

# Virtual Centre Deployment Lessons

Performance Review Commission  
“Flagships in ATM” Workshop  
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# Virtual Centre Flagships



## Technology is Here

1. It is not a question of technology anymore but rather how to successfully deploy modern IT in ATM
2. Step-by-step introduction in ATM is feasible albeit expensive
3. Safety & labour are used as excuses not to change – cyber security is challenging this fundamentally



## New Operating Models as Drivers

1. We move from location-based ATC to location-independent ATM (space-based and digitalization)
2. Corresponding process changes “from local to network” require new end-to-end business process thinking
3. “Dual soul” of ATM:
  - a. part of an international network
  - b. local mandates and national requirements

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## Equipment Mindset

1. We are only used to incremental changes based on “equipment mindset.”
2. No experience in end-to-end business process reengineering and services.
3. Current regulation (373) continues to cement this: equipment-based philosophy (hardware, software and experts).



## Legacy Drag

1. Complex parallel operation of legacy and modern systems
2. Slow deployment of modern software and software assurance concepts. Lack of knowhow and experience at all levels (ANSP, regulator, supplier and Europe).
3. Regular struggle between certification and qualification;

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## More Courage for Change

1. A clear sense of urgency. The current ATC set up will not be sustainable anymore
2. A European air space approach rather than funding local “interoperable” equipment
3. A clear will to innovate rather than waiting for regulation



## Right Incentives

1. Recognizing and supporting first movers pragmatically
2. A performance model which then does not punish early movers
3. Real supplier competition: entry hurdles for modern suppliers too high (certification & regulation in a small locked market);
4. Stop masquerading costly old technology as innovation



## More for Discussion



Have an operational concept for location-independent airspace management.

- This is a paradigm shift in a change-resistant safety environment. When it usually takes 5 years to change an Engineering organization, it'll take 10 years to change the Operations in an ANSP.



Stimulate regulatory support & guidance according to their role.

- Innovation comes from the users/providers but the regulators must be in the boat from the very beginning, i.e. going through the learning curve together.



Introduce real safety and risk management processes and tools

- Safety and risk management usually apply tools from yesterday to assess new technologies, processes and solutions and are focussing on compliance rather than on Safety.



Share and collaborate with stakeholders

- Stronger support from solution providers to prevent re-inventing the wheel and leverage learnings over more than just one organization.





### No “big-bang” possible

Step-by-step migration from the legacy to the new platform over a very long period poses challenges on safety, engineering and operations.



### Gaining buy-in

labor and safety are usually misused to slow-down change



### Decommissioning legacy systems

which can be full of bad surprises (technology and functionality) and which increase the complexity during the transition



### Regulator’s challenges to process level of change

due to innovation in architecture, system design, processes and skills



### Aligning processes

“business process re-engineering” is still little applied in ATC. Outside support will be critical



### European Innovation funding

Costly masquerading old technology as innovation





Support early  
movers sooner

So far we have been  
“alone” in risk and  
funding



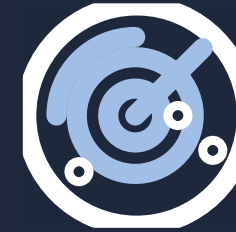
**Develop a better  
incentive scheme**

Please refer to  
Skyguide’s RP4  
Strawman concept



Allow and foster better  
cross-border solutions

Distinguish between  
international services and  
local mandates.



Create an environment  
and urgency for  
change

Stop excuses and have the  
courage for a different  
approach.