



RP3 Impact Assessment

Stakeholders Workshop
14/11/2017

Key Objectives for RP3

01

Simplify operation of the Schemes
& improve its efficiency

02

Ensure link between Perf. Scheme
& Network Management

03

Strengthen role of the NSAs & reduce
duplication of regulatory monitoring

04

Ensure G2G approach embedded
in management of performance

05

Ensure key interdependencies
captured in target setting process

06

Ensure efficient allocation of risk
between stakeholders



Agenda



Agenda



Overview and Expectations

01

Measures

To present & get your feedback on current set of proposed measures



02

Options

To inform the packaging of measures into coherent options



03

Analytical framework

To get your feedback on the construction of the analytical framework

04

Legal text

To set out directions for the elaboration of the legal acts



05

Next steps

To inform on next steps in view of SSC#67 & #68





01

- ex-post evaluation of the schemes in RP1
- PRB White Paper
- RP3 Hearing

02

- WP4, 5 & 6 to the ad-hoc SSC on RP3

Measures subject to the consolidation process

- 1 Sifting
- 2 Similar scope
- 3 Packaging
- 4 Options

04

- Ongoing Consultation
- Evolution of NF IR

03

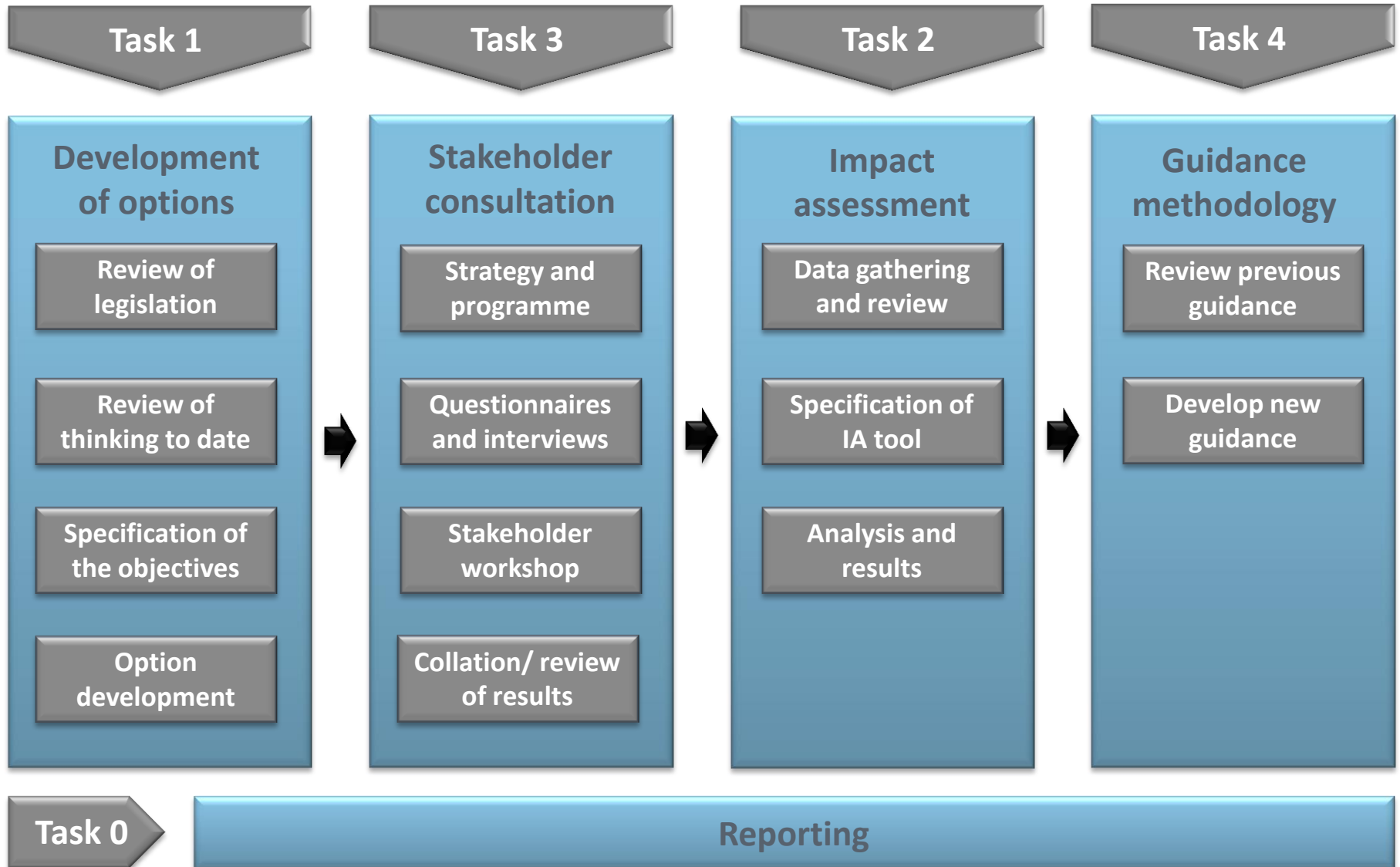
- Feedback from MSs
- Inputs from NSP
- Position papers from Stakeholders Groups
- Work by ECTL
- Incentive Study
- Inputs from the recently established PRB

Agenda

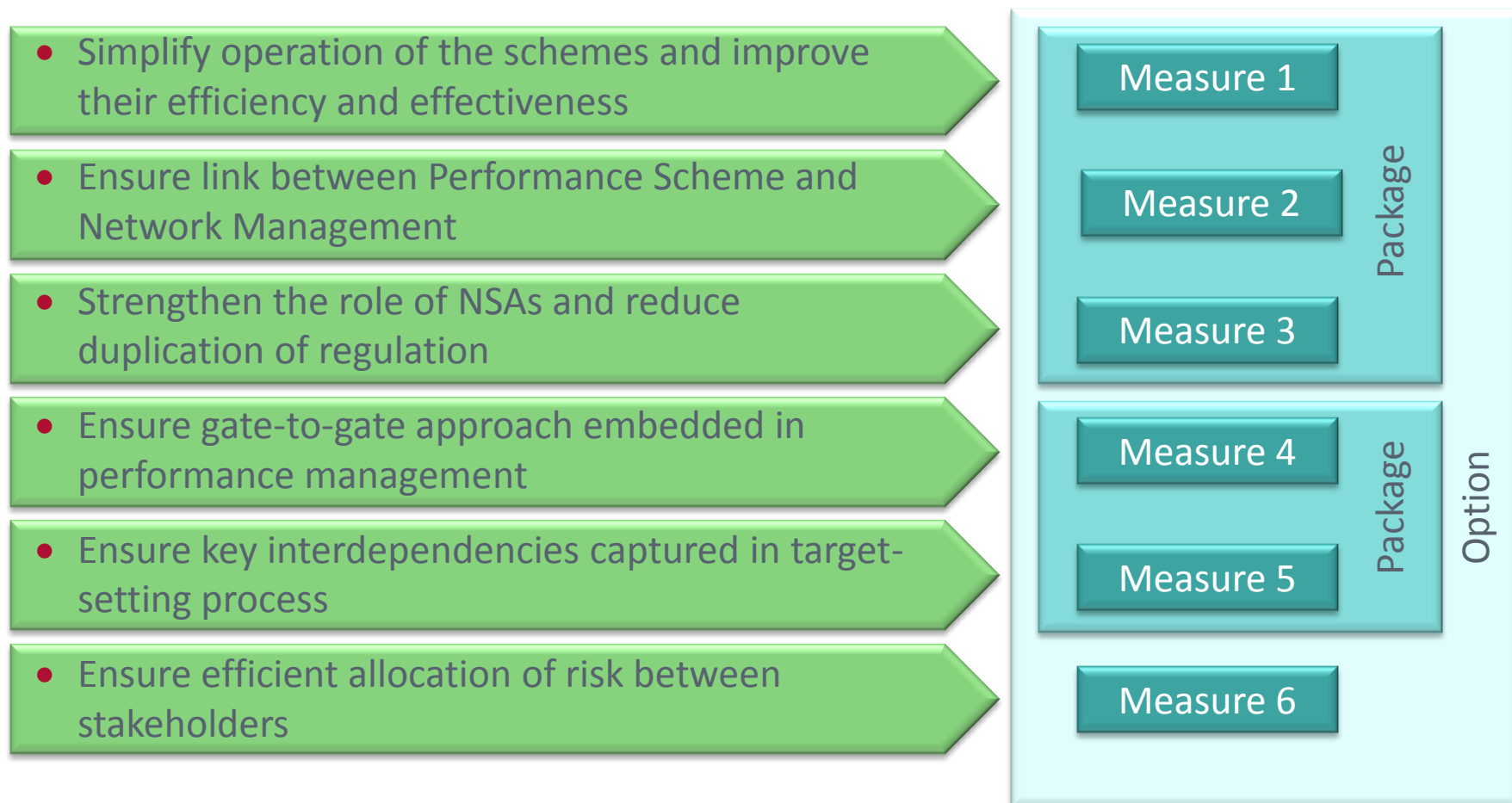


Overview of impact assessment framework

Scope of study



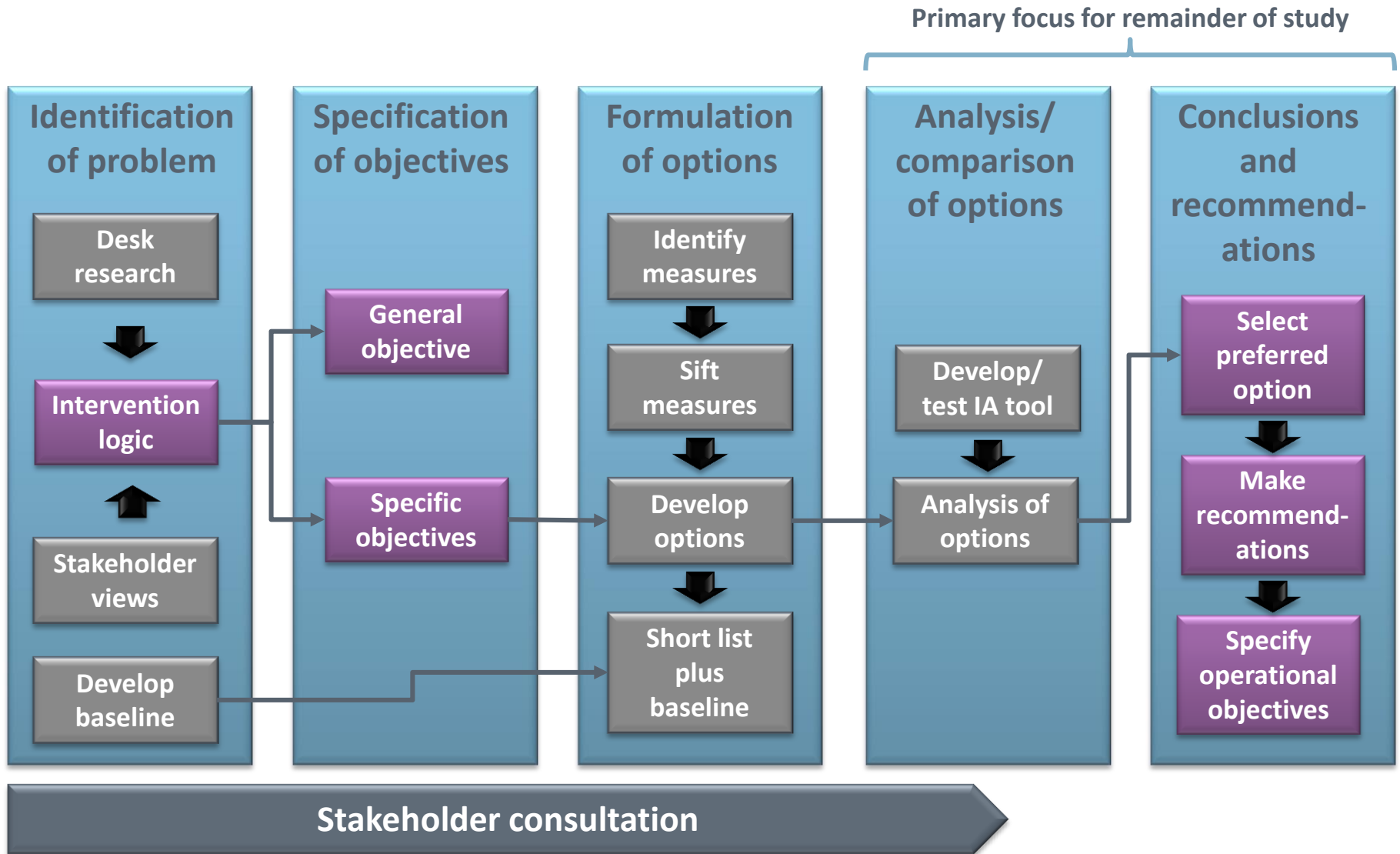
Methodology – objectives for the formulation of options



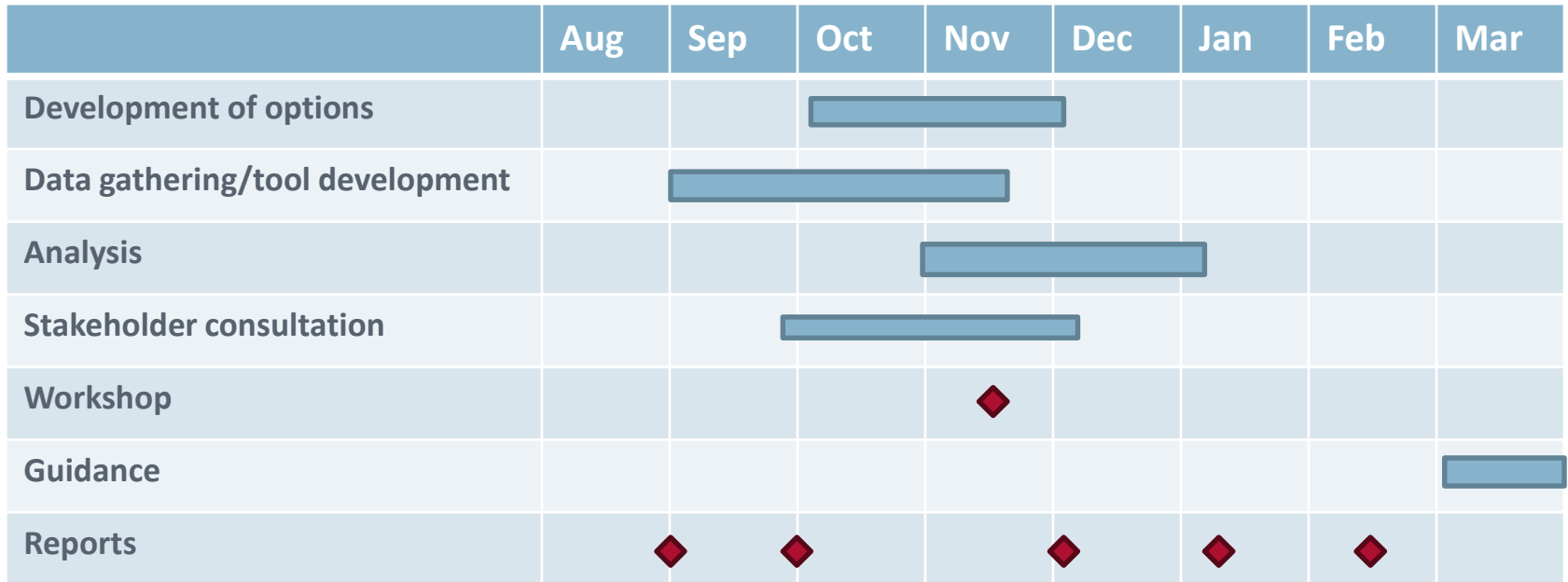
Methodology - stakeholder consultation

- Questionnaire received:
 - From 12 NSAs;
 - From 14 ANSPs;
 - From 2 users representatives;
 - Others: from 5 stakeholders, including staff representatives and NM;
- Large majority of stakeholders unable to provide quantitative information for assessment of impacts, and focussing instead on qualitative information, mainly on the choice of measures.
- Key themes emerging:
 - Mostly in support of the objectives for RP3;
 - Common desire for simplification and better performance planning;
 - Significant diverging views on the mechanism for cost-efficiency performance;
 - Not many examples of a common view on a way forward for RP3, but there are some proposals with support from a range of stakeholders;

Outcomes



Study timescales



Agenda





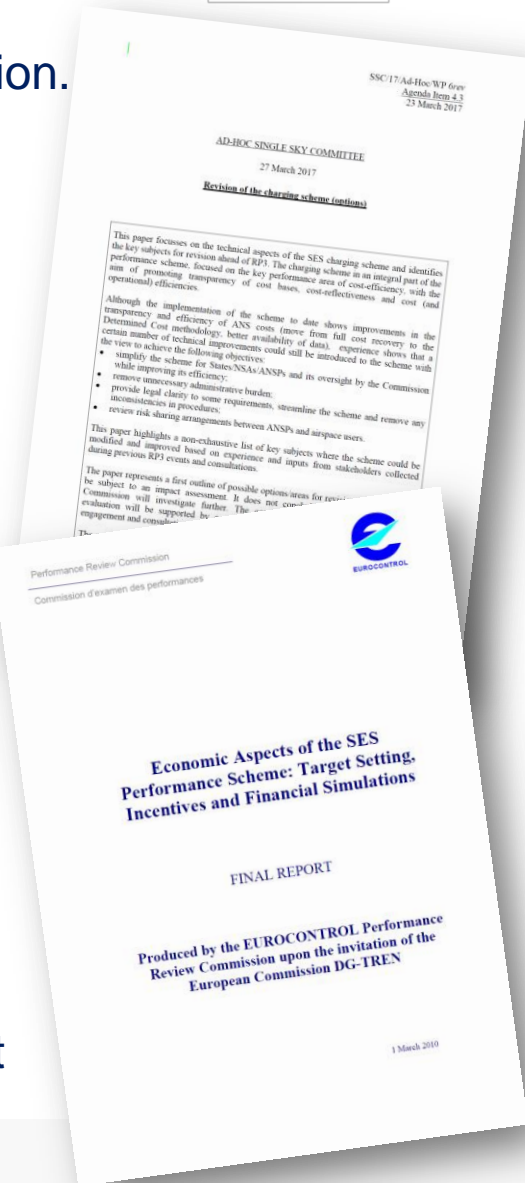
RP3 Impact Assessment – Stakeholder Workshop

Supporting studies – Simulation of risk sharing models

Denis HUET
Head PRU/ECO
14 November 2017

Introduction

- Provide technical support to discussions on RP3 preparation.
- Follow-up to WP6rev of ad-Hoc SSC of 27 March 2017 on the revision of the charging Regulation.
- Provide quantitative economic/financial impact of different possible **risk-sharing models** on the basis of a number **scenarios**.
- A similar support was provided to the EC in March 2010 to set up the parameters of the new performance scheme for RP1.
- Developed in constant interaction with EC.
- Must be seen as a living support to support discussions at SSC level. Capability in place.



Scope & Methodology (1/2)

- Focus on ANSPs costs (i.e. those subject to traffic and cost sharing).
- Covers all en-route charging zones (i.e. 30).
- Covers a 5-year period (i.e. 2012 – 2016) over RP1 and RP2.
- Based on determined and actual figures from June 2017 Reporting Tables
- Compute yearly gains/losses of selected risk sharing models and scenarios for each ANSP:
 - ✓ **Cost sharing:** Difference between determined and actual ANSP costs.
 - ✓ **Traffic risk sharing:** Difference between determined and actual SUs (actual revenues vs. determined cost).
 - ✓ **Inflation adjustment:** Difference between determined and actual inflation index.

Scope & Methodology (2/2)

- Allocate total gains/losses to ANSPs and Airspace Users based on the parameters of selected risk sharing models.

- Model the behaviour of ANSPs through different scenarios.

- Present gains/losses results in several different ways:
 - ✓ In absolute terms or as difference with the current model.
 - ✓ For each ANSP and for Airspace Users.
 - ✓ Aggregated over the whole period or broken-down between RP1 and RP2.
 - ✓ For ANSPs as % of actual revenues over the period.

- Simplifications:
 - ✓ Adjustments on year N rather than N+2 .
 - ✓ Incentives & other revenues excluded from the analysis.

Initial risk-sharing models considered in this study

- Based on options presented at ad-hoc SSC in March 2017 + additional ones (IATA and extreme scenarios) as discussed with the EC.
- These models are just initial examples, useful to build the simulation capabilities. Other models to be considered if necessary in the future.

Risk-sharing mechanisms		Risk-sharing systems							
		Current	Option I	Option II	Option III	IATA	Price-cap	Full cost recovery	
Traffic risk sharing	Dead-band	±2%	0%	0%	0%	0%	0%	0%	
	Traffic threshold	±10%	±10%	±15%	±10%	±10%	0%	0%	
	Sharing Keys	ANSP	30%	30%	30%	50%	100%	100%	0%
		AUs	70%	70%	70%	50%	0%	0%	100%
Cost sharing	Sharing keys	ANSP	100%	100%	100%	100%	100% OPEX	100%	0%
		AUs	0%	0%	0%	0%	100% CAPEX	0%	100%
	Cost-exempt	YES	Pension costs	Pension costs	Pension costs	NO	NO	NO	
Max traffic risk for ANSPs		4.4%	3%	4.5%	5%	10% of OPEX	100%	0%	

Initial Scenarios considered in this study

- A simulation is launched for each model using 3 different costs/traffic scenarios agreed with EC.
- Scenarios aim at modelling ANSPs behaviour depending on traffic evolution.
- These scenarios are just initial examples, useful to build the simulation capabilities. Other scenarios to be considered if necessary in the future.

Variables	Scenarios		
	Historic	Expansion	Stability
Traffic	Actual traffic	Actual traffic +5%	Actual traffic +0%
Costs	Actual costs	Actual costs +5%	Actual costs -5%

Simulation steps (1/2)

	2012
Determined Costs (excl. VFR) - '000	157 368
<i>Determined OPEX Costs (excl. VFR) - '000</i>	<i>137 344</i>
<i>Determined CAPEX Costs - '000</i>	<i>20 024</i>
Determined Traffic - '000	2 720
Determined Inflation index	106.5

Determined values

	2012
Actual Costs (excl. VFR) - '000	146 527
<i>Actual OPEX Costs (excl. VFR) - '000</i>	<i>126 922</i>
<i>Actual CAPEX Costs - '000</i>	<i>19 605</i>
Actual Traffic - '000	2 469
Actual Inflation index	108.3
Uncontrollable cost (ANSP level) - '000	0
Uncontrollable Pension cost (Charging zone level) - '000	0
Actual vs Planned Costs	-6.9%
Actual vs Planned Traffic	-9.2%
Actual vs Planned inflation index	1.7%

Actual values

(according to selected scenario)

Selected scenario

Simulation steps (2/2)

Actual revenues - '000	142 855
Gain (+) /Loss (-) of revenues due to traffic - '000	-14 513
More (+) /Less (-) costs - '000	-10 841
<i>More (+) /Less (-) OPEX costs - '000</i>	-10 422
<i>More (+) /Less (-) CAPEX costs - '000</i>	-419
Gain (+) /Loss (-) of revenues due to inflation - '000	2 624
Total impact at system level - '000	-1 047

Gain /
Losses

	2012
ANSP gain (+) / loss (-) due to Traffic Risk Sharing	-4 354
Users gain (+) / loss (-) due to Traffic Risk Sharing	-10 159
ANSP gain (+) / loss (-) due to Cost Sharing	10 841
Users gain (+) / loss (-) due to Cost Sharing	0
ANSP gain (+) / loss (-) due to Inflation Adjustment	2 624
Users gain (+) / loss (-) due to Inflation Adjustment	0
Total - ANSP	9 112
Total - Users	-10 159

Allocation
to
ANSPs /
Users

Selected
risk sharing
Model

Next Steps

- Capability in place.
- Preliminary results presented in this first report to show capabilities.
- Full flexibility of the tool.
- Two additional elements under development:
 - ✓ Compare ANSPs' gains/losses with overall estimated surplus.
 - ✓ Assess stability of the model through number of occurrences where actual traffic exceeds traffic thresholds.
- Ready to support further discussion on RP3 preparation, i.e.:
 - ✓ Alternative risk sharing models.
 - ✓ Refined scenarios to better capture ANSPs' behavior to these models.

RP3 Impact Assessment – Stakeholder Workshop

Supporting Studies – RP3 Options for KPA Environment

Process – RP3 Preparatory Action

Hearing of European Commission on RP3

Ad-hoc Single Sky Committee (March 2017)
Working Paper 5

Stakeholder Comments on Working Paper 5

Task B – RP3 Options for KPA Environment

- Rationale and stakeholder feedback
- Evaluation of proposal
- Possible way forward

Evaluation Principles

Relevance

Proportionality

Subsidiarity

Maturity

Accountability

Acceptability

RP3

Recommended Option

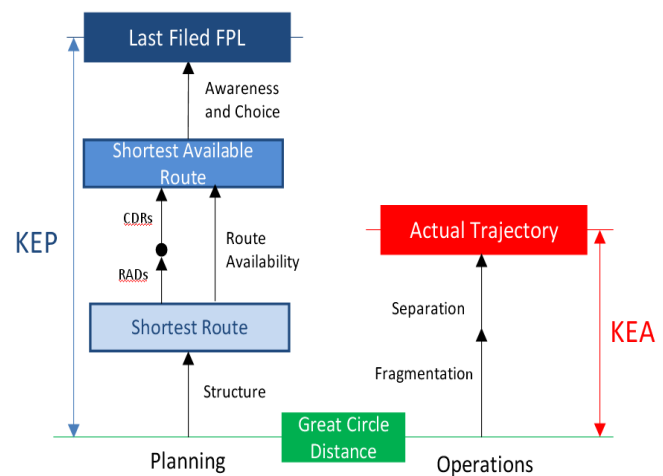
RP3 Environment - Options Threads

ENV-1	Demote KEP to PI
ENV-2	Keep additional ASMA time and taxi-out time as PI
ENV-3	Use KEP – KEA for monitoring predictability
ENV-4	Use additional fuel burn as an indicator for ATM efficiency
ENV-5	Inclusion of vertical flight efficiency in the performance scheme
ENV-6	Consideration of noise in RP3
ENV-7	Measure the civil use of released airspace

ENV-1 Demote KEP to PI

	Proposed way forward
Scope	<ul style="list-style-type: none"> • KEP only applied at EU-wide level • Demoting KEP would remove... attributable to the Ne...
Refinements	<ul style="list-style-type: none"> • ... (e.g. airspace design, civil aviation, flight planning)
Option	<ul style="list-style-type: none"> • KEP with breakdown (KEA ma...

• Demote KEP to a PI with breakdown to address...
 • Note: KEA will be maintained as KPI...



ENV-2 Keep additional ASMA and TXOT time as PI

	Proposed way forward
Scope	<ul style="list-style-type: none"> Keep additional ASMA and TXOT time (i.e. airport) Revisit scope of regulation (with PI applies)
Refinements	<ul style="list-style-type: none"> Work on... and quality Keep additional ASMA time and TXOT time as PIs Continue validation and address stakeholder comments on methodology Stakeholders addressing methodology for pan-European use
Option	<ul style="list-style-type: none"> both indicators

ENV-3 Use KEP-KEA for monitoring predictability

Evaluation		
Rationale	<ul style="list-style-type: none"> Subtraction of KEP – KEA can be used to monitor (horizontal) predictability 	
Stakeholder Feedback	<ul style="list-style-type: none"> No stakeholder comment directly addressing proposal 	
Evaluation	<ul style="list-style-type: none"> Technical feasibility: not available with breakdowns of (horizontal) predictability Subtraction of KEP – KEA: slightly difference in use 	
Scope	<ul style="list-style-type: none"> Discard proposal Note: KEA will be maintained as KPI 	
Refinements	<ul style="list-style-type: none"> Not available for inclusion: does not address ANS predictability 	
Option	<ul style="list-style-type: none"> Discard proposal If appetite: need to define, develop and test predictability indicator (questionable for RP3) 	

ENV-4 Use additional fuel burn for ATM efficiency

Evaluation	
Rationale	<ul style="list-style-type: none"> Reduction of additional fuel burn due to ATM inefficiency is a recognised policy objective (ICAO, GANP, SESAR, etc.) Improvements ~ Masterplan, SESAR, etc.
Stakeholder Feedback	<ul style="list-style-type: none"> About 25% of stakeholders support the proposal In general proposal is supported, but methodological and data matters are raised
Evaluation	<ul style="list-style-type: none"> Technical model to convert aircraft fuel burn and associated emissions into additional fuel burn Supporting ICAO and Commission with tools for noise and emission → additional fuel burn requires a “reference” Conceptually ATM inefficiencies captured in additional time (e.g. HFE, ASMA, TXOT)

Discard proposal
ATM/ANS efficiency covered in other indicators

ENV-5 Inclusion of Vertical Flight Efficiency

c.f. appendix to VFE for CDO

	Proposed way forward
Scope	<ul style="list-style-type: none"> • Focus on CDO → major benefit pool vs CCO en-route • Clear link with political goals and objectives • Based on CCO/CDO task force
Refinements	
Option	<ul style="list-style-type: none"> • Introduce new indicator with link to policy objectives for CDO <ul style="list-style-type: none"> a.) from 7000ft or equivalent procedural level (not a challenge, practice at several airports) b.) from higher altitude (e.g. lower airspace) c.) from top of descent

Introduce new indicator with link to policy objectives for CDO

ENV-6 Consideration of noise in RP3

Evaluation	
Rationale	<ul style="list-style-type: none"> • Aviation noise and air quality identified as aviation policy areas • From ANS perspective: subject to trade-off between CO₂, cost and quality of service whilst ensuring safety
Stakeholder Feedback	<ul style="list-style-type: none"> • Majority of stakeholders consider noise monitoring → (and sensitive) issue
Evaluation	<ul style="list-style-type: none"> • Noise management is perceived as a local issue; best addressed by and through local mechanism • Instruments exist, driven by political (e.g. EU Environmental Noise Directive) • Promotes “balanced approach” • Limited action space for ANS • Common approach: noise contours

ENV-7 Civil use of released airspace

Evaluation	
Rationale	<ul style="list-style-type: none"> • Increase effectiveness of the European airspace utilisation by both civil and military airspace users • If available, civil airspace users can make use of released airspace to reduce emission and possible congestion • Take-up of released airspace questioned
Stakeholder Feedback	<ul style="list-style-type: none"> • Stakeholders commenting generally in favour of production of an indicator addressing current performance of released airspace
Evaluation	<ul style="list-style-type: none"> • FUA is a concept described by ICAO and EUROCONTROL (i.e. airspace to be used by civil aircraft) • Discard & enforce current performance monitoring mechanism • Indicators monitored in RP2 at EU-wide and national level; issue with reporting (i.e. only 2 States provide complete information regarding effectiveness of booking) • Civil-military performance framework (focus: mission effect.) • Technical concerns about clear identification of demand and point of availability for usage.

RP3 Environment - Options Threads - Proposals



ENV-1	Demote KEP to PI	PI and refine!
ENV-2	Keep additional ASMA time and taxi-out time as PI	Keep & refine!
ENV-3	Use KEP – KEA for monitoring predictability	Discard!
ENV-4	Use additional fuel burn as an indicator for ATM efficiency	Discard!
ENV-5	Inclusion of vertical flight efficiency in the performance scheme	Focus on CDO
ENV-6	Consideration of noise in RP3	Discard!
ENV-7	Measure the civil use of released airspace	enforce existing legislation!

RP3 Impact Assessment – Stakeholder Workshop

Supporting studies – Improved DCB

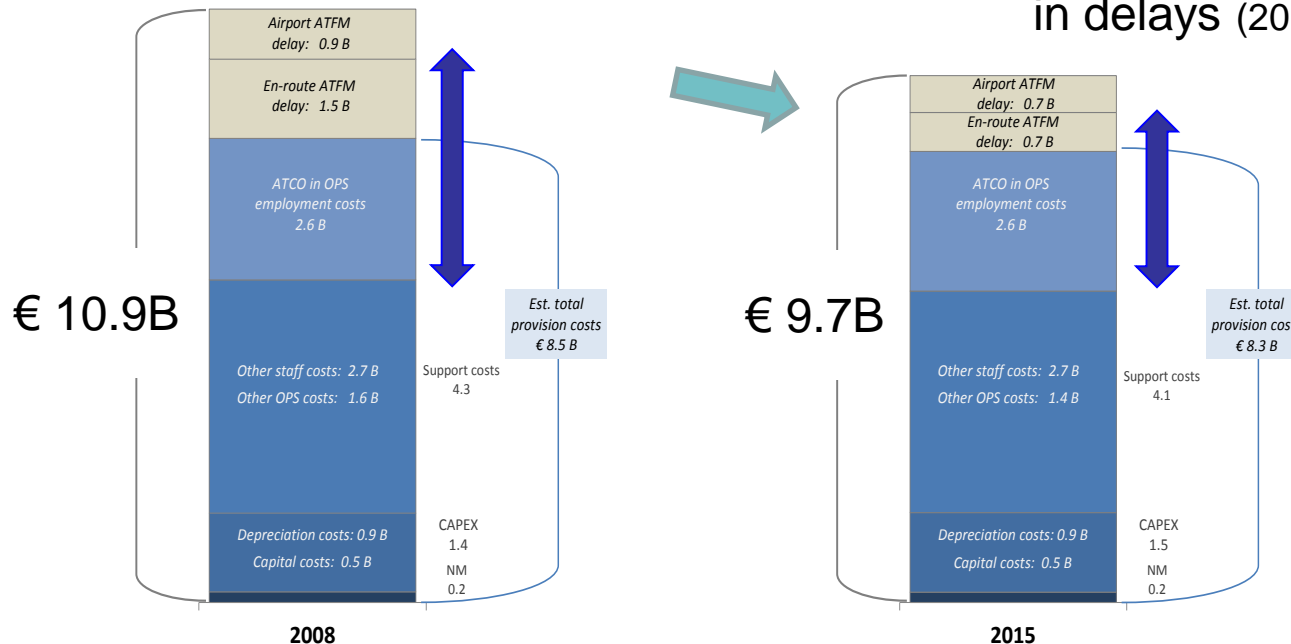
Xavier FRON
Performance coordinator
14 November 2017

Improved Demand-Capacity Balancing (DCB)

DCB has influence on €3-4 billion p. a.

Gaining on both cost of capacity and delays?

Some €1 billion saved in delays (2015 vs 2008)



Similar traffic levels
+2.7% flight-hours
-2.9% flights

ATM/CNS provision + Delay costs

Step 1 : On-going Network optimisation

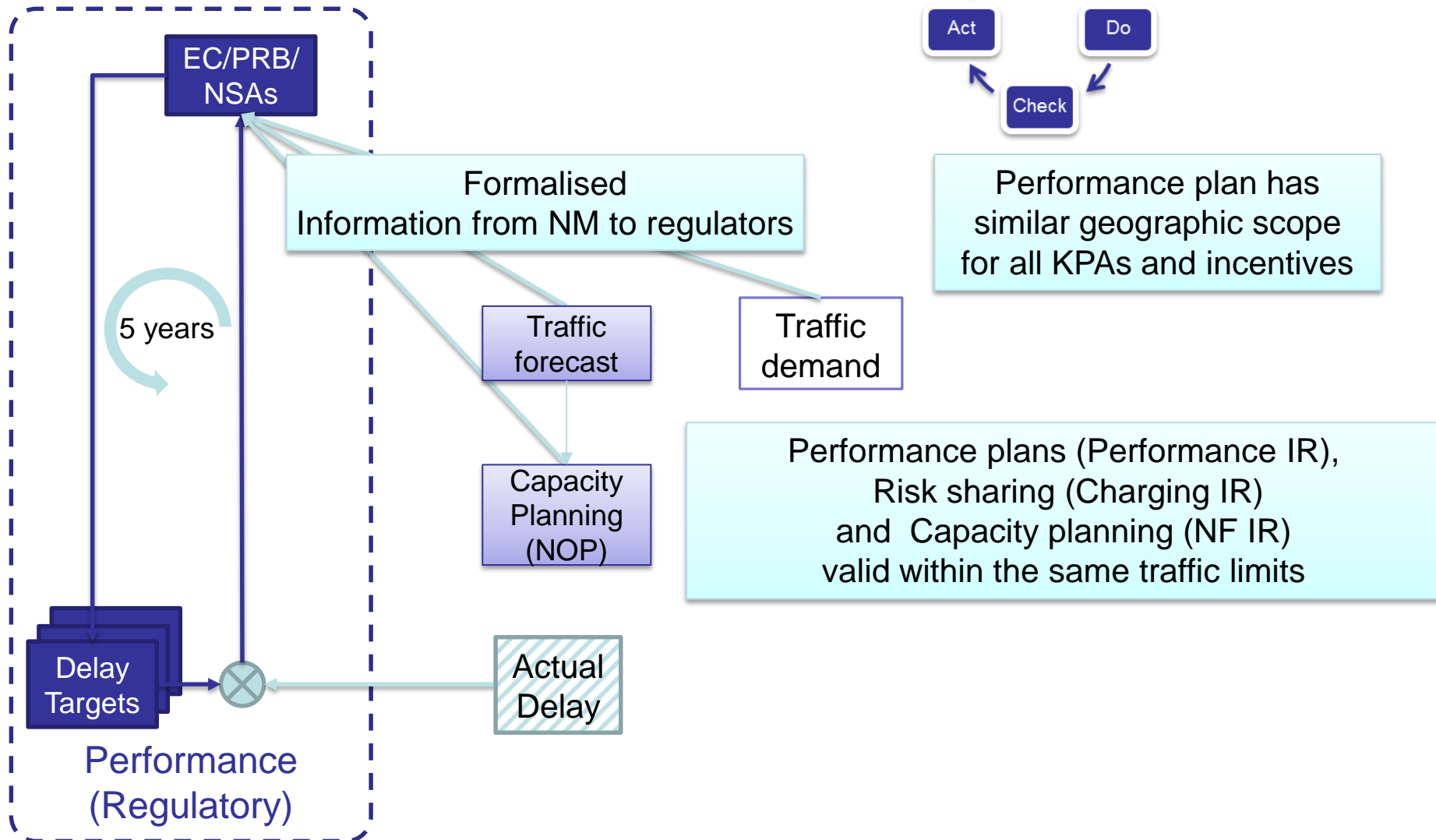
Step 2 : Better alignment of SES regulations and processes (RP3)

Step 3 : Application of SESAR 2020 R&D results (beyond RP3)

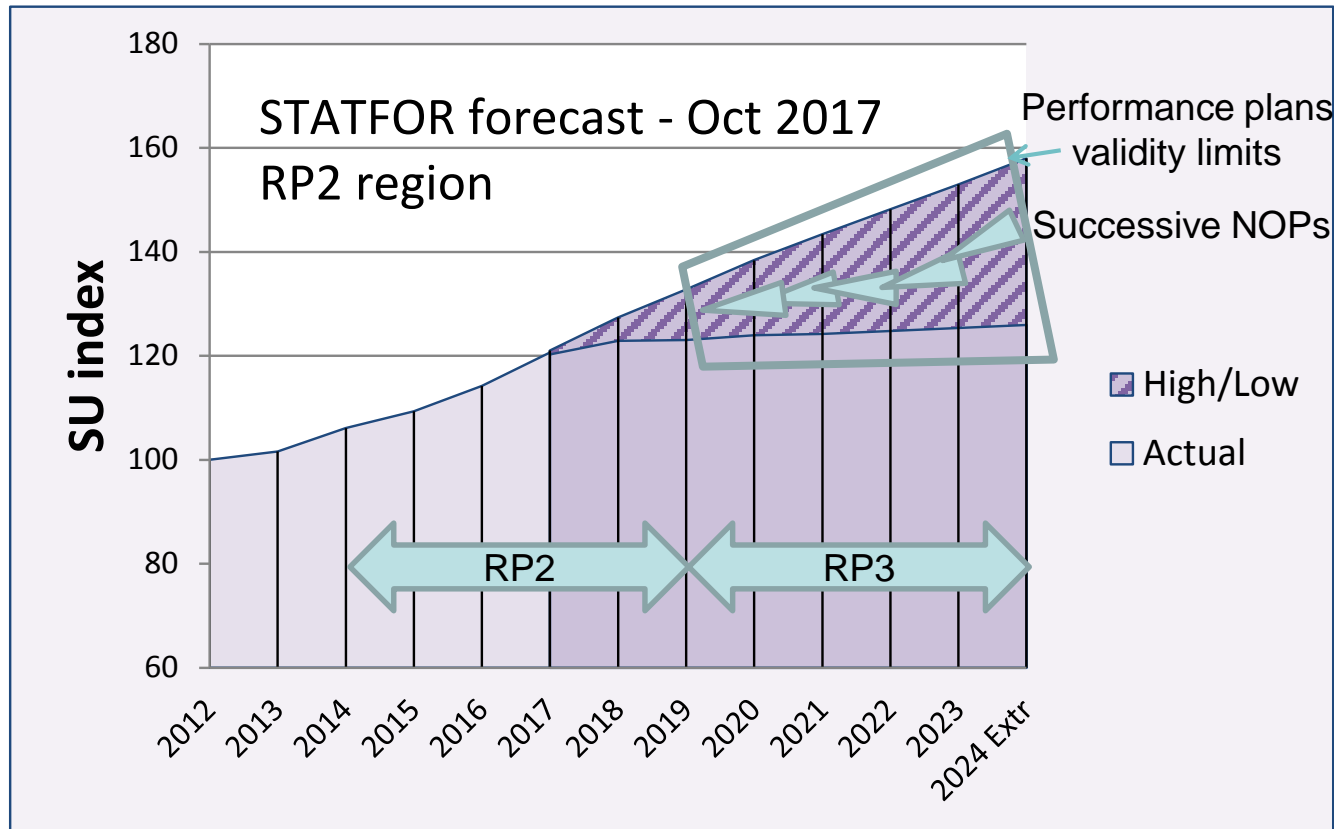
e.g. Advanced DCB (PJ09), Trajectory based operations (improved predictability)

Enhanced links Performance – Network Functions - Charging

Performance planning phase (5 years)



Robustness to volatile demand while remaining efficient over full RP



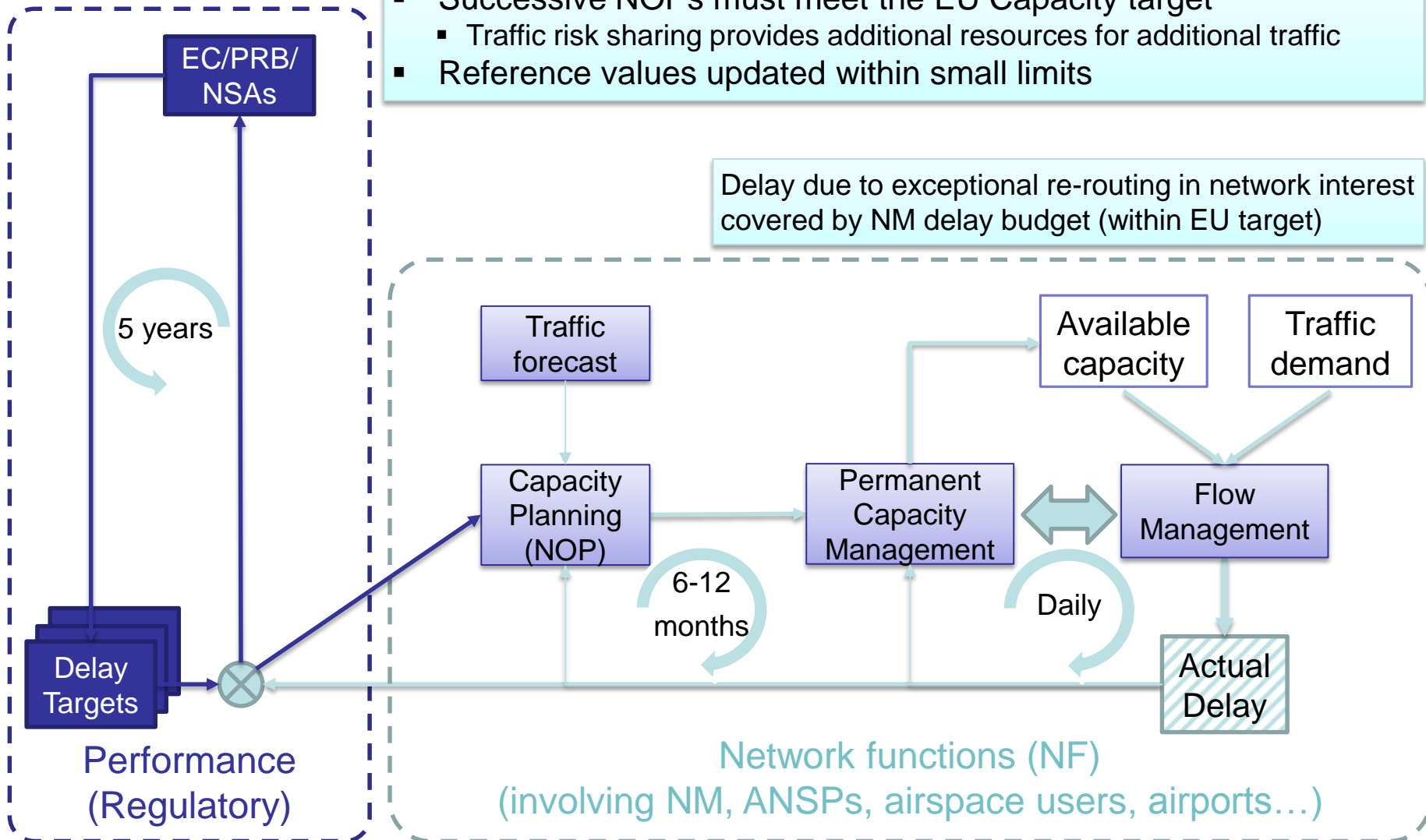
- Performance plan validity consistent with Traffic forecast accuracy
 - 11% margin between high and base in 7-year forecast at SES level
- Adjusting successive NOPs to actual demand within PP validity limits

Enhanced links Performance – Network Functions – Charging

Capacity planning and management phases

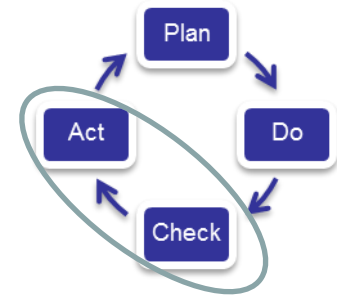
- Successive NOPs must meet the EU Capacity target
 - Traffic risk sharing provides additional resources for additional traffic
 - Reference values updated within small limits

Delay due to exceptional re-routing in network interest covered by NM delay budget (within EU target)



Monitoring and Corrective measures

- Permanent monitoring by NM vs. updated reference values



- Formalised escalation in case of Capacity shortfall
 1. Automatic penalties if local delay target not met
 2. Corrective actions adopted by NMB
 3. Corrective measures by NSA enforceable with EU legal means
 4. Corrective measures by EC/PRB

in case of significant and persistent drop in performance, informed by NM

Enhanced links Performance – Network Functions - Charging Risk sharing and incentives

- Strong incentives for reducing costs (100% Cost risk/opportunity sharing)
- Weaker incentives on capacity (Max 1% exposure to revenue loss)
- Under-planning/delivery of capacity in a number of cases

- Additional revenue for additional traffic (Traffic risk/opportunity sharing)
 - in line with additional costs
 - granted subject to meeting the Capacity target

**Cost & Traffic risk/opportunity sharing, and Capacity incentives to be reviewed jointly
so as to drive desired behaviours**

Improved DCB - Summary

DCB: significant impact on Capacity and Cost-Efficiency performance

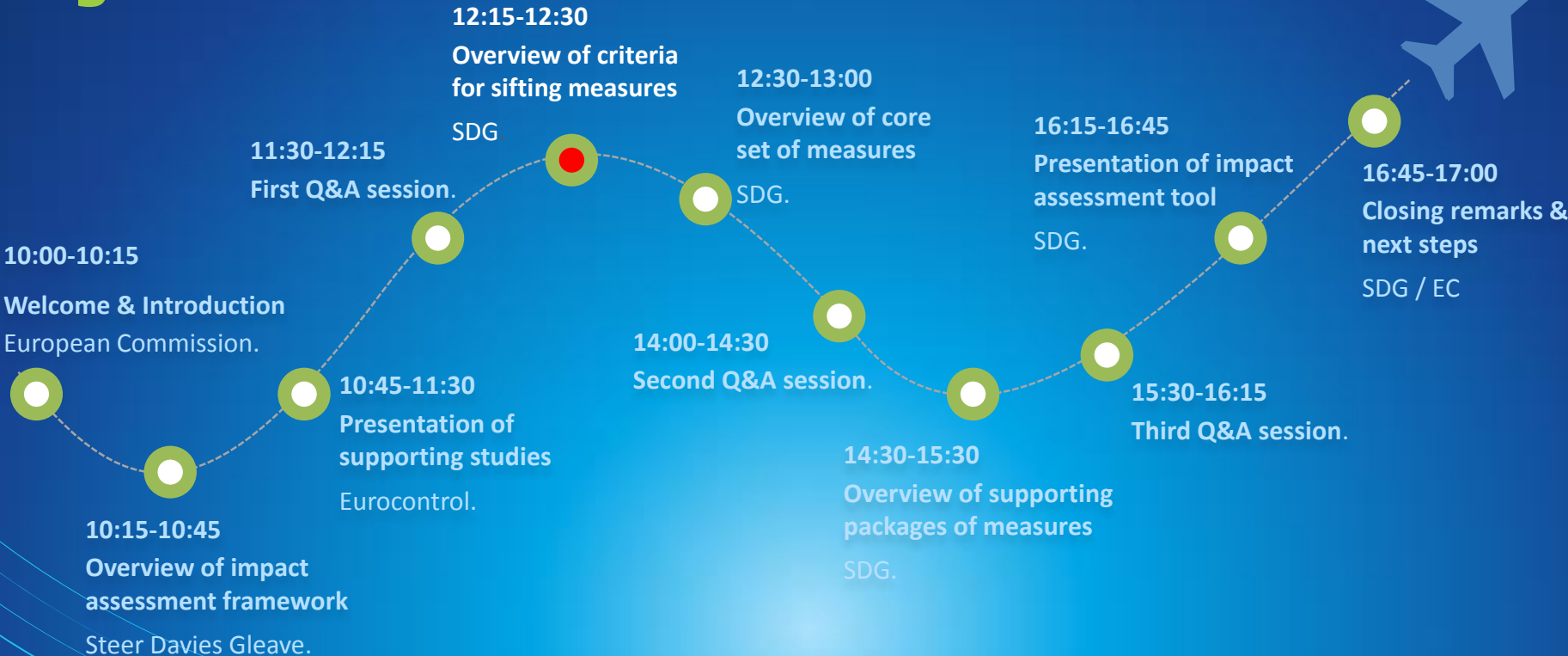
Step 2: Better alignment of Performance, Charging and NF regulations

- Similar geographic scope for all KPAs and incentives
- Performance plans remain valid within agreed traffic & reference value limits
- NOP updated to meet EU target within those limits
 - Main vehicle to ensure efficient delivery in range of traffic scenarios
 - Delay due to exceptional re-routing in network interest covered by NM delay budget (within EU delay target)
- Permanent monitoring by NM vs. updated reference values
- Formalized escalation process in case of capacity shortfall

Agenda



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Overview of criteria for sifting measures

Preparation of long list of measures

- Sources:
 - Single Sky Committee Papers (SSC/17/Ad-Hoc/WP5 and SSC/17/Ad-Hoc/WP6)
 - Papers prepared by stakeholders
 - Stakeholder consultation (ongoing)
- Identified 67 possible measures (some duplicated/overlapping)
 - 30 measures modifying Performance Scheme
 - 37 measures modifying Charging Scheme
- Propose to set aside:
 - 7 Performance Scheme measures
 - 14 Charging Scheme measures
- Note: setting aside for RP3 does not rule out consideration for RP4 and beyond

Sifting criteria

- Based on European Commission's sifting criteria for impact assessments

Criteria	Application
Legal feasibility	<ul style="list-style-type: none">• Must respect principle of conferral and EU Treaties• Must be consistent with primary/other legislation
Technical feasibility	<ul style="list-style-type: none">• Technical maturity (e.g. of a new metric or process)
Previous policy	<ul style="list-style-type: none">• Consistency with previous policy choices (in area of ANS)
Coherence	<ul style="list-style-type: none">• Consistency with broader EU policy objectives
Effectiveness and efficiency	<ul style="list-style-type: none">• A reasonable likelihood of working effectively• A reasonable likelihood of a positive CBA result
Proportionality	<ul style="list-style-type: none">• Should be possible to implement at reasonable cost
Political feasibility	<ul style="list-style-type: none">• Should be a reasonable prospect of political support
Relevance	<ul style="list-style-type: none">• Should address one or more of the objectives• Should not simply duplicate other measures being considered
Accountability	<ul style="list-style-type: none">• Must be possible to hold organisations accountable for the responsibilities allocated to them

Measures set aside – Performance Scheme

Measure	Rationale for exclusion
Establish performance plans at FAB level and targets at national level	Coherence: would not address key argument for change (inconsistency/additional layer of activity)
Remove measurement of safety management effectiveness from Performance Scheme	Legal feasibility/coherence: inconsistent with Regulation 549/2004
Introduction of additional fuel emissions indicator	Relevance: would show similar trends to existing indicators
Introduction of noise measure (vicinity of airports)	Legal/political/technical feasibility/coherence: inconsistent with agreement reached at local level
Introduction of local air quality measure (vicinity of airports)	Legal/political/technical feasibility/coherence: inconsistent with agreement reached at local level
Reporting of demand and capacity utilisation	Relevance: duplicates other measures
Performance indicators measuring sector throughput	Relevance: duplicates other measures

Measures set aside – Charging Scheme (I)

Measure	Rationale for exclusion
Remove cost exempt from risk sharing mechanisms but make separate arrangements for pensions	Proportionality: would retain existing mechanism to address one issue
Limit application of inflation adjustment (exclude depreciation)	Proportionality/coherence: would add complexity to the regime to address one issue, inconsistent with objective of greater simplicity
Link incentives to capacity provided	Technical feasibility: no mature measure of capacity
Pre-defined route charges of origin/destination pair	Technical feasibility: a substantial change requiring modification of systems – not achievable for RP3
Transitional financial compensation for new route design (traffic shift)	Proportionality: not clear this requires a change in legislation
Common unit rates within defined regions or upper/lower airspace	Legal/political feasibility: would require further development of FABs – not achievable for RP3
Specify unit rate for Network Manager	Technical feasibility: being separately investigated by Network Manager
Specify unit rate for specific services	Technical feasibility: not achievable for RP3

Measures set aside – Charging Scheme (II)

Measure	Rationale for exclusion
Clarify definition of terminal, approach and en-route services	Proportionality: more effectively addressed through guidance rather than change in legislation
Modify principles to enable greater consistency in cost allocation	Proportionality: more effectively addressed through guidance rather than change in legislation
Reduce time available for reporting	Technical/political feasibility/relevance: timescales already constrained, no support/consensus
Modulation of charges	Technical/political feasibility/relevance: not an end in itself – need to define policy objective – and anyway not technically achievable for RP3
Increase transparency of information where market conditions established	Relevance/coherence: policy objective not clear, not appropriate to address this through the Charging Regulation
Introduce compulsory competitive tendering of specific services	Legal/political feasibility: would require bespoke legislation, not appropriate to address this through the Charging Regulation

Agenda



Overview of core set of measures

Purpose

- To define a set of measures forming the core of each option
- A basic aspiration for RP3:
 - Simplification/clarification in reporting
 - More empowered and independent NSAs
 - A more efficient performance planning and targeting process
 - Better integration with network functions (NOP)
 - Streamlined measurement of safety management effectiveness
 - Enhanced measurement of environment KPA
 - Enhanced measurement of capacity KPA
- Options to be assessed will build on the core proposal

Simplification/clarification in reporting

- Clarify treatment of public funding of investment in calculation of unit rate
- Clarify process for applying initial unit rates prior to approval
- Simplification of reporting where possible (no clear views/consensus from stakeholders on how reporting can be reduced)
- Decouple list of airports subject to operational targets from those covered by cost-efficiency targets/Charging Scheme:
 - 24 PCP airports
 - 28 A-CDM airports
- Base charges on actual rather than planned flight path

Objectives:

- Simplify operation of Schemes and improve efficiency/effectiveness

More empowered NSAs

- NSAs to be required to be properly independent from States and/or ANSPs
- NSAs to be required to have adequate skills and resources for their role
- NSAs to be given enforcement powers

Objectives

- Strengthen role of NSAs and reduce duplication of regulation

More efficient performance planning and targeting

- Performance Regulation to permit plans/targets to be prepared either at national or FAB level
- Member States must opt for FAB or national-level planning/targeting
- NSAs to notify Commission of choice of planning framework in advance
- Plans to include initiatives supporting cross-border coordination/services
- NSAs to provide reports to Network Manager on local conditions – to be taken into account in setting of Union-wide targets

Objectives:

- Simplify operation of Schemes and improve efficiency/effectiveness
- Strengthen role of NSAs and reduce duplication of regulation

Better integration with network functions

- Performance plans to be based on STATFOR base-case forecasts (for en-route)
- NOP consistent with Union-wide Capacity target – defines required/planned capacity
- Performance plans remain valid within defined traffic range – consistent with traffic risk sharing/network planning thresholds
- Required capacity and reference values updated every six months
- Ongoing monitoring of planned/delivered capacity by NM
- NM to administer delay budget (within, not separate to, overall delay target)
- NM proposes corrective measures to NSAs where problems arise
- NSAs impose financial penalties for persistent problems

Objectives:

- Improves efficiency/effectiveness
- Ensures link between Performance Scheme and Network Management
- Strengthens role of NSAs

Streamlined measurement of safety management effectiveness

- Single measure of safety management effectiveness as KPI
 - (based on the tool developed by EASA or CANSO standard of excellence v2.1 as the KPI for safety management)
- Relegate severity classification metrics to PIs
- Allocate formal responsibility for safety monitoring to EASA
- Possibility of automatic safety monitoring to be discussed
- Introduce new security metric – elapsed time to recover from a cyber attack

Objectives:

- Simplify operation of Schemes and improve efficiency/effectiveness
- Reduce duplication of regulation

Enhanced measurement of environment KPA

- Retain:
 - Flight efficiency of the actual flight trajectory (KEA) as a KPI
 - ASMA and TOXT as PIs (but consider a reduction in number of airports)
- Introduce changes:
 - Demote flight efficiency of planned flight trajectory (KEP) to a PI
 - Introduce shortest constrained route indicator as a PI
 - Introduce VFE PI focused on arrivals (CDO)
 - Measure effectiveness of the flexible use of airspace (based on measures already defined in Airspace Management Handbook)
- KEA – KEP not introduced as it is not a meaningful metric

Objectives:

- Simplify operation of Schemes and improve efficiency/effectiveness
- Ensure gate-to-gate approach embedded in management of performance

Enhanced measurement of capacity KPA

- Supplement existing capacity measures with new PIs:
 - En-route/terminal ATFM delay at weekends
 - Delay encountered in first rotation
 - Delay exceeding 15 minutes
- NSAs to develop better understanding of spare capacity
- Further development of new metrics for possible adoption in RP4 (measuring actual capacity rather than outputs in terms of delay):
 - Traffic accommodated per unit of en-route capacity
 - Traffic accommodated per unit of terminal capacity

Objectives:

- Simplify operation of Schemes and improve efficiency/effectiveness
- Ensure gate-to-gate approach embedded in management of performance

Agenda



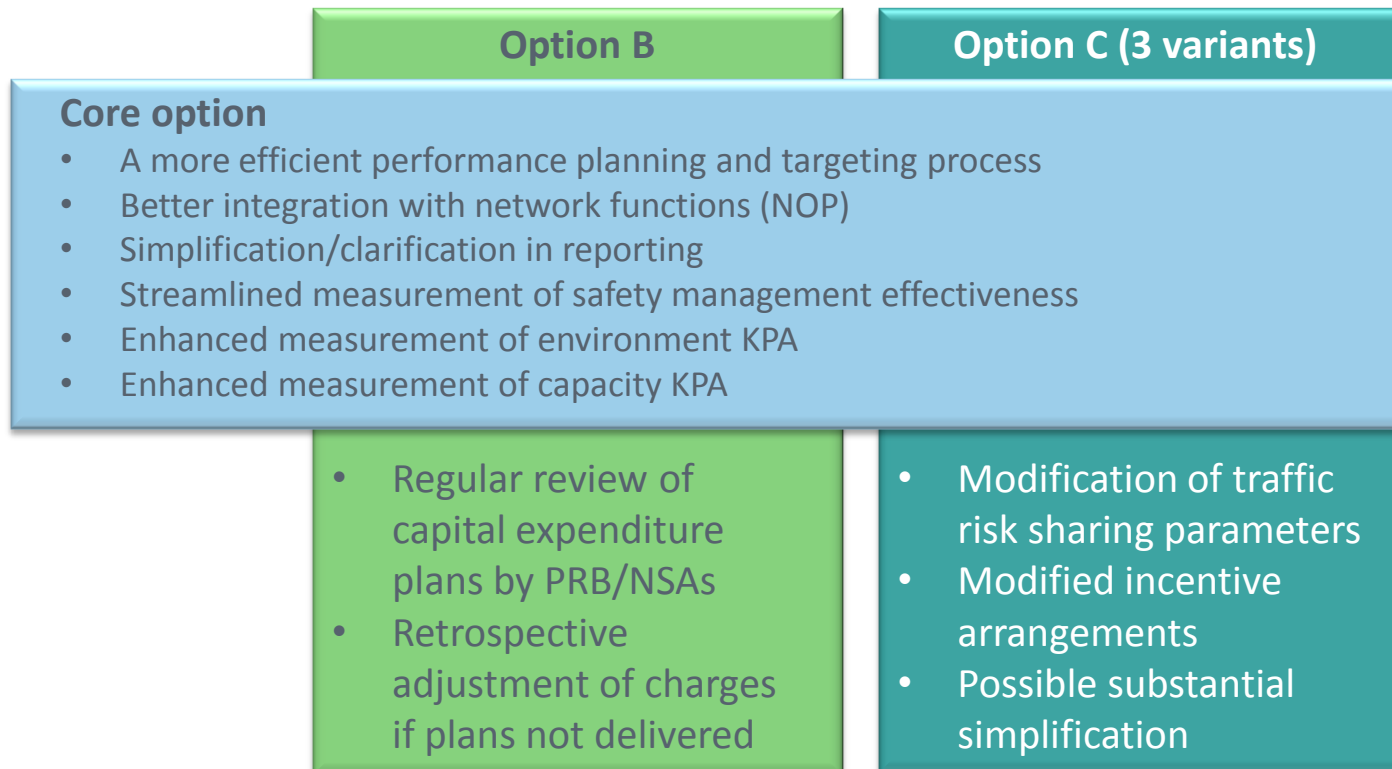
Agenda



Overview of further options

Overview of further options

- Further options designed to:
 - Strengthen regulation (especially in the area of capital investment)
 - Modify risk sharing arrangements
- Not necessarily mutually exclusive



Option B – stronger regulation of capital expenditure

PRB/NSAs to review capital expenditure plans of ANSPs:

- ANSPs to consult with stakeholders at local level on capital expenditure plans before drafting performance plans
- ANSPs to provide 10-year vision and 3-year capital expenditure plans
- PRB to review and make recommendations to Commission prior to approval
- Costs of approved plans included in calculation of unit rates
- PRB/NSAs to monitor progress/delivery against plans on an annual basis
- Retrospective adjustment to charges if capital expenditure not made/plans not delivered at end of RP

- Improve efficiency and effectiveness of Schemes
- Ensure efficient allocation of risk between stakeholders
- Ensure key interdependencies captured

Option C1 – modified risk sharing/devolved incentives

The following measures are included in this Option:

- Modifications of the risk-sharing scheme:
 - Elimination of dead band
 - Traffic threshold raised to 15%
 - Sharing keys remain at 30/70
 - Cost exempt and inflation mechanisms retained (addressed under Option C3)
- Introduction of devolved incentives:
 - Asymmetric scheme with bonus rates below penalty rates
 - Max cap on penalties: 3% of ANSPs' revenues, max cap on bonuses: 1% (in a given year)
 - Consultation of stakeholders by NSA on local issues to be addressed by scheme
 - NSAs to submit incentives schemes to EC for approval prior to each RP

- Simplify operation of the schemes and improve their efficiency and effectiveness
- Ensure efficient allocation of risk between stakeholders

Option C2 – modified risk sharing/centralised incentives

The following measures are included in this Option

- Modifications of the risk-sharing scheme:
 - Elimination of dead band
 - Traffic threshold remains at 10%
 - Sharing keys changed to 50/50
 - Cost exempt and inflation mechanisms retained (addressed under Option C3)
 - Introduction of centralised incentives:
 - Agreed approach to delay attribution and delay categories
 - Introduce centrally administered penalty scheme, with dispute resolution process
 - Apply penalties automatically in the form of discounted charges
- Simplify operation of the schemes and improve their efficiency and effectiveness
 - Ensure efficient allocation of risk between stakeholders

Option C3

The following measures are included in this Option

- Removing the risk sharing scheme:
 - Remove the traffic risk-sharing mechanism
 - Remove the cost exempt sharing mechanism
 - Remove the inflation risk sharing mechanism
- Introduce capital expenditure regulation as under Option B
- Cost-efficiency targets to be set in nominal terms
- Remove incentive mechanisms

- Simplify operation of the schemes and improve their efficiency and effectiveness
- Ensure efficient allocation of risk between stakeholders

Agenda



Agenda



Impact assessment tool

Outline

- Scope and aims
- Tool structure
- Data sources
- Structure of baseline scenario and key assumptions
- Illustration of baseline
- Impacts and outputs

Scope and aims of tool

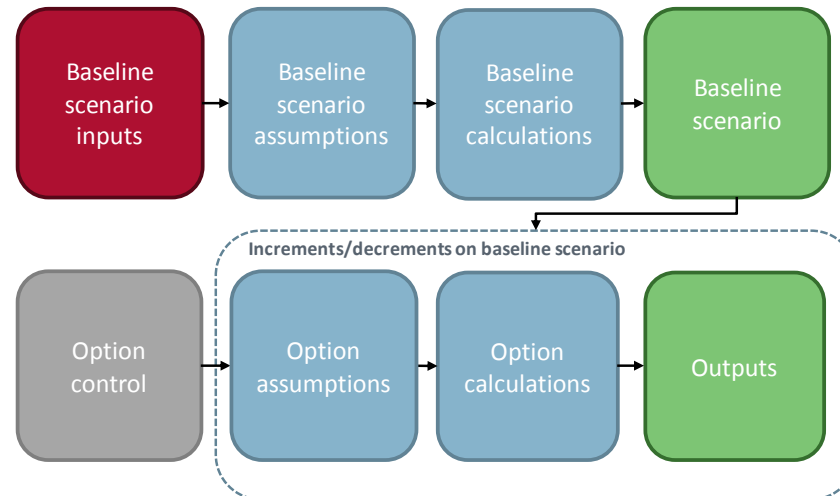
- The study aims to assess the impacts of the proposed options in *qualitative, quantitative* and *monetary* terms.
- The impact assessment tool is used to evaluate the quantitative and monetary impacts of the options. The outputs of the tool will be complemented by qualitative analysis.
- Impacts are the changes resulting from the implementation of the options. They are increments (e.g. additional costs) and decrements (e.g. cost savings) compared to a baseline where the RP2 arrangements remain unchanged.
- The impacts are measured for:

Unit rates	Level of employment
Regulatory/compliance costs	Cost of delay
Quality of service through SES KPIs (delay, KEA, KEP)	Fuel burn and associated cost
	CO ₂ emissions and associated cost

- The tool forecasts are not looking to define a “best view” of the future or inform the target-setting process. They are an intermediate step for evaluating the impacts of changes to the regulations to inform the identification of a preferred option.

Structure of tool

- The tool has been developed in MS Excel using spreadsheet modelling best practice (SMBP) techniques to ensure it is clearly structured, and rigorously built, tested and documented.

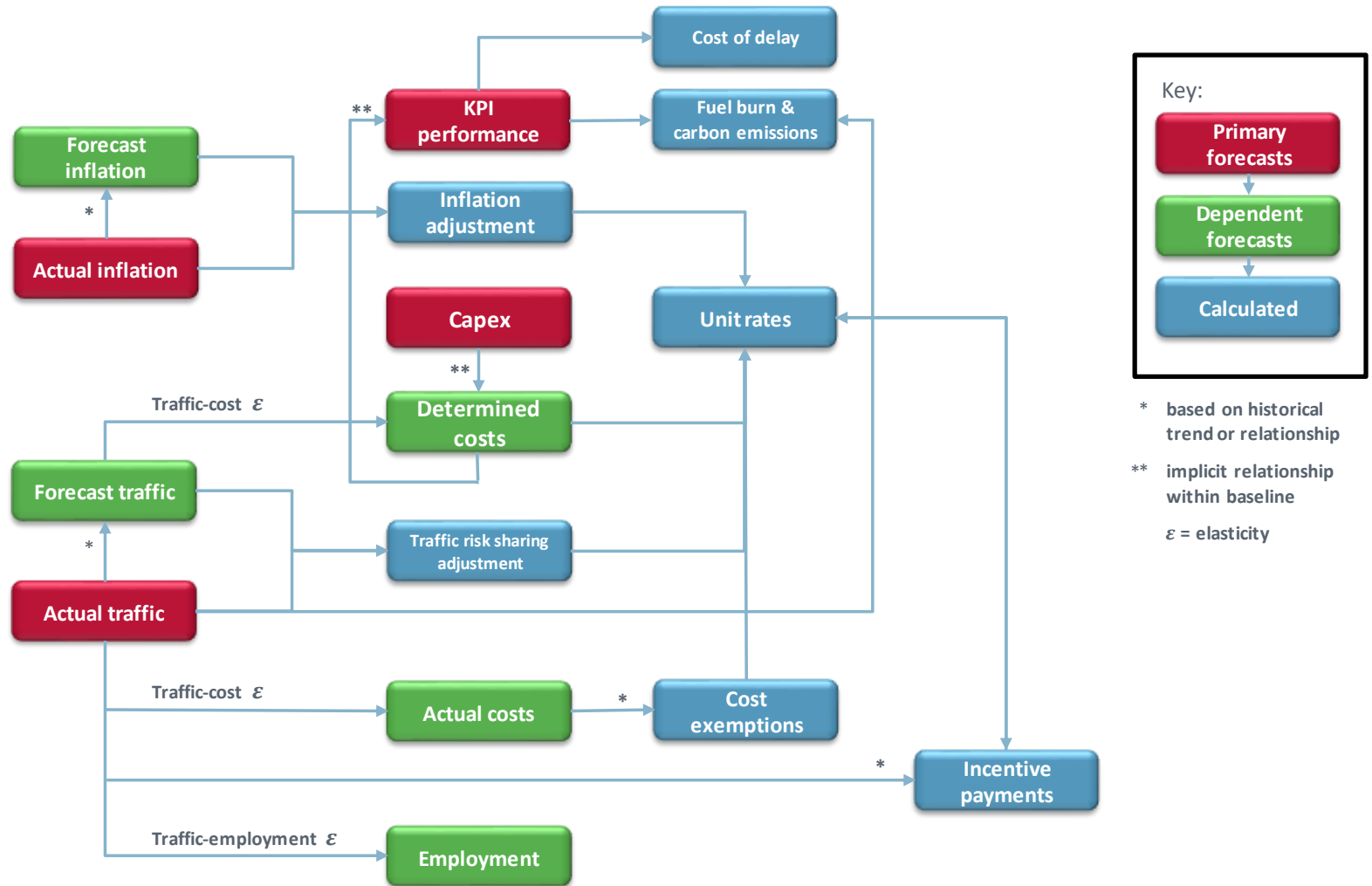


- The level of disaggregation of the data and analysis varies – primarily related to the corresponding sources:
 - Charging zone level (en-route & terminal): traffic, inflation, unit rates
 - Entity level (ATSP, other ANSPs, MET, NSA) within charging zones: costs
 - ATSP level: employment, KPIs (where available), capex
 - Other levels as available – e.g. FAB-level for some KPIs

Data sources

Input	Source	
	Base year	Forecast
Inflation	June 2017 Reporting tables	2017-2022: IMF World Economic Outlook (April 2017)
Service Units	June 2017 Reporting tables	2017-2019: RP2 Performance Plans 2020-2023: STATFOR Medium-term forecast (Feb 2017) – Base forecast 2024-2035: STATFOR Long-term forecast (Feb 2013) – Scenario A
Costs	June 2017 Reporting tables	2017-2019: RP2 Performance Plans
Employment	PRC ACE 2015 Benchmarking Report	-
Capex	2015-2019: PRB Monitoring Reports – Volume 3	
KPIs	PRB Monitoring Reports – Volume 2	2017-2021: Network Operations Plan (Delay only)
Cost of delay	Eurocontrol European airline delay cost reference values (University of Westminster, 2015)	
Fuel burn	2015-2035: European Aviation Environmental Report 2016	
Jet fuel cost	2015-2035: US Energy Information Administration energy price forecasts (September 2017)	
Carbon emissions	2015-2035: European Aviation Environmental Report 2016	
ETS carbon price	2015-2035: 2016 PRIMES Reference Scenario	

Baseline scenario structure



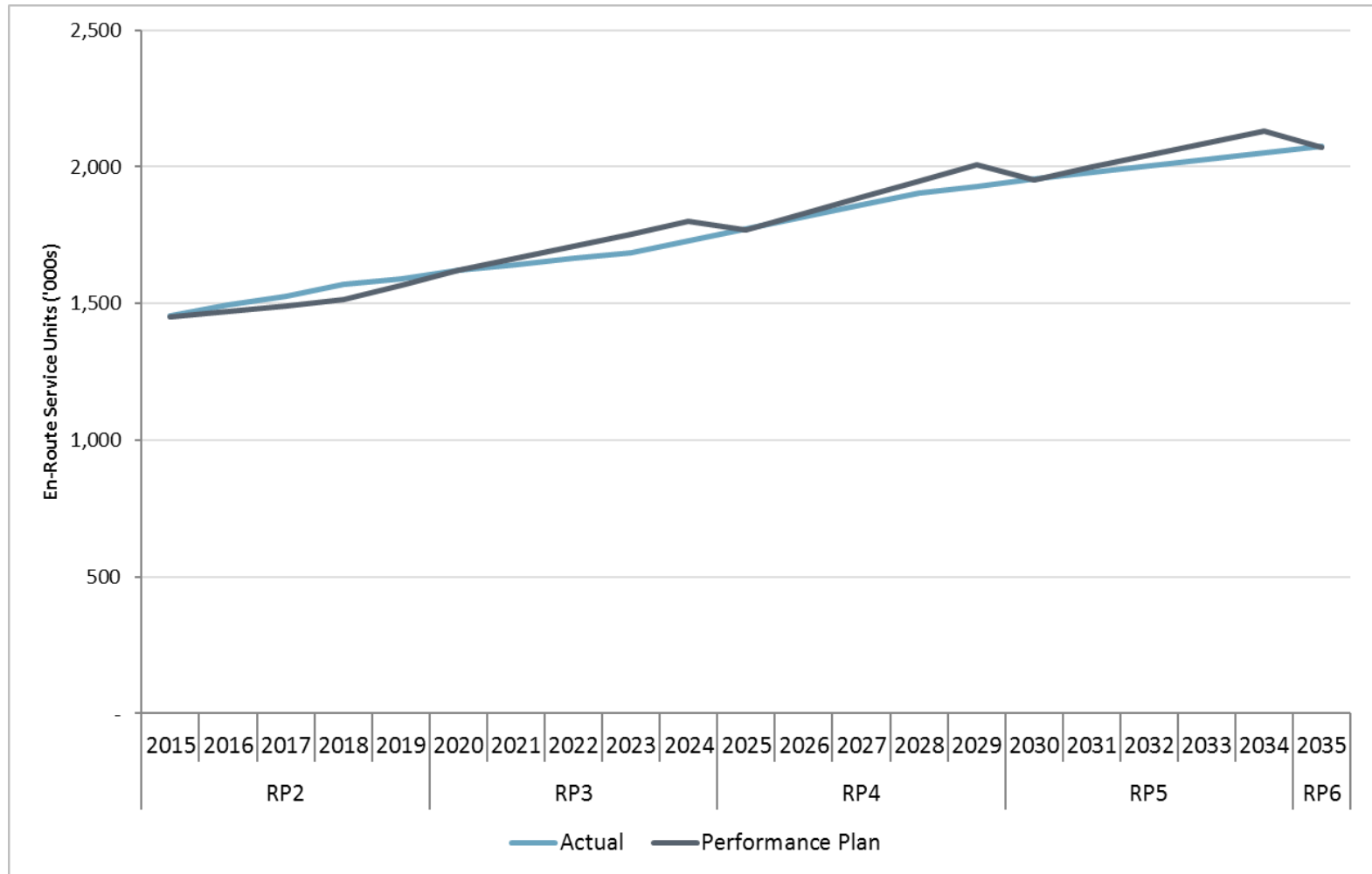
Baseline scenario key assumptions

- Forecasts based on traffic:

Metric	Elasticity	Rationale
Costs	0.3	Based on initial EU-wide targets proposal for RP1 looking at the period 2003-2008
ATCO employment	0.4	Assumed to be higher than the elasticity for total costs
Support staff employment	0.1	Assumed to be lower than the elasticity for total costs

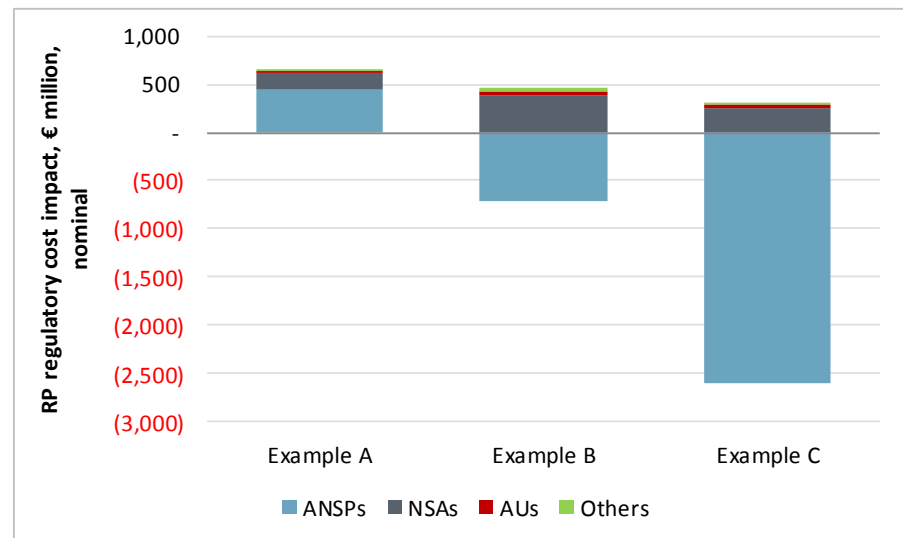
- KPI performance: gradual long-term improvement (1% per year).
 - Based on assumption of long-term improvement in quality of service delivered – in the context of growing traffic, in line with overall focus of ANSPs and facilitated by on-going capex.
- Capex:
 - Cyclical at ANSP level (based on 5 year cycle) based on trends from RP2.
 - Remains relatively constant at SES-wide level (~€1 billion per year).

Illustration of baseline traffic forecasts



Example of impacts and outputs

- The impacts of each option will be modelled drawing on:
 - Inputs from the stakeholder consultation
 - Analysis of comparable historical data, for example:
 - For an option that involves the introduction of new PIs, we would consider the cost of introduction of other indicators in RP1 and RP2 (e.g. KEA).
 - For an option that involves shortening the duration of the RPs, we would consider the cost of performance planning more frequently than under the current 5-year cycle.
- For each option, the quantitative and/or monetary outputs will be available for each of the impacts measured (e.g. regulatory costs).
- The level of disaggregation available will depend on the availability of the inputs.



Questions

Agenda



Revision of the implementing acts...

Interim Report of the IA
incl. feedback from
workshop: *late Nov 17*

Final Report of the IA:
Jan 2018

Discussion on proposed
changes : *At SSC67 on
12-13 Dec. 2017:*

Seeking the opinion of
the SSC: *At SSC68 on
13-14 March 2018*



Review of Expectations

01

Measures

To present & get your feedback on current set of proposed measures



02

Options

To inform the packaging of measures into coherent options



03

Analytical framework

To get your feedback on the construction of the analytical framework

04

Legal text

To set out directions for the elaboration of the legal acts



05

Next steps

To inform on next steps in view of SSC#67 & #68

