FAB projects will contribute towards further efficiency improvements.
8. Investigate if it would be practical to provide more granular benefits data to allow airlines to assess benefits accrued to their operation.	• The cost-benefit analysis outlines the enabled savings to customers on a wider basis, rather than for individual airlines. This is the appropriate mechanism for measuring the performance of the FAB and will be continued.

3. Projects for implementation 2012-15

This section provides a very brief statement in relation to each FAB project which will be implemented during the lifetime of the FAB Plan. The section is presented as follows:

- *New projects:* These projects have been added as a result of customer priority identification or ANSP priority identification (or both).

- *Follow-through projects:* As the FAB plan is a 'rolling document' a number of projects identified in previous FAB Plans, feed into the lifetime of this new FAB Plan.

- *Consolidated list:* A summary combined list is presented for quick reference purposes. This list will be used to develop a supporting "Tracking Document" which is utilised by the FAB Management Board and its Working Groups.

[Note: Annex 1 provides a more detailed breakdown and benefit statement in relation to each project].

3.1. New projects

Nine distinct new projects have been added to the FAB Plan. These projects have been added as a result of customer priority identification or ANSP priority identification (or both).

Follow-through projects	
Project Name	**High Level Outline**
C3-1: Strategic Operations Plan	This is a 5-year time horizon which outlines the operational evolution of the FAB up until 2017 and which commences the transition of the FAB operations towards the delivery of the SESAR concept of operations.
C3-2: Network Management Evolution Plan	This is a plan which illustrates how the UK-Ireland FAB network management will continue to evolve over the next 5 years to support the FAB.
C3-3: Technical Convergence Plan	This is a technical evolution roadmap for the FAB based on known operational functional requirements. The first stage will be a comparison of existing roadmaps and an assessment of planned deployments arising from SESAR work. Future activities will be planned on

Follow-through projects	
Project Name	**High Level Outline**
	the basis of those assessments.
SPWG-21: Service Resilience and Contingency	A scoping exercise will be completed to determine if improvements can be made to service resilience at the FAB ACCs during normal operations and degraded modes such as equipment failure.
SPWG-22: Queue Management for the FAB	Conduct a scoping project for Queue Management for the FAB.
SPWG-23: H24 Operations Vs Quiet Hours	The FAB ACCs will conduct a review of operations during quiet hours to determine if some H24 network restrictions such as RAD restrictions and/or published descent standing agreements can be altered and updated to reflect the reduced dependency on these restrictions during quiet hours.
SPWG-24: Enhanced OLDI	Review the potential feasibility of increased 'forward coordination of messages beyond the OLDI boundary', e.g. from iFACTS (NATS system) on COOPANS (IAA system) and from COOPANS on EFD (NATS system).
SPWG-25: Analysis of potential for collaboration on Air Traffic Control Training functions within the FAB.	The FAB partners will conduct a scoping exercise to determine if joint cooperation or collaboration on the provision of ATC training can provide a more efficient service with better use of resources.
ADWG-25: FAB Free Route Airspace	Investigate the extension of Free Route Airspace (FRA) as a progression from High Level Sectors and consider its extension to complement neighbouring ANSPs. This will initially be applied to less dense and more complex airspace but will in time ensure the right airspace environment for SESAR trajectories.

3.2. Follow-through projects

There are a total of sixteen projects which were contained in the previous FAB Plan (2011-14), which feed through into the lifetime of this new FAB Plan (2012-15).

Follow-through projects	
Project Name	**High Level Outline**
SPWG-13: Reduced Longitudinal Separation on the NAT	Reduces the Longitudinal Separation on the North Atlantic Track structure for traffic exiting the NAT from 10 to 5 minutes. [Trial in place until March 2014]
SPWG-14: UK-Ireland FAB Network Management Organisation	Continued development of an integrated Network Management function across the UK-Ireland FAB Airspace, managing both tactical and planning activities. This is articulated in the Network Management Plan.
SPWG-19: CPDLC ConOps alignment	Alignment of CPDLC implementation to meet the regulatory requirement by March 2013 is underway and ensure it is applied consistently from Feb 2013 onwards.
SPWG-20: Enhanced Customer Communications	Continued improvements to customer engagement and consultation relating to the FAB.
ADWG-9: Oceanic / Domestic Concept of Operations	The Oceanic / Domestic Interface Concept of Operations has been delivered by the IAA and NATS as a referral document which set the foundation for our aspirations in this area. It identifies the high level operating concept at the North Atlantic and domestic airspace interface within the UK-Ireland FAB to support enhancements to safety, flight efficiency, cost effectiveness and capacity. Further work will see the expansion of this concept to ensure interoperability for the Oceanic airspace with SESAR and Nextgen Concepts through to 2020.
ADWG-15: Deliver Plans for Long Term Operations at TMAs within the FAB maximising of efficiency of design	Focus upon how all TMAs can be developed consistently to take account for future needs, including MTMA, ScTMA, LAMP and Dublin for example. Sub-projects include Common Transition Altitude and Performance Based Navigation (PBN).
ADWG-16: Dublin TMA	This project covers the major enablers for the

Follow-through projects	
Project Name	**High Level Outline**
Development	introduction of Point Merge approach system at Dublin Airport (December 2012) and the introduction of enabling routes in the UK.
ADWG-19 : Optimised cross-FIR FUA	Provide for the introduction of cross-FIR FUA.
ADWG-21: Feasibility study for High Level Sectors within FAB	TEN-T funded feasibility study is to investigate the concepts supporting a High Level Sectorisation within the FAB, to allow optimal routeings, both laterally and vertically for aircraft which transit FAB airspace and which optimises service delivery.
ADWG-24: Integration of AIS/AIM	Integration of Aeronautical Information Services (AIS) and Aeronautical Information Management (AIM), focusing on Flight plans, NOTAM Contingency and Charting during the initial 2012/13 period.
SWG-5: SMS Harmonisation	Harmonised Safety Management Manual which will ensure the application of a common safety policy and principles within the FAB whilst providing for variability in implementation procedures.
SWG-7: Safety Culture Improvement	Work towards developing a safety culture improvement strategy that supports and prepares for joint assessment of safety performance in RP2 as measured by the Performance Scheme Safety KPIs.
SWG-8: Action Plan for Operational Safety Surveys Across FAB Interfaces	Work will continue on Operational Safety Surveys across FAB interfaces, to assure that safety risks can be minimised by identifying vulnerabilities before they fail and taking the necessary corrective actions
TCG-2: Datalink infrastructure (ARINC/SITA)	NATS and IAA will benefit from a joint approach in the implementation of VDL Mode 2 infrastructure to support the Data linking Mandate planned for 2013.
TCG-3: 8.33Khz spacing below FL195	Joint planning for 8.33Khz channel spacing below FL195.
TCG-5: CCAMS	Joint CCAMS testing strategy.

3.3. Consolidated list of FAB Projects

This following table contains a consolidated list of all FAB Projects (in line with the previous sections), and confirms their respective project code and working group activity owner. A more detailed description of these activities is available at Annex 1.

C3: Co-chair Coordination Committee
SPWG: Service Provision Working Group
ADWG: Airspace Design Working Group
SWG: Safety Working Group
TCG: Technology Coordination Group

Working Group	Project Reference Code	Project Reference Name (including sub-projects)
C3	C3-1	Strategic Operations Plan
C3	C3-2	Network Management Evolution Plan
C3	C3-3	Technical Convergence Plan
SPWG	SPWG-13	Reduced Longitudinal Separation on the NAT
SPWG	SPWG-14	UK-Ireland FAB Network Management Organisation
SPWG	SPWG-19	CPDLC ConOps alignment
SPWG	SPWG-20	Enhanced Customer Communications
SPWG	SPWG-21	Service Resilience and Contingency
SPWG	SPWG-22	Queue Management for the FAB
SPWG	SPWG-23	H24 Operations vs Quiet Hours
SPWG	SPWG-24	Enhanced OLDI
SPWG	SPWG-25	Analysis of potential for collaboration on Air Traffic Control Training functions within the FAB.
ADWG	ADWG-9	Oceanic / Domestic Concept of Operations
ADWG	ADWG-15	Deliver Plans for Long Term Operations at TMAs within the FAB maximising the efficiency of design: • Common Transition altitude

Working Group	Project Reference Code	Project Reference Name (including sub-projects)
		• Performance Based Navigation
ADWG	ADWG-16	Dublin TMA Development • Point Merge • L70/Y124 airspace changes
ADWG	ADWG-19	Optimised cross-FIR FUA • Military agreement on process • Extension of EGD201
ADWG	ADWG-21	Feasibility study for High Level Sectors within FAB
ADWG	ADWG-24	Integration of AIS/AIM
ADWG	ADWG-25	FAB Free Route Airspace
SWG	SWG-5	SMS Harmonisation
SWG	SWG-7	Safety Culture Improvement
SWG	SWG-8	Action Plan for Operational Safety Surveys Across FAB Interfaces
TCG	TCG-2	Datalink infrastructure (ARINC/SITA)
TCG	TCG-3	8.33Khz spacing below FL195
TCG	TCG-5	CCAMS

4. Key Supporting Areas

There are a number of activities which support the implementation of the FAB Plan and day-to-day management of the FAB. This section gives a brief outline regarding the status of these supporting activities.

4.1. ANSP/NSA Coordination

In order to ensure the smooth management and effective implementation of the FAB, it is critical that robust coordination measures are in place between the FAB ANSPs and NSAs. A number of procedures have been put in place to meet this aim, which will continue to be enhanced during the lifetime of this FAB Plan.

ANSP/NSA Coordination will be facilitated through the following channels:

1. *Joint meetings of the ANSP FAB Management Board (FMB) and NSA FAB Supervisory Committee (FSC):* These are held annually with the primary objective of facilitating the Member State intentions for the FAB.

2. *ANSP/NSA Coordination Group:* This newly formed and small group was established in early 2012. It is primarily responsible for the coordination of a range of activities between the FMB and FSC on an ongoing basis, and to help ensure a partnership approach between the ANSPs and NSAs supporting full and timely inclusion in the development of the FAB. This group is responsible for: coordinating arrangements between the FSC and FMB; dealing with any issues which may arise; coordination on European legislative matters; and coordination of FAB communication related activities.

3. *Discussions between the NSA Harmonisation Working group and ANSP Co-Chair Coordination Committee:* These groups report to the FSC and FMB respectively and the members of these groups are responsible for the direct implementation of FAB initiatives. Meetings are planned to take place during 2012 to ensure the activities of each group are focused on agreed priority areas. The ANSP/NSA Coordination group (see 2. above) will act as a conduit to coordinate these activities at an ANSP/State level.

4. *Joint Performance Advisory Group:* This group supports FAB activities in the relation to the Performance Scheme and reports jointly to the FMB and FSC. It is currently working on activities to support the planning for the second reference period of the performance scheme.

5. *Future Airspace Strategy (FAS):* The FAS is an initiative managed by the UK CAA. Its aim is to provide a policy structure to enable a modernised air traffic management system that provides safe,

efficient airspace, that has the capacity to meet reasonable demand, balances the needs of all users and mitigates the impact of aviation on the environment. Although the FAS is a UK orientated initiative, it is fundamental that the FAS takes account of the UK-Ireland FAB perspective. The IAA is involved in the activities of the FAS fora to assure the FAB's contribution to FAS.

Through the effective coordination of the above activities, it is envisaged that successful implementation of the UK-Ireland FAB Plan can be made more easily.

4.2. Inter-FAB Coordination

It is widely recognised that FABs cannot be developed in isolation and that inter-FAB cooperation and coordination is necessary in order to maximise the operational efficiency of European airspace.

The UK-Ireland FAB is fully supportive of this requirement as a means to drive forward progress towards achieving greater flight efficiency, cost efficiency and operational consistency in line with SES performance goals. The UK-Ireland FAB has a number of activities underway which will be progressed during the lifetime of this FAB Plan, including:

1. *FAB-4:* In March 2011, the Air Navigation Service Providers of the UK-Ireland FAB and Danish-Swedish FAB signed a Memorandum of Understanding to investigate the benefits of a closer, more integrated working relationship, including the potential to merge the two FABs. Initial feasibility work has been conducted between the ANSPs and discussions remain ongoing about the best means to enable the realisation of the potential benefits of closer cooperation. Significant support will be required from the National and European regulatory authorities in order to realise the potential benefits.

2. *FABEC:* The development of the London TMA is crucial for the successful development of FABEC, along with its other key airports (Frankfurt, Amsterdam, Paris and Munich). Therefore, the UK is a collaborative partner in FABEC and NATS plays an active role in the FABEC development activities. Discussions between the FABs have identified possibilities for collaboration and cooperation, including: common airspace design principles, e.g. free route airspace or queue management; common FAB views on SESAR concept of operations; common views on the performance scheme; and a common approach on the Network Management Function. Dialogue will continue between the two FABs during 2012 to progress these potential opportunities.

3. *Borealis:* In March 2011, the air navigation service providers of Denmark, Estonia, Finland, Iceland, Ireland, Latvia, Norway, Sweden and UK agreed to set up a temporary organisation with the job of defining a permanent alliance structure for the ANSPs. This

temporary organisation, named Borealis, is tasked with creating the commercial, financial and regulatory terms under which its members can improve performance across the airspace of all countries involved. The aim will not only be to improve flight efficiency and reduce environmental impact, but also to reduce the cost of services and operational/technical infrastructure across the whole area. These arrangements may reach across the boundaries of FABs and States, but will only be binding between the ANSPs directly involved.

4.3. Commercial framework development

A commercial framework has been adapted for use by the FAB Management Board to enable future commercial development and for shaping submission to IAA and NATS budgetary committees for approval.

The aim of the FAB is to execute initiatives in as cost efficient and effective a manner as possible. The commercial framework sets out the general guiding principles in formalising commercial arrangements for FAB initiatives. It helps to ensure the commitment of both ANSPs. At the same time, the commercial framework ensures that FAB proposals are tied into the existing governance processes in both organisations, to help guarantee proper oversight.

4.4. SES Activities

The UK-Ireland FAB will continue to ensure that activities relating to the successful implementation of the SES are fully supported.

1. *European FAB coordination:* The FAB will continue to engage with the administrative domains, including the EC FAB Focal Points Group (FFPG); the FAB Coordinator, Mr. Georg Jarzembowski; and the TEN-T Executive Agency.

2. *SESAR:* The UK-Ireland FAB will continue to ensure that FAB developments are aligned with emerging SESAR activities. As indicated in section 1.1 of this Plan, the FAB will be developing a Strategic Operations Plan, which outlines the operational evolution of the FAB up until 2017 and which commences the transition of the FAB operations towards the delivery of the SESAR concept of operations. The FAB will also develop a Technical Convergence Plan which will seek to align planned deployments arising from SESAR work. Coordination between the IAA and NATS will continue to be managed effectively.

   Europe's most influential service providers represented in the A6 group (AENA, DFS, DSNA, ENAV, NATS and NORACON A6 Group)

are proactively engaged in a co-ordinated approach to support the ATM infrastructure modernisation process at the institutional level and to keep it at the forefront of the political agenda. In March 2012, the A6 Alliance confirmed their full support to come up with solutions to complete the work on deployment planning, implementation and execution and emphasised the need for innovative and integrated financing/funding mechanisms, by pooling all possible resources for the synchronised deployment of the SESAR Concept.

Both IAA (via NORACON) and NATS are fully represented members of the SESAR JU. Joint UK-Ireland FAB representation is in place in the current SESAR forums, including; the SESAR IP1 Steering Group, SESAR IP1 Expert Group; and SESAR IP1 Interim Deployment Steering Group.

3. *Performance Scheme:* Separate National Performance Plans for Ireland and the UK were provided by the UK-Ireland FAB for the first reference period 2012-2014. In addition, both NSAs produced a document showing aggregated performance targets at a FAB level for the first reference period. The States and ANSPs will be working together to look at metrics for a common FAB Performance Plan for RP2 (2015-2018) - although this is not yet a requirement.

4. *Network Management Function:* The UK-Ireland FAB is committed to supporting the Network Manager in delivering benefits from increased European-wide coordination. The introduction of an integrated network management function for the UK-Ireland FAB by the end of March 2012 is a crucial first step in developing that relationship. Joint UK-Ireland FAB representation is in place in the current forums, including the Network Management Board. The UK-Ireland FAB will:

- Contribute to the work of the Network Management Board.
- Fully participate in the cooperative decision making processes for the Network Strategy and the Network Operations Plan.
- Develop consolidated views on issues relating to operational performance of the network.
- Support achievement of operational interconnectivity with other FABs.
- Fully participate in crisis management processes to be developed by the Network Manager.

4.5. Meeting schedule

The implementation of the UK-Ireland FAB is facilitated by the ANSP FAB Management Board (FMB) and comprises a Co-chair Coordination Committee (C3), four working groups and the Secretariat. The following dates are proposed for the FMB meeting schedule for the remainder of 2012.

FMB Meeting Number	Date	Location
FMB#13	27th June 2012	Ireland
FMB#14	22nd November 2012	UK
FMB#15	21st February 2013	Ireland

Annexes to the UK-Ireland FAB Plan 2012-15

- **Annex 1: Detailed Project Breakdown**
- **Annex 2: FAB Opportunities Register**
- **Annex 3: Risk Register**

Annex 1: Detailed Project Breakdown

Further to section 3 of the FAB Plan, this Annex provides additional technical detail in relation to each of the projects that will be implemented by the FAB during the lifetime of the FAB Plan.

A target date for implementation and a qualitative benefit statement has been provided for each project [Note: Annex 3 contains an aggregated summary of these benefit statements].

The Annex is divided into the following sections:

1. Co-chair Coordination Committee
2. Service Provision Working Group
3. Design Working Group
4. Safety Working Group
5. Technology Coordination Group

1. Co-chair Coordination Committee	
Follow-through and new projects	**Target Date**
C3-1 Strategic Operations Plan A strategic operations plan will be developed which will describe how the FAB airspace and operations evolve towards the Single European Skies framework while implementing the SESAR concepts. This plan will ensure a consistent development of FAB airspace with other FABs and regions and will form the basis of our prioritisation for SESAR Deployment. It will allow consistent Operational requirements to be created to support technological alignment. This plan will ensure that the work already in existence in the plan which covers En Route airspace and that which covers terminal airspace works together to describe a common operational future Concept. ➢ **Benefit statement:** Whilst this strategic plan is an enabling activity it is expected that by aligning future operations it will address all areas of performance improvement. It will additionally allow the UK-Ireland FAB to be at the forefront of influencing international debate of deploying future capabilities into operation.	Plan completed by Qtr3 2012

Safety	Service	Value	Environ.	Customer Request	Mandate / Regulation	Enabler
✓	✓	✓	✓			

1. Co-chair Coordination Committee	
Follow-through and new projects	**Target Date**
C3-2 Network Management Evolution Plan In order to maximise the operational benefits of Network Management, a five-year evaluation plan will be developed for this new FAB function, alongside the new Strategic Operations and Technology Convergence Plans. The Network Management Evolution Plan will develop towards the SES aspirations, including SESAR concepts and the Network Management Function. It will be underpinned by the following principles: • Increased and better use of existing network capacity through the advanced flexible use of airspace and dynamic sectorisation in order to reduce complexity, whilst facilitating the sharing of airspace between civil and military airspace users. • Improvement on flight efficiency by limiting ATC constraints on optimum flight profiles (only when required), reducing fuel burn, noise, and CO2 emissions. • The introduction of Queue Management techniques covering all aspects related to improved Arrival/Departure Management and sequenced delivery in en-route and TMA environments in order to achieve an optimum traffic sequence. • If ATM constraints are necessary, the preferred way to integrate them is through a collaborative process with airspace users and airports in order to achieve the best business or mission outcome. • The evolution from current fixed route structures to a performance-based operations environment based upon user preferred trajectories and users business needs • A collaborative planning process is applied to trajectories in a number of iterations, refining it with constraints arising from new and more accurate information. • Enhanced Network Management through a dynamic on-line, collaborative Network Operations Plan fully integrated with AOP and considering all relevant actors planning aspects. • The ability for customers to contact and interface with Network Management in cohesive and simple forms across all areas from pre-tactical, to tactical, to planning. ➢ **Benefit statement:** The overall benefit of a regional UK-Ireland FAB Network Management process will result in a more efficient network which will reduce delays, reduce track miles, and reduce CO2 emissions.	Plan completed by Qtr3 2012

Safety	Service	Value	Environ.	Customer Request	Mandate / Regulation	Enabler
✓	✓	✓	✓	✓	✓	✓

1. Co-chair Coordination Committee	
Follow-through and new projects	**Target Date**
C3-3 Technology Convergence Strategy This new project incorporates the work previously planned to start in April 2012 under TCG-4 and TCG-6 to assess the potential for FAB wide surveillance and infrastructure services. This broader project will cover the whole technology are. A common roadmap for technology based on known functional requirements will be developed. • The respective technical strategies of the ANSPs will be compared to confirm areas of alignment and where gaps may exist. • An assessment of the planned deployments arising from SESAR activities by both ANSPs will be made. Further activities will be planned based on the outcomes on the first activities as this is expected to be an iterative process. ➢ **Benefit statement:** Cost savings and service benefits will be identified from common or shared systems and by interoperability between systems as we move towards the SES concepts. A safety benefit is expected from the common use of new advanced tools.	First Draft of convergence assessment: End July 2012. Approval of final document: end Dec 2012.

Safety	Service	Value	Environ.	Customer Request	Mandate / Regulation	Enabler
✓	✓	✓				

2. Service Provision Working Group (SPWG)

Project Details	Target Date
SPWG-13 Reduced Longitudinal Separation on the NAT: The primary benefit of RLongSM (Reduced Longitudinal Separation Minimum) is a reduction in the longitudinal separation standard which is achieved by utilising ADS-C (ADS-Contract) periodic position reports. The use of RLongSM enhances the provision of fuel efficient profiles by accommodating mid-ocean altitude changes. The use of ADS-Contracts issued to the flights allows more frequent tracking of the aircraft position processing position reports calculating separations to the second. Any flight deviating 300ft or 5nms from its clearance will be immediately notified to the controller thereby providing for improved conflict detection. The UK-Ireland FAB commenced a trial in March 2011 for twelve months, which has been extended to March 2014 in order to align with global standards. The trial is also meeting all of the success criteria required for full implementation and it is the intention to engage ICAO to have RLongSM accepted as a global separation standard. The FAB will continue to monitor "usage" by Air Operators during the lifetime of the trial. ➢ **Benefit Statement:** The Environmental benefit for RLONGSM climb through events are estimated to be 190kg fuel and 605kg CO2 per flight. It is estimated that during the first year of the trial (to the end of March 2012), the trial achieved 1,064 RLongSM climb through pairs, resulting in benefits in the region of 202,000 kg fuel savings and 643,000kgs CO2 savings. **Safety** | **Service** ✓ | **Value** | **Environ.** ✓ | **Customer Request** ✓ | **Mandate / Regulation** | **Enabler**	Mar 2014
SPWG-14 UK-Ireland FAB Network Management Organisation: At the end of March 2012, the UK-Ireland FAB successfully introduced an integrated Network Management function across the UK-Ireland FAB Airspace. Although it has been implemented, the project is still retained in the FAB Plan due to the fact that there are a number of sub-projects / activities which will be progressed during 2012 during the early months of implementation. The four ATC centres (Dublin, Prestwick, Swanwick, and	Sub-projects to be completed during 2012

2. Service Provision Working Group (SPWG)	
Project Details	**Target Date**
Shannon) now participate on a daily basis providing Network Management for all FAB traffic. The planning functions will be fully integrated by the end of 2012. Information will be promulgated from a central website for ease of use (this will come on stream later in 2012). Airspace management, Standard Routing Document, Strategic traffic planning and Pre-tactical traffic planning have already been introduced. Future UK-Ireland FAB developments in Network Managements will be introduced in line with and aligned to the requirements of the Network Management Function and with European legislation. The governance of the integrated Network Management function is provided by a newly created "FAB Operations Board". Sub-projects of SPWG-14: • *FAB RAD:* Presently the RAD is published jointly. An investigation is taking place to join this function to treat the airspace as one continuum. • *Network System Tools:* A traffic load prediction device will be introduced to the IAA in October 2012, which will allow IAA to see the same information in the same format as the NATS. Prior to this, the CFMU system will be used as the main system to tactically manage traffic on a daily basis • *LARA:* This system is being introduced to IAA, similar to NATS. The system is used by the Military to book flights and Danger Area usage. The traffic managers will be able to utilise this information to manage traffic flows more efficiently. ➢ **Benefit Statement:** The overall benefit of a regional UK-Ireland FAB Network Management process will result in a more efficient network which will reduce delays, reduce track miles, and reduce CO2 emissions. At a sub-project level; ○ FAB RAD: The airspace will be regarded as one continuum and restrictions will be assessed jointly and published as one integrated document. ○ KPIs will be provided to the centres to monitor and measure improvements. ○ Joint training on Network Management is taking place with staff from all centres. E learning will be introduced leading to better understanding of the roles required and better implementation.	

2. Service Provision Working Group (SPWG)	
Project Details	**Target Date**
○ Compliance with the Network Management Implementation Rule is also a benefit. ○ Network System Tools: Staff in all the centres can review the same data for decision making, thereby improving efficiency and the level of service to customers. **Safety** ✓ **Service** ✓ **Value** ✓ **Environ.** ✓ **Customer Request** ✓ **Mandate / Regulation** ✓ **Enabler** ✓	
SPWG-19: CPDLC ConOps alignment / Benefits led use of CPDLC from 2013 onwards In March 2012, the IAA introduced the first phase of CPDLC in advance of the February 2013 Mandate. The IAA and NATS are working together to meet the full ANSP requirements of the mandate. As part of the project joint discussion are taking place with the communications service providers ARINC and SITA with the view to saving cost (please also see TCG-2). Safety management issues are being jointly assessed. Following the initial deployment of CPDLC in 2013 (to meet the implementing rule requirements) we will seek to identify where additional value can be achieved through the use of datalink beyond the mandated provision. Opportunities will be assessed on the basis of benefits that will be achieved, and may include additional messages or offering the use of CPDLC below the mandated level of FL285. This approach will help to maximise the benefit of the investment both the FAB and airline customers have made in CPDLC. Benefits from any additional use above that mandated will be dependent on increasing airline equipage which is expected by 2015. ***Deliverables within this Plan*** 1. Introduce initial datalink capability for ATN - Feb 2013 2. Agreed plan for extension of use that exploits benefits in line with aircraft equipage - Dec 2012 ➢ **Benefit Statement:** ○ Achieve regulatory compliance And then subject to increasing airline equipage; ○ Reduced frequency congestion at the NATS/IAA interface resulting in increased sector capacity.	Mandate by February 2013 Increasing benefits through 2015

2. Service Provision Working Group (SPWG)

Project Details	Target Date
○ Increased safety benefits due to the reduction in Voice readback errors. ○ Reduction in controller workload per flight Safety: ✓ | Service: ✓ | Value: | Environ.: | Customer Request: ✓ | Mandate / Regulation: ✓ | Enabler:	
SPWG-20: Enhanced Customer Comms During 2011 and 2012 a number of developments took place to enhance the customer communications and consultation activities, including: ○ UK-Ireland FAB Customer secure access website. ○ IAA participation in the NATS OPA (Operational Partnership Agreement) ○ Joint CEO/Customer Forum. During the lifetime of this FAB Plan, it is the intention of the FAB to further enhance our customer consultation and engagement processes and procedures, by moving towards the introduction of a FAB OPA facility to complement the exiting IAA and NATS customer consultation procedures. ➢ **Benefit Statement:** Safety: | Service: | Value: | Environ.: | Customer Request: ✓ | Mandate / Regulation: | Enabler:	FAB OPA Facility (Qtr 2 2012)
SPWG-21 Service Resilience and Contingency: Service providers have an obligation to their airspace users, regulators and licence conditions to retain an appropriate level of service resilience during normal operations. A scoping exercise will be completed to determine the current levels of service resilience at the FAB ACCs during normal operations and degraded modes such as equipment failure. One centre may be able to provide limited service for another. The scoping exercise will make recommendations or provide direction in areas including; ○ Procedures	Qtr 4 2012

2. Service Provision Working Group (SPWG)

Project Details	Target Date
○ systems ○ people including decision making ○ Back-up service ➢ **Benefit Statement:** The ability to receive back-up from another centre across the FAB would reduce contingency costs, whilst ensuring continuation of service in a timely fashion.	

Safety	Service	Value	Environ.	Customer Request	Mandate / Regulation	Enabler
	✓			✓		

Project Details	Target Date
SPWG-22 QMAN for the FAB – Scoping Project One of the key areas of delay within the FAB is at the Terminal arrivals / Departures at key airports with in the FAB. In line with the developments in SESAR and across Europe through other FAB's, a study will be carried out to scope a project highlighting the advantages of managing the traffic in the en-route phase prior to arriving at the terminal area, in order to reduce holding and delay. The overall traffic management measures need to be evaluated for suitability and implementation capabilities. New technologies and systems will facilitate this Function. Arrival managers and Queue Management techniques can be employed. ➢ **Benefit Statement:** ○ Upon future implementation, it is anticipated that this will lead to more optimal flight profiles, which will deliver reduced delay, reduced costs, improved environmental impact.	Q3 2012

Safety	Service	Value	Environ.	Customer Request	Mandate / Regulation	Enabler
✓	✓	✓	✓	✓		✓

2. Service Provision Working Group (SPWG)

Project Details	Target Date
SPWG-23 H24 Operations Vs Quiet Hours The FAB ACCs will conduct a review of operations during quiet hours to determine if some H24 network restrictions such as RAD restrictions and/or published descent standing agreements can be altered and updated to reflect the reduced dependency on these restrictions during quiet hours. ➢ **Benefits:** With the removal of restrictions to the required times (rather than blanket H24 cover), additional capacity will be provided. Safety: ✓ Customer Request: ✓	Qtr 4 2012
SPWG-24 Enhanced OLDI The FAB will analyse the requirements for data transfer between IAA and NATS systems. In particular, improved OLDI message transfer, which is expected to offer significant operational benefits. Following the completion of this initial work, the Technology Coordination Group will manage the implementation of agreed changes. ➢ **Benefit Statement:** ○ The automated data transfer benefits will enhance safety and facilitate silent handovers. ○ Furthermore, it will also for the simplification of processes for Controllers through the reduction of necessary Comms work, which will provide more time for ATM functions. Safety: ✓ Service: ✓	Q2 2012 (scoping work complete)

2. Service Provision Working Group (SPWG)

Project Details	Target Date
SPWG-25 Analysis of potential for collaboration on Air Traffic Control Training functions within the FAB. High quality Air Traffic Control (ATC) training is vital to the provision of safe, efficient and cost effective ATC Services from both a legislative and business perspective. The resources required to operate effective training facilities are substantial. The FAB partners will conduct a scoping exercise to determine if joint cooperation or collaboration on the provision of ATC training can provide a more efficient service with better use of resources. The European frame work of "common core content for Air Traffic Controller training" will form a backdrop for this study. Other areas to be considered will include; the sharing of instructor capacity; shared use of physical infrastructure in the training schools within the FAB for different courses; qualification of trainees to a common base standard to meet the need of the FAB partners; and joint Regulatory recognition of qualifications. A benefits statement will be provided as part of the study. ➢ **Benefit Statement:** This scoping exercise will analyse the potential of a collaborative, integrated approach to enhance the effectiveness and efficiency of ATC training within the FAB and the value for money proposition to our Customers.	Q4 2012 (scoping work complete)

Safety	Service	Value	Environ.	Customer Request	Mandate / Regulation	Enabler
	✓	✓		✓		✓

3. Airspace Design Working Group (ADWG)

Project Details	Target Date
ADWG-9 Oceanic / Domestic Concept of Operations alignment*: The scope of this activity area has been broadened in the next FAB Plan 2012-15 to encompass an oceanic concept of operation, complementing the UK-Ireland FAB's unique position of a European interface to the east and an oceanic interface to the north, south and west. To support SESAR Oceanic and Domestic airspace needs to operate seamlessly in support of the trajectory and this work will articulate the FAB evolution towards this. This will be achieved through the UK-Ireland FAB's effective engagement with neighbouring partners and seek to align these interfaces with the respective ANSPs. ***Deliverable within this plan:*** Clear vision of a future concept of operation for enroute airspace which aligns current domestic and oceanic operations with SESAR. This plan has been shared with neighbour ANSPs and Regulators ➢ **Benefit Statement:** This activity is an enabling activity but benefits expected as a result of aligned operations affect all performance areas through ○ Better streaming of traffic inbound to UK, Ireland and European terminal airspace ○ Improved deployment of staff ○ Increasing use of customer preferred profiles [*The geographically scope of UK-Ireland FAB remains the en route airspace under the control of the IAA and NATS within the Irish and UK FIRs, including NOTA and SOTA. This formally excludes Oceanic and Terminal airspace. However, we have agreed between the ANSPs and airlines that our service improvement approach will address all of the area of responsibility of the ANSPs to ensure both consistency and most benefit.]	Jan 2013

Safety	Service	Value	Environ.	Customer Request	Mandate / Regulation	Enabler
						✓

3. Airspace Design Working Group (ADWG)	
Project Details	**Target Date**
ADWG-15 Deliver Plans for Long Term Operations at TMAs within the FAB maximising of efficiency of design: The focus will be on strategic design considerations and apply generic design principles enabling their application at multiple TMAs, this will consider the transition portion of flight which will be complementary to SESAR Work Packages. This activity shall focus upon how all TMAs can be developed consistently to take account for future needs, including MTMA, ScTMA, LAMP and Dublin for example. During 2011, TMA development work continued across the FAB, specifically in the Dublin TMA with Point Merge procedures and also early developmental work in the London and Northern TMAs in London, namely LAMP and NTCA. The UK-Ireland FAB is committed to ensure that the design of all TMAs within the UK-Ireland FAB is achieved in a consistent manner. Consequently, this activity will overarch TMA development projects and capitalise upon the current experience of emerging policies, such as PBN, Point Merge, CCOs/CDOs and add them into a 'tool box' and apply them to TMA designs consistent and commensurate to the need. Sub-projects of ADWG-15 include: (A) *Common Transition Altitude:* .A raised Transition Altitude will be an enabler for TMA improvements. This activity is currently being led by UK CAA, and is a common objective for the UK-Ireland FAB. Detailed implementation plans and timescales are currently being worked up. In January 2012, consultation was initiated by the UK CAA to introduce a harmonised TA of 18,000 feet across UK airspace with an aspirational date of winter 2013/2014 for UK. The FAB is considering a staged implementation.. (B) *Performance Based Navigation (PBN):* PBN is expected to bring significant advances in the accuracy of track following. PBN will enhance safety, capacity, and flight efficiency. It will also be a major enabler for optimised departure profiles and Continuous Descent Approaches (CDAs). ➢ **Benefits Statement:** To enhance the provision of	UK Common Transition Altitude by Winter 2013/14 (With Staged FAB introduction thereafter)

3. Airspace Design Working Group (ADWG)	
Project Details	**Target Date**
safe, cost effective and efficient ATM in this area. ○ Improve safety performance by using inter alia Common Transition Altitude, de-conflicted arrival and departures routes . ○ .To share experience in the use of best practice in the design of terminal airspace ○ Optimise the transition from the enroute phase. ○ Enhance capacity ○ Better CDM and SWIM with airports ○ Environmental and fuel efficiency improvements through the use of continuous climb and descent operations ○ To reduce holding delays by linking departure and arrival managers Safety: ; Service: ✓ ; Value: ✓ ; Environ.: ✓ ; Customer Request: ; Mandate / Regulation: ; Enabler: ✓	
ADWG-16 Dublin TMA Development: This project covers the major enablers for the introduction of Point Merge approach system at Dublin Airport and the introduction of complementing routes in the UK. Airspace changes resulting from the TMA 2012 Phase 2 will be implemented on 13 December 2012. These changes will include the introduction of the DEXEN SID which will facilitate the routing of traffic from Dublin to the London TMA via the Y124 airway during the busy early morning peak. This will offload traffic from routings via LIFFY, thereby reducing congestion in this very busy area. Point Merge operations will be introduced for runway 28 (approx 70% of traffic uses RWY28) only on that date. Point Merge will be introduced for operations on runway 10 by Q4 2014. ➢ **Benefits Statement:** To provide a systemised approach procedure for Dublin approach including: • Continuous descent approaches, • Maximum capacity usage of the single runway operation at Dublin, and • Maximise the departure rate for Dublin airport	Point Merge: December 2012 L70/Y124 airspace changes: December 2012

3. Airspace Design Working Group (ADWG)	
Project Details	**Target Date**
especially during the first rotation. Safety: ✓ | Service: ✓ | Value: ✓ | Environ.: ✓ | Customer Request: ✓ | Mandate / Regulation: | Enabler:	
ADWG-19 Optimised cross-FIR FUA: During 2011, the UK MoD outlined a proposal to re-orientate and extend EGD201 Danger Area to traverse the FIR boundary. The initial deliverable would be to identify enablers at the State level to establish a cross-FIR boundary Danger Area. Ireland and the UK continue their work to the possible establishment of a Cross-Border Area in accordance with the FUA Regulations. ➢ **Benefits Statement:** Better utilisation of airspace through increasing flexible use and making existing routes more accessible. Safety: | Service: ✓ | Value: ✓ | Environ.: ✓ | Customer Request: | Mandate / Regulation: | Enabler:	Subject to inter-State agreement
ADWG-21 Feasibility study for High Level Sectors within FAB: Co-financed by the European Union Trans-European Transport Network (TEN-T) TEN-T funding was obtained to facilitate the feasibility study; the fund awarded to the UK-Ireland FAB amounted to €1.15m. Considerable support has been provided by the Irish Department of Transport and the UK Department for Transport to facilitate the administrative requirements associated with this award. The planned study is to investigate the feasibility of a High Level Sectorisation within the FAB. The project endeavours to create airspace designs that can be implemented in the near future whilst still being cognisant to the future 2020+	Completion of Feasibility Study by Dec 2012

3. Airspace Design Working Group (ADWG)	
Project Details	**Target Date**
concept of High Level Sectors. This could have potential to allow more optimum routeings, both laterally and vertically for aircraft which transit IAA and NATS airspace, which could also increase the number of direct flight plannable routes. Scoping work commenced in Qtr 4 2010 and a number of design workshops took place during 2011. As a result of these workshops, the ambition of the airspace design and its associated complexity has increased since the proposal was first made in 2010. Concept and evaluation simulations are planned for Qtr 4 2012. The results of the Feasibility Study will be completed by the end of 2012, which will conclude with an "Airspace Concept Proposal", approved by the UK-Ireland FAB Management Board, upon which appropriate consultation has taken place. As far as it is feasible, this approved Airspace Concept Proposal will form the basis of a future formal Airspace Change Proposal. A Final Report will be provided to the TEN-T Executive Agency during Qtr 1 2013. ➢ **Benefits Statement:** The Feasibility Study proposes the following benefits: • Increased capacity, • Increased Safety Benefits, • Reduced track mileage for over-flying aircraft, • Reduced operating cost for managing over-flying aircraft, • Reduced controller cost, and • Improvement to the environment by reducing CO2 emissions. The project has undertaken Fast Time Simulation analysis and the report (November 2011) predicted for the UK / Ireland FIR: • Based on 3 x 2009 traffic samples ○ An average reduction in CO2 of 112,246 kg pa ○ An average total fuel saving of 35,297 kg pa ○ A reduction in Total Track Mileage of 4104 nm pa • Based on 3 x 2020 traffic samples	

3. Airspace Design Working Group (ADWG)

Project Details	Target Date
○ An average reduction in CO2 of 159,292 kg pa ○ An average total fuel saving of 50,091 kg pa ○ A reduction in Total Track Mileage of 4104 nm pa Safety ✓ | Service ✓ | Value ✓ | Environ. ✓ | Customer Request ✓ | Mandate / Regulation | Enabler	
ADWG-24 AIS/AIM Integration: This project focuses on the business integration of AIS/AIM activities between the IAA and NATS. Work is underway regarding NOTAMs, Data Management and Flight Planning. During 2012, a detailed business case will be finalised. A project plan has been produced which outlines the transition dates associated with components of AIS/AIM integration: • Flight plans by July 2013 • NOTAM Contingency by October 2012 • Charts by January 2013 ➢ **Benefit Statement:** More efficient and effective delivery of AIS/AIM across the FAB ○ Reduced cost from common flight reception and dissemination system ○ NOTAM services contingency aiding safety and resilience of the complete system ○ Reduced costs by moving to one NOTAM office for the FAB ○ Reduced costs from single source for chart production and dissemination Safety ✓ | Service ✓ | Value ✓ | Environ. | Customer Request | Mandate / Regulation | Enabler	July 2013

3. Airspace Design Working Group (ADWG)

Project Details	Target Date
ADWG-25 FAB Free Route Airspace The UK-Ireland FAB airspace is developed and managed as one continuum and a key component is to extend the current implementation of free route airspace wider across the FAB. It is essential that we work with neighbour FABs, as well as airlines and flight planning companies in the implementation of this aspect. We will seek to extend the free route airspace volume over the less complex parts of the FAB over the period of this plan to enable fuel and emissions savings whilst protecting the capacity that a systemised route structure delivers in the denser more complex parts of the airspace. We will investigate the needs of airlines to fly profiles supported by winds rather than direct routes and we will ensure we can protect capacity in constrained airspace. We will ensure that current airspace management arrangements have an agreed evolution to allow civil/military coexistence in route free airspace Our long term plans are to deliver free route across the entire FAB in line with SESAR expectations to support trajectory management and we will cooperate with other FABs and Eurocontrol to ensure alignment of plans. Key to achieving this is an enhancement to current European FUA arrangements to enable more dynamic allocation of flexible structures for segregated military activity and we will work with Eurocontrol and SESAR to achieve this. ***Deliverables within this plan*** 1. CONOPs for flight planning and civ/mil operating free route airspace.-Mar13 2. Further expansion of route free airspace- Mar15 ➢ **Benefit statement:** Benefit will be delivered through reduced fuel burn and emissions from allowing airlines to fly closer to preferred profiles. The consistent application of a free route airspace volume enables a SESAR future where trajectories are based on user preferred profiles. Common airspace construct allows for greater opportunity for dynamic allocation of military operations and of civil use	CONOPS by March 2013 Expansion by March 2015

Safety	Service	Value	Environ.	Customer Request	Mandate / Regulation	Enabler
	✓	✓	✓	✓		✓

4. Safety Working Group (SWG)

Project Details	Target Date
SWG-5 SMS Harmonisation **Project Description:** To harmonise on a Safety Management Manual which will ensure the application of a common safety policy and principles within the FAB whilst providing for variability in implementation procedures. ➢ **Objectives:** • Harmonise safety management arrangements at the level of a common FAB safety policy and principles whilst providing for variability in implementation procedures. • Agree the governance, maintenance and ownership arrangements for the FAB Safety Management Manual. • Provide clear and agreed evidence of compliance with the FAB Implementing Rules and the Performance Scheme Implementing Rules. • Future proof FAB SMS harmonisation activities against emerging IRs and wider integration of FABs. • Publish a compliance matrix referenced to the SES Common Requirements for safety management (EC 1035/2011) and the FAB IR requirements for NATS and the IAA. • Provide updates to the FAB Safety Case as agreed with the National Regulators. • Evolve ANSP SMS harmonisation strategy in collaboration with NSAs • Promote concurrent ANSP and regulatory harmonisation. ➢ **Benefit Statement:** ○ Elimination of inconsistencies in SMS implementation enabling wider integration and technical convergence between the two organisations. ○ Potential for concurrent ANSP and regulatory harmonisation resulting in better value from the regulatory processes. ○ Synergies in documentation, training, application etc. ○ Synergies in compliance with the FAB IR and the Performance Scheme IR.	Q2 2013

Safety	Service	Value	Environ.	Customer Request	Mandate / Regulation	Enabler
✓					✓	

4. Safety Working Group (SWG)

Project Details	Target Date
SWG-7 Safety Culture Improvement: **Project Description:** Work towards developing a safety culture improvement strategy in the FAB that supports and prepares for joint assessment of safety performance in RP2 as measured by the Performance Scheme Safety KPIs. ➢ **Objectives:** • Apply joint organisational lesson learning processes (SP204) to improve the safety cultures of both organisations. • Consult with the Competent Authorities (CA) to get clarity on the application of Safety KPIs and endeavour to get CA acceptance of the principles set out in the CANSO Position Paper on the Performance Scheme KPIs. • Work towards developing a safety culture improvement strategy that supports and prepares for joint assessment of safety performance in RP2 as measured by the Performance Scheme KPIs: 1. Effectiveness of Safety Management (EOSM) 2. The application of the severity classification of the Risk assessment tool (RAT) 3. The reporting of Just Culture ➢ **Benefits:** • Synergies in compliance with the Performance Scheme safety KPIs when targets are set by the Commission at the FAB level. • Provide clarity for staff, management and regulators in preparation for the joint assessment on the reporting of Just Culture as part of the SES Performance Implementing Rule. • Consistency of safety occurrence reporting, investigation and improvement in the FAB leading to improvements in safety performance.	Q2 2013

Safety	Service	Value	Environ.	Customer Request	Mandate / Regulation	Enabler
✓					✓	

4. Safety Working Group (SWG)

Project Details	Target Date
SWG-8 FAB Action Plan for Operational Safety Surveys across FAB Interfaces **Project Description:** Work will continue on Operational Safety Surveys across FAB interfaces, to assure that safety risks can be minimised by identifying vulnerabilities before they fail and taking the necessary corrective actions. ➢ **Objectives:** • Agree and implement a plan for the application of day-to-day safety surveys across the FAB in conjunction with the operational units. ➢ **Benefits:** • The provision of a common leading indicator of operational risk and a measurable process for identifying and prioritising operational safety improvement opportunities. • Demonstrable increase in safety performance across the FAB interfaces.	Q4 2013

Safety	Service	Value	Environ.	Customer Request	Mandate / Regulation	Enabler
✓						

5. Technology Coordination Group

Follow-through and new projects	Target Date
TCG-2 Datalink infrastructure (ARINC/SITA) NATS and IAA will benefit from a joint approach in the implementation of VDL Mode 2 infrastructure to support the Data linking Mandate planned for 2013. Current Status: 1. The NATS Link project L4300 is now in Project Definition Stage 2. Meeting held with both SITA and ARINC to discuss service provision. 3. We are awaiting proposals from SITA and ARINC. ➢ **Benefit statement:** The NATS and IAA datalink implementation projects will seek to deliver best value to the FAB in the provision of the infrastructure. A joint approach will lead to avoided costs. Safety: · Service: · Value: ✓ · Environ.: · Customer Request: · Mandate / Regulation: ✓ · Enabler:	Feb 2013
TCG-3 8.33Khz spacing below FL195 Joint planning for 8.33KHz channel spacing below FL195: NATS and IAA have already undertaken significant planning work on this. ➢ **Benefit statement:** A service benefit through greater availability of VHF channels and more flexible sectorisation is expected and further possible benefits will become clear depending upon the detail of the IR. FAB level collaboration is a risk mitigation against inflexibility of operations at the FIR boundaries Safety: · Service: · Value: · Environ.: · Customer Request: · Mandate / Regulation: ✓ · Enabler:	Delivery date dependent on 8.33KHz IR (2014)

5. Technology Coordination Group	
Follow-through and new projects	**Target Date**
TCG-5 CCAMS Joint CCAMS testing strategy: • Changes to NATS systems to accommodate CCAMS are underway. • IAA commenced its testing in November 2011 with a target for operation of 8th May 2012. • NATS have included CCAMS support in NAS build NA35.01 which is due in operation on the 22nd March 2012. ➢ **Benefit statement:** This will deliver compliance with an international agreement and the overall level of testing and validation of CCAMS in the UK and Ireland is less than if tested separately.	May 2012

Safety	Service	Value	Environ.	Customer Request	Mandate / Regulation	Enabler
		✓				

Annex 2: FAB Opportunities Register

The objective of this Opportunities Register is to ensure that proposals which have previously been identified are recorded in a formal UK-Ireland FAB document. Some previously planned projects have been removed from the FAB Plan but have been retained on the Opportunities Register for future re-activation if deemed necessary. The Register is managed by the Co-chair Coordination Committee and it is reviewed on a regular basis. The following projects are formally recorded within the UK-Ireland FAB Opportunities Register:

Ref / Name	Brief Outline	Rationale for inclusion in the Opportunities Register
Customer Proposal: Centre consolidation	Rationalisation of ACCs	This is deemed to be out of scope of the current operational FAB.
MET Services	Explore greater opportunities of collaboration with respective Met providers leading onto the requirements of SESAR	Added at FMB#10 14th July 2012; Issue relates to lack of ownership by ANSPs and legislative commitments.
Strategy for night time operations	Rationalisation of night time operations between ACCs	This is being retained on the Opportunities Register.
FAB Organisation Infrastructure Review	This project is to consider a root-and-branch review of all processes within the ANSPs.	This is being retained on the Opportunities Register. A number of integrated FAB groups have now been established or are under development (e.g. UK-Ireland FAB Network Management cell). Further integration between the ANSPs will occur as the FAB continues to evolve. Therefore, at this point in time a full review of all IAA/NATS management structures is not deemed necessary.
NAT Management Coordination	This project is to consider how the FAB can offer opportunities to mitigate	This project was contained in the previous FAB Plan 2010-13. However, in line

Ref / Name	Brief Outline	Rationale for inclusion in the Opportunities Register
/ Late running NAT Traffic	the effect of late running eastbound NAT flows, including developing improved co-ordination with the FAA, Gander, Shanwick, and the Shannon / UK interface arrangements.	with the traffic downturn, the matter is not currently perceived to be an issue and a service improvement project is not currently deemed necessary. The project can be reactivated in the future if deemed necessary.
Oceanic Domestic Interface Management System (ODIMS)	This project is to improve domestic sector traffic complexity (and reduce congestion in key domestic sectors) by optimising oceanic traffic in the planning phase using software tools.	This project was contained in the previous FAB Plan 2010-13. However, in line with the traffic downturn, the matter is not currently perceived to be an issue and the introduction of ODIMS is not currently deemed necessary. The project can be reactivated in the future if deemed necessary.
DUB-LTMA city pair route optimisation	This project was to provide conceptual and visionary ideas to be applied to routes between Dublin and LTMA.	This project was contained in the previous FAB Plan 2010-13. A great degree of effort had been applied to the optimising of routes into and out of Dublin. The scope of this activity should be extended to wider city pairings and that it should be progressed within NEAP. The project can be reactivated as a stand-alone UK-Ireland FAB activity in the future if deemed necessary.
Standardised Rules of the Air (SERA)	This project aims to minimise the differences from ICAO by standardising procedures based on the SERA initiative.	This involves close coordination between the ANSPs and NSAs. Until the status becomes clear at a European level, this activity has been transferred to the UK-Ireland FAB Opportunities Register.

Annex 3: Risk Register

The purpose of this Annex is to identify the risks associated with ensuring the successful implementation of the UK-Ireland FAB Plan 2012-15, including the strategic plans outlined in the document.

Risk	Cause and Effect	Mitigation
Rules are developed in the European region in isolation from rules in the North Atlantic region	This risk is due to a possible disconnect between NAT SPG, EANPG and EC rule making. The effect could lead to increased complexity and cost of operations at the oceanic domestic interface.	IAA and NATS ANSPs will align positions going into major international forum with subsequent alignment of State positions. As part of the FAB Plan a long term vision for Oceanic and Domestic Operations is included (ADWG-9 project) and this will form the key part on engaging the international community, including ICAO on a need for aligned rulemaking in all parts of our operations.
Changes in the European (SES) regulatory environment, which don't support the current operational nature of our FAB	This risk is due to possible introduction of additional SES legislation in the future, i.e. SESIII. The effect could result in a reduced ability by the ANSPs to focus on adding customer value through operational integration; and/or an increased investment to support the FAB implementation	IAA and NATS will work closely to support the Irish and UK NSAs and Member States in SES European affairs, and participate in constructive dialogue with all European stakeholders to ensure that future SES changes will not adversely impact on the ability of the FAB to deliver its stated objective of adding customer value.
SESAR deployment commitments require investment in the FAB to refocus	This risk is due to possible deviations in the schedule and prioritisation of SESAR Operational Improvements (OIs). The effect could impact on the delivery of certain operational and technical projects contained in the FAB Plan.	Through the A6 (NATS and IAA [via NORACON] membership), the ANSPs will engage with all relevant SESAR European stakeholders to help ensure the ATM Master plan is successfully implemented. Furthermore, joint UK-Ireland FAB representation is in place in the current SESAR forums, including;

		the SESAR IP1 Steering Group, SESAR IP1 Expert Group; and SESAR IP1 Interim Deployment Steering Group.
Changes in customer priorities over the period of the FAB and don't continue to align with the FAB plan	This risk is due to deviations between customer needs and expectations; especially between the needs of long-haul and short-haul carriers. The effect could result in a re-prioritisation of FAB projects and/or the non-progression of certain FAB projects contained in the FAB Plan in order to maintain our customer focused approach.	IAA and NATS will continue to engage with customers through their airlines representatives on the FAB Management Board and consultation at joint FAB forums, e.g. annual CEO/Customer forum. Customers will remain at the heart of decision making in the FAB