# List of actions and conclusion

## Science sessions

#### Main science case:

- Transformational science: nearest Solar system analogs with habitable planets
- Other terrestrial mass planets will be discovered and characterized but around other type of stars, at different orbits, or far away
- Emphasize that orbit ephemeris and mass are valuable for subsequent spectroscopy detection.
  - Complete Radial Velocity parameter space toward longer period

#### Planet formation:

- define observables that will be able to decide between models but statistics & large uncertainty on theory?
- importance of solar system analogs and telluric planets
- use of stability studies to sharpen the search area
- importance of multi-planets system, no coplanar orbits, correlations
- Kepler findings valid in the solar neighborhood?
- Need for simulation of signal from multiple planets, data reduction

## Other science cases

#### Diversity of exoplanets

- many cases that cannot be investigated by RV,transit and/or imaging:
  A stars, evolved stars, young stars, debris disks
- It will bring new information for the exoplanet community

#### Other science cases:

- high energy astrophysics: compact binaries, test of GR
- solar system objects maybe interesting?
- young stellar cluster: what is new compared to GAIA?

### Instrument

- Lots of discussion: scaling, FF vs deployable mast, detectors
- ....but not really on the overall concept

LAB DEMO is necessary

- set up a definition team at least for the payload
- phase 0 study (support from CNES?)
- to prepare for a proposal...

## Other topics

- Double blind test study:
  - useful to convince people
  - how detailed should be the simulation?

Precursors, prototypes?

core team, science team, definition team,...