European Performance Scheme

Global Challenges to Improve Air Navigation Performance

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Transport

The SES policy initiative

SES I approved in 2004

- Focus on capacity and safety
- Supervisory authorities, certification, Functional Airspace Blocks…

SES II approved in 2009

- Focus on performance and modernisation
- Binding performance targets, EASA extension, Network Manager

SES 2+ proposed 2013

- No change to SESI or SESII policy = refinement
- Pushing performance approach further

Implementation of Single European Sky

Performance

Performance scheme
Performance Review Body
Functional Airspace Blocks
Network Manager
National Supervisory Authorities

Safety

EASA: ATM
Competence
Crisis coordination cell

Technology

SESAR

ATM Master plan
SESAR Joint Undertaking
Common projects
Deployment governance
Implementation projects

External dimension

Human factor

Airports

Performance Scheme

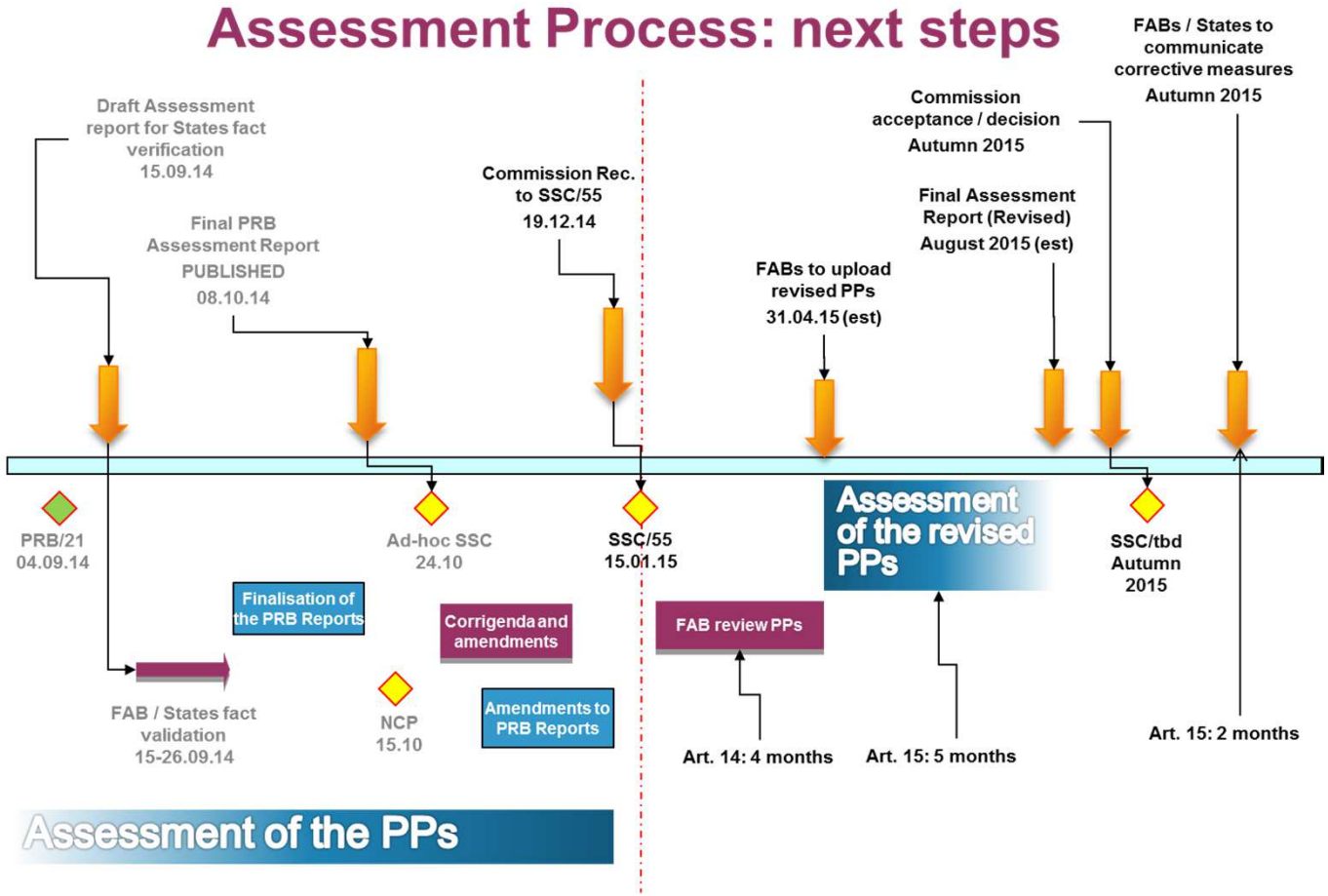
- Legal basis: Article 11 of Regulation (EC) 549/2004
- Implemented in 28 EU Member States plus Norway and Switzerland
- Fixed reference periods (RP1 2012-14, RP2 2015-19)
- Four key performance areas (safety, environment, capacity, cost-efficiency)
- Union-wide performance targets and binding national/FAB targets consistent with Union-wide targets
- Commission assessment, assisted by independent Performance Review Body (PRB)
- Ongoing monitoring and reporting of performance

Setting of performance targets

Commission adopts before the start of the reference period Union-wide performance targets	**N-1**
Member States draw up performance plans including binding national or FAB targets	**+ 6 months**
Commission assesses consistency of national/FAB targets with Union-wide performance targets	**+ 5 months**
If targets are inconsistent, Member States have to revise targets in light of Commission recommendation	**+ 4 months**
Commission assesses consistency of revised targets and may impose corrective measures	**+ 5 months**

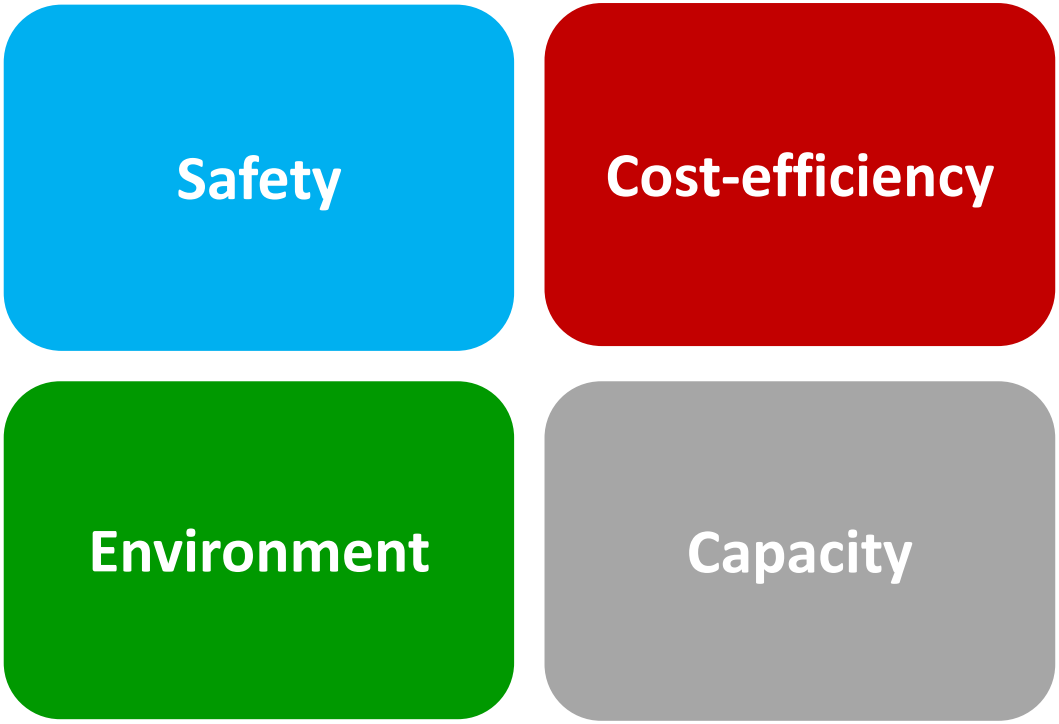
Retroactive application as of start of RP

Finalisation of RP2



European Commission

Four key performance areas



Setting of performance targets at different levels

- European Union-wide level
- Local level:
  - Level of Functional Airspace Blocks
  - Charging zone level
  - Airport level

Plus

System of Key Performance Indicators (Target setting)

and Performance Indicators (Monitoring)

Key performance area

Safety

Effectiveness of safety management

Level C/D in management objectives: safety policy and objectives, safety risk management, safety assurance, safety promotion, safety culture

Application of severity classification

Between 80% and 100% of annually reported separation minima infringements, runway incursions, ATM-specific occurrences

Key performance area

Cost-efficiency

Average Union-wide determined unit costs for *en route* services
Expressed in EUR2009 for each year of reference period

Assumptions

- ✓ Reference determined cost reduce on average by 2.1% per year
- ✓ Average annual growth of traffic (service units) 1.2% per year
- ✓ Reduction of determined unit costs by on average 3.3% per year

Key performance area

Environment

Horizontal en route flight efficiency of actual trajectory
At least 2.6% in 2019 (baseline 2012: 3.17%)

Horizontal en route flight efficiency of last filed flight plan trajectory
At least 4.1% in 2019 (baseline 2012: 5.15%)

Remarks

- Distance flown outside 40NM of airport
- For extra-EU flights only part inside EU airspace measured

Key performance area

Capacity

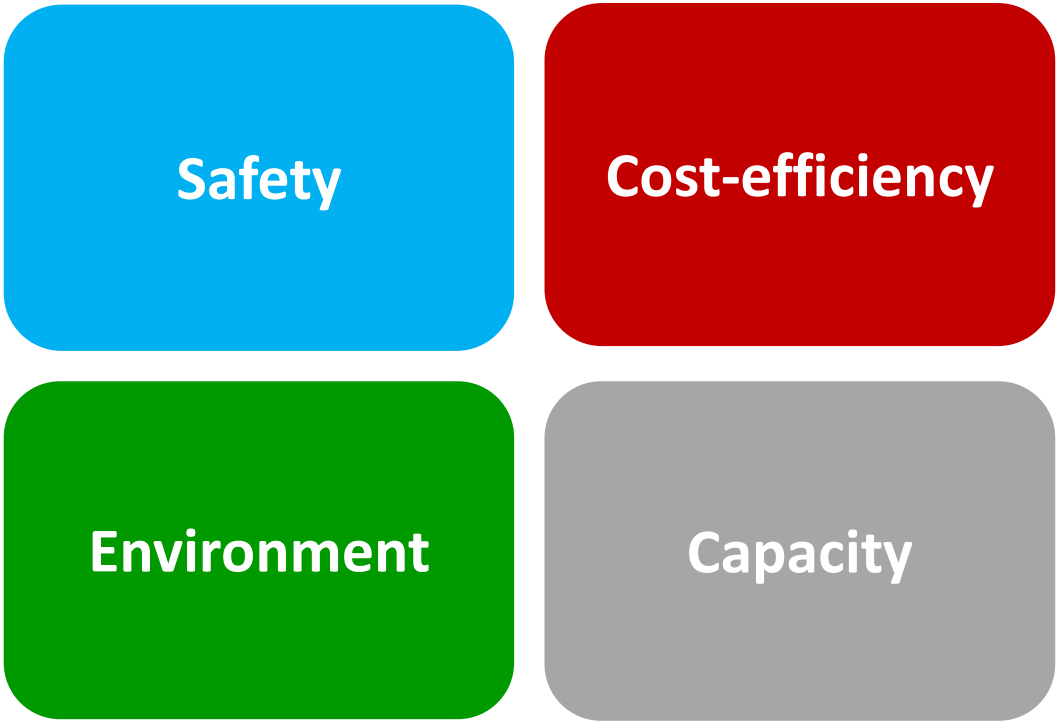
Average en route ATFM delay per flight

No more than 0.5 minutes delay per flight for each calendar year

Remarks

- Difference between estimated take-off time requested by aircraft operator in last submitted flight plan and calculated take off time allocated by central unit of ATFM
- All IFR flights within EU airspace and all delay causes, excluding exceptional events

Assessment of consistency / Performance monitoring



Key performance area

Safety

Effectiveness of safety management
Comparison of the level at local level with the Union-wide target

Application of severity classification
Comparison of results of application of severity classification at local level with Union-wide target

Application of automated safety data recording systems

Level of occurrence reporting

Reporting on level of 'just culture'

Number of SMI, RI, AI, ATM-occurrences

Key performance area

Cost-efficiency

Determined unit costs for *en route* services
Trend RP1
Trend RP1RP2
Level vs. average of comparator group

Determined unit costs for terminal services

Additional
- Cost of capital (level/composition asset base; return on equity)
- Inflation assumptions
- Traffic forecast assumptions
- Description/assumptions pension costs; loans financing provision of ANS
- …

Cost of Eurocontrol, with breakdown various service provision activities

Key performance area

Environment

Horizontal en route flight efficiency
Comparison with reference value from Network Manager
Historical data in previous years
Consistency with European Route Network Improvement Plan

Effectiveness of booking flexible use of airspace (FUA)

Rate of planning conditional routes (CDR)

Additional time in taxi-out

Additional time in terminal airspace (ASMA)

Effective use of conditional routes (CDR)

Key performance area

Capacity

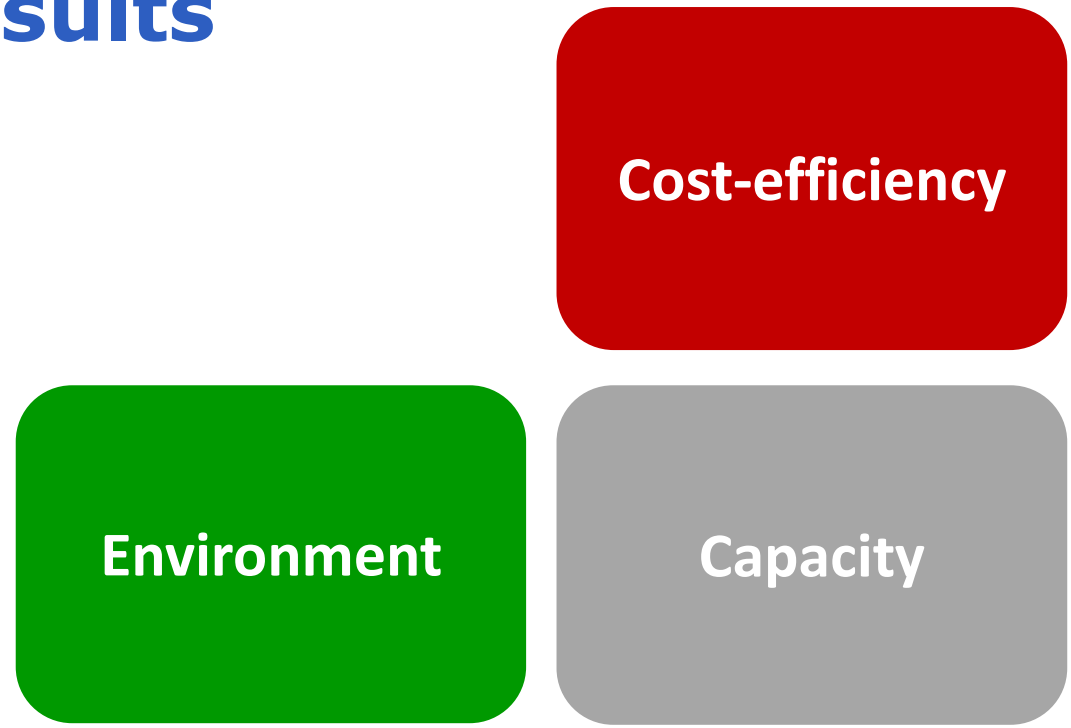
Average en route ATFM delay per flight
Comparison with reference value from Network Manager
Capacity plans by ANSPs as reflected in Network Operations Plan

Average arrival ATFM delay caused by landing restrictions (local target)

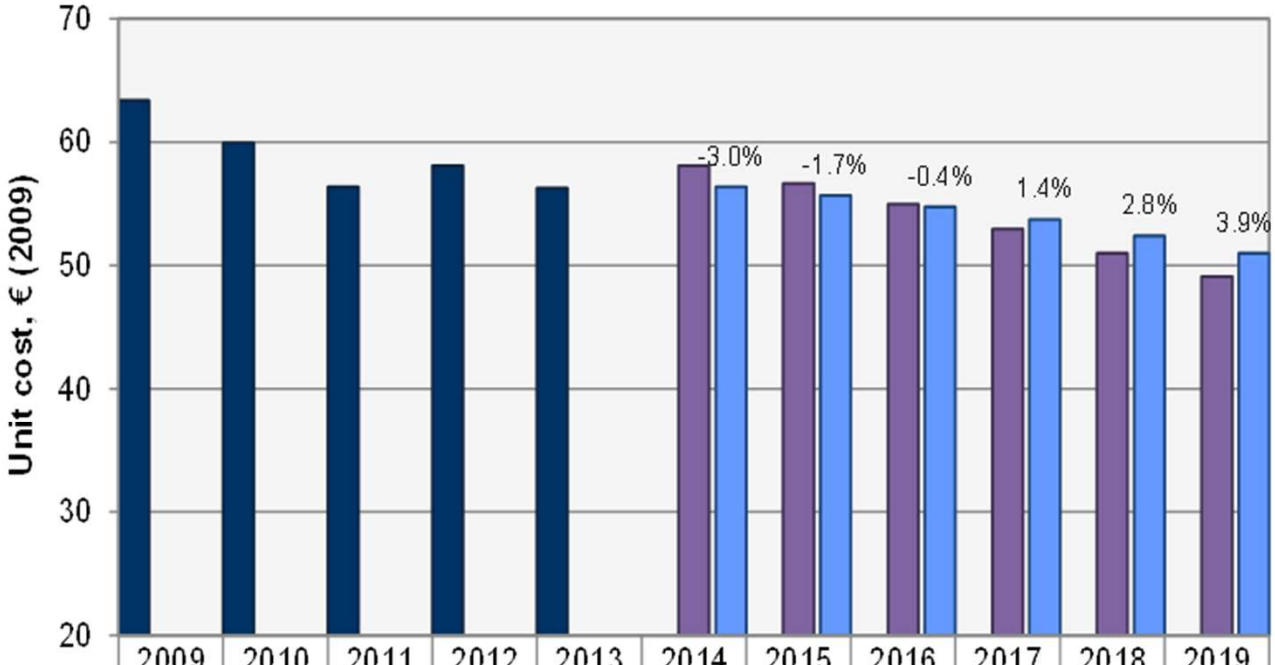
Adherence to ATFM slots

Average minutes of ATC pre-departure delay

Some selected monitoring results



Cost-efficiency – evolution of *en route* unit costs

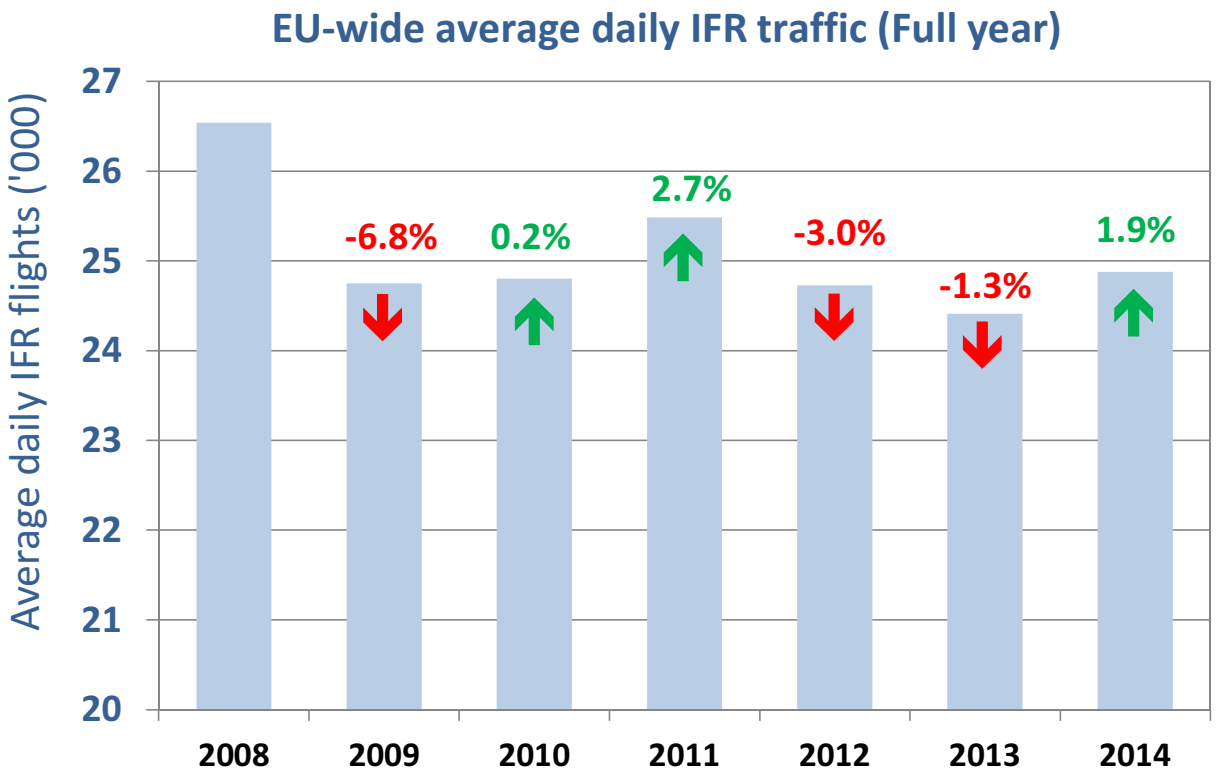


	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Actual	63.36	59.94	56.37	58.09	56.29						
RP2 cost-efficiency target						58.09	56.64	54.95	52.98	51.00	49.10
RP2 aggregated PPs						56.38	55.70	54.76	53.74	52.42	51.00

Cost-efficiency – *en route* unit costs and charges

	Det. unit costs 2015 in EUR2009	% vs. EU average	2015 unit rate in EUR
Germany	80.99	43%	90.15
Switzerland	72.00	27%	98.53
Italy	69.39	23%	78.80
Austria	65.12	15%	73.34
United Kingdom	63.61	12%	92.45
France	63.56	12%	70.00
Spain Cont.	63.46	12%	71.69
Belgium	63.17	12%	70.68
Luxembourg	63.17	12%	70.68
Slovenia	59.56	5%	68.36
Netherlands	58.98	4%	66.57
Spain Canarias	58.21	3%	58.36
EU average	**56.64**		
Denmark	56.12	-1%	63.29
Sweden	53.36	-6%	66.29
Finland	49.70	-12%	56.23
Slovak Republic	49.34	-13%	55.38
Croatia	47.42	-16%	46.05
Norway	45.76	-19%	52.19
Lithuania	42.10	-26%	46.84
Czech Republic	40.28	-29%	43.68
Hungary	34.32	-39%	35.79
Cyprus	33.46	-41%	36.91
Portugal	32.55	-43%	37.13
Greece	32.36	-43%	38.38
Romania	32.13	-43%	37.35
Poland	30.14	-47%	34.36
Bulgaria	29.49	-48%	30.88
Ireland	28.45	-50%	29.60
Malta	25.89	-54%	22.33
Latvia	25.79	-54%	27.58
Estonia	24.19	-57%	31.10

Achievements – performance monitoring (*traffic*)



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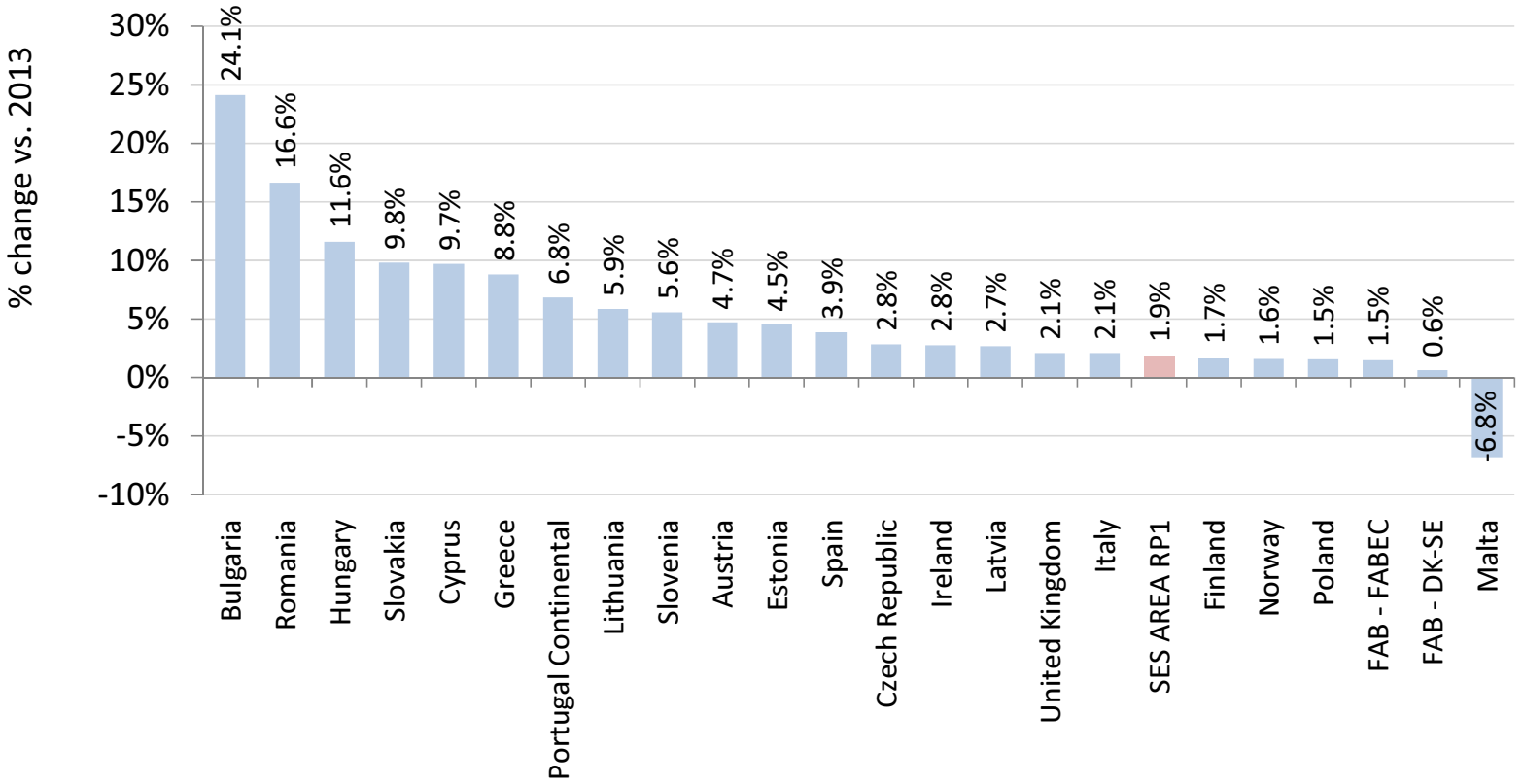
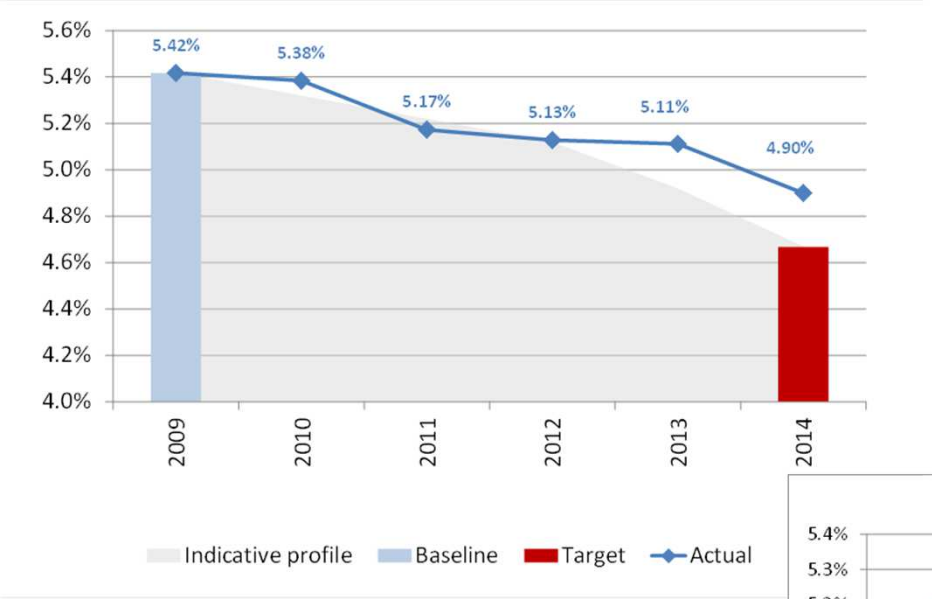
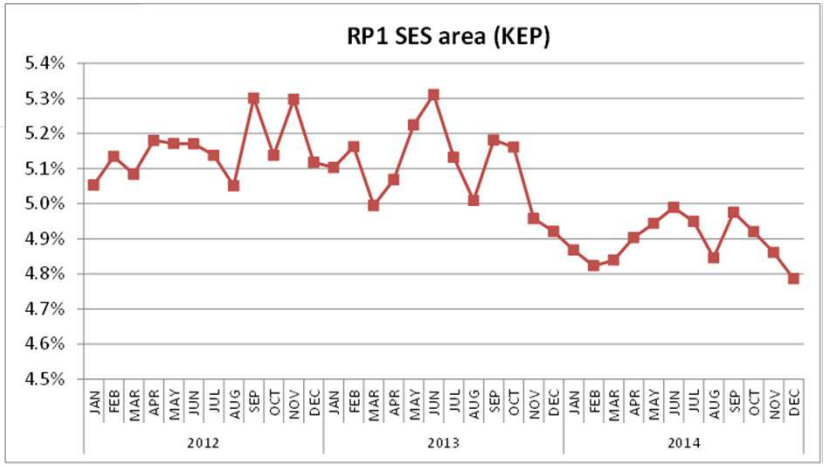


Achievements – performance results (environment)

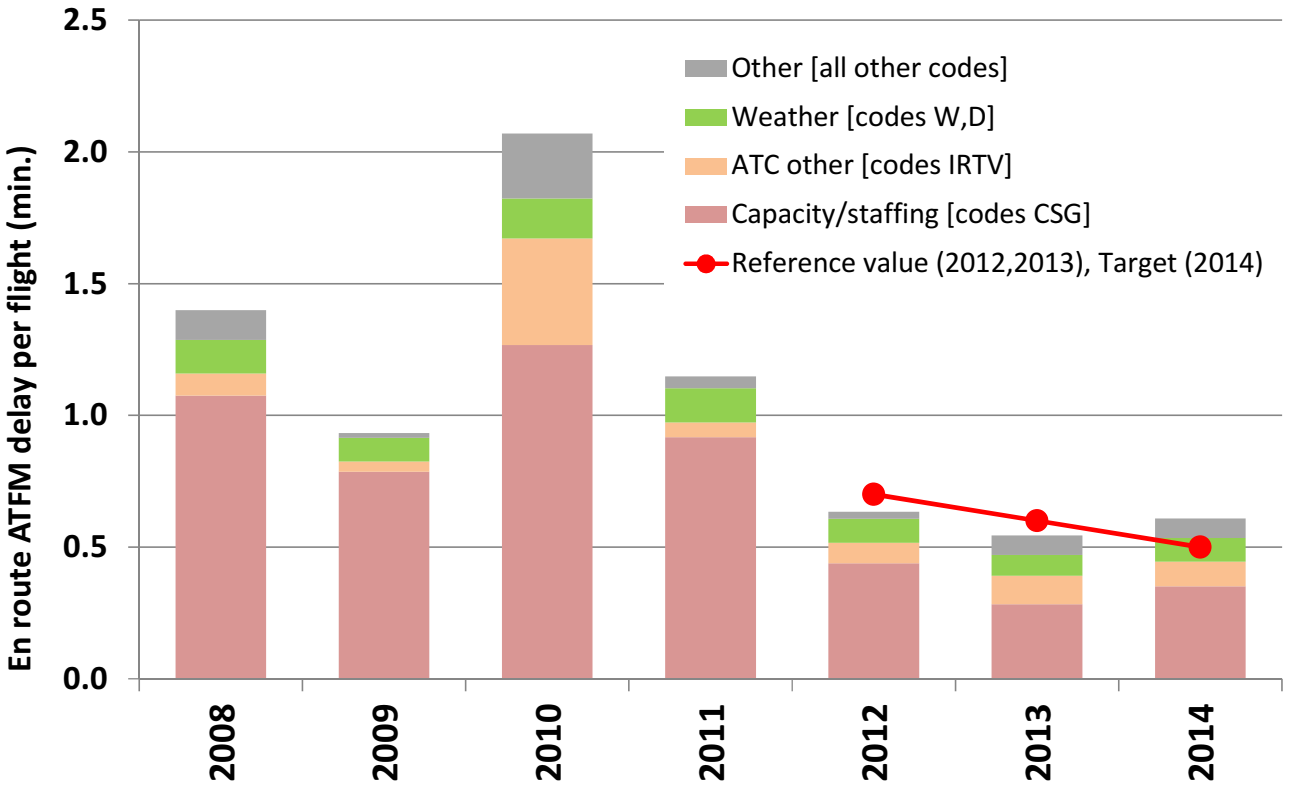


The Horizontal en-route flight efficiency [KEP] KPI shows notable improvement in 2014

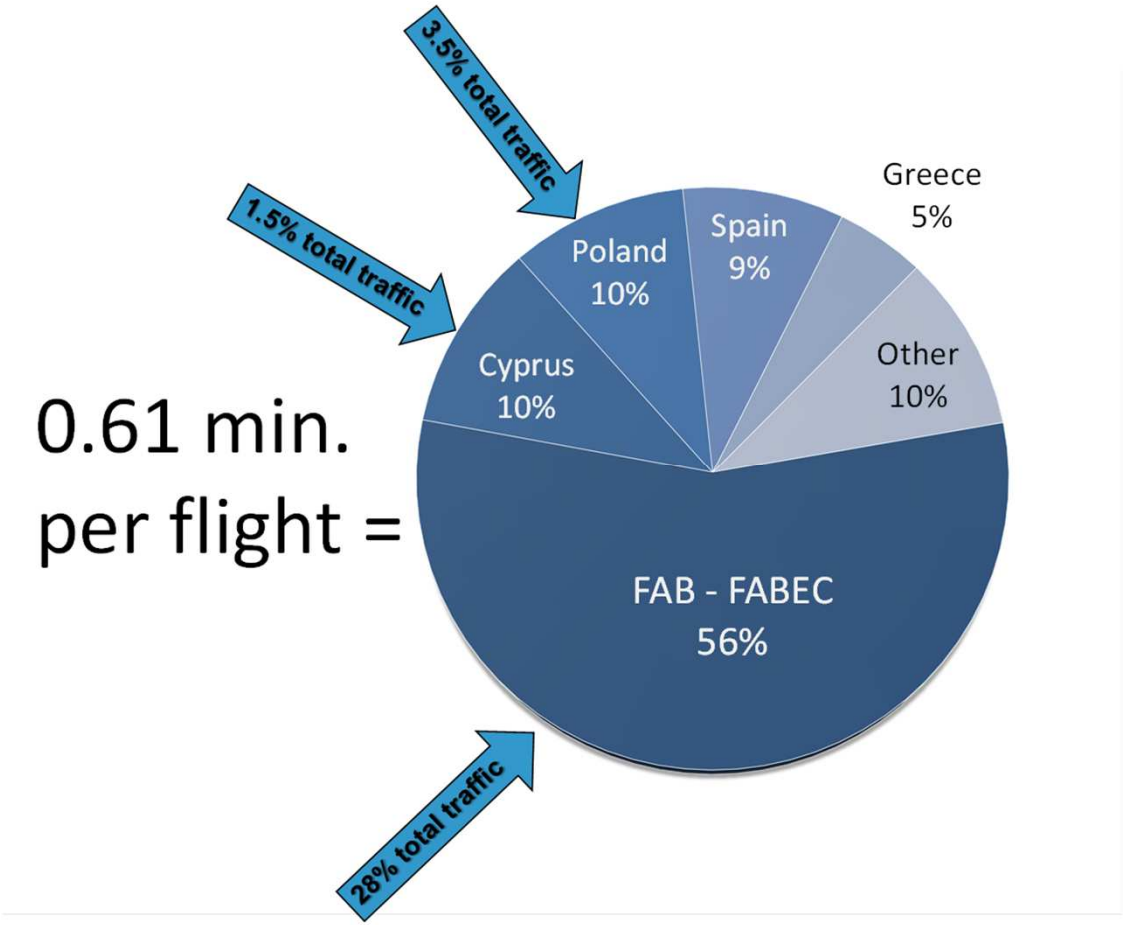
Detailed reasons for not meeting the target under analysis.



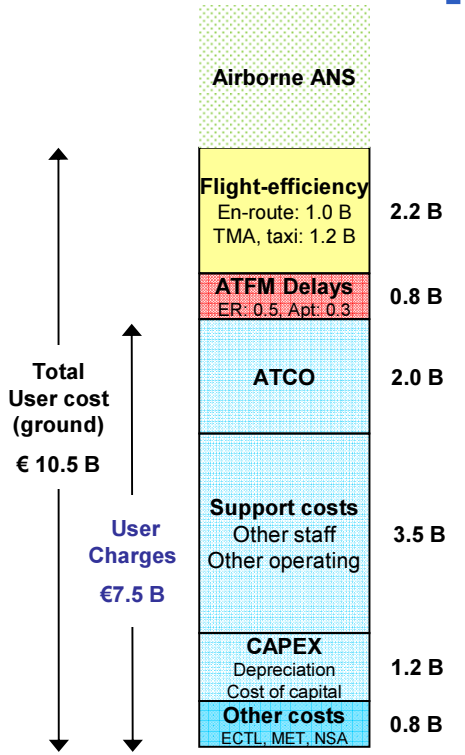
Achievements – performance results (capacity)



Achievements – performance results (capacity, Jan-Dec 2014)



Opportunities for further improvements



Estimated TEC 2012 (SES)

- Efficiency gains in individual ANSPs
- Airspace improvements (e.g. free routes)
- More flexible management of capacity to match demand
- New Technology (PCP, etc)
- Rationalisation of service provision and oversight
- **Significant further performance improvements achievable**

PRB

Next steps – Vision & Strategy for SES

PRB A STRATEGY TO BOOST PERFORMANCE

The European Commission has repeatedly stressed the need to speed up the reform of Europe's air traffic management system as envisioned by the Single European Sky (SES) initiative. At the heart of this process are the targets set in the four key performance areas: safety, cost-efficiency, capacity and environment. Achieving the targets will deliver better services at lower cost.

Under the SES Performance Scheme, member States and national air navigation services providers (ANSPs) have to adapt, including by increasing co-operation with neighbouring States and providers, to meet the targets. However, while progress has been made, so far delivery has fallen short of the overall level of ambition. Thus the PRB believes there is a need for a new strategy that will deliver better performance.[1]

Better performance of Europe's air traffic management is needed in order to:

- Provide airspace users, both passengers and cargo, with a world class performance in safety, and economic, operational and environmental efficiency.
- Support an efficient European aviation sector thereby underpinning European growth and competitiveness in a global market.
- Make the Air Traffic Management (ATM) industry an attractive workplace.
- Be coherent with existing long term objectives[2].
- Streamline the regulatory structures overseeing SES.

This strategy will be developed as a set of strategic steps.

Single European Sky initiatives

The Single European Sky (SES) is a flagship European initiative to reform the architecture of European air traffic control. Building on initiatives in the late 1990s, the Single Sky I (SES I) package was adopted in 2004, the Single Sky II Package (SES II) was adopted in 2009. A further revision, known as SESII+, is currently being considered by the European Parliament and Council of Ministers. The progress to date has put in place a toolkit of measures that allow for the implementation of a comprehensive delivery strategy.

Performance targets

The SES Performance Scheme provides for performance targets to be set for each Reference Period. The first Reference Period (RP1) was 2012 – 2014 and the second Reference Period (RP2) runs from 1 January 2015 to end December 2019. EU-level targets are set by the European Commission, in agreement with member States. States draw up local targets for their ANSPs, subject to approval by the European Commission. These local targets must contribute to and be consistent with the EU targets so that, taken together, they deliver the EU-level targets. Once the targets are set and agreed, the SES Performance Scheme provides for the monitoring of performance and for corrective actions to be taken where performance is failing to meet the targets.

STATE OF PLAY

Results and opportunities

1 The content of this document reflects extensive discussion in the Performance Review Body (PRB) and inputs from stakeholders, in particular the Industry Consultation Board (ICB).
2 Notably as set in the European Commission's Transport White Book and Flight-Path 2050.