FROM INNOVATION TO SOLUTION

THE MASTER PLAN CAMPAIGN

Workshop RPAS (WS 03) – 22 January 2015

SESAR JOINT UNDERTAKING

founding members

EUROPEAN UNION

EUROCONTROL

The objectives of the campaign

Campaign objectives

Following the endorsement from the PC, SPP and ADB of the PC Tiger Team recommendations the following were agreed to constitute the success criteria of the 2015 campaign:

1. Ensure the necessary alignment with **SESAR 2020**
2. Strengthen **performance driven** approach towards “performance needs” in pre-determined time horizons and take into account related priorities
3. Identify **perimeter of future CPs**
4. Provide high-level view of **architecture evolution options** and impact on business models
5. Provide greater levels of **predictability & confidence with regards to deployment dates** (taking into account in particular industrialization phase)
6. Include **RPAS** integration and stronger focus on **cybersecurity** aspects
7. **Emphasize SESAR achievements** to further build momentum

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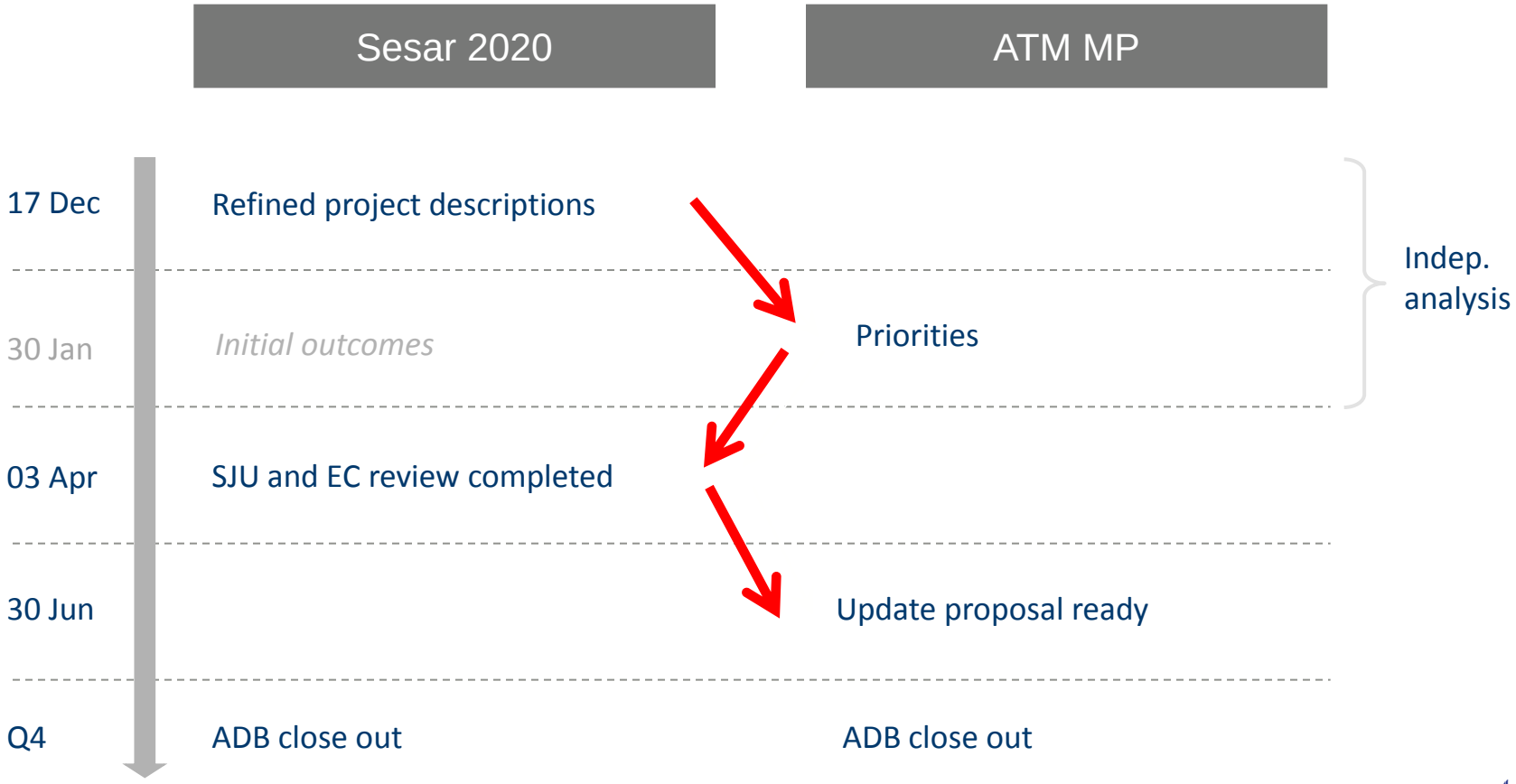
1 Ensuring the necessary alignment with SESAR 2020

- The next edition is intended to be delivered for formal consultation at a moment in time when the SESAR 2020 programme is expected to be launched. It is therefore essential to ensure the necessary alignment between the two.

- This may imply that elements that are in negotiation in the context of SESAR 2020 need to be refined to take into account the results of the campaign.

Close interactions between SESAR 2020 and the ATM MasterPlan teams required over the course of 2015



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Initial work has focused on 86 solutions contained within the first three SESAR 2020 pillars

Focus so far

A High Performing Airport Operations	B Optimized ATM Network Management	C Advanced Air Traffic Services	D Enabling Infrastructure
PJ02: Enhanced Runway Throughput (10)	PJ07: Optimized Airspace Users Operations (5)	PJ01: Enhanced Arrivals & Departures (8)	PJ13: Air Vehicle Systems (2)
PJ03a: Integrated Surface Management (10)	PJ08: Advanced Airspace Management (5)	PJ06: Trajectory & Perform. free routing (1)	PJ14: CNS (4)
PJ03b: Airport Safety Nets (8)	PJ09: Advanced DCB (including NOP) (5)	PJ10a: Separation Management En Route (9)	PJ15: Common Services (1)
PJ04: Total Airport Management (8)		PJ10b: Separation Management inTMA (4)	PJ16: CWP/HMI (3)
PJ05: Remote tower for Multiple Airports (4)		PJ11: Enhanced Air & Ground Safety Nets (9)	PJ17: SWIM Infrastructures (6)
			PJ18: 4D Trajectory Management (6)

xx *Number of solutions in Project*

Note: Total of 84 solution prioritized (out of a total of 108 solutions - including 22 enabling infrastructure solutions and 2 solutions with incomplete description)

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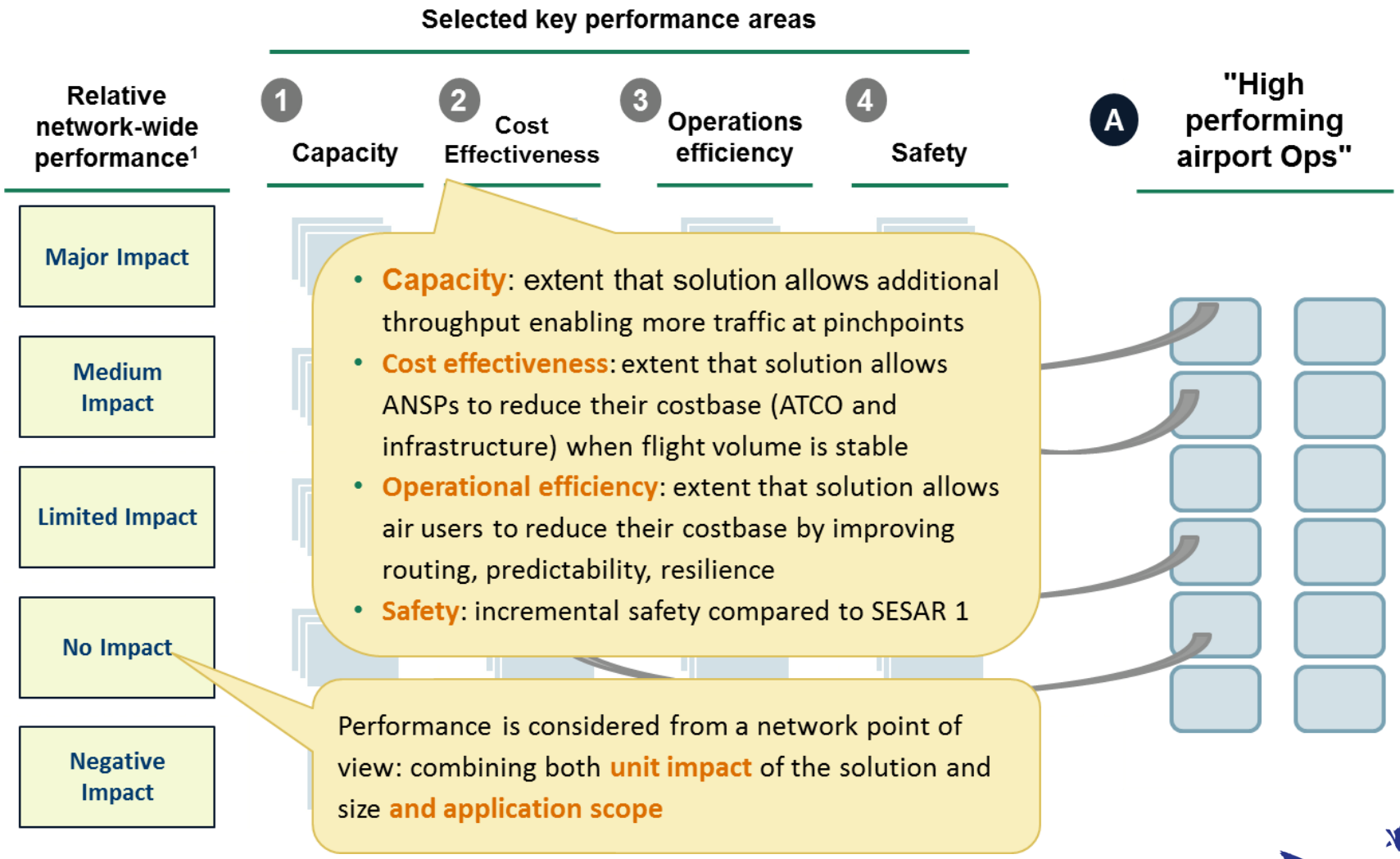
Performance was assessed by the reference team ranking solutions across four key performance areas



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Assessment of each solutions need for coordination

No synchronized deployment required

Solution can be deployed locally without need for synchronization with Air-Ground or Ground-Ground integration

Typically solving a local performance need

Standards required – no sync. deployment

Solution can be deployed locally without need for synchronization with Air-Ground or Ground-Ground integration

Common standards are required to ensure consistency across the network

A-A/ A-G/ G-G[1] synchronized deployment

Solution requires a need for coordination and synchronization in terms of Air-Air, Air-Ground or Ground-Ground integration in order to provide benefits

- Eg: new airborne equipments

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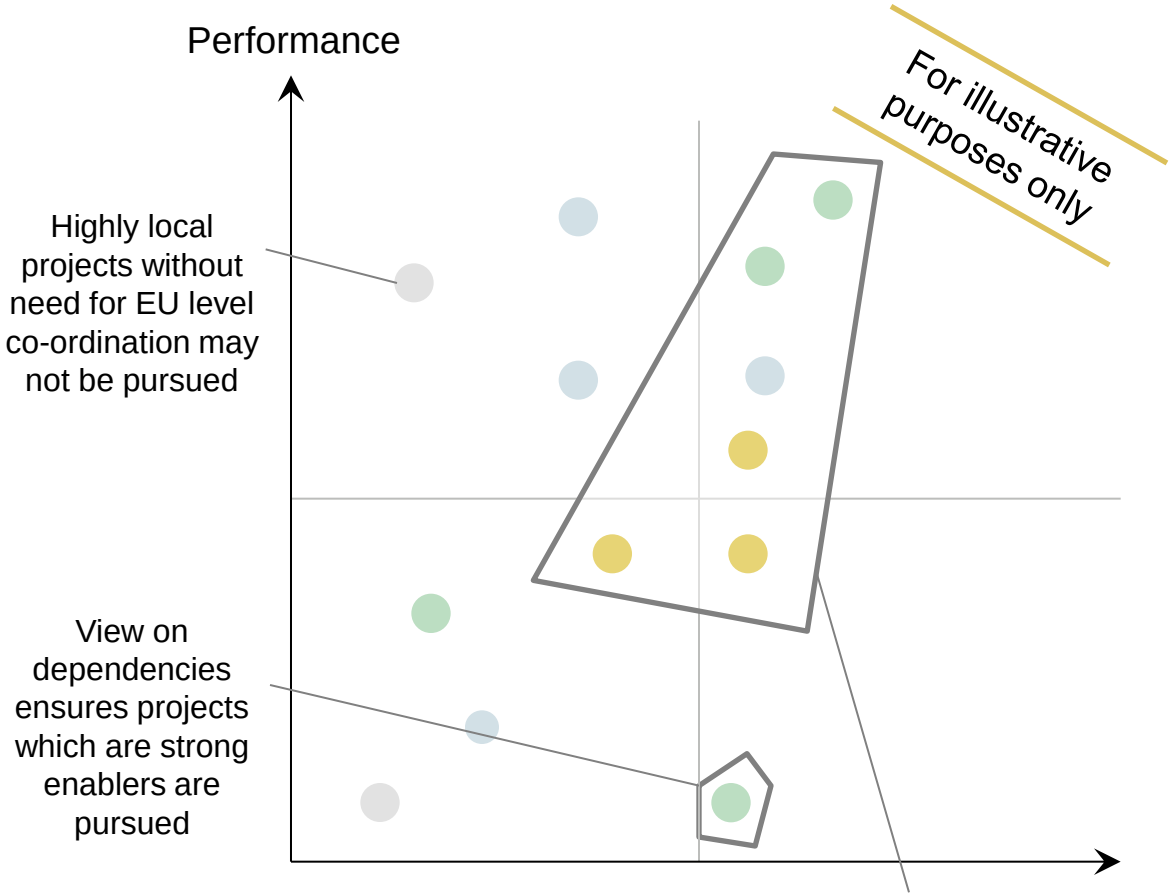
Next: combine this scoring, with a view on the project dependencies, and expert judgment to develop proposals for smart clusters



Sesar 2020 projects

- Airport safety nets
- Integrated surface management
- Total airport management
- Enhanced runway throughput
- Remote tower for multiple airports
- Enhance arrival & Departure
- Trajectory & performance based free routing
- .....

Output will cover the scope of all SESAR 2020 proposed projects for IR

Within the SESAR 2020 projects will map at the level of SESAR solutions and then smartly group to take into account dependencies

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2 Strengthen performance driven approach

- The next edition shall be articulated more around the **contribution to performance** in pre-determined time horizons with a particular attention to the period **2020+**

- **Growing needs in the area of cost-efficiency**

- Gradual removal of the emphasis on the notion of “steps” at Level 1 in favor of a **clearer articulation Performance Needs (How Much) - SESAR Solutions (What)** in these time horizons

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Identify perimeter of future CPs

- The MP already aims at **prioritising** a set of essential changes.
- This analysis has to be deepened in order to **pre-identify future ATM functionalities** that could become part of a Common Project considering that the definition of the next Common Project should be foreseen shortly after the next MP update.
- This will support further maximising levels of complementarity between the MP (“planning view”), Common Projects (“business view”) and relevant SESAR Deployment monitoring mechanisms (“project view”).
- The final decision on establishing common projects remains with the Commission.

4 Provide high-level view of architecture evolution options and impact on business models

- The current version of the ATM Master Plan does not provide a high-level view of the technical architecture evolution which implies that there is no single strategic reference point for both R&D and deployment.

- Although the long-term objective is to provide such a view for the evolution of the whole ATM system, the ambition level for Edition 2015 will be limited in a first step to provide it for the elements that would fall into the perimeter of future Common Projects.

- This view will provide a strategic view on the organisational logic for related ATM business processes and supporting technical infrastructure. It will also reflect the integration and standardisation requirements of the ATM system business model.

5 Provide greater levels of predictability & confidence with regards to deployment dates (taking into account in particular industrialisation phase)

- The recent PCP experience has shown that there is a need to significantly **increase confidence** in V4/V5 start/end dates by defining a process to secure operational stakeholder's commitment on the plan (together with standardisation bodies and EASA).

- Defining **end of deployment dates** is also important to be able to determine the investment profile of SESAR changes as well as the expected contribution to performance over time.

6 Include RPAS integration and stronger focus on cybersecurity aspects

- Following the establishment of the **RPAS** Roadmap by the European RPAS Steering Group and its handover to the Commission in 2013, the SESAR JU has established an internal RPAS Project Team under SJU leadership with the aim to identify and define the needs for civil RPAS integration. One of the objectives of this team is to provide input to the Campaign.

- In addition, as the future ATM system will more strongly rely on SWIM services, the SESAR JU has launched a **cyber-security** study which is expected to conclude by April 2015. The study focuses on the definition of an information security policy to steer to ensure that future SESAR solutions adequately manage-cyber security aspects without becoming an obstacle to the effective deployment and to interoperability.

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7 Emphasize SESAR achievements to further build momentum

- The MP is also a communication tool for the European Union in the international scene. That is why SESAR achievements both from an R&D and Deployment perspective should be further highlighted in the future edition.

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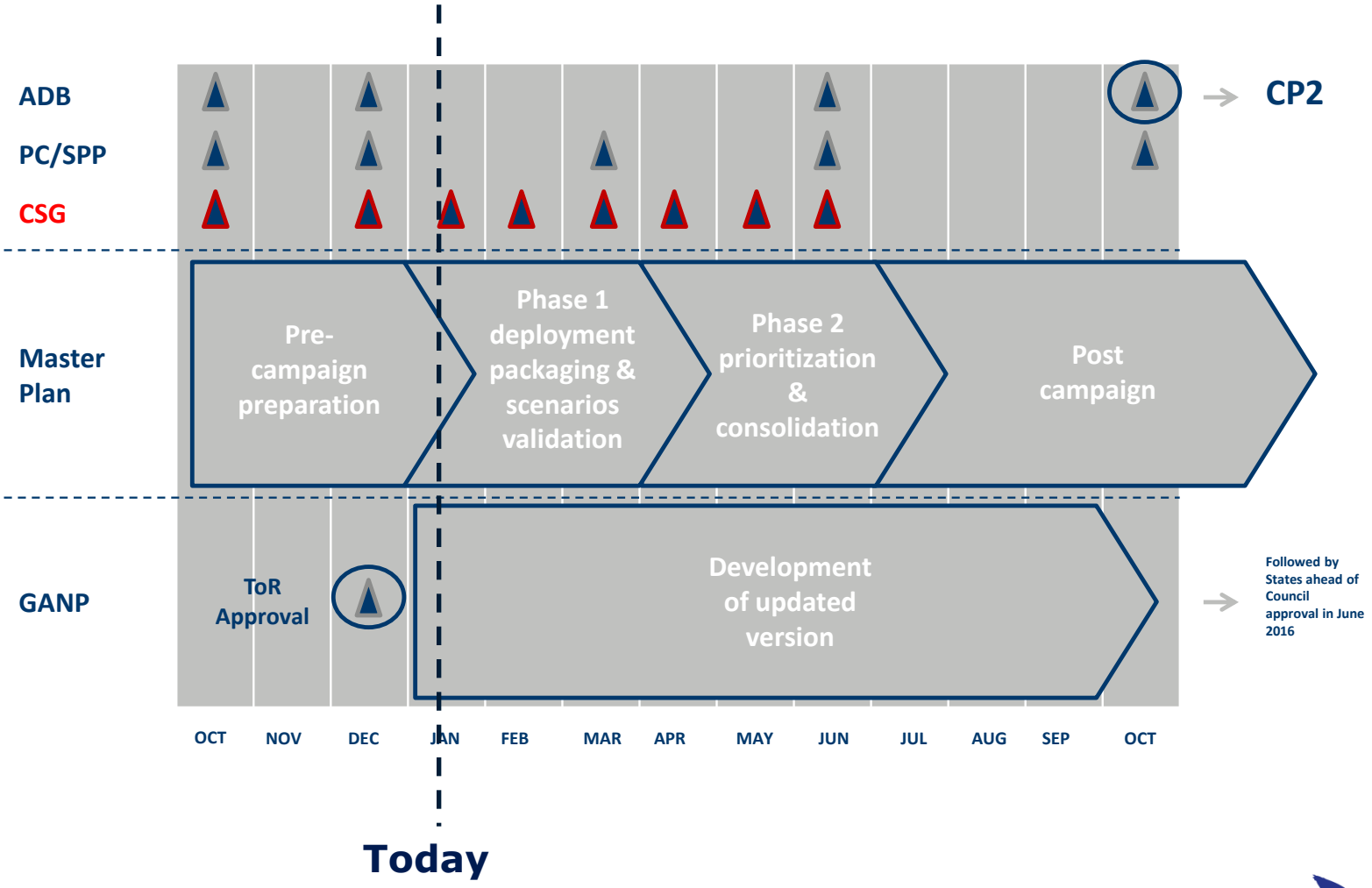
The time line

Phasing of the activities



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The decision-making process

MP Campaign start Dec 2014

30 June 2015

Formal Board consultation ~4-6 months

31 December 2015

ATM Master Plan update proposal

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Executive Director delivers the MP **update proposal** to the Administrative Board

Commission
Adopts EU **position** through comitology

Opinion of the Single Sky Committee

College Decision

EUROCONTROL
adopts its position through consultation/approval procedure

EUROCONTROL provisional council

Other Board Members establish their positions

SJU consolidates ATM MP update proposal with the positions of Board & resubmits to the Board

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Administrative Board adopts **final version of the updated** MP

ICAO **Development of the next version of the GANP/ASBUs**

Followed by State level consultation ahead of Council approval in June 2016

The Master Plan is the EU's "ambassador" for ATM modernisation worldwide, it will feed global master planning at ICAO level

THANK YOU FOR YOUR ATTENTION
QUESTIONS?

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