

Performance Planning Operations: Environment

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Environment: Overview



EU-wide KPI	FABEC KPI/PI	To Be Developed
Average horizontal en-route flight efficiency (EC 691/2010)	KPI: % of route extension represented in distance flown compared to great circle distance	Effective use of civ/mil airspace structures (EC 691/2010)
	KPI: Approach procedures in place supporting CDO operations (ICAO Doc 9931)	KPI addressing the specific airport air navigation services (ANS)-related environment issues (EC 691/2010)
	PI: % of route extension of intra FABEC flights represented by last filed flight plan compared to great circle distance	Continuous Descend Approach (CDA) conformity

EU-wide level



For RP 1, the EU-wide environment target shall be set by using the **percentage of direct route extension represented in distance flown compared to great circle distance** :

- a) all commercial IFR flights within European airspace
- b) where a flight departs or arrives outside the European airspace only that part inside the European airspace is considered
- c) En-route is defined as the distance flown outside a circle of 40 NM around the airport
- d) circular flights and flights with a great circle distance shorter than 80 NM between terminal areas are excluded
- e) PRB uses the **last filed flight plan vs great circle distance!**
- f) No mandatory national/FAB environment KPI for RP1



EU-wide level



■ EU Target:

Improvement by 0.75 of a percentage point of the average horizontal en route flight efficiency indicator in 2014 as compared to the situation in 2009

■ FABEC objective:

- support of initiatives of the Network Management Function
- support by implementation of ARN V-7, free-route initiatives
- support the launch of FABEC airspace projects
- FABEC performance can be monitored at network level

Conclusion => no FABEC target



FABEC level KPI # 1

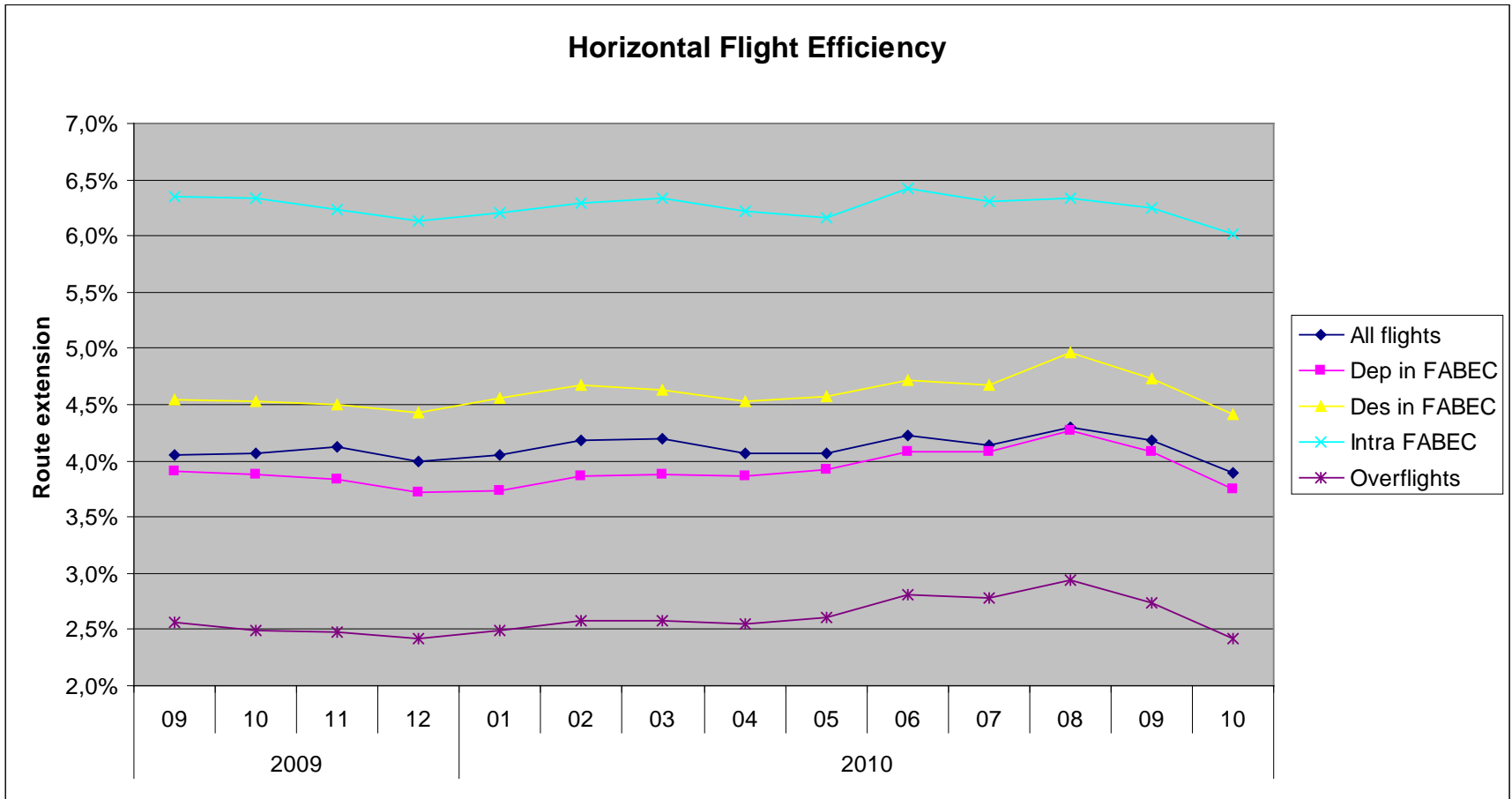


For RP 1, a FABEC target shall be set on the “Percentage of route extension represented in distance flown compared to the great circle distance”:

- a) based on difference between the length of the en route part of the actual trajectory and the great circle distance
- b) based on radar data
- c) actual tracks flown are considered
- d) tactical improvements included
- e) mitigates some insufficient flight planning
- f) indicator can not fully be managed by FABEC ANSP
- g) reflects the current FABEC operational performance
- h) better picture on environmental and operational benefits



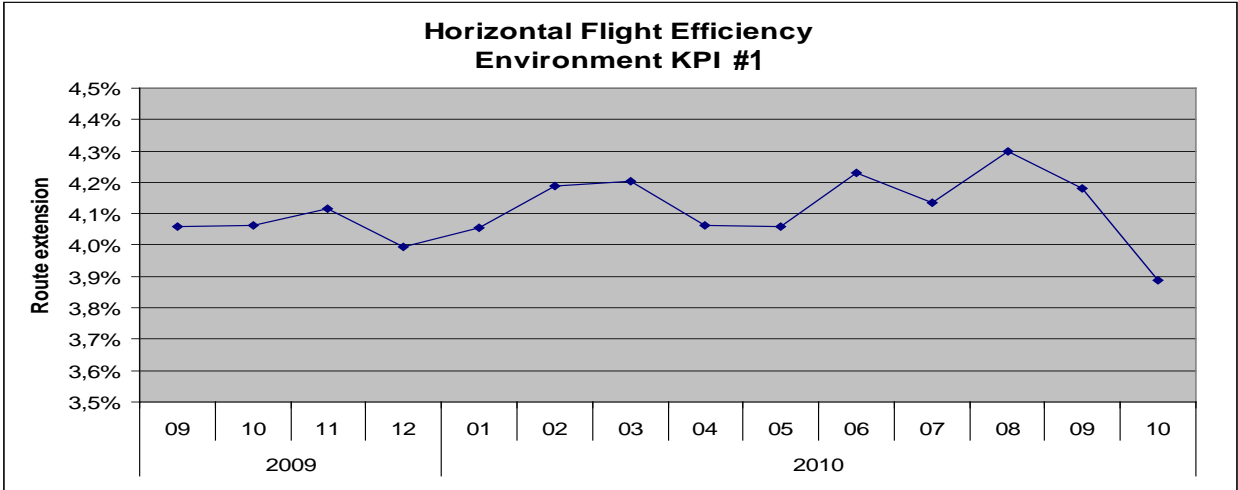
FABEC level



making the difference ...



FABEC level KPI # 1



	2009	2010	2011
% of direct route extension represented in distance flown	4,1%*	4,1%*	

* Historic data only from September 2009 till October 2010



FABEC level KPI # 1



FABEC Target:

Improvement by 5% of the average horizontal en route flight efficiency extension in 2014 as compared to the situation in 2011 measured in km



FABEC level / CDO KPA # 2



For RP 1, a FABEC target shall be set by using the **share of FABEC airports that offer approach procedures in place supporting Continuous Descent Operations (CDO) in accordance with ICAO Doc. 9931:**

- a) share of relevant FABEC airports that offer Continuous Descent Operations
- b) to support the reduction of aircraft noise, fuel burn and emissions
- c) priority requirement of SESAR Master plan
- d) airports in FABEC region with more than 50.000 commercial movements
- e) airports CDO/CDA implementation status with EUROCONTROL tool
- f) taking into account interdependencies with capacity and safety



3. Environment

3.3 FABEC level / CDO KPA # 2



FABEC airports > 50.000 STATFOR movements in 2010						
No	COUNTRY	ICAO code	IATA_CODE	NAME	Total Traffic	CDA_IMPL_STATUS_ID
1	BELGIUM	EBBR	BRU	BRUSSELS NATIONAL	218836	Trial
2	GERMANY	EDDB	SXF	BERLIN/SCHOENEFELD	72467	not planned yet
3	GERMANY	EDDF	FRA	FRANKFURT MAIN	464313	Established
4	GERMANY	EDDH	HAM	HAMBURG/FUHLSBUETTEL	148790	Committed (planned for 2011)
5	GERMANY	EDDK	CGN	KOELN-BONN	130997	Established
6	GERMANY	EDDL	DUS	DUESSELDORF	215069	not planned yet
7	GERMANY	EDDM	MUC	MUENCHEN	386911	Established
8	GERMANY	EDDN	NUE	NUERNBERG	60747	not planned yet
9	GERMANY	EDDP	LEJ	LEIPZIG/HALLE	61160	Established
10	GERMANY	EDDS	STR	STUTT GART	123300	not planned yet
11	GERMANY	EDDV	HAJ	HANNOVER LANGENHAGEN	67068	Established
12	NETHERLANDS	EHAM	AMS	AMSTERDAM/SCHIPHOL	396797	Established
13	LUXEMBOURG	ELLX	LUX	LUXEMBURG	53716	Committed
14	FRANCE	LFBD	BOD	BORDEAUX-MERIGNAC	53384	Committed
15	FRANCE	LFBO	TLS	TOULOUSE BLAGNAC	88238	Trial
16	FRANCE	LFLL	LYS	LYON SAINT EXUPERY	119672	Trial
17	FRANCE	LFML	MRS	MARSEILLE PROVENCE	103284	Established
18	FRANCE	LFMN	NCE	NICE COTE D'AZUR	129868	Committed
19	FRANCE	LFPG	CDG	PARIS CHARLES DE GAULLE	499866	Trial
20	FRANCE	LFPO	ORY	PARIS ORLY	219755	Established
21	FRANCE	LFSB	BSL	BALE-MULHOUSE	63706	Committed
22	SWITZERLAND	LSGG	GVA	GENEVE COINTRIN	164597	Established
23	SWITZERLAND	LSZH	ZRH	ZURICH	256811	Established

(minus "Paris/Le Bourget" (operational interdependencies with Orly and CDG); minus Berlin Tegel (airport is closed soon)

2011 April						
No CDO	Committed	Trial	Established	Total	CDO	Established Share %
4	5	4	10	23		43

making the difference ...



3. Environment

3.3 FABEC level / CDO KPA # 2



2011 April					
No CDO	Committed	Trial	Established	Total	CDO Established Share %
4	5	4	10	23	43

Target 2014		
Established	Total	Target Share %
21	23	90

FABEC Target:

90% e.i. 21 of the 23 relevant FABEC airports to offer approach procedures in place supporting Continuous Descent Operations (CDO) in accordance with ICAO Doc. 9931 at the end of 2014



Environment: FABEC level / intra FABEC flights



For RP 1, a FABEC indicator shall monitor the **percentage of route extension of intra FABEC flights (take-off and landing in FABEC AoR) represented by the last filed flight plan compared to great circle distance:**

- a) Intra-FABEC flights could be considered as a field for improvement
- b) currently relatively weak performance data requires attention
- c) Most 50 penalised city pairs already undergoing a optimisation process (e.g. Paris – Munich)



FABEC level / intra FABEC flights FABEC

Last Flight Plan trajectory inside FABEC

	Flights	Direct distance (km)	FPL distance (km)	Extra-distance per flight	Efficiency indicator
Overflight	1 465 584	1 051 423 305	1 083 753 234	22,06	3,1 %
Dep or Arr	3 886 752	1 819 788 658	1 909 590 982	23,10	4,9 %
Dep & Arr	1 622 703	610 170 133	654 440 801	27,28	7,3 %
TOTAL	6 975 039	3 481 382 096	3 647 785 017	23,86	4,78%

Historical data from September 2009 to December 2010



FABEC level / intra FABEC flights FABEC

FABEC monitors flight efficiency for intra FABEC flights as the current situation shows relatively weak performance figures. Airspace optimisation projects are ongoing and results should demonstrate improvements. Initiatives shall be developed in consistency with the overall network improvements.

Conclusion => Monitoring at FABEC level



Other performance indicators to be monitored or developed during RP1



EU level

- The effective use of the civil/military airspace structures monitored by the Commission in RP 1.
- Development of a KPI addressing the specific airport air navigation services (ANS)-related environment issues.

FABEC level

- Continuous Descend Approach (CDA) conformity as a share of arrivals using CDA procedures. Feasibility will be investigated further.



Environment: Incentives



- ⇒ no financial incentives for RP1
- ⇒ Finance and Performance Committee entitled to trigger the ANSPs process to identify, as appropriate, corrective actions up to specific ANSPs and/or at FABEC level.
- ⇒ Monitoring process as prescribed in the capacity presentation by Mr. Mantoux



- END -

