

European Space Technology Harmonisation

Presentation to SME4Space Interactive Session

Technology Coordination and Planning Office (TEC-H)

20/11/2019

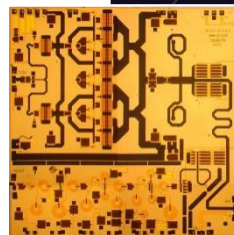
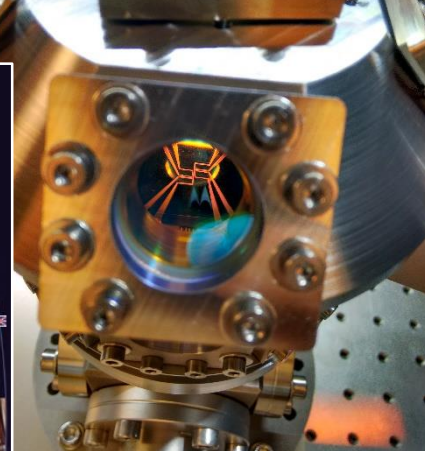
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TEC-H

TECHnology Coordination & Planning Office

→ coordinating on space TECHNOlogy, internally and externally



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“To provide for and promote, for exclusively peaceful purposes, cooperation among European states in space research and technology and their space applications.”

ESA Convention – Article 2





OBJECTIVES OF SPACE TECHNOLOGY



**ENABLING FUTURE
MISSIONS
COMPETITIVENESS OF EUROPEAN
INDUSTRY
FOSTERING
INNOVATION
CRITICAL SPACE TECHNO NON-
DEPENDENCE
TECHNO TRANSFER: SPIN-OFF &
SPIN-IN**

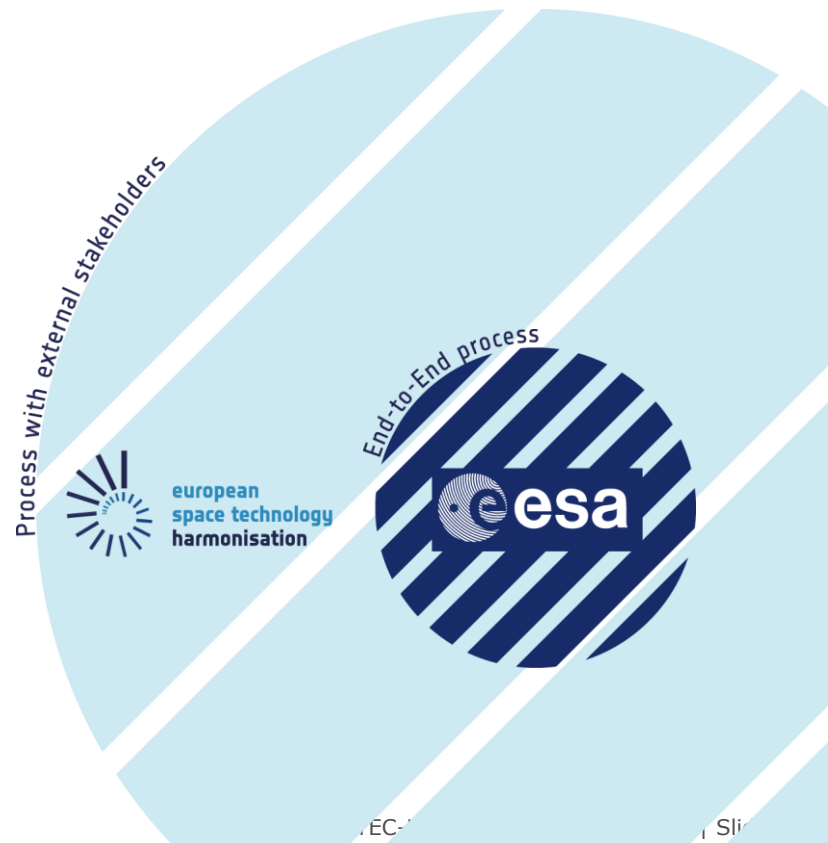




ESA TECHNOLOGY MANAGEMENT - OBJECTIVES



**TECHNOLOGY MATURITY &
TIMING
COHERENCE &
COMPLEMENTARITY BETWEEN
PROGRAMS IN EUROPE
MID-LONG TERM
STRATEGY
USE OF EXISTING
RESOURCES
RETURN ON INVESTMENTS
EVALUATION**



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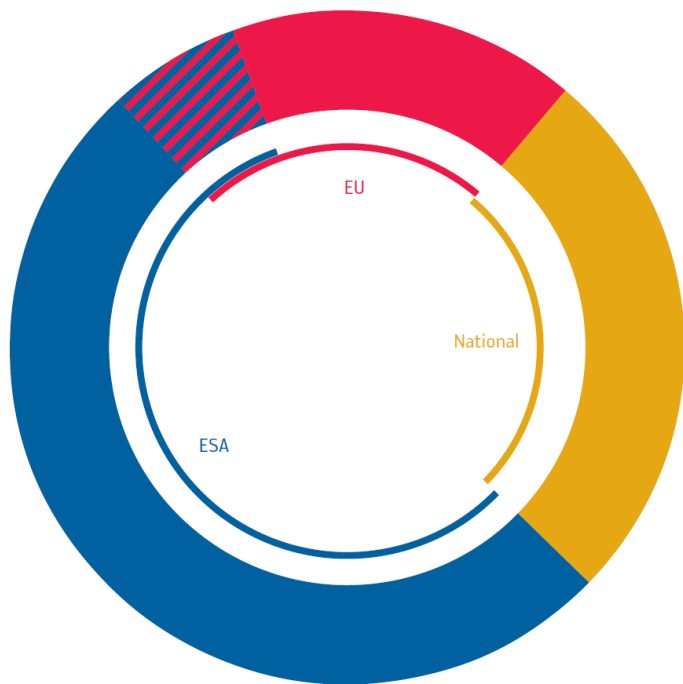
European Space Agency



european space technology harmonisation



EUROPEAN SPACE TECHNOLOGY HARMONISATION



EUROPEAN
SPACE
TECHNO R&D

800 M€ / Year

ESA TECHNO R&D

410 M€ / Year

Ref: ESTMP 2018

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**FILL STRATEGIC GAPS & MINIMISE
UNNECESSARY DUPLICATIONS**

**CONSOLIDATE EUROPEAN STRATEGIC
CAPABILITIES**

**COORDINATE EUROPEAN SPACE
TECHNOLOGY POLICY & PLANNING**

**CONTRIBUTE TO ENSURING CONTINUITY
BETWEEN TECHNOLOGY & INDUSTRIAL POLICIES**





ESA Member States

ESA Cooperating States (ECS)

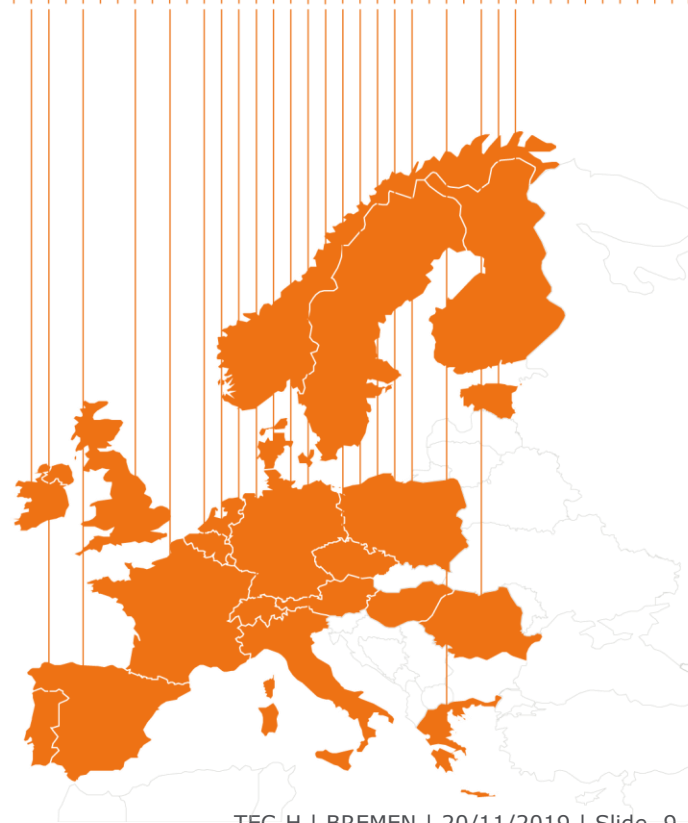
European Commission

European Defence Agency

Eurospace & SME4space

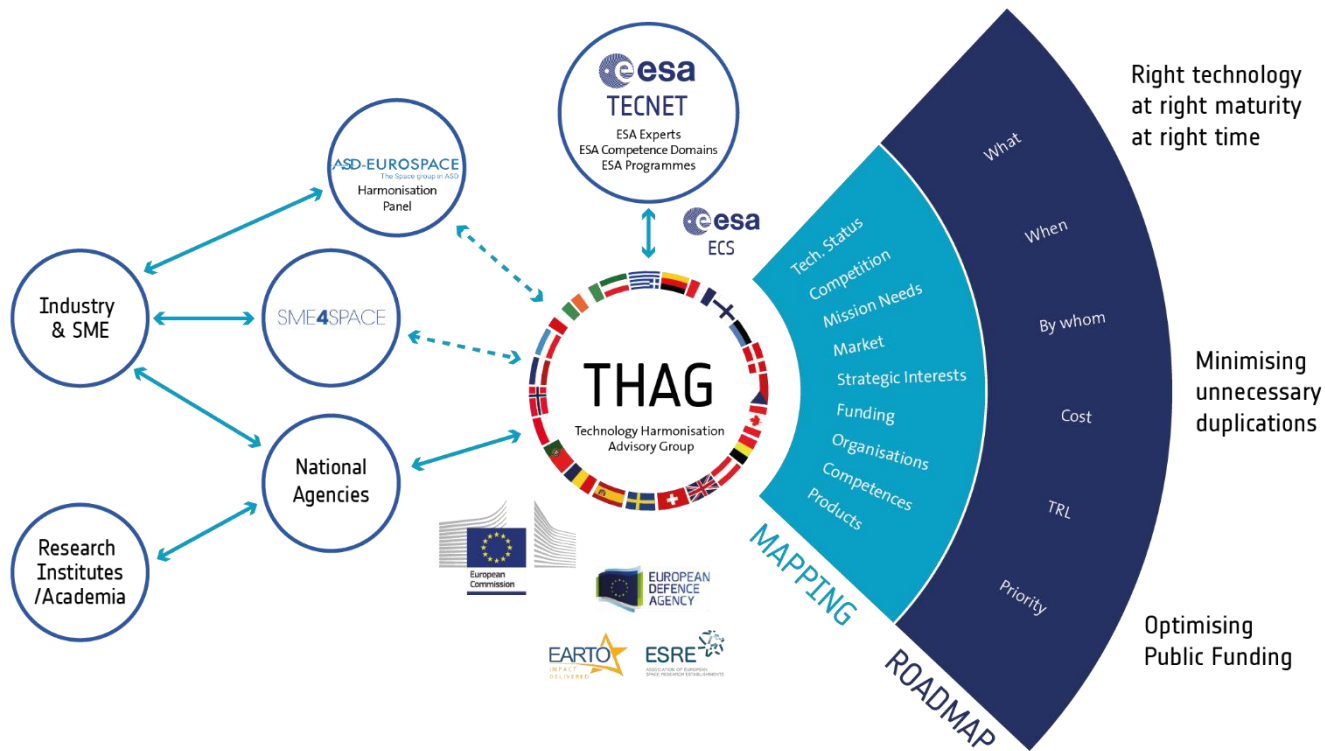
Industry and Research Organizations

<https://www.sme4space.org/european-space-technology-harmonisation/>





HARMONISATION: AN INCLUSIVE PROCESS



THAG: Technology Harmonisation Advisory Group

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HARMONISATION: FROM MAPPING TO ROADMAP



1 Harmo RM = 1 Technology Topic

~ 10 new RM / year

All RMs since 2001

139 RMs
7000 Harmo RM act
5.2 B€

Active RMs

53 RM
3500 Harmo RM act
750 M€



Elaboration
of TD



Mapping
meeting



Elaboration
of RM



Evolution
of TD



Internal
Review



Evolution
of RM



Industry
Review



Evolution
of RM



Roadmap
meeting



RM



TD



Conclusions

OPEN MEETING
(up to 100 participants)

RESTRICTED MEETINGS
(Industry represented by Eurospace & SME4space)



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- Companies can approach directly their THAG delegates for expressing concerns, requests or inform on their capabilities for any Harmo topic under discussion.
- However, most of the inputs from Industry are channeled via [Eurospace](#) and [SME4Space](#) with a split of the companies* to be contacted by each association being based on whether the entity is a SME.
 - Both associations present their separate findings at the Mapping Meeting;
 - For the Roadmap Industry Review, [Eurospace](#) and [SME4Space](#) present consolidated inputs for the Roadmap under discussion.

* According to the EC definition of SME



**Endorsed
by IPC**

Diffusion of information

ICMdb



IT tool

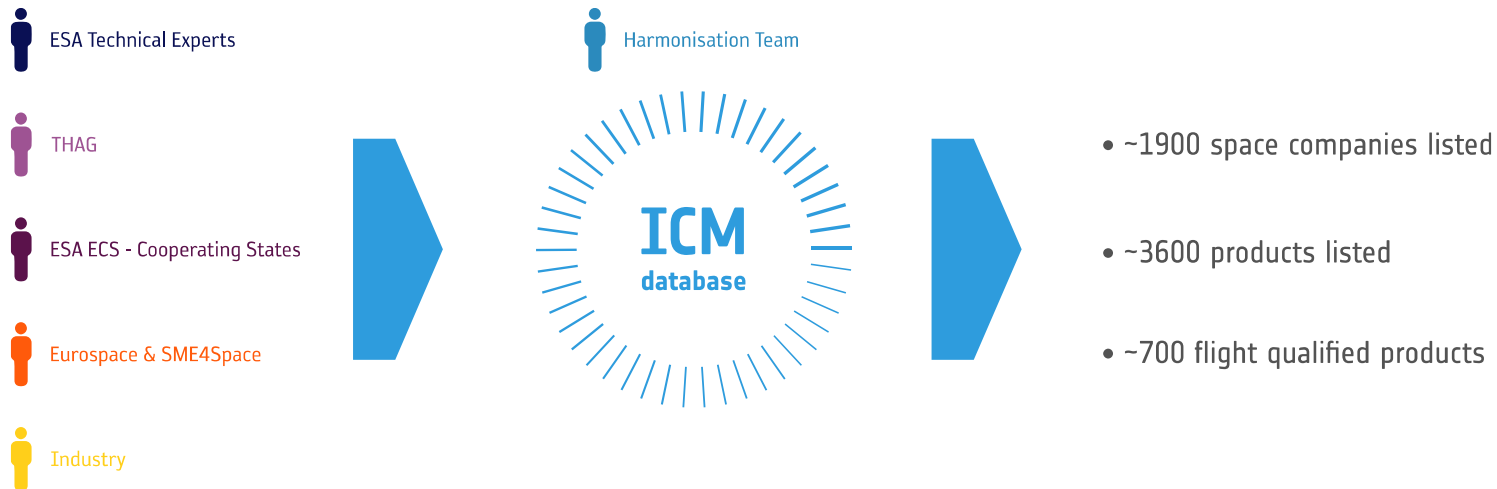
Harmonisation Tracking System

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DOCUMENT

SharePoint

Harmonisation
Document
Management
System
(HDMS)

esa blue-docs

Webpage

COMMUNICATION

Harmo
conferences

Brochure

Harmonisation
Tracking Report

ESTM
P



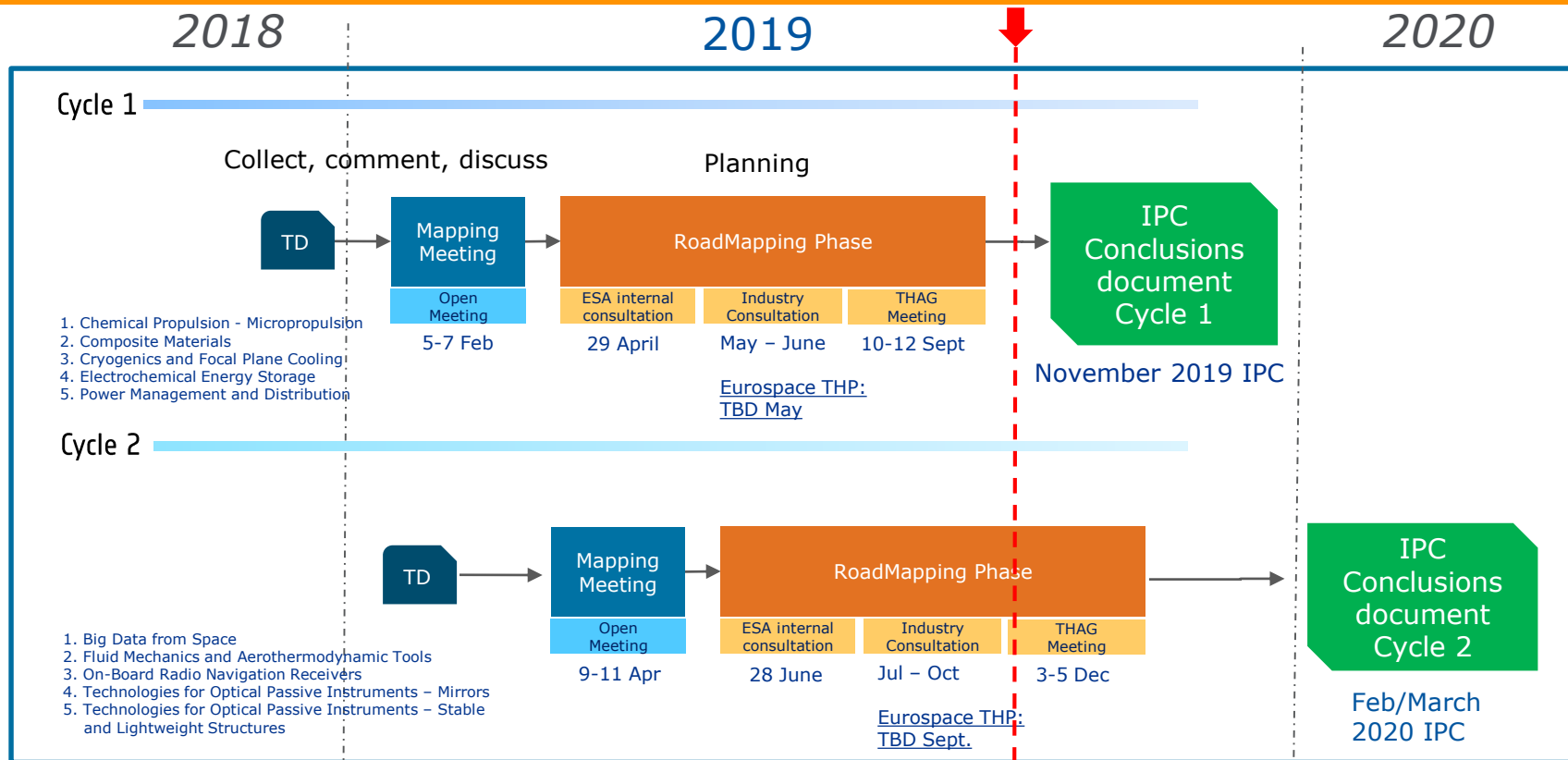
more info on www.esa.int → technology harmonisation



Harmonisation Planning 2019



2019 Cycles



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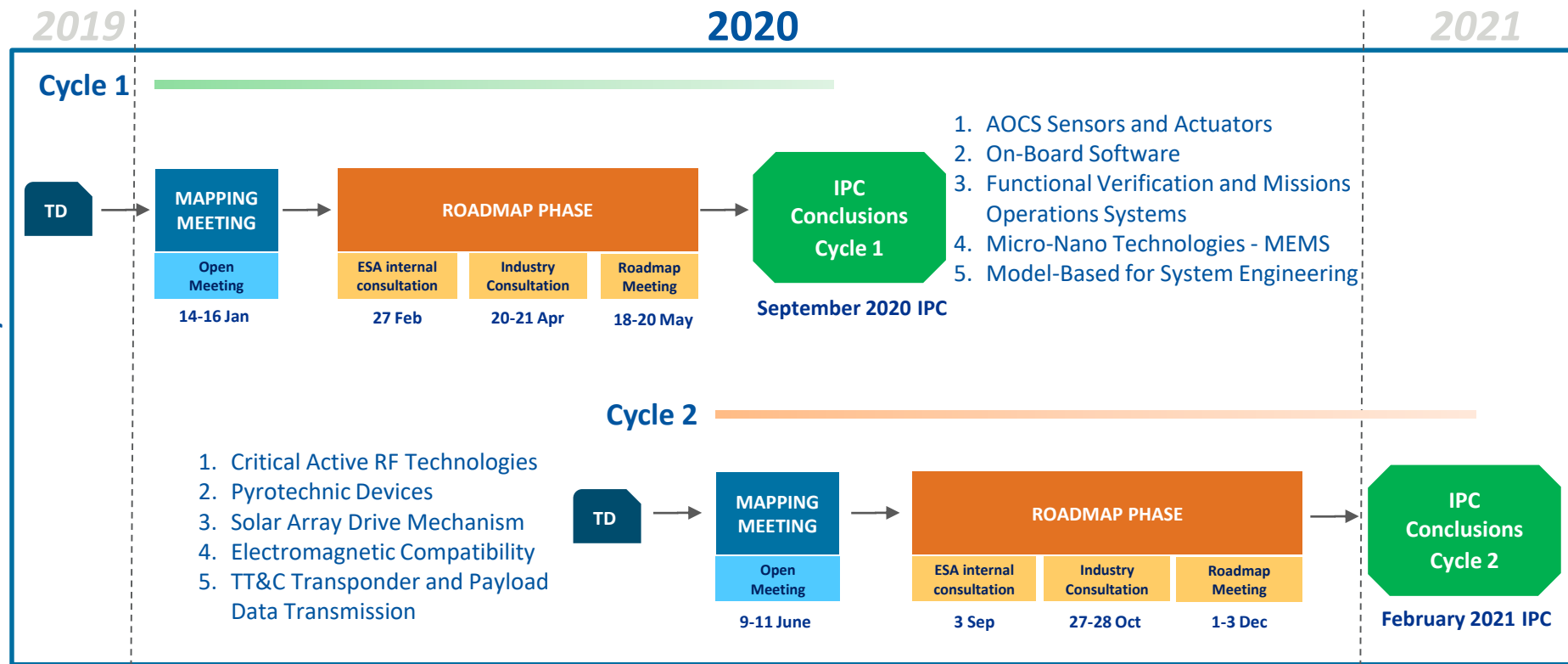
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HARMONISATION PLANNING 2020



2020 Cycles





Benefits for SMEs in participating to the Harmonisation



- Influence the setting of priorities for technology innovations and future Space R&D developments
- Obtain broad awareness on ESA and European activities on your technology topics of interest
- Gain exposure within the community
- Get an opportunity for establishing partnerships with other European players





- The Harmonisation of the European Space Technology R&D activities coordinates among all actors of European space sector to establish a strong technology base as a key to the worldwide competitiveness of European Industry and to the success of future space missions.
- SME4SPACE is the main channel for SME participation in the Harmonisation process.
- SME4SPACE has a mailing list, where each expert can subscribe to the Harmo topics of their interest - <https://www.sme4space.org/harmo-ml/>





ANY QUESTIONS?

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