European Innovation Council

Backing visionary entrepreneurs

Stela Tkatchova
EIC Programme Manager for Space
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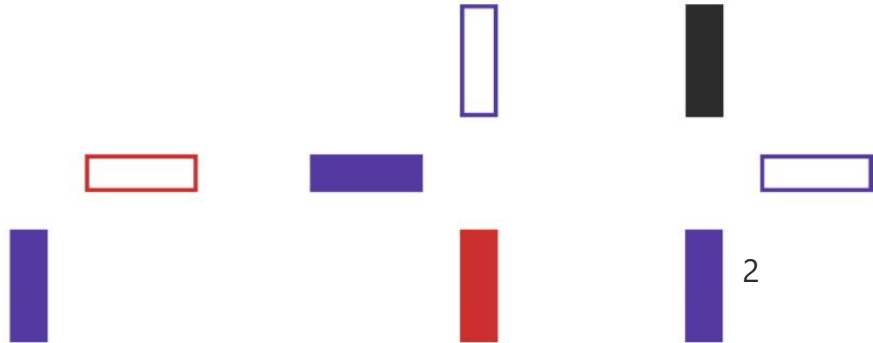
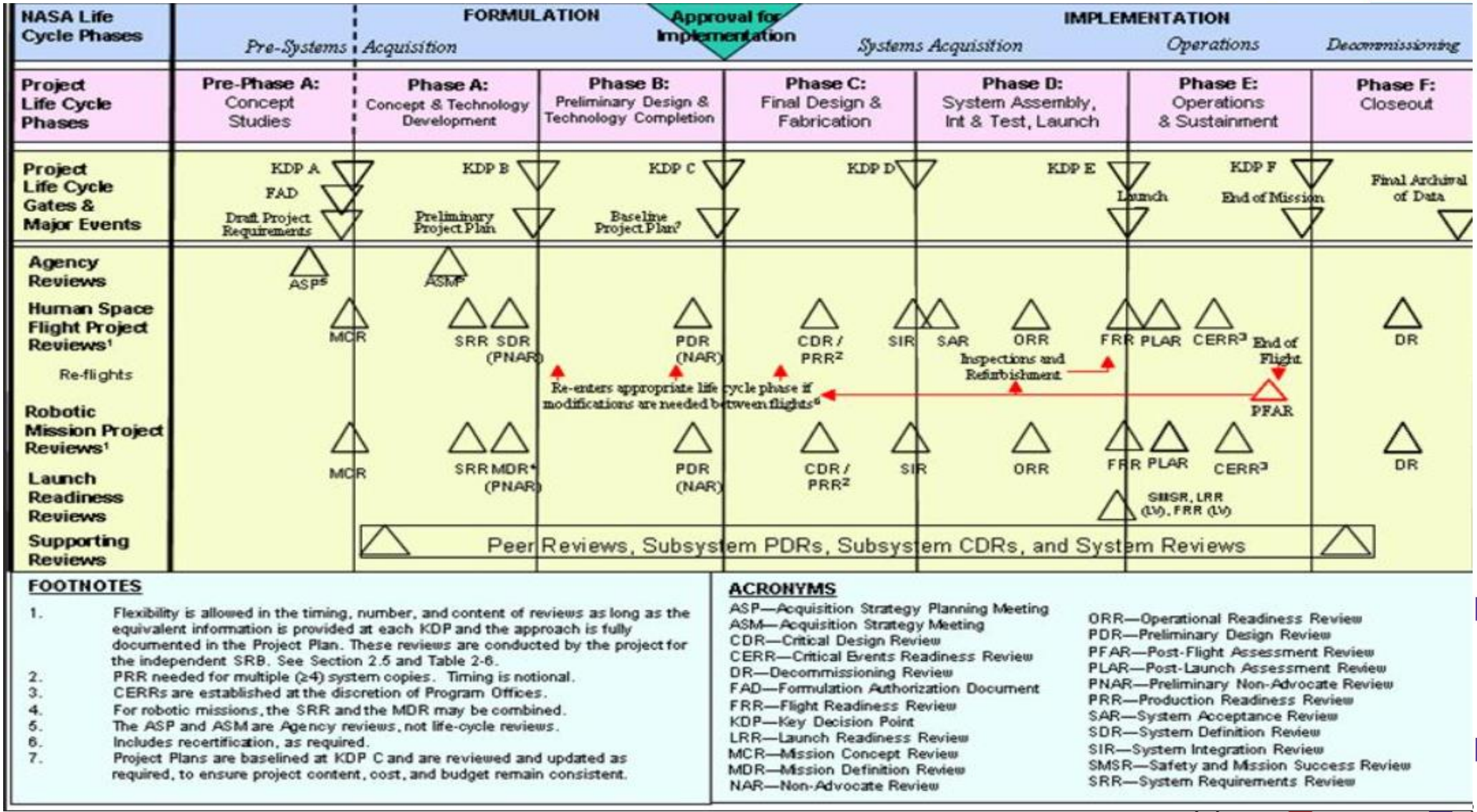
European Innovation Council and SME Agency

Agenda

- Introduction to PM In the space industry
- Space projects risk analysis
- Space projects lessons learnt
- PM steps for creating a portfolio of space projects





FOOTNOTES

1. Flexibility is allowed in the timing, number, and content of reviews as long as the equivalent information is provided at each KDP and the approach is fully documented in the Project Plan. These reviews are conducted by the project for the independent SRB. See Section 2.5 and Table 2-6.
2. PRR needed for multiple (≥4) system copies. Timing is notional.
3. CERRs are established at the discretion of Program Offices.
4. For robotic missions, the SRR and the MDR may be combined.
5. The ASP and ASM are Agency reviews, not life-cycle reviews.
6. Includes recertification, as required.
7. Project Plans are baselined at KDP C and are reviewed and updated as required, to ensure project content, cost, and budget remain consistent.

ACRONYMS

ASP—Acquisition Strategy Planning Meeting
ASM—Acquisition Strategy Meeting
CDR—Critical Design Review
CERR—Critical Events Readiness Review
DR—Decommissioning Review
FAD—Formulation Authorization Document
FRR—Flight Readiness Review
KDP—Key Decision Point
LRR—Launch Readiness Review
MCR—Mission Concept Review
MDR—Mission Definition Review
NAR—Non-Advocate Review
ORR—Operational Readiness Review
PDR—Preliminary Design Review
PFAR—Post-Flight Assessment Review
PLAR—Post-Launch Assessment Review
PNAR—Preliminary Non-Advocate Review
PRR—Production Readiness Review
SAR—System Acceptance Review
SDR—System Definition Review
SIR—System Integration Review
SMSR—Safety and Mission Success Review
SRR—System Requirements Review

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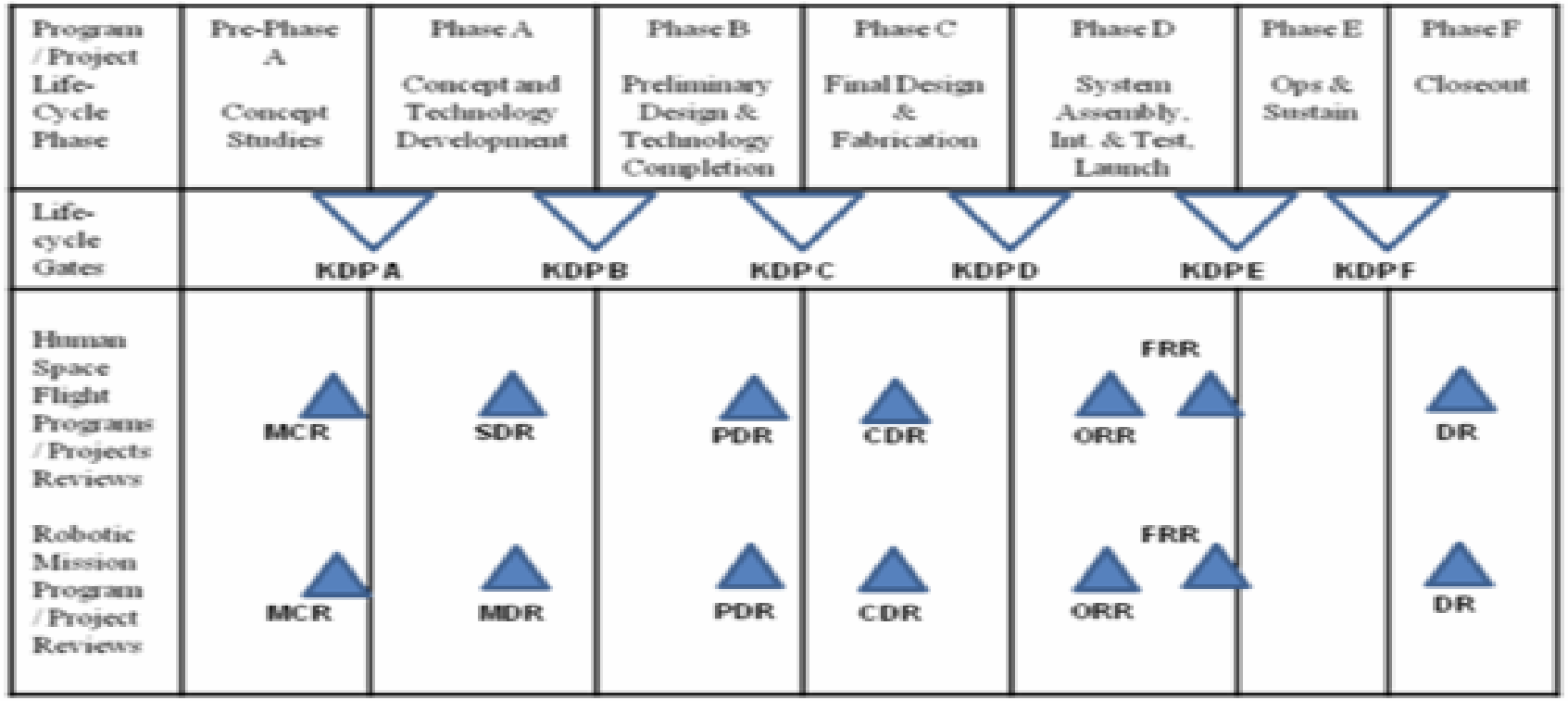
PM responsible for achieving the milestones



Footnotes: KDP – Key Decision Point, MCR – Mission Concept Review, SDR – System Definition Review, MDR – Mission Definition Review, PDR – Preliminary Design Review, CDR – Critical Design Review ORR – Operational Readiness Review, FRR – Flight Readiness Review, DR – Decommissioning Review

Courtesy: ESA

Risk analysis for space missions

Magnitude of Risk Severity X Probability Score	Risk Index	Magnitude & Acceptability of Risk of Risk Scenario
	> 20	**Maximum => unacceptable:** maximum disruption of project plan, maximum threat to project success, implement new process or change baseline plan
	15 – 20	**High => unacceptable:** maximum disruption of project plan, large threat to project success, implement new process or change baseline plan
	10 – 15	**Medium => acceptable:** some disruption of project plan, some threat to project success, aggressively manage, consider alternative process
	5- 10	**Low => acceptable:** little disruption of project plan, little threat to project success, some management actions necessary
	< 5	**Minimum => acceptable:** no disruption of project plan, no threat to project success, current approach is sufficient

Figure 2. Risk scale

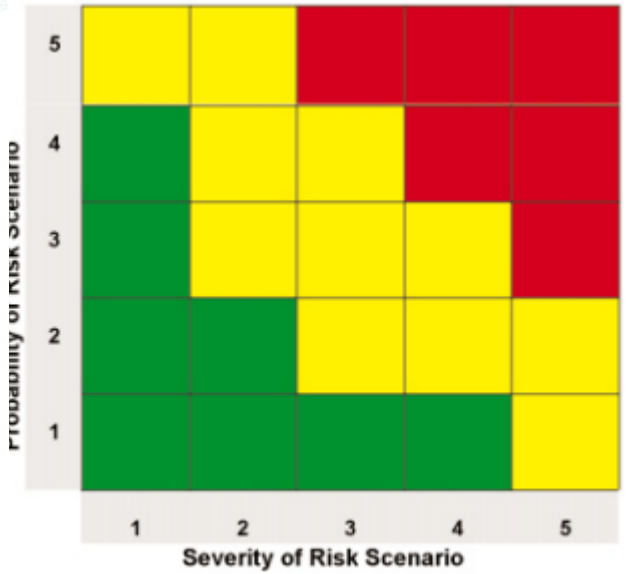


Figure 1

Courtesy: ESA

PM skills

- 1-Communication
- 2-Leadership
- 3-Organization
- 4-Negotiation
- 5-Team management
- 6-Time management
- 7-Risk management
- 8-Problem-solving
- 9-Budget management
- 10 -Motivation

Courtesy: ESA

Mission Objective

- Group I - perform a risk analysis on building an instrument that will be integrated in a cubesat and flown to the International Space Station
- Group II - perform a SWOT analysis on the potential commercial application of the experiment
- Group III – consolidate lessons learnt