

Coordination unit CU6: spectroscopic processing

1st workshop

6-7 March 2006

Institute of Astrophysics of Paris (IAP)

- ❖ **Gaia status: instruments design**
- ❖ **Gaia Data Processing & Analysis Consortium status**
- ❖ **Objectives of the workshop**

D . Katz

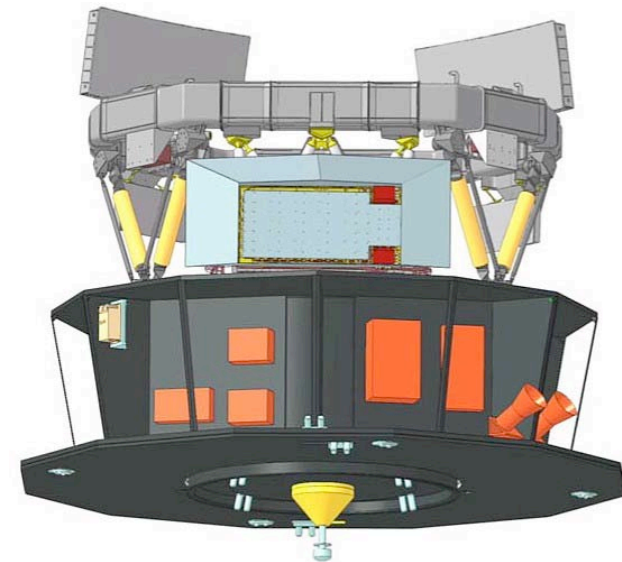
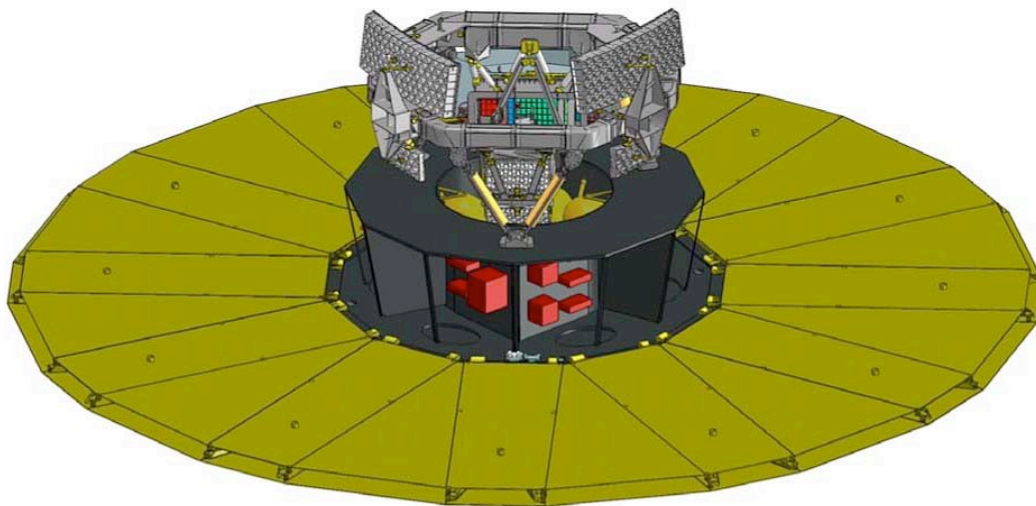
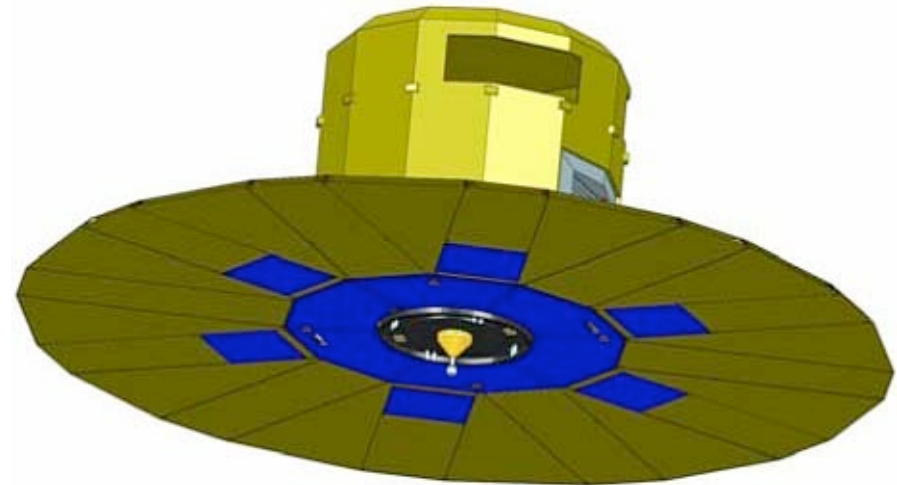
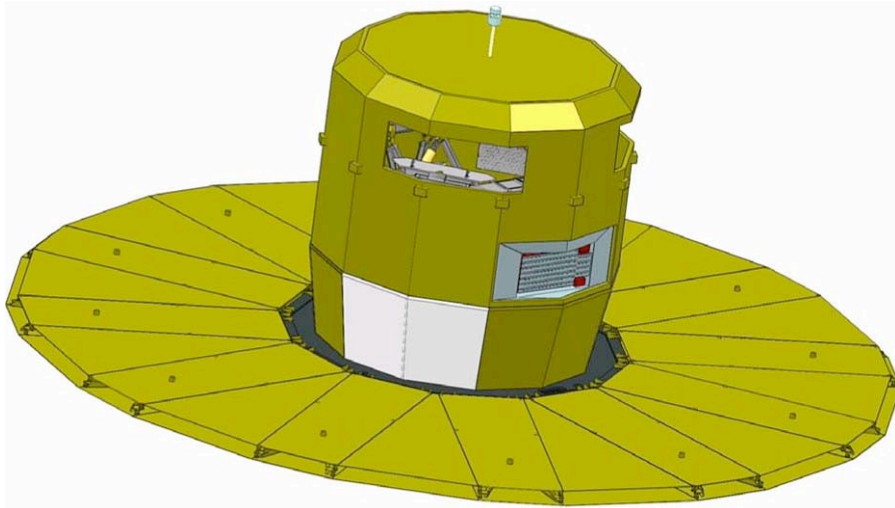
Gaia status: instruments design (1)

❖ Agenda

- **Q2 04:** start of competitive phase B1
→ two industrial consortia (Alcatel/Alenia and Astrium)
- **July 05:** “Invitation To Tender” (ITT)
→ includes scientific specifications
- **Oct. 05:** Industrial consortia answers
- **Dec. 05:** Recommendation by the evaluation board to select Astrium
- **Feb. 06:** Approval of the recommendation by the Industrial Policy Committee (IPC)
- **Feb. 06:** Approval of the recommendation by the Science Policy Committee (SPC): **Astrium selected as prime contractor.**
→ Selected design becomes public
- **March 06:** Start of phase B2 (~1 year)

Gaia status: instruments design (2)

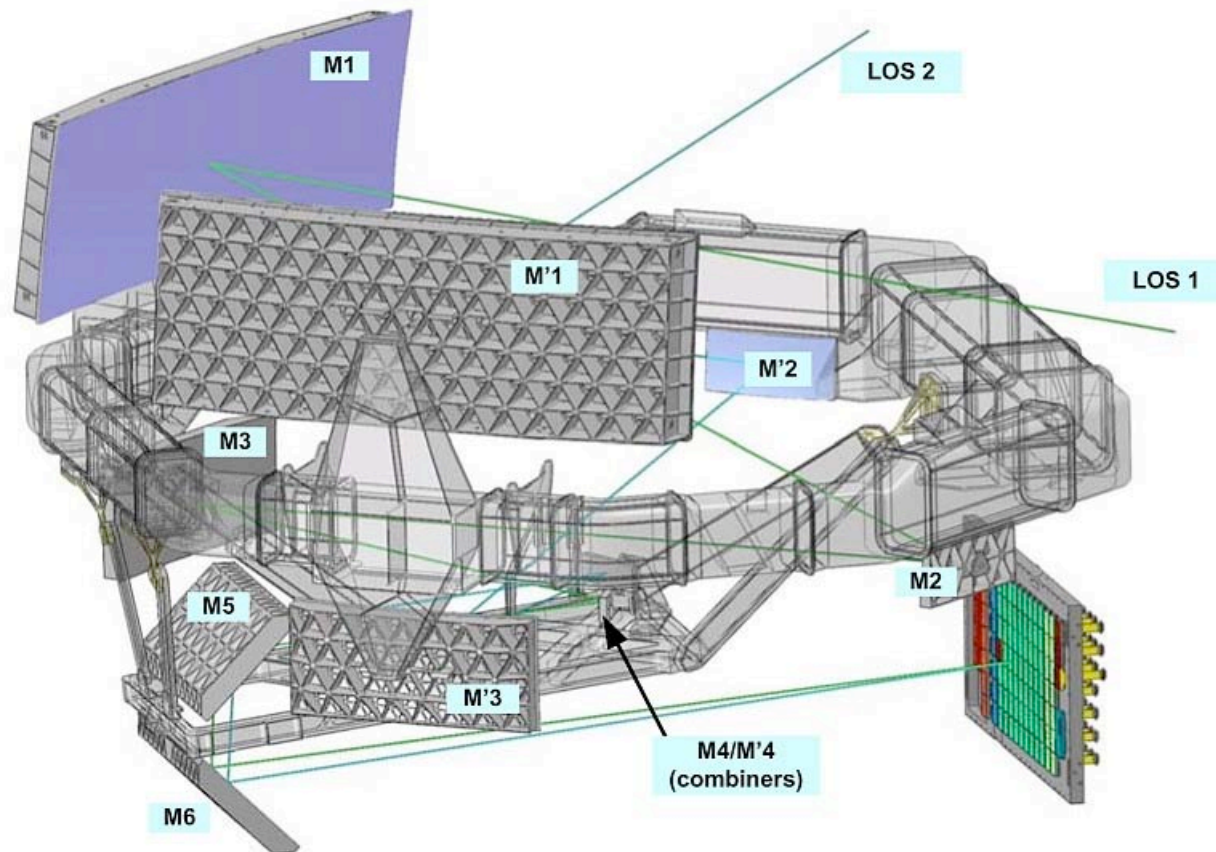
❖ Overall satellite concept remains the same



Gaia status: instruments design (3)

❖ Payload design simplified

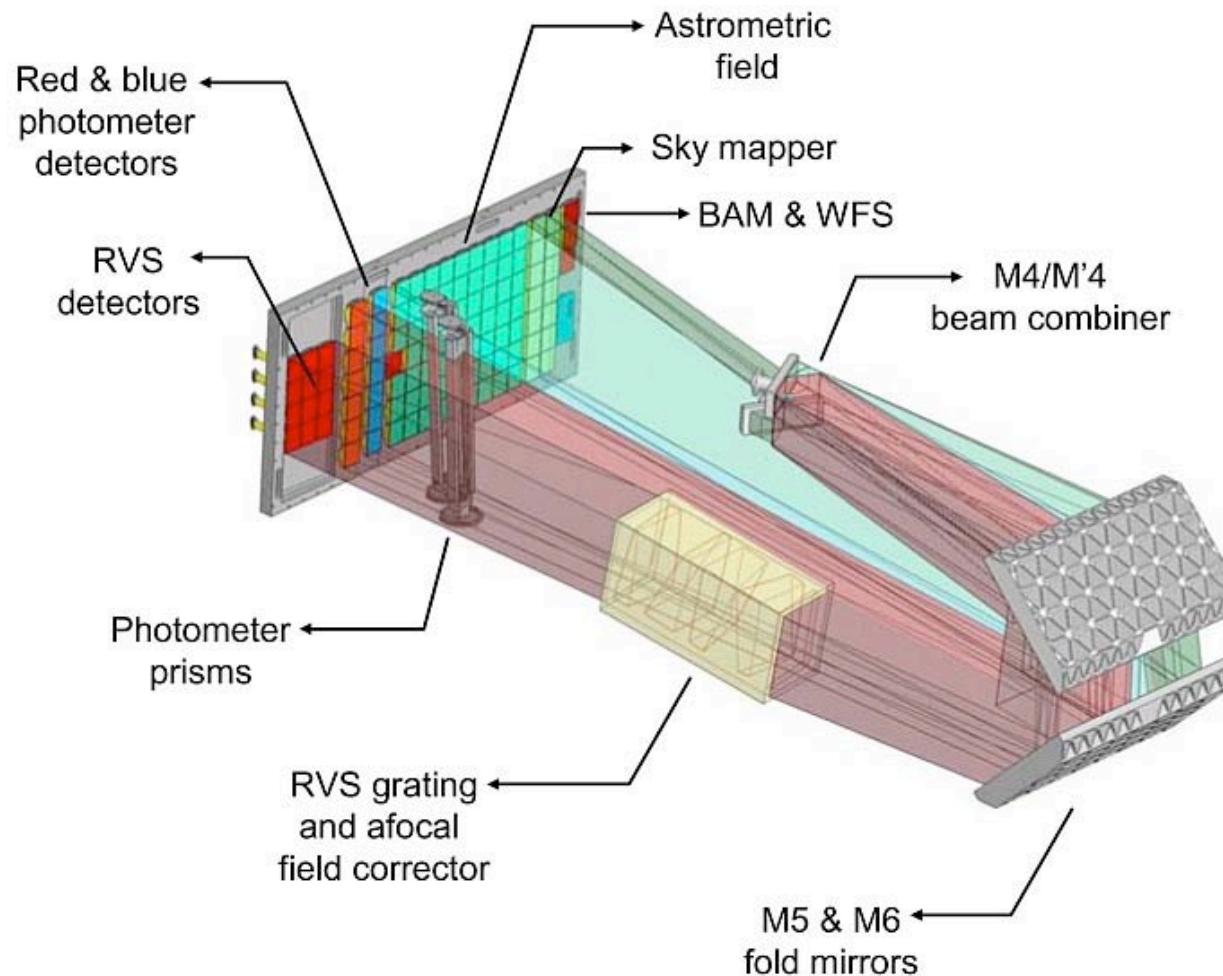
- Photometric & spectroscopic instrum. integrated in astrometric focal plane
- Photometric/spectroscopic telescope removed
- Photometric and spectroscopic focal planes illuminated by the 2 astron



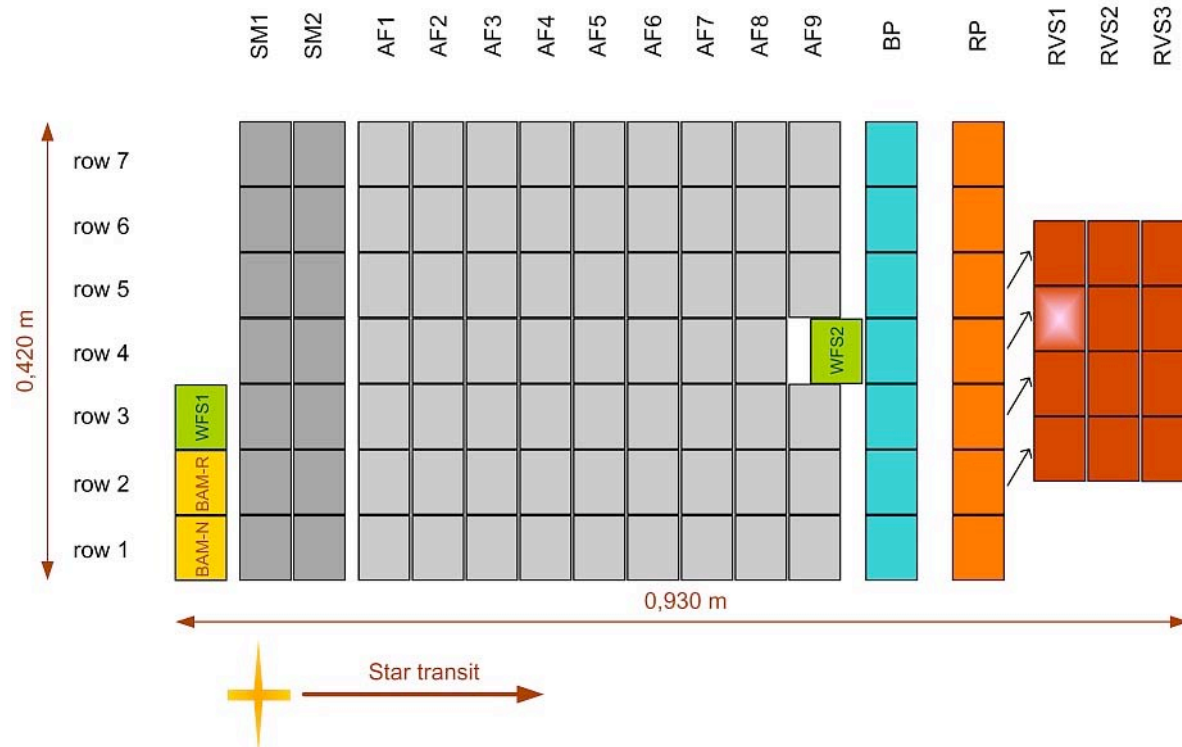
Gaia status: instruments design (4)

❖ Payload modifications

- Focal length = 35 m
- Broad and medium band filters replaced by 2 low resolution spectrographs ($\sim 100 \text{ \AA/pixel}$): blue spectrograph & red spectrograph



Gaia status: instruments design (5)



❖ RVS instrument

- CCD baseline: classical CCD backup: L3
- Two sampling modes: 4 CCD well sampled – 8 CCD under-sampled
- CCD read in windowed mode – no on-board co-addition
- 40 transits during the mission
- Requirements on spectral resolving power & performance not fulfilled
- RVS still in optimization phase until mid-May

Gaia Data Processing & Analysis Consortium status

❖ Agenda

- **Q1 05:** Community express interests in Gaia processing via Letters of Intent (LoI)
- **April 05:** GST meeting 15
 - ✓ Review of LoI
 - ✓ Define overall GDPAC structure (coordination units)
 - ✓ Data Analysis Coordination Committee (DACC) appointed
- **June 05:** DACC meeting 1 → revise list of coordination units
- **Oct 05:** DACC meeting 2 → revise list of coordination units
- **Jan 06:** DACC meeting 3 → define agenda until GDPAC start
- **end of May 06:** ESA issue an Announcement of Opportunity (AO)
- **mid-July:** Consortium answers the AO
- **Sep 06:** ESA complete reviewing the answer
- **Oct 06: GDPAC activity starts**

CU6 1st workshop objectives

- ❖ **Validate the CU6 structure and responsibilities**
- ❖ **Review and discuss the top-level work packages**
- ❖ **Define the actions to prepare the answer to the Announcement of Opportunity (AO)**