



FAB CE Newsletter: Spring 2016

Welcome to this new issue of the Functional Airspace Block Central Europe (FAB CE) newsletter. We hope you find this newsletter useful and relevant. You may distribute it to anyone you think is interested. Please feel free to comment and offer your own contributions. You can follow FAB CE at <http://www.fab-ce.eu/>



FAB CE

The Functional Airspace Block - Central Europe (FAB CE) is one of nine Functional Airspace Blocks designed to simplify air traffic control for the sake of efficiency, cost-saving, safety, and harmonisation.

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Introduction by Dr Franc Željko Županič, CEOC Chair



Dr Franc Željko Županič, CEO Committee Chair, and CEO Slovenia Control

The start of 2016 has seen progress in several areas for FAB CE. These include approval by the FAB CE Council of the updated FAB CE Strategy Document, and new High Level Plan, following careful review by FAB CE Steering Committee and sub-committees. The updated documents more closely align FAB CE objectives and the wider Single European Sky initiative of the European Commission. Another major achievement has been the completion of the

first common procurement by FAB CE Aviation Services (FCE), the joint entity tasked with delivering FAB CE goals. The contract for the Programme Support Office was awarded to Helios and Integra in January 2016, adding expert resources to support FCE's work and helping to align FAB CE activities with Single European Sky goals.

Furthermore, after significant progress already achieved in FAB CE Free Route Airspace (FRA) study, FAB CE continues to work with adjacent functional airspace blocks, for example launching a study to review the expansion of FRA planning over three adjacent FABs.

Finally, I wish Miroslav Bartos, CEO of LPS SR of Slovakia, a successful tenure in his role as chairman of the CEO Committee commencing in June 2016.



Approval of the updated FAB CE Strategy

FAB CE updated Strategy aligns with European developments and regulatory requirements

The FAB CE Steering Committee concluded a major update of the FAB CE Strategy Document in March 2016 to ensure alignment with European developments and regulatory requirements, especially those contributing to the deployment of SESAR according to the European ATM Master Plan. The FAB CE ANSPs Strategy covers the period to 2020 and is subject to an annual review to flexibly react to any changes in the environment. The document sets out the overarching goals of FAB CE, sub-divided into three groups to focus on priority areas.

The first level addresses objectives coming from the deployment programme. The most important is the implementation of the free route concept. Further objectives include fulfilment of the performance targets as defined in the FAB CE performance plan, and contributing to the goals defined in the European ATM Master Plan.

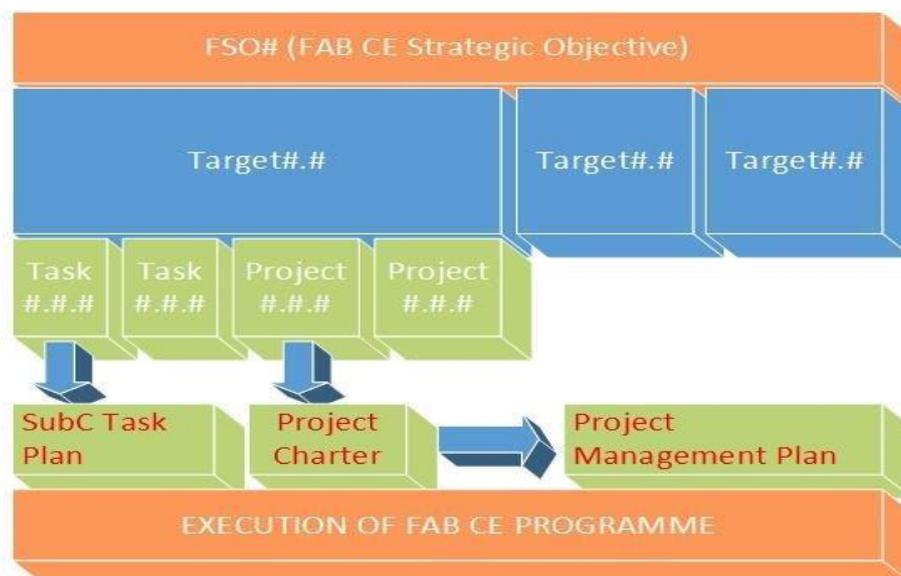
The strategic objectives of level two represent the facilitating tasks which support level one.

These include the establishment of effective safety management procedures, information exchange in areas of common interest, setting up harmonised procedures, and organising social dialogue forums.

The third level includes further initiatives beneficial to FAB CE states but not highlighted in the performance plan. Examples include integrating airport-collaborative decision making (A-CDM) into network operations, and introducing smart procurement activities. Some represent cooperation between one or two adjacent states, or industrial partnership that deliver safety and efficiency improvements.

The updated FAB CE Strategy was approved by the CEO Committee in March, and secured approval at state level by the FAB CE Council on 19 April 2016.

Planning hierarchy in implementation of FAB CE Strategy





High Level Plan aligns with SESAR Deployment Plan

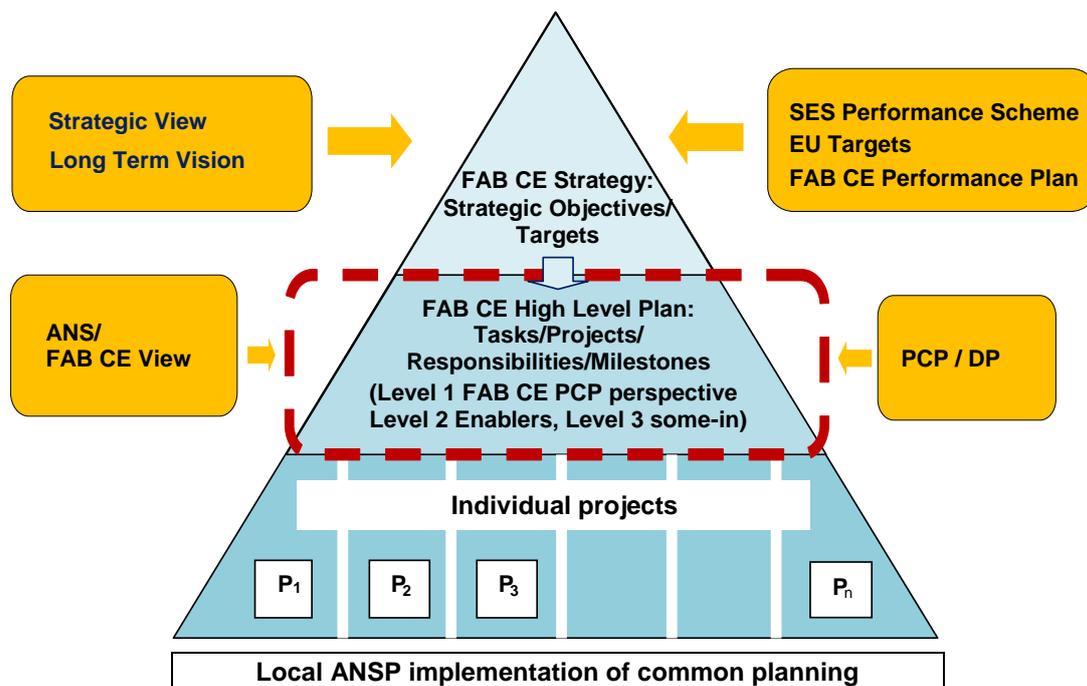
The High Level Plan translates the FAB CE strategic objectives into specific targets and tasks which are assigned to executing bodies such as sub-committees and projects. It provides a roadmap of how the FAB CE is implementing the objectives detailed in the strategy document and maintains compliance with the SESAR Master Plan and all its performance targets.

There are 15 strategic objectives which are transformed into execution activities for different bodies to manage and deliver. It triggers the start of tasks and projects at lower levels in the FAB CE planning hierarchy whilst remaining aligned with SESAR goals and FAB CE performance targets.

The High Level Plan is being updated to take account of the latest Strategy Document with the final version due publication in June 2016. The new plan assures full alignment with the European ATM Master Plan and performance

targets. In particular, it links the FAB CE strategic targets and implementation programmes with the SESAR Deployment Programme. It also aligns the timing with the requirements of the Deployment Programme. By updating the High Level Plan in this way, compliance with Single Sky Regulations are instantly visible, additional projects can be identified, and projects can be put forward for co-funding using the Connecting Europe Facility (CEF) Transport calls.

There are a number of key projects in the operational and technical domain, such as implementation of free route airspace and functional use of airspace, detailed in the High Level Plan. For this reason, the review period includes careful scrutiny by sub-committees including Operations, Technical, Safety, and Human Resources before being approved by the Steering Committee. The updated document will then be used to guide the implementation of FAB CE strategic goals.



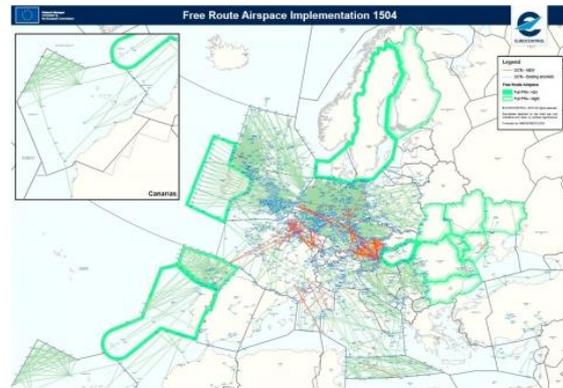


Freely planned routes from the Black Sea to the Black Forest

FAB CE's Free Route Airspace from the Black Forest to the Black Sea study, which was selected for EUR1 million SESAR co-funding in mid-2015, under the 2014 Connecting Europe Facility (CEF) Transport calls is managed under the control of the SESAR Deployment Manager. The study contributes to the deployment of Flexible Airspace Management and Free Route, one of the six ATM functionalities identified in the Pilot Common Project (EU Regulation No 716/2014).

A feasibility study is in progress to develop and validate the Free Route Airspace Concept of Operations (CONOPS) with the potential of extending it beyond its borders. The work includes real-time simulation exercises and assessment of the ATM system requirements necessary to connect individual ATM systems.

By 2019, FAB CE aims to fully implement the Free Route Airspace concept. For airspace users this will mean that within dedicated free route airspace they may freely plan routes across the whole FAB area, respectively between defined entry points and defined exit points, with the possibility to route via intermediate way points. There will be no



reference to the air traffic service route network, subject to airspace availability. Within this airspace, flights remain at all times subject to air traffic control and to any overriding airspace restrictions. The concept offers opportunities for airspace users to improve the efficiency of plannable direct routes, trajectories both within the FAB CE airspace and between neighbouring FABs.

The study creates a concept whose potential is not limited by geographical borders and adds value at a European level. It takes the commitment of the seven FAB CE ANSPs to contribute to defragmentation of airspace and to support the Single European Sky.

Successful cross-border free route simulation

A successful simulation was carried out in late March 2016 by controllers from Croatia Control, Serbia and Montenegro (SMATSA), and Bosnia and Herzegovina (BHANSA), to test the concept of cross-border free route airspace. Croatia Control, SMATSA, and BHANSA are planning to introduce free route airspace without time restrictions to provide more flexible route planning options for airspace users from December 2016.

The South-East Axis Free Route Airspace (SEAFRA) concept is among improvements introduced in line with the EU initiative to establish the Single European Sky regardless of

State or FAB borders. The four states participating in SEAFRA aim to improve airspace safety and efficiency, and to protect the environment by reducing fuel consumption and emissions. The real-time simulation was carried out at HungaroControl CRDS from 16 - 25 March and involved a total of 39 controllers and 12 airspace management experts. A wide variety of impacts were assessed, with special attention to human factors such as situational awareness and workload, as well as safety, in order to enable future free route operations with no or tolerable impact on all parts of the airspace management systems of participating air navigation service providers.



Neighbour states explore inter-FAB cooperation

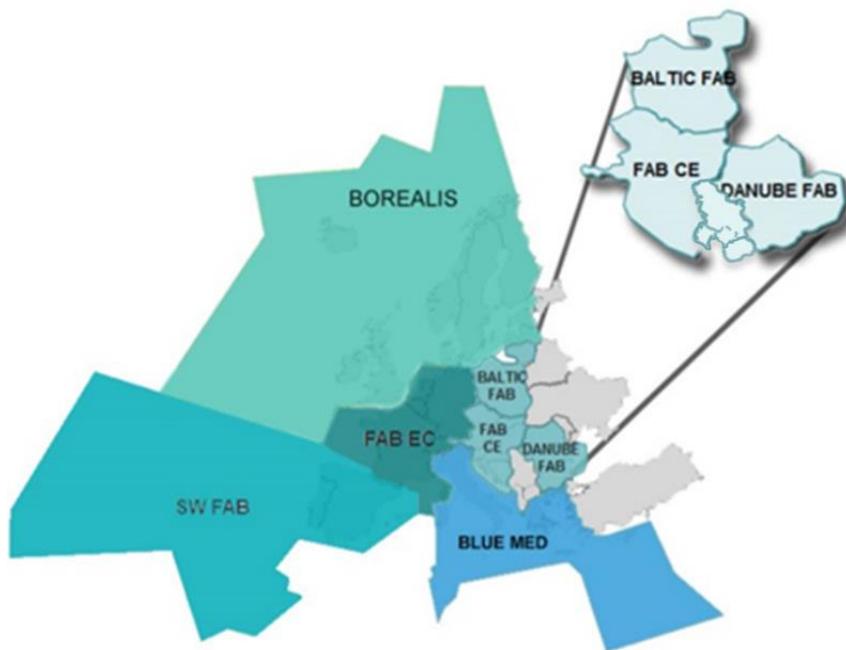
The three neighbouring FABs (FAB CE, Baltic FAB, Danube FAB) who make up the GATE One (GO) initiative proposed a study to synchronise cross-border Free Route Airspace (FRA) implementation in the region for the airspace serviced by GO members in December 2015. The CEO's of GO agreed that GO FRA will be developed on top of the existing ATM efforts and represents an umbrella regional free route airspace project. It will be built step by step, making best use of the lessons learnt from

similar regional initiatives and to get common benefits from SESAR deployment activities.

In addition to the three FABs, GO includes two non-EU flight information regions of Belgrade and Skopje, and from December 2015 incorporates the Serbian-Montenegro ANSP SMATSA and Macedonia ANSP M-NAV. The two latest members see GO as an important transit corridor and support development of a synchronised Free Route Airspace Concept of

Operation in close cooperation with our neighbouring ANSPs. Chairman of the GO CEO Committee Miroslav Bartos said the proposed vision "will allow us to work more closely together for airspace optimisation, thus offering the best possible longer term ATM solutions for our airspace users."

GATE One members are examining potential future inter-FAB cooperation



Cross-border free route project launched by Austria and Slovenia

A new project on implementation of the cross-border Free Route Airspace (FRA) was launched in November 2015 as a result of cooperation between Austro Control and Slovenia Control, embracing the two areas of responsibility (Vienna and Ljubljana). The Slovenian Austrian cross-border free route airspace (SAXFRA) project will be the first cross-border free route airspace without vertical or time-based restrictions and is due to

be implemented on 10 November 2016. The cross-border free route airspace aims to eliminate almost all current air traffic routes and airways in the SAXFRA airspace. SAXFRA offers airspace users the opportunity to fly between predefined entry and exit points using the most direct route possible. Airspace users will be able to select the optimum route and vertical profile for their requirements via intermediate points.



Programme support for FAB CE projects

Matej Eljon, Director of FAB CE Aviation Services (FCE), highlights priority projects

FAB CE Aviation Services (FCE) is the joint legal entity established by FAB CE air navigation service providers (ANSPs) to harmonise the planning and execution of projects cost-effectively. The FCE provides a unique opportunity for FAB CE ANSPs to jointly manage projects and services via a single platform rather than acting independently.

The first common procurement was completed in January 2016 with appointment of the Programme Support Office (PSO) to provide project management services to FCE. The PSO contract was awarded to partners Helios and Integra, who are providing a team of experts to help FCE align with Single European Sky and SESAR requirements. This means the FCE is now in a position to provide support to the projects and activities set out in the FAB CE Strategy and High Level Plan as defined by the FAB CE CEO Committee and FAB CE Steering Committee.

The most important project is implementation of Free Route Airspace. Co-financed by the Connecting Europe Facility, FAB CE's Free Route Airspace from the Black Forest to the Black Sea project aims to connect the airspace of seven FAB CE ANSPs to support more efficient trajectories. Free Route Airspace is one of the six ATM functionalities identified in the Pilot Common Project and FAB CE expects to fully implement the concept by 2019, a year ahead of the 2020 European Commission's deadline.

The FCE is providing full support to this project, known as Project 1, starting with identifying from an operational point of view the needs of each ANSP. This will be translated into the technical requirements necessary to connect

*Matej Eljon,
FAB CE
Aviation
Services
Director*



FAB CE ATM systems, followed by simulation and finally validation exercises. Discussions have also started over whether it is possible to extend Free Route Airspace to a wider area, and members of the GATE ONE initiative, which spans three functional airspace blocks (Baltic FAB, FAB CE, and DANUBE FAB), propose to launch a study to synchronise their cross-border efforts.

Another important project is the integration of air traffic control flow management (ATCFM) measures by FAB CE ANSPs. Live operational trials completed in 2015 showed the benefits of Short Term ATCFM Measures (STAMs) in reducing delays. These first results from Project 3 are due to be implemented from 2017, and FAB CE has started to define new projects in the area of airspace management that focus on fulfilling ATCFM requirements included in the SESAR Deployment Plan and Pilot Common Project. Among these, FAB CE is supporting more widespread use of Flexible Use of Airspace by ANSPs.

An example of a project that has already reached definition phase is the X-bone regional



data communication upgrade. This shows how the concept of common procurement can be applied on behalf of all FAB CE air navigation service providers. All the stakeholders are due to renew their data network equipment and the Technical Sub-Committee is responsible for providing the functional and technical equipment specifications. It represents the first example of common equipment procurement by the FCE.

Now the Programme Support Office is in place, the FCE has access to a pool of experts to help the joint entity achieve the goals set by the FAB CE Steering Committee. The FCE is fully functioning as intended when first established in March 2015, and can successfully implement the FAB CE strategy and deliver it in the most effective way, taking into account all possible synergies available from cross border cooperation.

FAB CE appoints the Programme Support Office

The Functional Airspace Block Central Europe (FAB CE) has taken significant steps towards meeting Single European Sky goals and Commission targets by establishing a joint venture limited company to manage its programme activities. FAB CE Aviation Services Ltd (FCE) was set up in 2014 as the joint legal entity of the FAB CE air navigation service providers (ANSPs). FCE is only the second of its kind in Europe and is tasked with implementing agreed priority programmes spanning harmonisation of airspace and operations, business planning, technical harmonisation and common procurement.

In January 2016, Helios and Integra were appointed to run the FCE Programme Support Office, providing technical, administrative, and project management services to FCE. The Programme Support Office (PSO) is a vital enabler to FCE's work, helping to align it to

Single European Sky and SESAR requirements, coordinate actions and track progress.

The core PSO team consists of 12 experts and four administrative support members, with additional members as backup. The PSO is led by project manager Dr Juraj Jirků who is head of Helios' office in Slovakia, and team members have multi-domain ATM knowledge, providing flexibility and cross-domain insight. The scope of the contract includes access to experts from both Helios and Integra, on-site support, and shared web-based tools. Helios has previously provided technical and operational support to FAB CE since 2012, and supported development of the FAB CE Performance Plan.

The PSO is already providing support for several FCE projects. Among these, implementation of Free Route Airspace (FRA) is a mandatory requirement for the Single European Sky and one of the priority programmes for FCE. The PSO is also assisting with joint procurement projects such as selection of a common cross-border telecommunications network (X-bone) and optimised surveillance infrastructure.

FAC CE Programme Manager Matej Eljon (front, right) signs the PSO agreement with Helios Managing Director Mike Shorthose (front, left), accompanied by team representatives from Helios and Integra

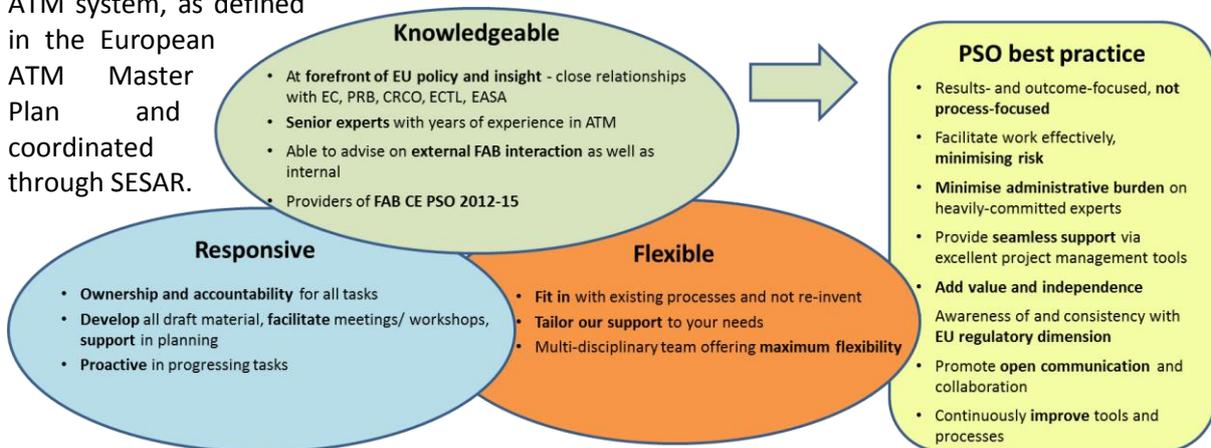




PSO Manager Dr Juraj Jirků describes the tasks ahead

FAB CE faces several challenges in the upcoming period, and FCE supported by the new Programme Support Office (PSO), formed by Helios and Integra, has a vital role in meeting these. One of the most important drivers for the next five years is meeting Reference Period 2 (RP2) targets.

The European Commission has shown its expectation that the FABs should be the vehicles for delivery of the Single European Sky (SES) and the associated performance goals, by requiring performance plans to be developed at FAB level and setting targets at FAB level. The real challenge for FAB CE over the RP2 period will be to exploit the cooperative structures already in place and realise tangible cost efficiency benefits, to meet the performance targets specified in the performance plans. Delivery of cost efficiency benefits through technological developments is part of the modernisation of the European ATM system, as defined in the European ATM Master Plan and coordinated through SESAR.



There will be other challenges for the coming years. The focus on cooperation and on modernisation of the ATM system means that alternative forms of cooperation have started to appear, such as iTEC and COOPANS. As these initiatives bring benefits in their own right, the FABs will need to find the balance between allowing these benefits to be delivered, and ensuring the efforts towards harmonisation within the FAB context are still delivering their own benefits.

As FABs start to deliver benefits internally, especially in terms of airspace and operations planning, some focus will also be put on inter-FAB coordination to ensure that fragmentation is not simply moved to a different level.

Our team, formed from experts from Helios and Integra, support meeting these challenges by providing a PSO service that is responsive, flexible and resourced by knowledgeable ATM and project management experts with the latest ATM developments, to ensure successful outcomes, through PSO best practice that will streamline ANSP involvement.

Both Helios and Integra have been at the forefront of the development and implementation of SES legislation. The companies have supported six FABs to date, including FAB Central Europe from its inception, FABEC, NEFAB and the NUAC program in its early stages, UK-Ireland FAB,

Danube FAB and the Baltic FAB. The team includes multi-domain ATM knowledge spanning operational, technical and engineering experts with detailed knowledge of SESAR.

Our aim is to streamline the time required from FAB CE ANSP experts, to achieve a balance between high quality outcomes, without an undue burden on ANSPs.



First steps for common equipment procurement

FAB CE has launched a pilot project for the common procurement of equipment by the joint entity FAB CE Aviation Services (FCE). Project 17 covers the hardware upgrade of the regional cross-border telecommunications network (X-bone) that is deployed by the FAB CE member states. The programme will lay down the procedural foundations for further common procurement activities.

The Technical Sub-Committee completed the technical specifications of equipment required for the upgrade of X-bone hardware in March 2016. The X-bone infrastructure is a common platform that interconnects the national network of FAB CE ANSPs. It provides a communications platform that supports seamless exchange of surveillance data and aeronautical messages (AFTN over AMHS, OLDI/FMTP). First introduced in 2010, the whole network is due to be upgraded. The procurement will be handled by the FCE and documents are being drawn up for this purpose. The FCE will deliver the hardware to the individual ANSPs in accordance with a smart procurement contract which will form a template for future common purchase requirements.

FCE Director Matej Eljon says: “This will be the first time we carry out the common procurement of hardware using the FCE. This is a pilot project and represents a perfect application because all six stakeholders in the company needs to renew their communications infrastructure exactly at the same time. It is a great example of common procurement by one entity instead of six separate procurements by the ANSPs.”

The Technical Sub-Committee is also working on a technical, legal and financial framework to support the sharing of surveillance data. This would encourage sharing surveillance data instead of investing in new surveillance sensors, bringing significant financial benefits. FAB CE ANSPs have agreed to establish Service Level Agreements using a cost-contribution financial model, and to consider sharing surveillance data for test purposes at no charge.

The optimisation of surveillance infrastructure, known as project 18, aims to meet all the operational and service quality requirements throughout the FAB CE region. It requires a complex but still effective and acceptable model for cost sharing, and a common planning process to ensure the infrastructure is adequate to meet the region’s surveillance requirements. The project is in definition phase, with a charter currently being drawn up, and project members from different ANSPs joining the working group.

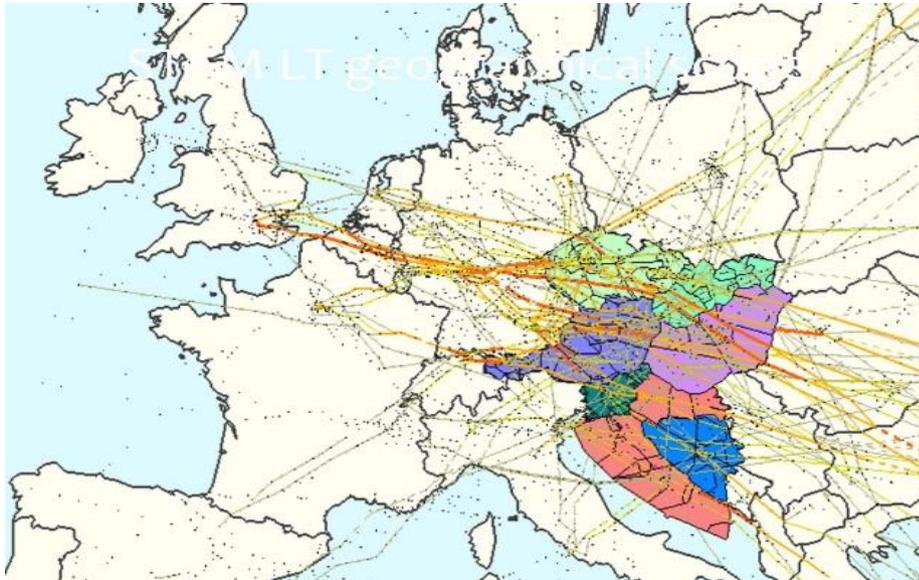
“This is a great example of common procurement by one entity instead of six separate procurements”

The concept of smart procurement extends to further activities identified in the Cost Containment report which was approved in September 2015. The report identified opportunities for common FAB CE projects which will bring cost effective implementation of technical infrastructure and technical services across the region. The Technical Sub-Committee is looking at the possibility of establishing a common regional equipment database using uniform technology, and ways of extending already existing planning and coordination processes to carry out preventative maintenance of radars across similar equipment types by ANSPs.



FAB CE expands regional traffic flow management

FAB CE states are introducing air traffic flow and capacity management measures



Trials using short-term air traffic flow and capacity management measures (STAMs) resulted in fewer delays

Balancing airspace demand and capacity using short-term air traffic flow and capacity management (ATFCM), measures known as STAMs, can reduce the need to impose air traffic regulations in normal operating conditions. Regulations are still needed to resolve major imbalances, but reducing their use leads to more predictable traffic flow and fewer delays.

STAMs are among solutions already validated under the SESAR research and innovation programme and they are being implemented Europe-wide in close coordination with the Network Manager. FAB CE member states concluded live operational trials in 4Q15 partially using the STAM tool developed by Eurocontrol, and FAB CE member states expect to implement STAM at nation level (phase 1) from 1Q17. By introducing measures such as minor re-routings, flight level capping, and minor ground delays, planning controllers can spread the demand to match airspace capacity without affecting flight schedules. FAB CE ANPs experienced fewer overall delays, and a

reduction in potential conflict situations, during the STAM trials. FAB CE member states are also planning to test a new tool to support STAM phase 2, which aims to deliver demand-capacity balancing at FAB level. This is likely to be provided under a separate working package.

Meanwhile, the FAB CE Operations Sub-Committee is developing a follow-on project to introduce flexible use of airspace (FUA). FUA facilitates the flexible allocation of shared airspace resources to civilian and military airspace users. The overall goal for this project is to improve the application of FUA at FAB level wherever possible, progressing FAB CE towards full compliance with the Single European Sky Deployment Plan and the European Commission's Pilot Common Project.

The objective is to improve coordination between airspace management and ATFCM at national level, and wherever possible at FAB CE level. This coordination continues between FAB CE and the Network Manager.



This is achieved by establishing regular contact between the flow management position (at national or FAB CE level), and a dedicated joint civil/military airspace management cell under the jurisdiction of one or more states. These airspace management cell have access to real-time information necessary for planning and tactical civil-military coordination activity. The scope of the new project covers airspace management and FUA specifications requirements. It follows the work packages contained in the European Commission's Pilot Common Project, and the SESAR Deployment

*The new project covers
airspace management and
Flexible Use of Airspace
specifications requirements*

Plan. By looking at the overall picture at FAB CE level, and supporting this with technical and harmonised procedures, the project will review the coordination framework for FUA activity. The main tasks include a review of the organisation and responsibilities, and procedures needed for member states to introduce FUA. This includes identifying gaps between the present situation and the Deployment Plan, while also identifying possible solutions for harmonising initiatives among FAB CE member states. This could result in an implementation roadmap aligned with the SESAR Deployment Plan.

Synergy in common license requirements

FAB CE Human Resources Sub-Committee addresses new European requirements

The FAB CE Council (FCC) approved the plan for the implementation of the common Competency Scheme for air traffic safety electronic professionals (ATSEPs) in April 2016. The plan anticipates new regulations about to be released by the European Commission to introduce general requirements for training instructors and technical skill instructors, as well as minimum common ATSEP training and competence requirements for technicians and engineers across all European countries.

The plan addresses the need to find a common approach in recruiting, training and licensing of the respective personnel across FAB CE ANSPs. This would enable training costs to be shared and optimised while maintaining appropriate quality levels, and would support the free movement of personnel between different locations, in line with European legislation. Currently this is hindered by the fragmented nature of current licence requirements which

vary from one ANSP to another. The new document contributes to better understanding of requirements and processes and the steps needed to comply. Chairman of the Human Resources Sub-Committee Zoran Jakšić explains: "Each ANSP has different needs. We need to find a balance and come to a high level consensus on how to proceed. We are looking for synergies which then allow each country to adhere to this framework."

The Sub-Committee has already embarked on similar activity for the Common Competency Scheme for ATC controllers introduced by the Commission in 2015. The Project Support Office is undertaking a Gap Analysis for the implementation of the Common Competence Scheme (ATCO) analysis with proposed next steps to compare the requirements of the new EU 340/2015 legislation with existing procedures followed by FAB CE member states under the previous EU 805/2011 ruling.



The results will be discussed at a workshop in mid-May and a high level document drawn up outlining what needs to be done within what timeframe. “It is up to each country to comply, but this approach is much more efficient than individual states acting on their own.”

The new regulations apply to ANSPs and their training organisations, as well as to the competent authority (National Supervisory Authorities - NSAs) responsible for endorsing them. The competent authorities within a FAB can also be designated by agreement between the member states concerned. “The ANSPs and NSAs are quite busy just now, making sure they meet the new requirements,” adds Jakšić. “The new regulation, which includes so-called hard-law comprising 11 Articles + Annexes 1 – 4 plus Acceptable Means of Compliance (AMC) and Guidance Material (GM) and so-called soft-law, runs to more than 500 pages compared to about 20 pages in previous regulation.” The FAB CE action plan will help states achieve similar competency levels by early 2017.

The Competence Scheme introduces a number of changes, each of which require supporting documentation. For example, a controller’s

licence with Unit endorsement can remain valid for three years (against 12 months in the previous regulation) if supported by safety analysis that supports this practise and completion of endorsement course. ANSPs shall ensure that applications are submitted by the licence holder to the competent authority to exchange their licence in case their licence was delivered in a foreign country.

The scheme introduces a new license endorsement: the Synthetic Training Device Instructor (STDI) and Assessor. The STDI enables an instructor to continue providing simulator training even if medical certificate is not valid. In addition, new rules for language proficiency training and validation have added to documentation work.

By creating a high level document that sets out the action required at state level, FAB CE members can check their local compliance, and take appropriate action without having to engage in further analysis. The process is already underway for ATCO licensing arrangements, and will extend to include ATSEPs procedures once EU legislation is passed by Parliament in the coming weeks.

QUASAR – the initiative to harmonise ATSEP assessments

The core idea of the QUASAR-initiative is the harmonisation of the assessment material for Air Traffic Safety Electronic Professionals (ATSEPs) to comply with Eurocontrol Common Core Content Specification. QUestionnaire for ATSEP Standard Assessment Routines (QUASAR) aims to develop a common “Standard-Questionnaire” and “Terms-Of-Use” as standards for use in independent assessments.

This idea was unanimously accepted at FABCE ATSEP IT working group level and full collaboration between FAB CE members has been established. QUASAR subsequently

generated (based on several axes of different cooperation in the field of ATSEP training) a lot of interest from outside of FAB CE. So, in conjunction with the vision of the FAB CE partners to widen this to an inter-FAB activity at European level, the FABEC member states joined the initiative, followed by UK/NATS.

Today, 15 air navigation service providers are working together to develop ATSEP harmonisation and standardisation. It is planned to finish the QUASAR-Catalogue for ATSEP BASIC Training by the end of 2016, and to continue working on the parts for ATSEP QUALIFICATION Training from 2017 onwards.

