

BIG Science

SMALL but complex instruments

Huub Janssen

- **Introduction to JPE**
- **JPE in Big Science. Some project examples**
- **Our experience with Big Science projects**

Engineering for High Precision Applications From concept to realization



We develop mechatronic systems for any high precision application

HIGH-TECH ENGINEERING

for accurate positioning



Project based engineering: from concept to realization and integration

PRECISION POINT KNOWLEDGE

free knowledge database



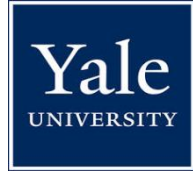
Free engineering knowledge: to the point engineering knowledge for you

CRYO & NANO POSITIONING

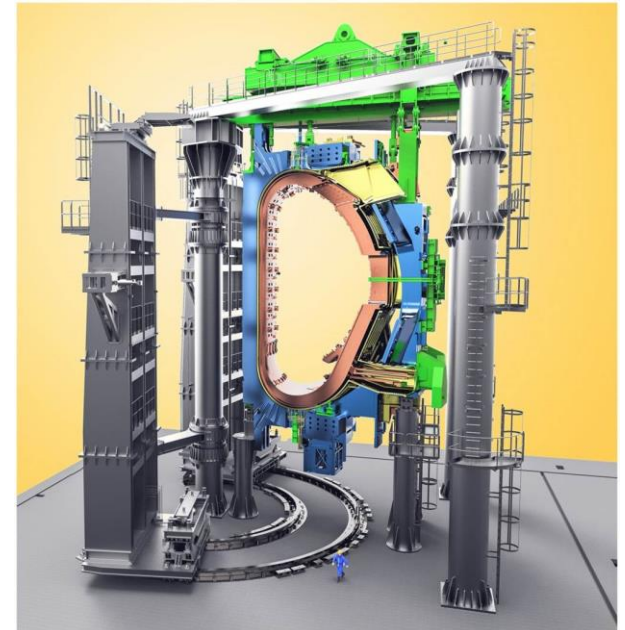
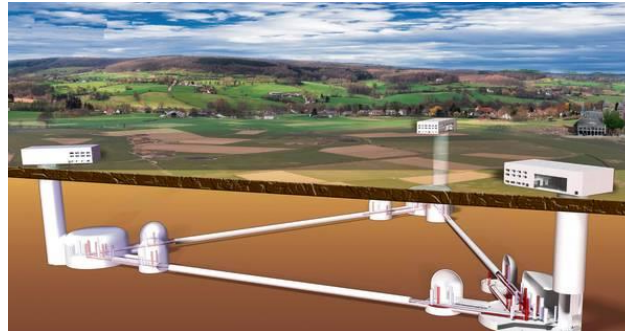
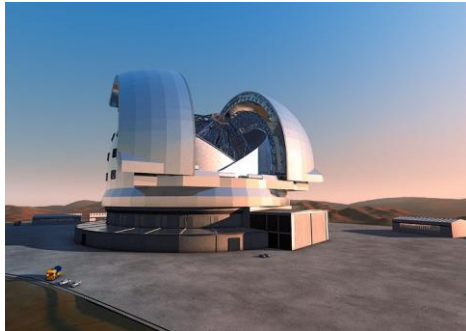
actuators and stages



Positioning products: for cryogenic and vacuum environment

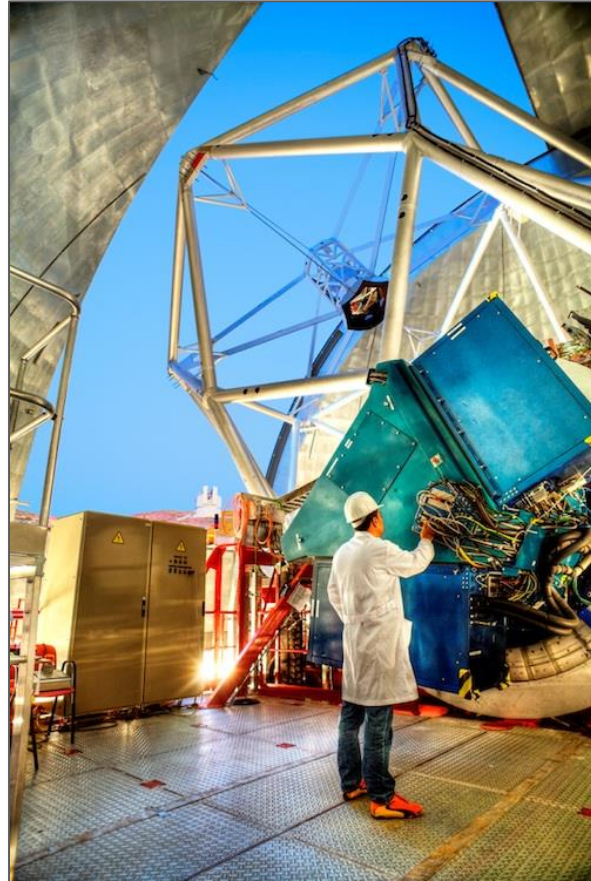


- **TELESCOPES (ELT, GRANTECAN, Einstein Telescope)**
- **SYNCHROTRONS (CERN, Bessy, Desy, ESRF....)**
- **LINACS (SLAC....)**
- **NUCLEAR FUSION (Iter)**

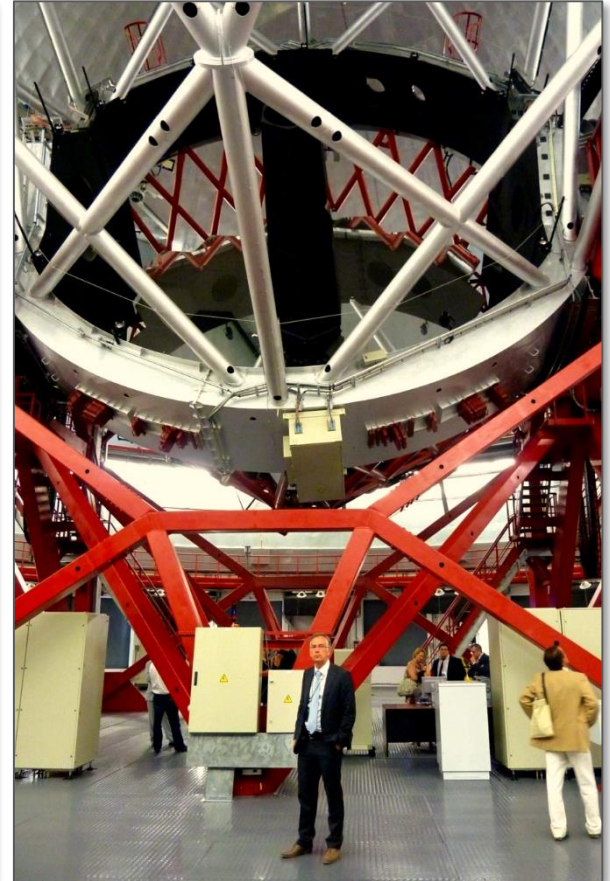




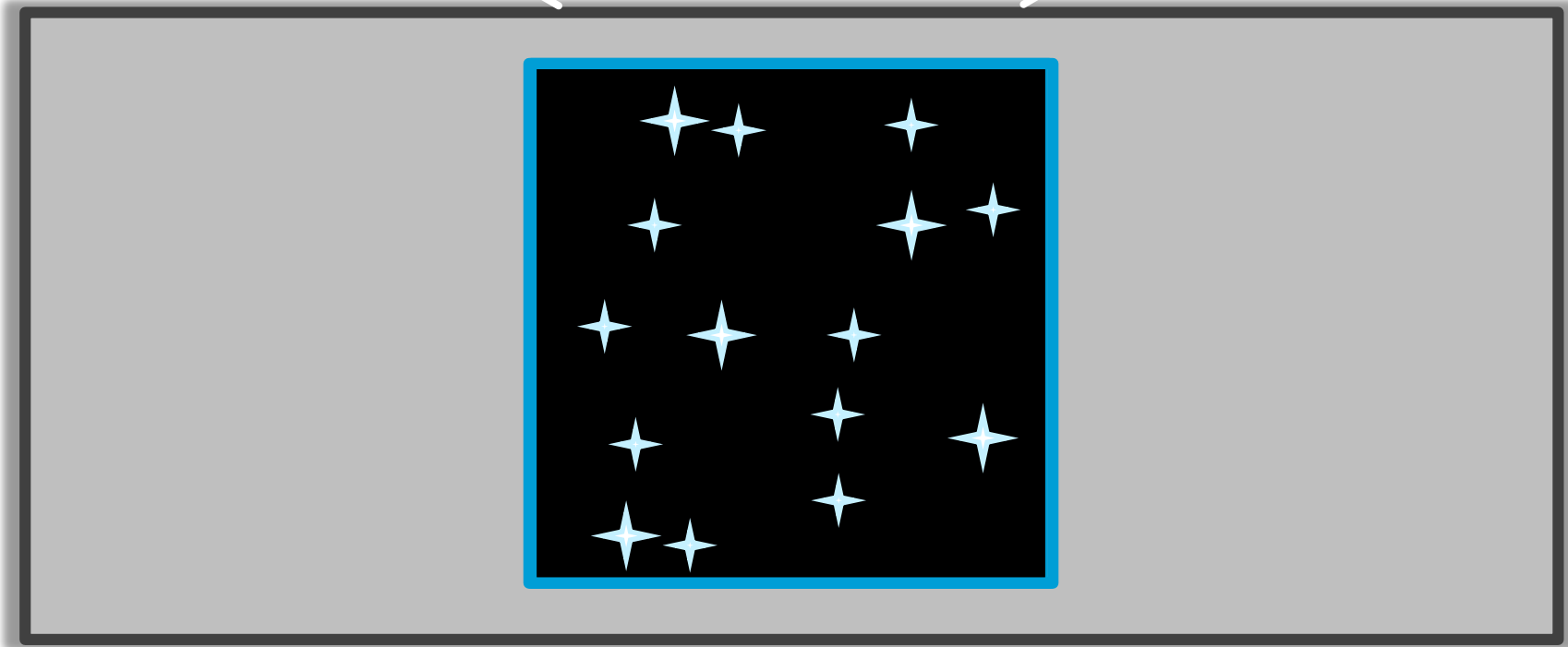
MAASTRICHT-AIRPORT



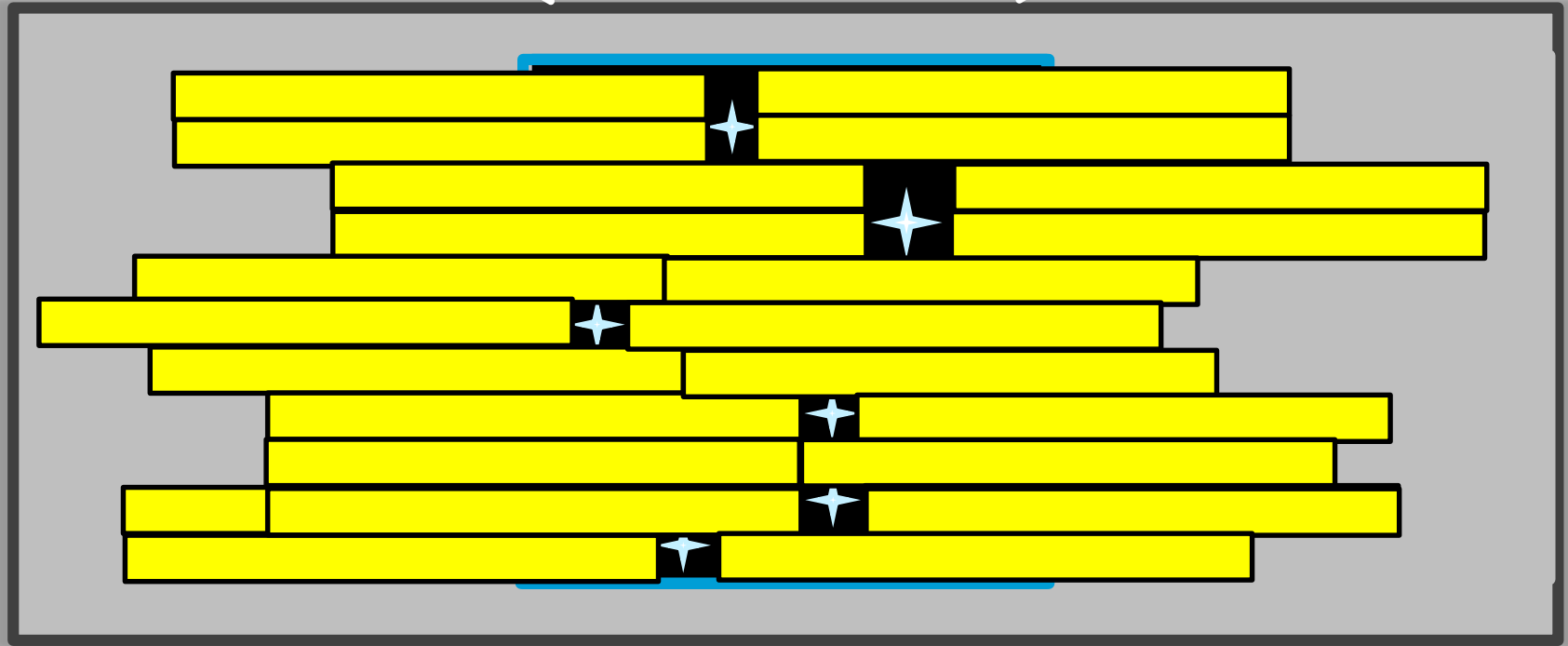
THE NETHERLANDS



350 mm



350 m

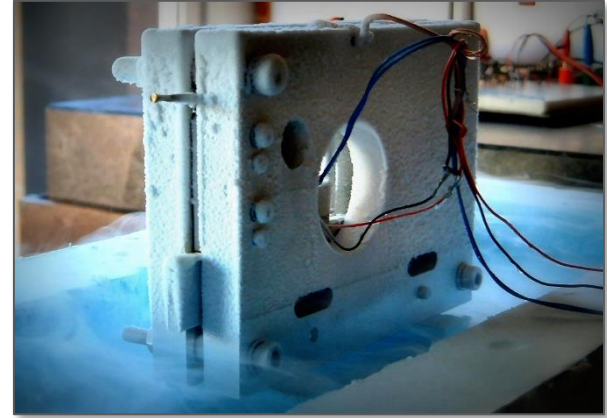


110 elementen

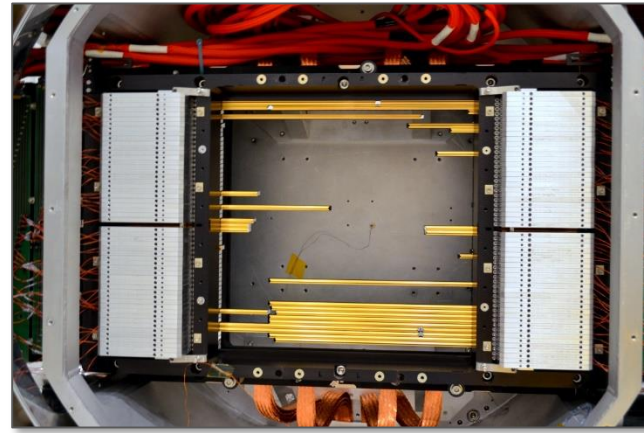
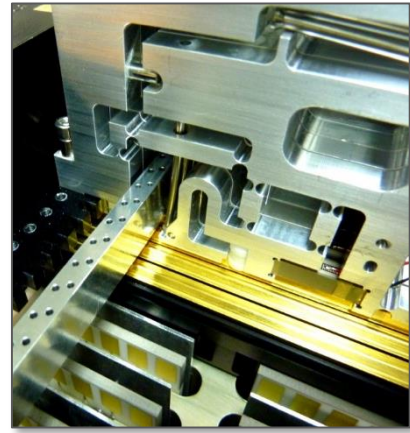
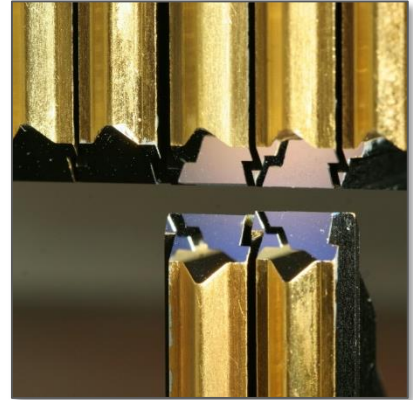
-200° C

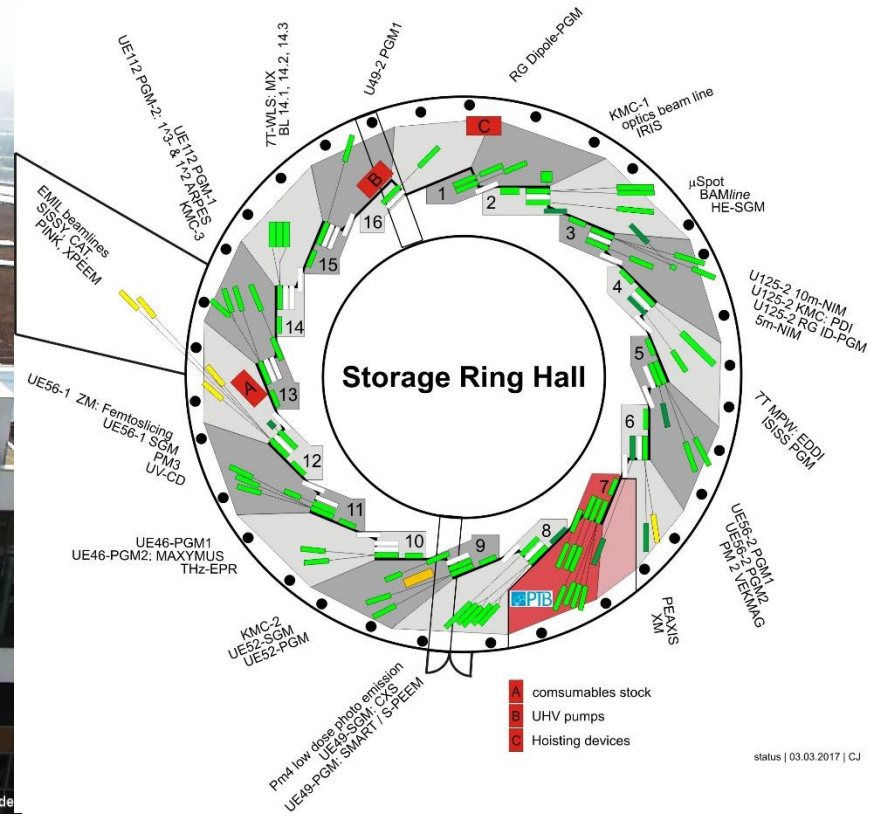
micrometer nauwkeurig

HTE project example



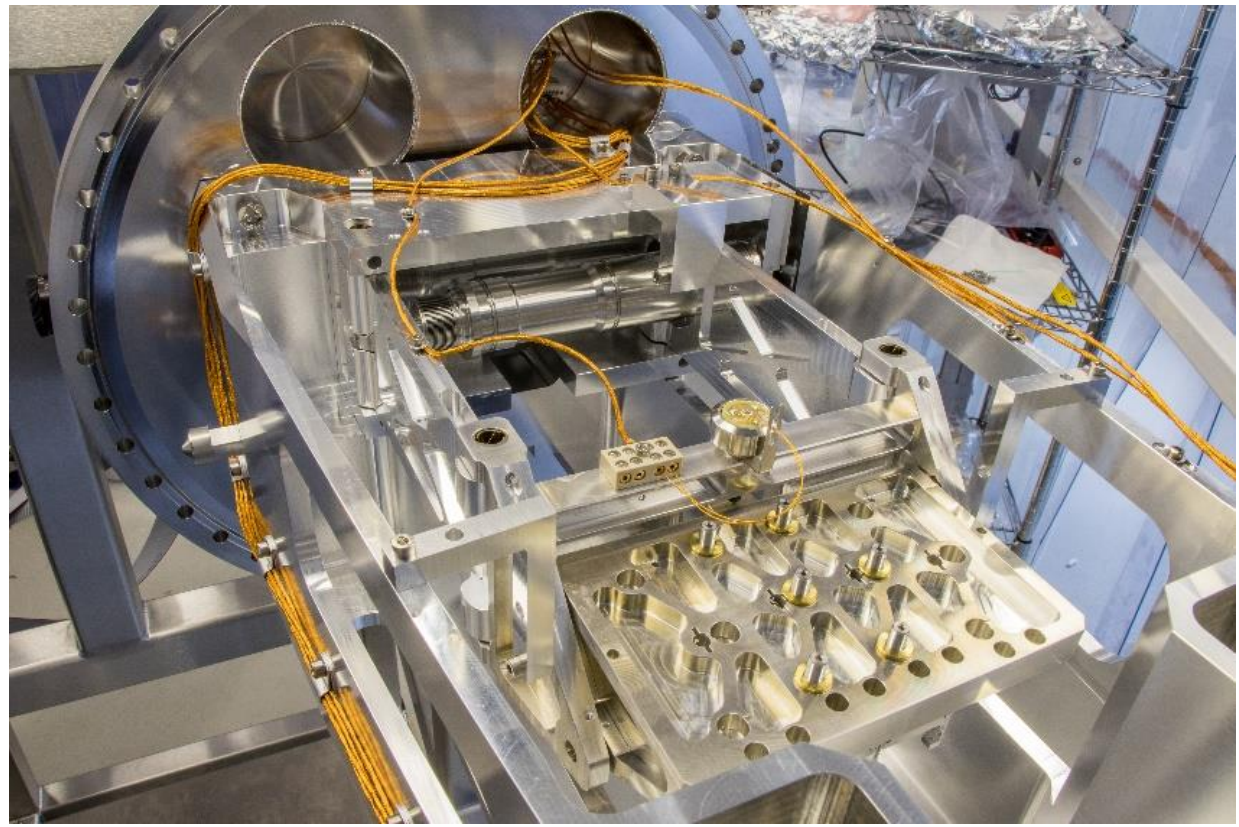
HTE project example





status | 03.03.2017 | CJ





- **For engineering companies, difficult to get involved**
 - Tender procedure. (Institutes)
 - Mostly intended for fabrication or delivery of standard components, few related to development of equipment or instruments.
 - Engineering tenders, fixed price, high development risk. Difficult to make profit.
 - Finance in advance required
- **Technically interesting and challenging projects**
 - Open communication. Good marketing tool

Thank you for your attention