

NL Industrial participation in Einstein telescope project

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Chair team Roadmap Advanced Instrumentation, Topsector High-Tech Systems and Materials

Advanced Instrumentation

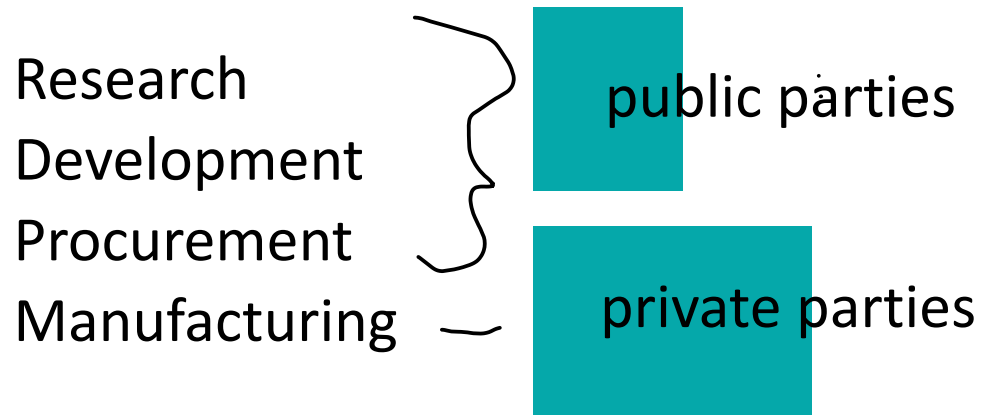
- Roadmap in Topsector High-Tech Systems and Materials
- About 120 high-tech SMEs in scientific, industrial and medical instrumentation
- About 50% is already participating in scientific projects
- Originates from (applied) physics research collaborations (FOM)
- CERN, ITER, ESA, ESO, NIKHEF, HollandPTC, ...
- Participating in roadmap means co-funding public research
 - TKI programs NWO, directly with Topsector
 - PPP generate TKI budget for the institutes & universities that participate
 - Companies are expected to provide cash, R&D is executed by public R&D organizations

Einstein telescope

- Participation of NL companies is essential for desired NL role
- Companies want to participate
- Return on investment within project is limited
- Companies not likely to invest into public research or pay for all their own costs
- Get companies involved in an early stage – R&D and prototyping
- Subsidies are only a partial solution
- Raise money together, provide funding to all parties
- Develop together: some things are developed by companies, some by institutes & universities, some together
- Spin-off is a spin-off, there should be more direct economic return
- Co-development does not mean that private parties do not need funding

Funding

“CERN” model



“ESA” model



ET model

Funding

- NWO HTSM calls
- TKI
- NWA
- NWO programs
- NWO large
- NWO roadmap large infrastructure
- EU
- MIT
- WBSO
- public
- private

Funding

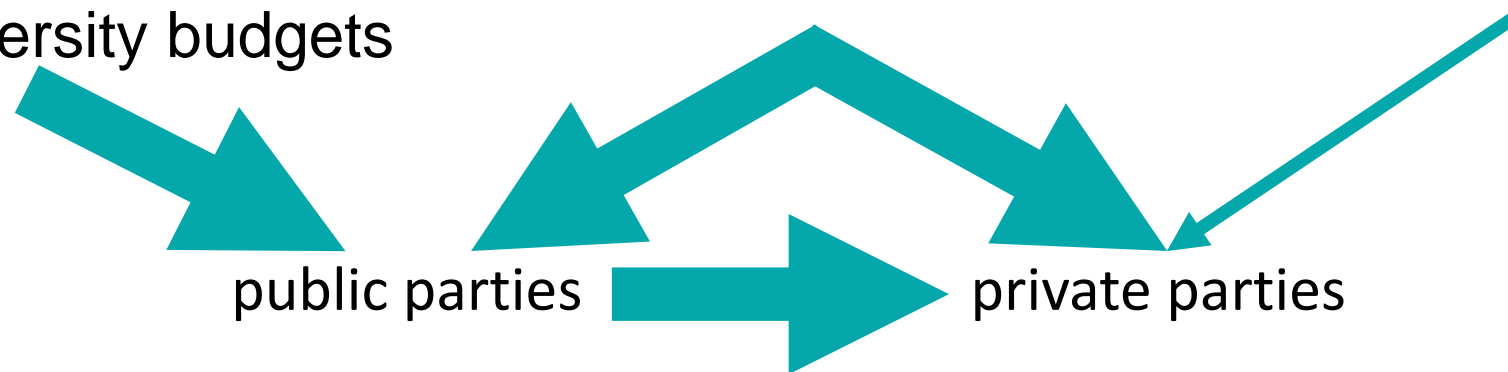
- NWO programs
- NWO large
- NWO HTSM calls
- TKI
- NWA
- NWO roadmap large infrastructure
- Institute & university budgets

Not only for manufacturing, but already starting in Research & Development and Prototyping

- **ET specific funding**

- EU
- MIT

- WBSO
- private



Required

- Share required developments
- Express interest and expertise
- Find funding to fund public and private parties for development
- Be prepared not to make profit on these projects
- Work on this together – institutes, universities and companies