

TEN-T Policy Review



Expert Group 5: TEN-T financing

Input to support the discussion

June 15, 2010

1. Introduction

Substantial progress has been made within Air Transport Policy since 1996 when the TEN-T Guidelines were first developed. The TEN-T policy review should take in consideration the recently agreed legal framework for the sustainable development of air transport, in particular the Single European Sky (SES) legislation updated in 2009 and the European ATM Master Plan adopted by the Council of the European Union in March 2009.

The successful deployment of SESAR, the Single European Sky technical pillar and today one of the most ambitious research and development projects of the European Union, should be considered as the main priority of the future TEN-T programme in the field of air transport.

A number of financial challenges for the implementation of the future Air Traffic Management (ATM) system resulting from the SESAR programme are posed:

- SESAR is a network initiative that involves the participation of all ATM stakeholders (commercial airlines, general and business aviation, airports, air navigation service providers and the military) to be successful. Investments (expected to impact primarily the period 2013-2020), and the risks related to the deployment, are significant, with the coordination of all investments considered to be one of the largest risk of all. The private sector will find it difficult to bear this risk alone.
- For individual ATM stakeholders a positive network-wide business case for SESAR is an insufficient basis to making investment decisions. Despite the fact that regulation will be used to ensure the timely implementation of core SESAR technologies and the continued interoperability of the system; for the individual ATM operator, being an early investor in core SESAR technology carries risks as other users may delay deployment (last mover advantage).
- It is expected that with the introduction of a new charging regulation, the ATM ground infrastructure will no longer be self-financed based on user charges starting from 2012 (end of the traditional full-cost recovery system).
- Considering the above mentioned, in the absence of public funding to support the deployment of SESAR, there may be a significant risk that elements of ATM network infrastructure are either not delivered, delivered (too) late, delivered without full synchronization or at higher than necessary cost (due to lack of coordination).

For the SESAR development phase, community funding has played a pivotal role in raising 700 EUR Million in funds from private stakeholders (one third of the total SESAR R&D effort required, of which 350 EUR Million from the TEN-T budget). However, in order to monetize the existing TEN-T contribution to the SESAR Development Phase, a subsequent commitment and financing support to the Deployment Phase is also required. There could otherwise be a potential risk that SESAR implementation is derailed, leading to a write off of communities initial R&D contribution.

Major achievements have already been reached to-date with the establishment of clear project governance principles for the period up to 2016: the establishment of

the SESAR Joint Undertaking (a European Union Body) as a Public-Private Partnership (PPP) and single management entity for the Development Phase of SESAR.

2. Policy framework and importance of Air Traffic Management for the European Union

The network dimension of Air Traffic Management

The European Air Traffic Management (ATM) system is an invisible network physically linking all airports in the single European Market amongst themselves and connecting them with the rest of the world.

The system has already reached its capacity limits in a number of countries, creating missing links and bottlenecks for the transportation of goods and passengers. Where and when flights are allowed to operate, traffic congestions have typically been absorbed on the ground and in the air with flight time extensions, leading to unnecessary CO₂ emissions of 10% per flight.

The Single European Sky legislation and its technical dimension, SESAR, will introduce smart tools that will solve the issues that currently affect air transport as well as enabling ATM to cope with the economic growth of the Single European Market and increased demand for air transport.

ATM presents specific characteristics which allow for the ATM to be considered a “conceptual pillar” of the European “core network” :

- It is an objective-driven network presenting ambitious network -wide targets set by the Commission for the 2020 horizon:
 - Enable a 10% reduction in CO₂ per flight
 - Improve the safety performance by a factor of 10
 - Provide services to the airspace users at a unit-cost reduced by 50%
 - Enable a 3-fold increase in capacity which will also reduce delays, both on the ground and in the air.
- It addresses the network targets through a network -wide plan: the European ATM Master Plan approved by the Council of the EU and regularly updated, aiming to create a modern, high performing, interoperable, interconnected infrastructure network distributed both geographically and between the ground and air.
- It provides for a full consideration of Network performance issues . A series of non-financial instruments to improve the performance of the network are already in place and defined by SES regulation: the Performance Scheme and associated Performance Review Body, Network Management functions and the Interoperability regulation.
- It builds on a regional networking approach through regional implementation of Functional Airspace Blocks (FABs), organizational reform of ATM which will enable the restructuring of the European airspace as a function of air traffic flows, rather than according to national borders.

- Achieving the ambitious network-wide targets approved by the Council of the EU depends highly on integrating advanced avionics (aircraft equipment) into commercial, general aviation as well as military aircraft and installing them widely across the fleets, to take advantage of capabilities enabled by the future SESAR infrastructure on the ground.
- It integrates the activities of all stakeholders involved in air transport (airspace users – including the military and general/business aviation interests), Air Navigation Service Providers (ANSPs) and airport nodes which provide access to other transport modes.

Interoperability in Air Traffic Management is paramount

Differences between national technical specifications used for tenders had previously led to fragmentation of the market and distinct systems. As a result, industrial cooperation at European Union level had been very difficult. European industry was particularly affected, as considerable efforts had to be made to adapt products to national markets.

Then, Regulation (EC) n°552/2004, which forms part of SES legislation, defined common requirements to guarantee interoperability between the various air traffic management systems used. It established a harmonised system of certification for components and systems.

Interoperability between the various Air Traffic Management (ATM) systems is of paramount importance to ensure and maintain a high level of safety and to improve the efficiency and quality of the management of ever increasing air traffic.

SESAR Economic Value Add for the European Union

Without the implementation of SESAR, mobility, regional development and tourism within the Single European Market will be unduly constrained and with it the present benefits from air transport to the European society will diminish.

The sum of the aviation contributions to the European GDP is estimated to be over €400Bn per year (source EUROCONTROL, The Economic Catalytic Effects of Air Transport in Europe, 2005). The effects of aviation are brought through the provision of opportunities for business investment, as more flights encourage more businesses to locate or expand in a region, as well as through enhanced labour mobility, widening of markets, increased competition, more innovation, transfer of technology and increased productivity.

ATM modernisation is a worldwide issue. The USA, but also China, India, Japan and others have launched similar initiatives. This creates opportunities and risks for EU's industry and its labour market. The first companies to deliver products will set de facto worldwide standards.

The SESAR public-private partnership is a success and a source of job creation. Already today, some 1,500 highly skilled experts work on SESAR across Europe. This figure is expected to grow to 3,000 SESAR dedicated staff in its partners' organisations by 2011.

According to the impact assessment of the European Commission made before the establishment of the SESAR Joint Undertaking, SESAR is expected to create 200,000 jobs in Europe and contribute 50 billion € to EU GDP.

ATM in the current TEN-T Policy framework

ATM is included in the current TEN-T guidelines. As per the Green Paper, by and large TEN-T priority projects cover major rail, road and inland waterway axes that traverse several Member States. However, for the period 2007-2013, aviation's share of TEN-T funding has only accounted for approximately 5% of the total TEN-T budget.

It is worth noting that the contribution of TEN-T towards ATM is a negligible part of the total available funding; of such amount, the TEN-T contribution to the SESAR Joint Undertaking (EUR 350 Million) for the SESAR Development Phase represents the most significant part.

The characteristics of the ATM network mentioned in the current TEN-T guidelines only refer to the ground-based elements of ATM infrastructure. On the contrary, the European ATM network comprises both (civil and military) ground-based and airborne infrastructure (i.e. aircraft avionics - including General Aviation, Business Aviation and the military).

As a matter of fact, only a limited amount of TEN-T funding has been available for air transport: the 30 priority projects include only one completed aviation project (Milano Malpensa), 18 railway projects, 3 mixed rail-road projects and 2 inland waterway projects.

3. Recommendations for the expert group

The EU framework for financing infrastructure projects like SESAR should be enhanced along 2 dependent axes: increased alignment of community policies and enhanced TEN-T guidelines to ensure higher returns for the EU on awarded TEN-T grants.

Capture opportunities to increase support to TEN-T through a better alignment of EU funds

The EU should strive to capture synergies through a better alignment of the Cohesion and the European Regional Development Fund with TEN-T guidelines, where appropriate. Furthermore, a greater level of consistency with EU Research and Development budgets should also be sought, supporting the transition from R&D to deployment.

Ensure effective and transparent allocation of EU resources in support of TEN-T projects

- Cost/Benefit Assessment requirements have to be strengthened and made more transparent when planning the future network.
 - Assessment methodologies should be harmonized and auditable with a primary focus on assessing the "EU Economic Value Added".
 - Assessment horizons should be calculated over a timeframe of no more than 30 years to reduce uncertainty.
 - Projects that have a negative Business Case at network level should not be considered for TEN-T funding.
- Projects stimulating private companies' willingness to spend on infrastructure, and their satisfaction with the return on investment should be favored.

- Increase focus on PPP projects that can leverage EU money spent (e.g. leveraging grants from TEN-T budget but also “blending” with contributions from other EU budgets).
 - Support only mature projects that can present a sound planning and governance approach and can therefore ensure an effective use of resources.
 - Potentially develop partnership with project management entities on particular projects, to make individual TEN-T applications less time consuming.
- Partnership with the European Investment Bank (EIB) to be expanded, in view of implementing risk sharing mechanisms beyond Loan Guarantee Instruments for TEN-T projects (LGTT) and standard Senior loans for TENs projects
 - Expand Risk Capital Facility
 - Broaden loan and guarantee portfolio to all ATM stakeholders including commercial airlines
 - Align TEN-T policy with EIB transport lending policy on the financing of SESAR
- TEN-T guidelines to take specificities of Interoperability and traffic management system projects like SESAR into consideration .
 - Support to both Air (mobile) and Ground (fixed) core infrastructure components
 - Support rate to increase beyond 30%
- Explore synergies with new revenues generated from market based measures, including the emerging carbon market
 - Emission Trading Scheme (ETS)
 - Sustainable Development Mechanisms is particular such as Joint implementation (JI) mechanisms presently set forth in the Kyoto Protocol