

Innovation, Enterprise or both?

Ground System Architectures Workshop 2022

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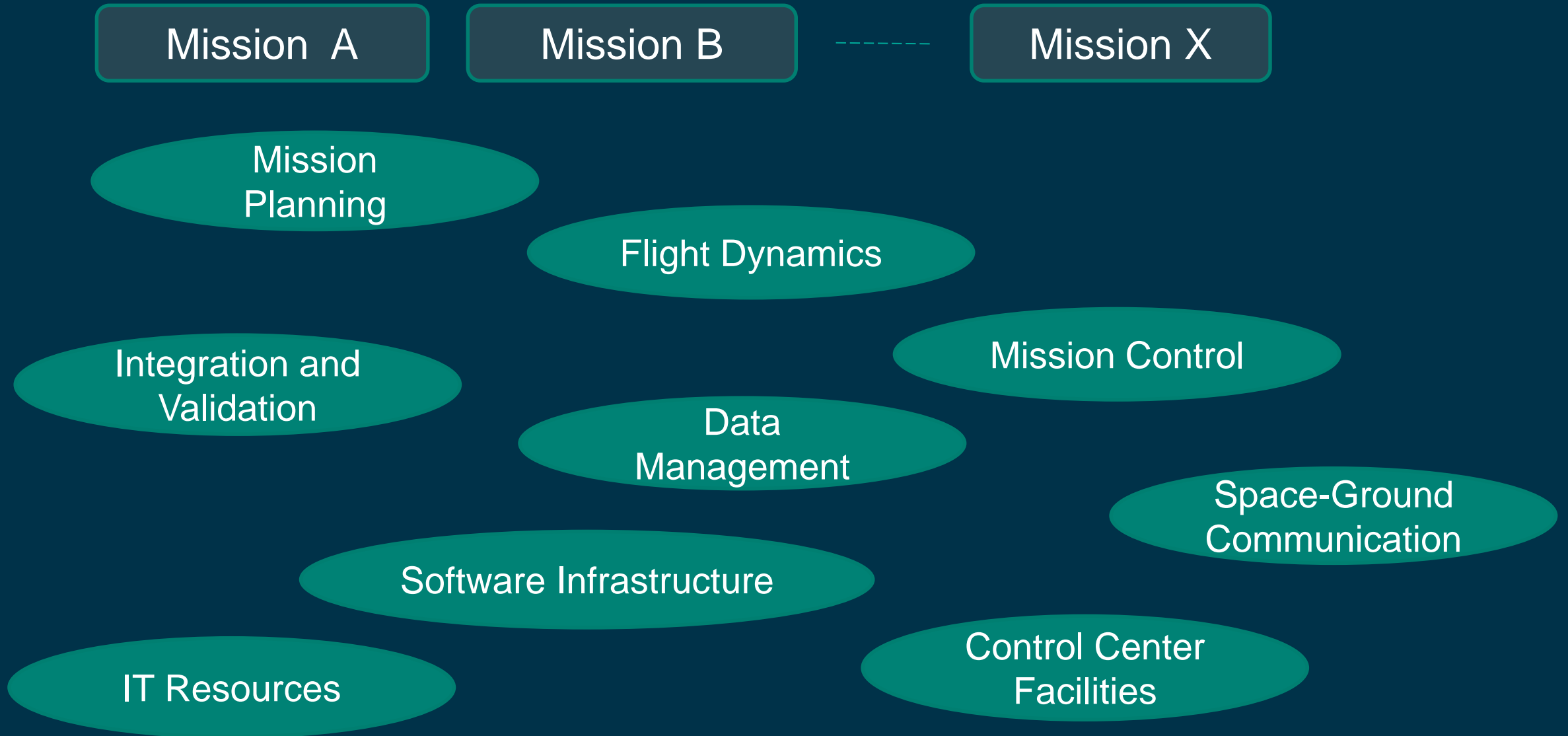
M. Pecchioli

ESA/ESOC

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The Objective: Multi-mission Services as a Commodity



The 'Technical Enablers' to form an Enterprise

- Standardised space-ground interfaces
- Common specification of ground systems
- Generic system-to-system interfaces
- Common specification of the space segment (M&C Services)
- Implementation of re-usable library of generic software components
- 'Open' architectures
- Horizontally layered design
- Clean separation between 'Operations' and 'Communication'
- Adoption of modern 'scalable' and 'sharable' technologies

The 'Real Enablers' to form an Enterprise...

- Allocation of adequate funding to 'generic/multi-mission elements' development and maintenance (and reduction of the funds allocated to individual missions...)
- Introduction of 'enterprise level' governance bodies
- Cultural shift from 'mission-centric' towards 'infrastructure-centric' processes
- Set-up of a 'program tax' to fund the provision of 'multi-mission services'
- Continuous fight against the culture 'My mission is different...and is mine...'

Does an Enterprise slow down Innovation?

It depends...

- On what is meant by Innovation...
- And on the design of the Enterprise system
- And on its functional scope

- Programs buy in: Convince the Programs that the Enterprise system is meant to better server their needs...
- Operating costs funding: Circumvent the funding restrictions/constraints of Programs
- Balanced implementation: Identify an optimal functional scope of the Enterprise system:
 - Not too wide, to avoid overcomplexity and to keep the ability to complement it with modern/innovative extensions
 - Not too narrow, to be attractive enough for being adopted