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 CaC Cs 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  July 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.

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### MEMBER STATES
- 2007: confirmation M1 and M2 payload phase B funding
- 2010: payload FA signature

### COUNCIL
- 2009: C-MIN LoR 09-13
- 2010: C-MIN LoR 12-16
- 2011: C-MIN LoR 15-19

### SPC
- 2008: confirmation 2 M into definition
- 2009: confirmation 1 M for ITT release
- 2010: M1 adoption

### SCIENCE ADVISORY STRUCTURE
- 2007: selection 3 M into assessment
- 2008: selection 2 M into definition
- 2009: selection 1 M for adoption
- 2010: payload selection M1 and M2

### EXECUTIVE
- 2007: Call for mission proposals (slice 1)
- 2008: proposal evaluation
- 2009: programme analysis
- 2010: instrument AO M1 and M2
- 2011: ITT release

### M
- 2007: internal assessment
- 2008: industrial assessment
- 2009: selection
- 2010: industrial definition M1
- 2011: decision
- 2012: ITT process
- 2013: implementation - launch mid 2017
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)

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