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Pathways towards habitable
planets

**How to consolidate efforts
within the community and the related agencies?**

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3 questions in Panel 4

1) how to unite the community

2) how to set up collaborations

3) do we need re-organisation

Remember ESA did not select DARWIN mission...
in the COSMIC VISION 1 process: why?

Technological readiness?

Not enough community support?

How about PLATO? SPICA?

What after Kepler? SIM, THESIS, ASTrO, TESS, ...?

in the long run (2025) we want DARWIN/TPF -
but which probe/M-class mission leads up to it?

Discussion

- Ad 1) Hatzes, Schneider, Liseau, Fridlund
Europe: we must speak with one voice!
clear the fear of interferometry! ALMA?
prepare community for ESA CV2 (2010)
decadal review sets pathway in the US
- Ad 2) Nakagawa/Japan, Lin/China, Devirian/US
Kissler-Patig/ESO, Fridlund/ESA
Schneider: collaboration --> coordination
agreement: NASA/ESA 50/50 = disaster
ALMA not a role model for space mission

New organisational vision: need for exo-planet institute?

- 1.) A real institute or a virtual institute?
- 2.) Experience with NExScI in California
- 3.) Experience with NAI (astrobiology nodes)
- 4.) In Europe: would ESO/ESA agree/accept?
- 5.) Comments by D. Lin: need broad support, more efficient to spread over many nodes, maybe sponsoring (like Sagan) fellowships

CONCLUSION: single institute not a good idea

HZ personal roadmap

NASA/ESA in near future go separate distinct ways

NASA: go for SIM (15% ESA) - astrometry/earth twin

**ESA: go for THESIS (15% NASA) - comb.light spectr.
study atmospheres of HZ-planets around M-stars;
comparative exo-planetology (different planet masses);
broad wavelength coverage (opt to mid-IR, JWST?)
broad support of the European exoplanet community
explore cooperation with Japan/China/India/Russia**

Converge on a flagship mission (by/beyond 2025):

DARWIN/TPF type (not enough money right now)

CosmoCaixa science museum

THEME: THE HISTORY OF MATTER

- 1.) Inert matter
- 2.) Living matter
- 3.) Intelligent matter
- 4.) Civilized matter

Let us meet here again in 2-3 years ...