

UK SPICA Science Meeting, RAS, 22 Jan. 2016

SPICA

the next generation

Infrared Space Telescope

Introduction

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Meeting Objectives

- **Provide an update on SPICA status and plans**
- **Assess SPICA scientific capabilities and priorities for the UK community**
- **Clarify opportunities/mechanisms for UK community engagement with the SPICA team, the SPICA M5 proposal, and beyond**
- **Plan for future promotion of SPICA within the UK**

SPICA in the UK

- **UK participation in SPICA initiated by Bruce Swinyard in 2004**
- **SPICA-SAFARI consortium UK-led initially, then transferred to Netherlands in 2009**
- **No direct UK funding for SPICA since then but ESA CTP programme for related detector development**
- **UK SPICA team made submission to AAP and 2012 STFC Programmatic review. Based on**
 - **UK ability to make essential technical contribution**
 - **Strong science case**
 - **Planetary system formation and evolution**
 - **Stars and the lifecycle of dust and gas**
 - **Nearby Universe**
 - **Galaxy evolution and cosmological surveys**

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SPICA in the UK

- Reasonable outcome
 - Rated g-2 in PR (as good as can be expected for a proposed future mission)
 - Favourable recognition in the 2012 AAP report
- SPICA and SAFARI have evolved since then
 - 2.5-m telescope
 - SAFARI grating spectrometer instead of FTS
 - Now planned as a joint European-Japanese mission
 - M5 rather than M4
- But still as exciting as ever scientifically, and case for UK technical involvement is as strong as before
- SPICA not on UKSA radar today, but UKSA is amenable to supporting ESA M missions

Possible M5 Schedule

ESA call for proposals	Apr. 2016
Deadline for proposal submission	Aug./Sept. 2016
Selection of missions for Phase-A study	Early 2017
Selection of mission for implementation	~ End 2018
Launch	~ 2029

Next Steps

- **No prospect of UKSA funding unless/until**
 1. **SPICA is selected for Phase-A study by ESA**
 2. **UKSA receives strong formal advice from STFC that SPICA is scientifically a high priority mission for the UK community**
- **Assist with strong M5 proposal**
- **Build support within the UK scientific community for SPICA and engagement with the SAFARI Consortium**
- **Ensure that STFC register SPICA as an important mission**