



Payload discussion

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Payload requirements in order of priority ? (at least from ESA perspective)

- Costs
 - 550 M€ + ? EU National agencies + ? External collaborators
- High TRL and low risk scheme
 - Need to pass the “technology screening”
- Dimension envelope
 - Fit in a cylinder of about 2m diameter
- Mass
 - Safely assume that we cannot go beyond Planck mission
 - COrE+ 2014: 1958 kg
- Power consumption
 - Will dictate if we need deployable solar panels or not (added risks)
 - COrE+ 2014: 2073 W
- Data rate
 - COrE+ 2014: 2.4 Mbits/s

Payload trade-off – Sub-systems cannot be treated independently

Size and configuration of the telescope

- No more than 1.5m diameter primary
- Rather 1.2m
- Cannot use CTR configuration

No HWP (at least as the first element)
(Cost, Dimensions & Mass)

(Talk from S; Hanany)

Descope ?
Impact on Science?

Ground Tests and calibration

- Impact on in-flight calibration

(Cost, Schedule, Risks)

(Talk from M. Bersanelli)

Complex scanning strategy

- Impact on solar panels size
- Impact on data transfer

(Cost, Power, Data transfer)

(Talk from J. Delabrouille)

FPU and number of detectors
Technology (EU)
(Cost, Power, cooling power, Data transfer, dimensions, mass, TRL)

(Talks from this morning)

Cooling chain

- Passive / active
- Choice: impact on signal,

(Cost, Power, dimensions, mass, TRL)

(Talk from Y. Pennec)