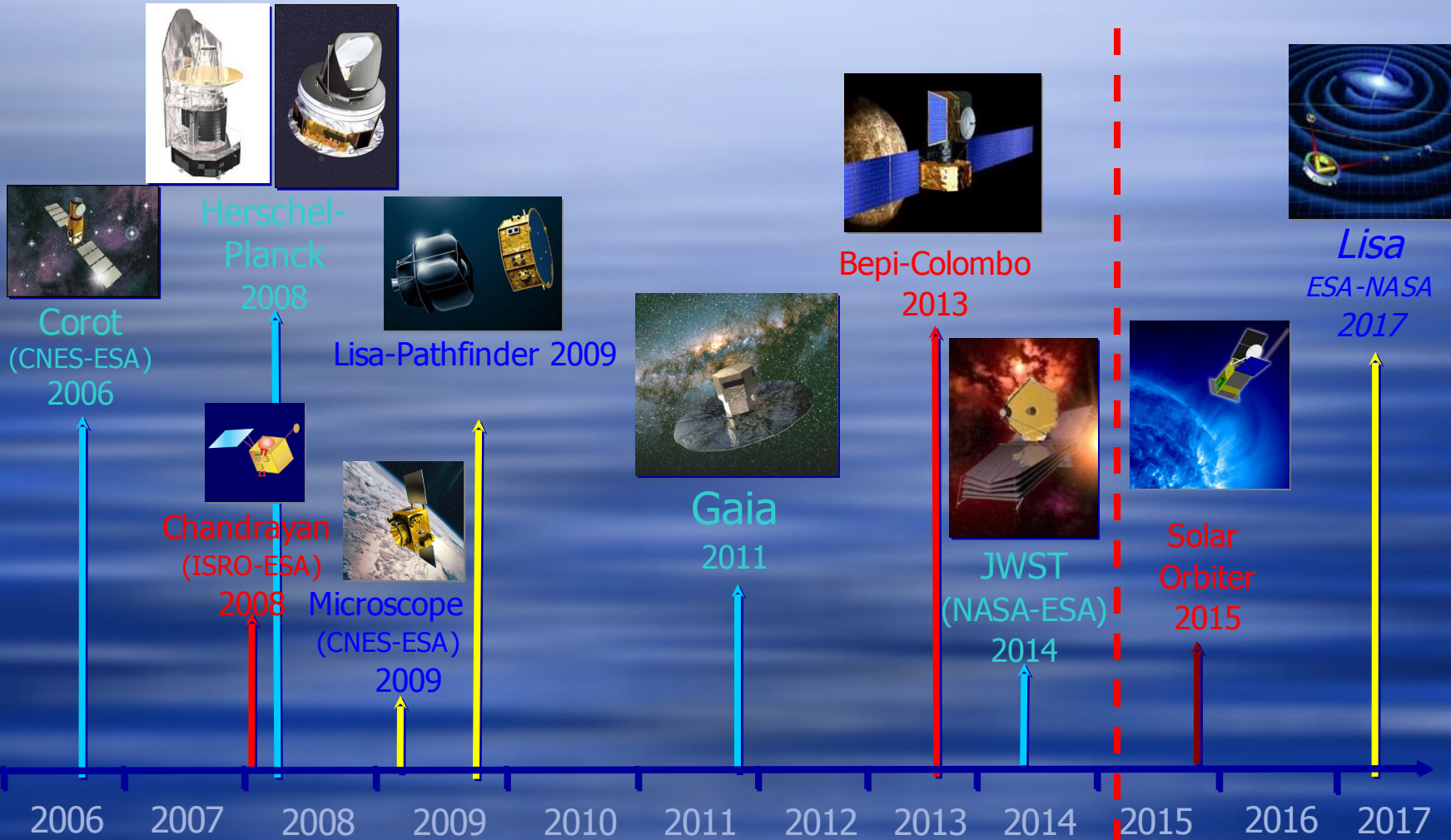


Science Program Status
&
Call for CV2015 Proposals

Fabio Favata

ESA, Astronomy & Fundamental Physics
Mission Coordinator

Missions in preparation



December 2006
LIST

Science Program Status (following May 2006 SPC)

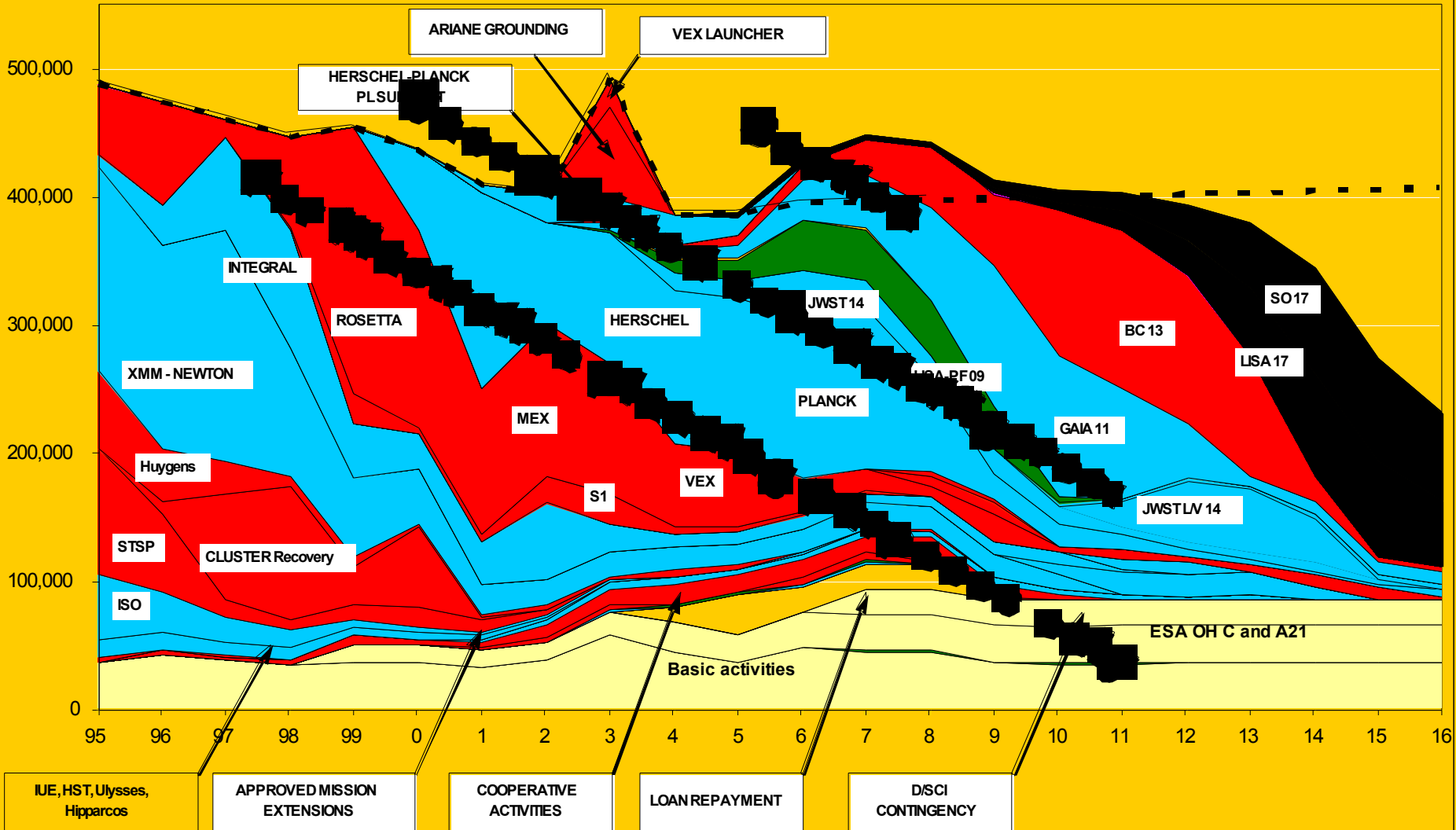
◆ JWST NIRSpec	March 2010	165 M€
◆ LISA PF	Oct. 2009	190 M€
◆ GAIA	Dec. 2011	550 M€
◆ BepiColombo	Sep. 2013	665 M€
◆ Solar Orbiter	May 2015	≤ 300 M€
◆ LISA	Sep. 2017	360 M€

Amounts are “best financial predictions”,
thus subject to evolution

December 2006
LIST

COSMIC VISION

LoR 2006-2010 C-MIN 2005 Berlin / SSAC recommendation January 2006
 Science Programme Committee, 115th meeting, ESA HO, 15-16 May 2006



December 2006
 LIST

Developments at NASA

- ◆ Tight budget for science missions
- ◆ Strong push toward lunar science
- ◆ JWST on track
- ◆ HST SM4 2008 (2 instruments)
- ◆ Beyond Einstein program (LISA, JDEM, Con-X, Inflation Probe) originally due for selection in 2009 -
Following decision of NASA administrator:
 - ◆ Ongoing NRC review to decide first BE mission
 - ◆ Decision due September 2007, for a TBD launch date
- ◆ Kepler (Oct. 2008), WISE (Jun. 2009), GLAST (Aug. 2007)
- ◆ SIM \geq 2015, TPF deferred

SPRT review

- ◆ High level external review of the ESA Science Program
 - ◆ Mandated by DG, approved by ESA Council
 - ◆ Reports to ESA's DG
 - ◆ Last SPRT 1988 ("Pinkau report")
 - ◆ To review the management of the Program, incl.
 - ◆ Mission selection and implementation procedures
 - ◆ Interfaces with Member States
 - ◆ Interface with Scientific Community

SPRT review (cont.)

- ◆ Issues to be addressed include:
 - ◆ Overheating of Science Program
 - ◆ Decision-making process in the Program
 - ◆ Contingency management, budget, risk control
 - ◆ P/L development, risk, funding
 - ◆ Advanced technology development
 - ◆ Internal facilities and re-charging policy
 - ◆ Mission mix and time scales

SPRT review (cont.)

- ◆ SPRT report to Council due March 2007
- ◆ SPRT composition:
 - ◆ R. van Duinen (chair)
 - ◆ A. Azcarraga J.-J. Dechezelles
 - ◆ T. Encrenaz K. Fredga
 - ◆ M. Grewing K. Gluitz
 - ◆ L. Maiani M. Sweeting

Informal interim SPRT report

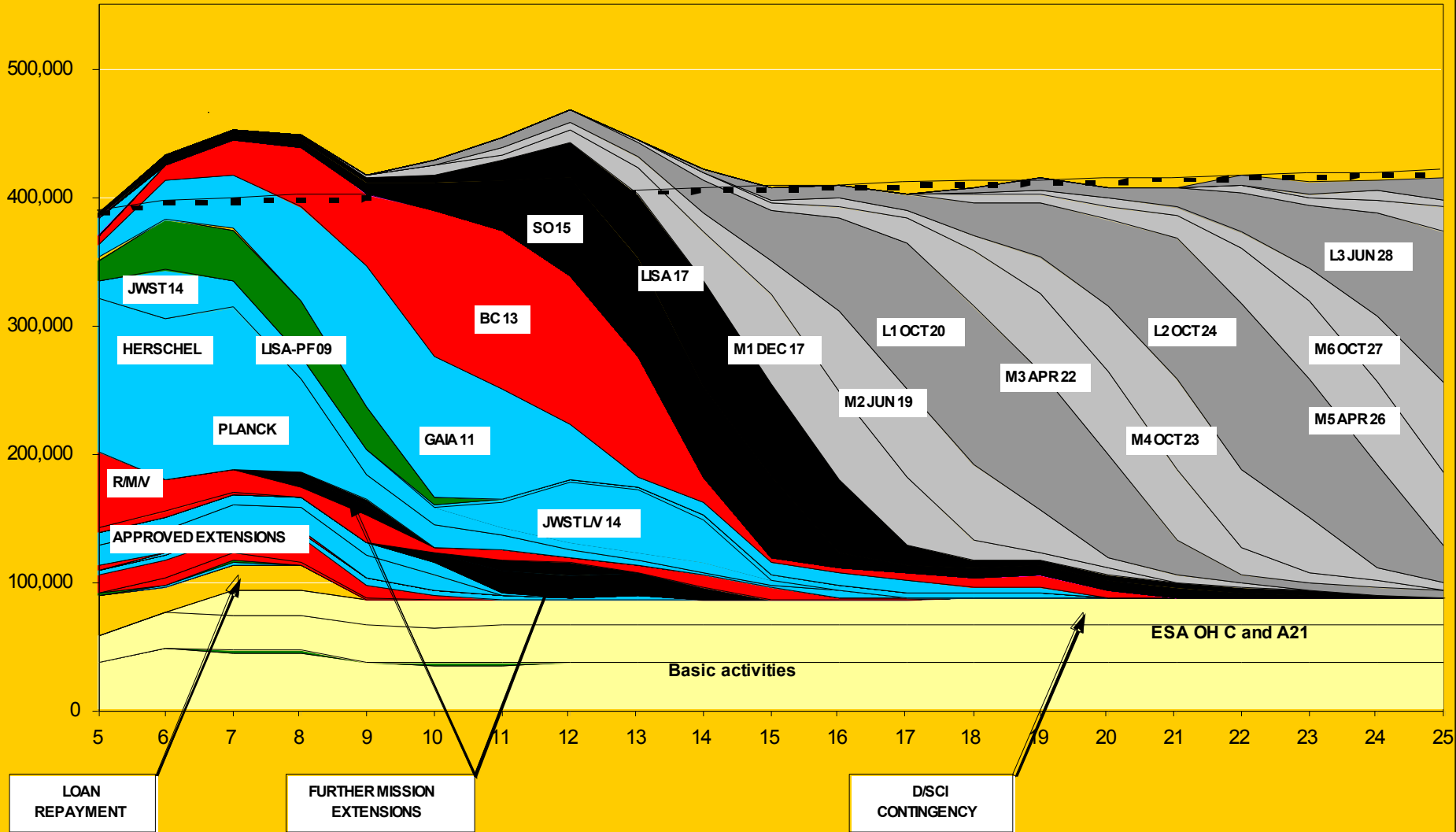
Presented at informal SPC (Sept. 7)

- ◆ CV2015 Call for proposals: It is important but the budget does not allow it for a M 2017 launch
- ◆ Program overheated, thus either
 - ◆ Postpone CV2015 Call significantly (first M mission launch post 2020) or
 - ◆ Resolve program overheating

COSMIC VISION

LoR 2006-2010 C-MIN 2005 Berlin / SSAC recommendation January 2006

Call for Mission Proposals, preliminary input, 200 Meuro too much, 29 August 2006



Proposed strategy

- ◆ Cap the SolO ESA costs to 300 M€ (a reduction of 120 M€)
- ◆ Reduce the costs for mission extensions, for the period up to 2015, by 60 M€ (from 111 M€)
- ◆ Reduce internal ESA costs, for the period up to 2015, by 20 M€
- ◆ Endorsed at Oct. SSAC, agreed at Nov. SPC
- ◆ Details being fleshed out at the moment

Ongoing actions

- ◆ Details of plan to be presented at Feb. 2007 SPC
- ◆ Decision on release of CV2015 Call expected following Feb. SPC
- ◆ Current structure of Call essentially unchanged from mid 2006
 - ◆ Schedule subject to revision
 - ◆ Include SPRT recommendations on L mission concepts handling and schedule

2007 Call for CV Mission Proposals

First of 3 Calls (TBC) for implementation of CV2015-2025.

Available budget for a ~2015-2018 launch: ~300 M€.

The Call will nevertheless be fully open:

No a priori size restriction, but clear cost guidelines

Mission could be:

a small/medium size M project (≤ 300 M€ cost to ESA),

a large ESA led L project (≤ 650 M€ cost to ESA)

L mission selection will serve for long term technological development for possible launch in ~ 2020.

1M + 1 L missions will eventually be implemented

Schedule of Call for proposals

Call for mission proposals release	February 2007
Letters of Intent due	March 2007
Briefing to proposers at ESTEC	End March 2007
Mission proposals due	End June 2007
WG select 3 <u>S-M</u> & 3 <u>L</u> missions for study phase	Oct 2007

All dates to be confirmed!

M Missions schedule

Assessment phases

Internal assessment phase	Nov 2007- May 2008
Competitive industrial assessment (emphasis on payload, cost and risks)	Jun 2008-Aug 2009
Presentation of study results & WG/SSAC recommendation for selection	Sep 2009-Oct 2009
SPC confirmation of 2 missions for definition study	Nov 2009
Start of 2 competitive Industrial Definition studies	Apr 2010-Sep 2011
WG/SSAC recommendation for selection	Sep 2011-Oct 2011
SPC confirmation of 1 mission for ITT issue	Nov 2011
SPC approval of CaC and P/L formal agreement	Jul 2012
Industrial implementation phase	Sep 2012
Launch	End 2017

L Mission concept schedule

Study and Technology identification phase	Nov 2007–Dec 2010
Presentation of study results	Jan 2011
WG/SSAC recommendation for 2 missions	Apr 2011
Start of technology consolidation phase (formulation)	Jun 2011
SPC confirmation of 2 missions for definition study	Feb 2013
Start of 2 competitive Industrial Definition studies	Apr 2013
WG/SSAC evaluation/prioritization	Nov 2014–Jan 2015
SPC confirmation of 1st mission for ITT issue	Feb 2015
SPC approval of CaC and P/L formal agreement	Nov 2015
Industrial implementation phase	Jan 2016
Launch	> 2020

The end