

# FABEC

## En Route Capacity Incentive Scheme for RP2



# Basic Principles of the Scheme (1/3)



- The Scheme applies to **Belgocontrol, DFS, DSNA, LVNL, MUAC and Skyguide**
- Limited target with **codes CRSTMP** of the ATFCM user manual  
Reasoning: accountability of ANSP is relevant
- Level of incentive shall be **commensurate** with targets. The scheme should be **symmetric** meaning bonuses or penalties shall be **equal**  
Reasoning: chances and risks shall be equal, target is set as an optimum to be achieved
- Amount of total incentive is calculated on **FABEC level**,  
Reasoning: Performance of FABEC is crucial, target is set on FAB level
- On FABEC level, the maximum yearly amount of incentive is **capped at 0,5%** of the total revenues of all ANSPs  
On ANSP level, the maximum yearly amount of incentive is **capped at 0.5%** of the ANSP revenue  
Reasoning: limitation of the scheme due to lack of experience and learning phase for impact of scheme



## Basic Principles of the Scheme (2/3)



- The maximum level of incentive is achieved by at least **50% deviation** from the FABEC **CRSTMP target**  
Reasoning: starting from ambitious but achievable targets a 50% deviation is reasonable to “touch or pay” the maximum amount of incentive
- The amount of incentive is determined by a **degressive/progressive falling function** between the maximum bonus and the maximum penalty determined by + 50% (resp. - 50%) deviations  
Reasoning: the slope function has a flat start and a steeper in-/decrease the further the performance is away from the target
- FABEC amount of incentive is shared only between those **ANSPs participating** to the achievement of the FABEC performance:  
    positively in case of over-performance (bonus) or  
    negatively in case of under-performance (malus).  
Other ANSPs not participating to this achievement are not involved by bonus or penalty.  
Reasoning: the collectively achieved FABEC target is emphasized



# Basic Principles of the Scheme (3/3)



- The amount of incentive determined on FABEC level is **shared between** to the participating ANSPs on two performance keys equal weighted
  - => FABEC States still have to decide the respective weights (50% - 50% or 25% - 75%) of the sharing key :
    - “**collective** performance” based on ratio of each ANSP revenue compared to FABEC revenue
    - “**individual** performance” based on delta (% deviation) between actual ANSP performance and ANSP reference value (in minutes per flight)
- Limitation of the amount related to “collective performance” being determined for ANSPs only to those participating in the achievement of the FABEC target (amount being reduced in ratio to participating ANSPs)  
Reasoning: Participating ANSPs should not receive/give away more incentive then in ratio to their individual revenues.
- For MUAC the capping and distribution on revenues is calculated on the actual cost base of MUAC of the relevant year  
Reasoning: in the strict sense MUAC does not have revenues, as the costs of MUAC are covered by the Four States
- Amount of incentive calculated Year N for each ANSP participating is integrated in its own table of costs Year N+2



# Example for the Calculation of Incentives



Four steps to identify the amounts of incentives:

1. Target achieved on FABEC level
2. FABEC amount incentive calculation
3. ANSPs participating on FABEC performance
4. Incentive distribution to ANSPs involved



# Step 1: Target achieved on FABEC level



- FABEC CRSTMP target as financial incentive target:

Year	2015	2016	2017	2018	2019
CRSTMP target (mn/flight)	<b>0,37</b>	<b>0,38</b>	<b>0,37</b>	<b>0,37</b>	<b>0,34</b>

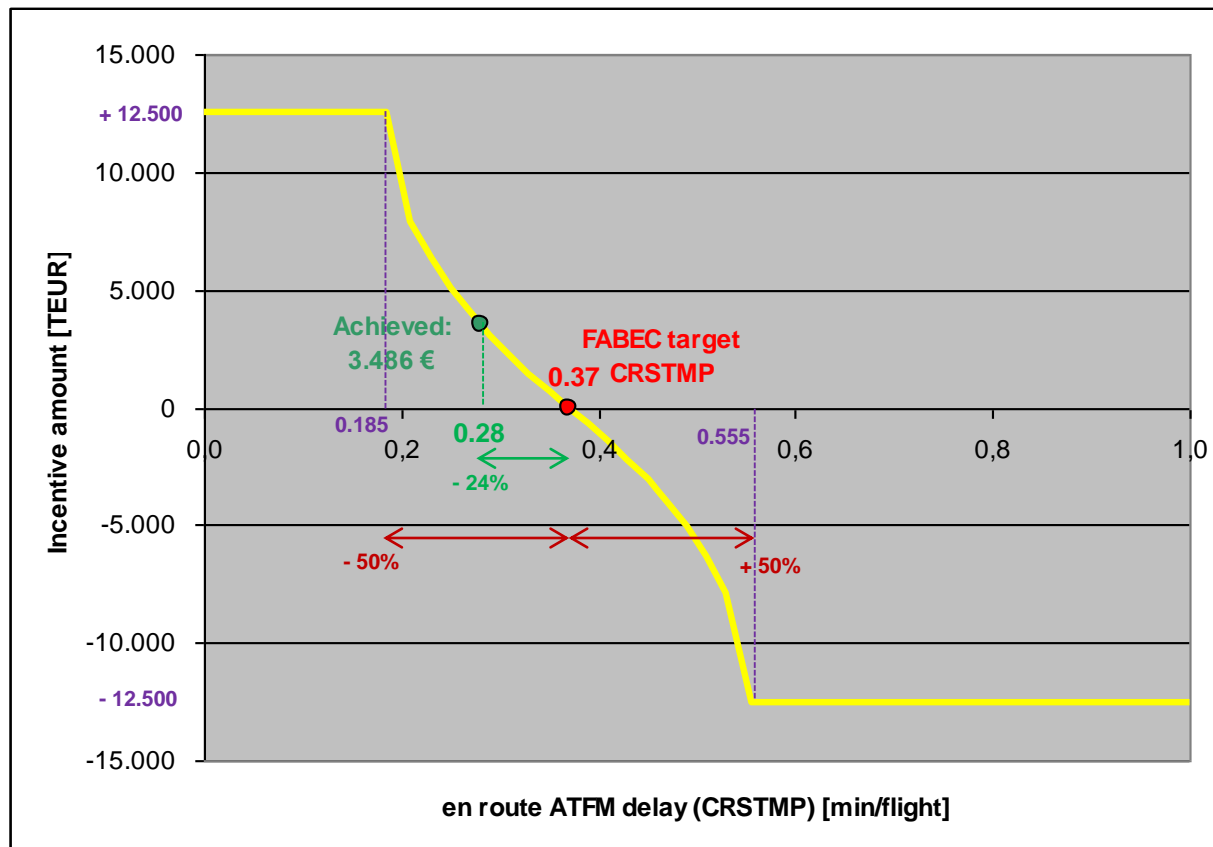
- Actual FAB performance < CRSTMP target,  
=> FAB over performance => FAB bonus
- Actual FAB performance > CRSTMP target,  
=> FAB under performance => FAB penalty
- Actual FAB performance = CRSTMP target,  
=> FAB performance achieved => neither FAB bonus nor FAB penalty
- Example of FABEC over performance in 2015:  
24% deviation corresponding to performance 0.28 mn/flight.



## Step 2: FABEC amount incentive calculation



- Max. amount of incentive is capped at 0.5 % FABEC revenue (~ € 2.5 billion),  
=> € 12.5 million
- FABEC amount incentive calculation with over performance of 24% deviation  
=> € 3,486 million



# Step 3: ANSPs participating on FABEC performance



- Which ANSP(s) contributed to FABEC over performance?
- Calculation based on fictitious 2015 values as follows:

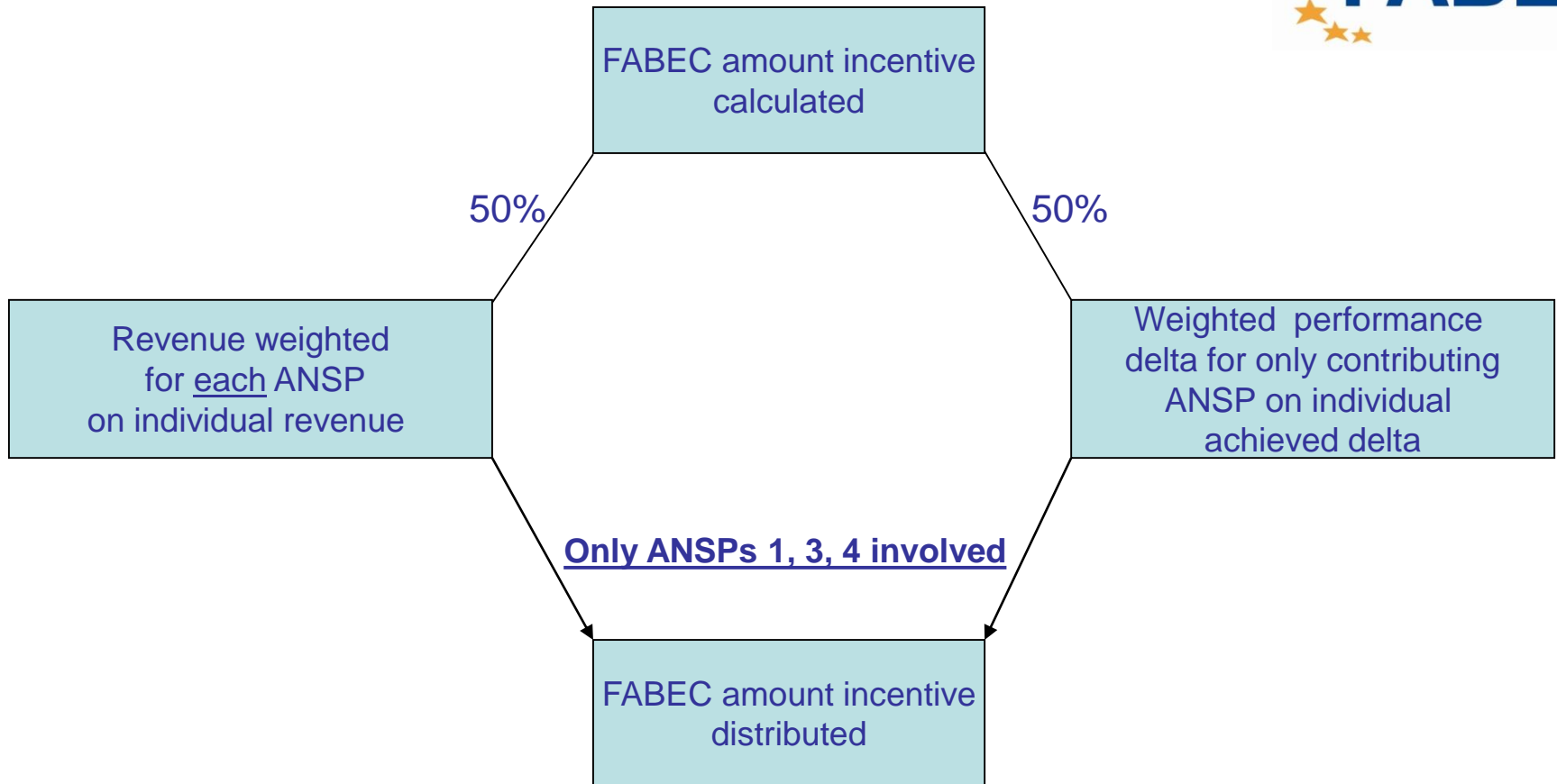
	Result per ANSP ANSP reference value vs. achievement	Performance
ANSP1	-10%	over
ANSP2	40%	under
ANSP3	-20%	over
ANSP4	-100%	over
ANSP5	20%	under
ANSP6	30%	under.

- ANSPs 1, 3 and 4 participated to FABEC over performance  
Only those three ANSPs will share amount of FABEC bonus
- ANSPs 2, 5 and 6 are not involved





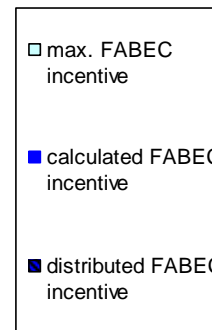
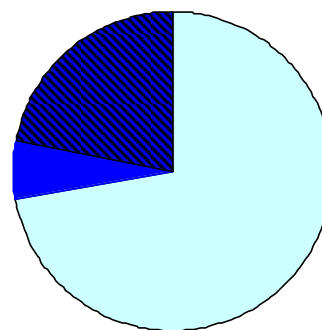
# Step 4: Incentive distribution to ANSPs involved 1/2



# Step 4: Incentive distribution to ANSPs involved 2/2



Example for weight 50% - 50%	Collective performance (1743,06 TEUR)		Individual performance (1743,06 TEUR)		FABEC incentive amount distributed	
	ANSP	Revenue (in TEUR)	Revenue contribution to incentive (in TEUR)	Delta (% deviation) reference value vs. actual performance	Performance contribution to incentive (in TEUR)	Incentive (in TEUR)
ANSP1	833,333	581.02	-10%	134.08	715.10	4,166
ANSP2	833,333	581.02	40%	under	No payout	4,166
ANSP3	250,000	174.31	-20%	268.16	442.47	1,250
ANSP4	333,333	232.41	-100%	1,340.82	1,573.22	1,666
ANSP5	166,667	116.20	20%	under	No payout	833
ANSP6	83,333	58.10	30%	under	No payout	416
<b>Total</b>	<b>2,500,000</b>	<b>1743.06</b>	<b>-130%</b>	<b>1743.06</b>	<b>2,730.80</b>	





# Q & A

making the difference ...



# Annex

degressive/progressive falling function

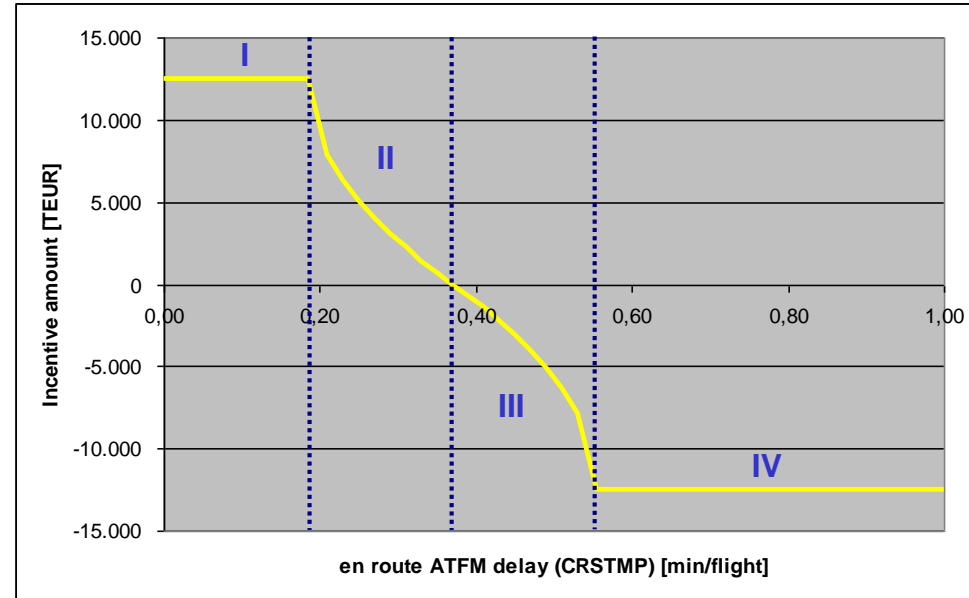


# FABEC amount incentive calculation



• Piecewise-defined:

- bonus**
- I. From  $x=0$  to  $x=0.185$  (50% of 2015 target):  
**constant function** (zero slope) at  $y=12,500$  (max. incentive amount)
  - II. From  $x=0.185$  to  $x=0.37$  (2015 target):  
**degressive falling function**  
(graph defined as shown on the right)
- malus**
- III. From  $x=0.37$  to  $x=0.555$  (2015 target + 50%):  
**progressive falling function**  
(symmetric to the function under II)
  - IV. From  $x=0.555$  to  $x \rightarrow \infty$ :  
**constant function** (zero slope) at  $y=-12,500$  (max. incentive amount)



Graph:  $y = -29,062 * (x-0.185)^{(1/2)} + 12,500$

Gradient (falling):  
max. incentive amount

$$G = \frac{-12,500}{0.185^{1/2}}$$

$$= -12,500 / (\sqrt{0.185})$$

$$= -29,062$$

Exponent =  $\frac{1}{2}$   
(square root function; ex ante determined)

Max. incentive amount = 0.5% of FABEC revenue





Back up

making the difference ...



# Incentive distribution



ANSP	Revenue (in TEUR)	Revenue weighted	Revenue contribution to incentive (in TEUR)	Delta ref. value vs. actual perf.	Delta weighted	Performance contribution to incentive (in TEUR)	Incentive (in TEUR)
ANSP1	833,333	17%	581.02	-10%	4%	134.08	715.10
ANSP2	833,333	17%	581.02	40%	-	0.00	581.02 No payout
ANSP3	250,000	5%	174.31	-20%	8%	268.16	442.47
ANSP4	333,333	7%	232.41	-100%	39%	1,340.82	1,573.22
ANSP5	166,667	3%	116.20	20%	-	0.00	116.20 No payout
ANSP6	83,333	2%	58.10	30%	-	0.00	58.10 No payout
<b>Total (in €)</b>	<b>2,500,000</b>		<b>1743.06</b>	<b>-130%</b>		<b>1743.06</b>	<b>3,486.12</b> <b>Distributed</b> <b>2,730.80</b>
<b>weight</b>		50%	50%		50%	50%	

- **Revenue weighted:** revenue/ total revenue \*1/2  
ANSP1:  $833,333 / 2,500,000 * 0,5 = 17\%$
- **Revenue contribution to incentive [in TEUR]:** revenue weighted \* calculated incentive amount  
ANSP1:  $17\% * 3,486.12 = 581.02$
- **Delta ref. value vs. Actual perf. weighted:** delta ref. value vs. actual perf./ total delta \*1/2  
ANSP1:  $-10\% / -130\% * 0,5 = 4\%$
- **Performance contribution to incentive [in TEUR]:** delta weighted \* calculated incentive amount  
ANSP1:  $4\% * 3,486.12 = 134.08$
- **Incentive [in TEUR]:** Revenue contribution to incentive + Performance contribution to incentive  
ANSP1:  $581.02 + 134.08 = 715.10$

→ slightly different values to excel-calculation sheet due to rounding in this presentation

