

Cosmic Vision Call Programmatic Context

Programmatic assumptions

- **Current LoR, no update for change in e.c. but annual increase of 2.5% (2006-2010) and onwards continuation of this income scheme.**
- **ESA long term plan shows no change in LoR.**
- **Projects under development and missions selected in the current plan to be launched as planned within approved CaCs or best financial predictions.**

Elements of the plan

- **Projects under development (Herschel/Planck, LISA Pathfinder (LPF), JWST, GAIA and BepiColombo).**
- **Cooperative activities (COROT, Microscope, Chandrayan, Proba-2, Chang E).**
- **Missions in operation (HST, Newton, INTEGRAL, AKARI, Ulysses, SOHO, Cluster, Double Star, Hinode, Rosetta, MEX, VEX).**
- **Missions selected in the implementation plan but still to be adopted (Solar Orbiter, LISA).**
- **Basic activities.**
- **Future planned activities (mission extensions).**
- **Future Cosmic Vision missions (M1, L1).**

Programmatic context

Solar Orbiter

- **Presently under industrial study.**
- **Collaboration with NASA's Sentinel mission under Discussion.**
- **Launch in mid 2015.**
- **Cost to ESA capped at 300 M€**
- **Decision for Definition Phase at end 2007.**

Programmatic context

The case of LISA

- Programmatically, no launch of LISA earlier than 2017.
- LISA shifted to the Cosmic Vision planning window 2015-2025.

In the frame of the revised CV implementation strategy, SPC has unanimously approved the implementation of LISA as a class L mission candidate for the first launch opportunity (L1) in the Cosmic Vision 2015-2025 plan.

Programmatic context

LISA as L1 candidate

- **Opens door to larger funds for ESA share**
- **Preparatory techno will continue**
- **Future decision for LISA based on;**
 - **Successful in-orbit performance of LPF (2010),**
 - **TRL of new LISA-specific technologies,**
 - **Confirmation of NASA level of involvement,**
 - **Overall Science Programme financial outlook.**
- **Decision to start LISA not before 2010 at earliest.**
 - **Tied to LISA-PF launch and overall programme schedule**

Programmatic context

LISA-PF

- **LISA-PF undergoing external review to validate the Executive's assessment of remaining technological risk and requested contingency.**
- **Report will be presented and final commitment of funds by SPC for LISA-PF will be made in May 2007.**

COSMIC VISION 2015 – 2025

Call for proposals

Financial and programmatic context

- **Based on envelopes of Class M/L missions, average mission frequency is one launch every 15 to 18 months.**
- **Future Calls every 3-4 years, structured to meet needs (mix of missions, balance of disciplines) and financial planning of Cosmic Vision plan.**

2007 Schedule of Call for proposals

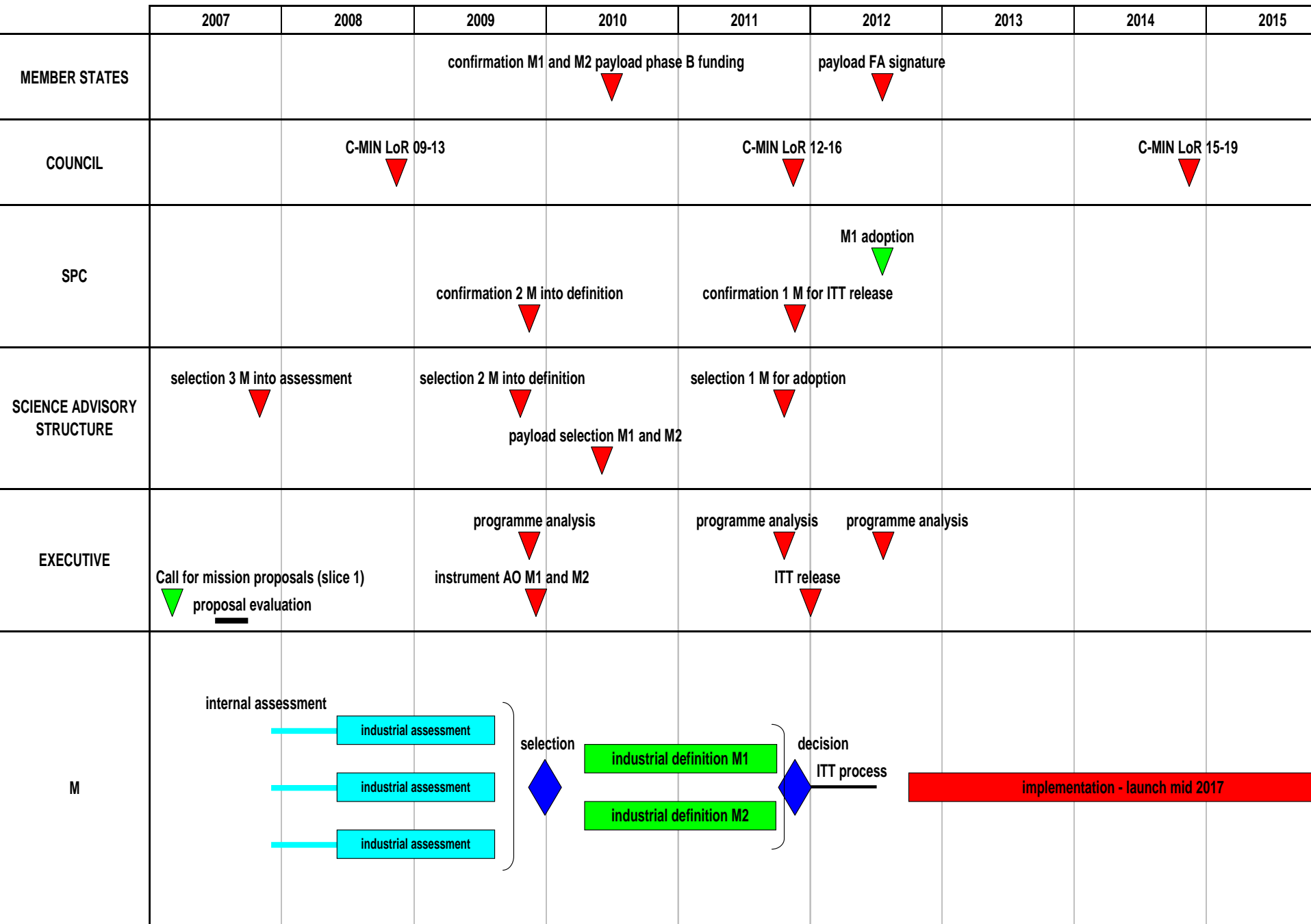
- **Call for mission proposals** **5 March**
- **Letters of Intent due** **30 March**
- **Briefing at ESTEC** **11 April**
- **Mission proposals due** **29 June**
- **Evaluation by ESA & PR teams** **July-September**
- **WG/SSAC select 3M & 3L missions for Assessment** **October**

M Missions schedule

- **Assessment Phase of up to 3 proposals**
 - **Internal Assessment Phase** Nov 07- May 08
 - **Competitive Industrial Assessment** June 08-Aug 09
 - **(emphasis on payload, cost and risks)**
- **Presentation of study results &**
- **WG/SSAC recommendation for selection** Sept 09-Oct 09
- **SPC confirmation of 2 missions for Definition study** November 09
- **2 missions in competitive Industrial Definition studies** April 10-Sept 11
- **WG/SSAC recommendation for 1 mission** Sept 11-Oct 11
- **SPC confirmation of 1 mission for ITT issue** November 2011
- **SPC approval of CaC and P/L formal agreement** J uly 2012
- **Industrial Implementation Phase** Sept 2012
- **Launch** mid 2017

N.B. Mission not selected by SPC removed from plan. May be re-proposed in response to next call.

IMPLEMENTATION PLAN FOR M MISSIONS (ESA/SPC(2007)3, February 2007)



L Mission Concepts Schedule

- **Internal Assessment Phase and identification of key technology areas for up to 3 proposals** **Nov 2007-May 2008**
- **Industrial Assessment Phase and definition of the required Technology Development Plans (TDP)** **June 2008-June 2009**
- **WG/SSAC evaluation and down selection to 2 missions to compete with LISA to enter 2 Definition Phases** **July 2009-Oct 2009**
(TDP activated for the 2 selected missions and the remaining Class L mission concept- includes LISA)

- **SPC confirmation of 2 missions for definition study** **November 2009**
- **2 competitive Industrial Definition studies** **Jan 2010-June 2011**
- **WG/SSAC evaluation/prioritisation** **July 2011-Oct 2011**
- **SPC confirmation of 1st mission for ITT issue*** **November 2011**
- **SPC mission adoption (CaC and P/L formal agreement)** **July 2012**
- **Industrial Implementation Phase** **September 2012**
- **Launch of 1st L mission (L1)** **October 2018**

* “Loosing” mission + 3rd mission with activated TDP kept in plan to compete later for L2 slot.

IMPLEMENTATION PLAN FOR L MISSIONS (ESA/SPC(2007)3, February 2007)

