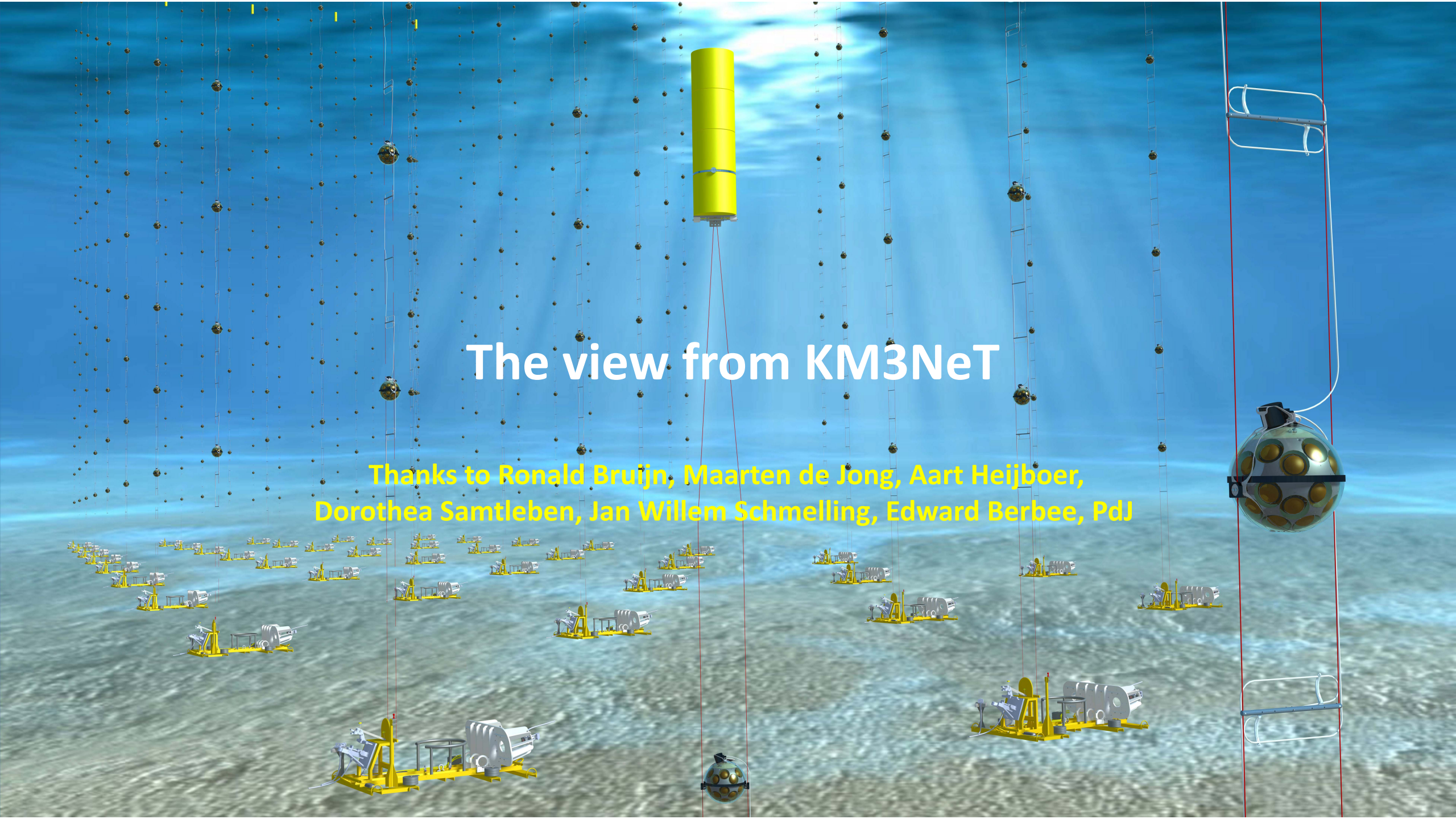
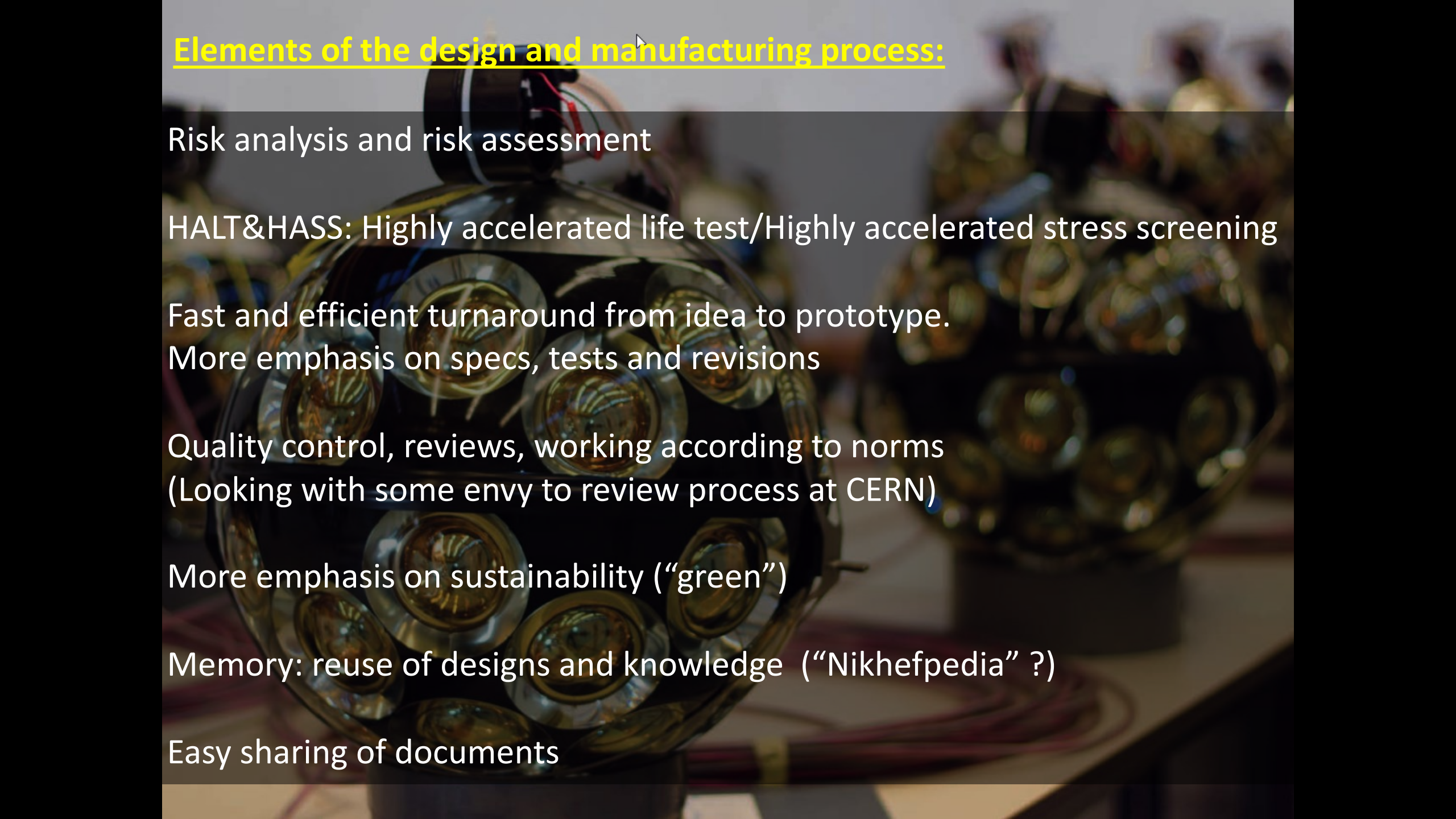

The view from KM3NeT
Thanks to Ronald Bruijn, Maarten de Jong, Aart Heijboer,
Dorothea Samtleben, Jan Willem Schmelling, Edward Berbee, PdJ

KM3NeT would not have been possible without Nikhef's excellent engineering/manufacturing.

Thank you MT, ET and CT!

Nikhef is deeply involved in the design of almost all components of KM3NeT.

Nikhef is the first institute to finish DOM production for phase 1 .
Time for a party when a significant part of ORCA phase 1 DUs is deployed.



Elements of the design and manufacturing process:

Risk analysis and risk assessment

HALT&HASS: Highly accelerated life test/Highly accelerated stress screening

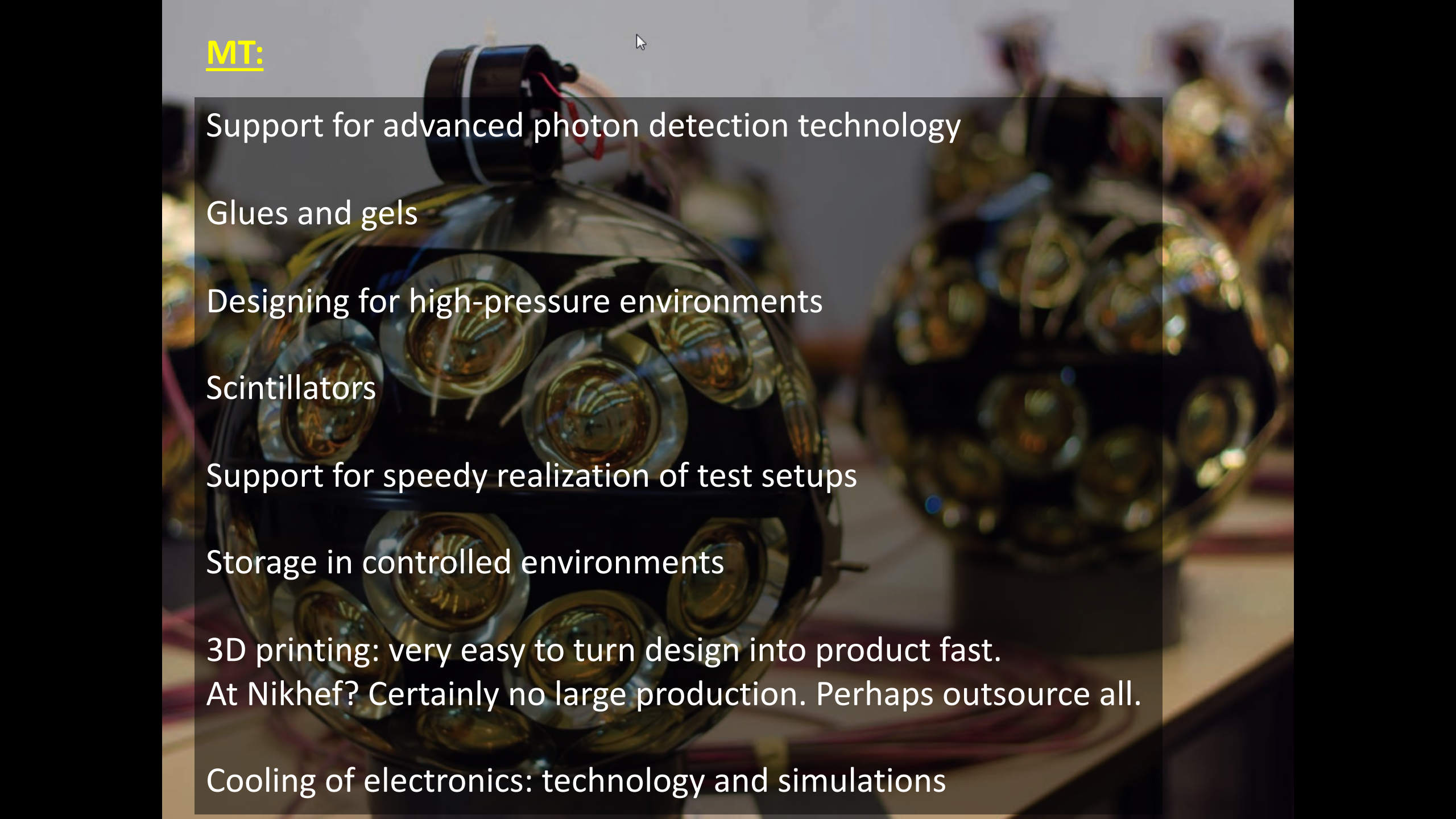
Fast and efficient turnaround from idea to prototype.
More emphasis on specs, tests and revisions

Quality control, reviews, working according to norms
(Looking with some envy to review process at CERN)

More emphasis on sustainability (“green”)

Memory: reuse of designs and knowledge (“Nikhefpedia” ?)

Easy sharing of documents



MT:

Support for advanced photon detection technology

Glues and gels

Designing for high-pressure environments

Scintillators

Support for speedy realization of test setups

Storage in controlled environments

3D printing: very easy to turn design into product fast.
At Nikhef? Certainly no large production. Perhaps outsource all.

Cooling of electronics: technology and simulations

ET:

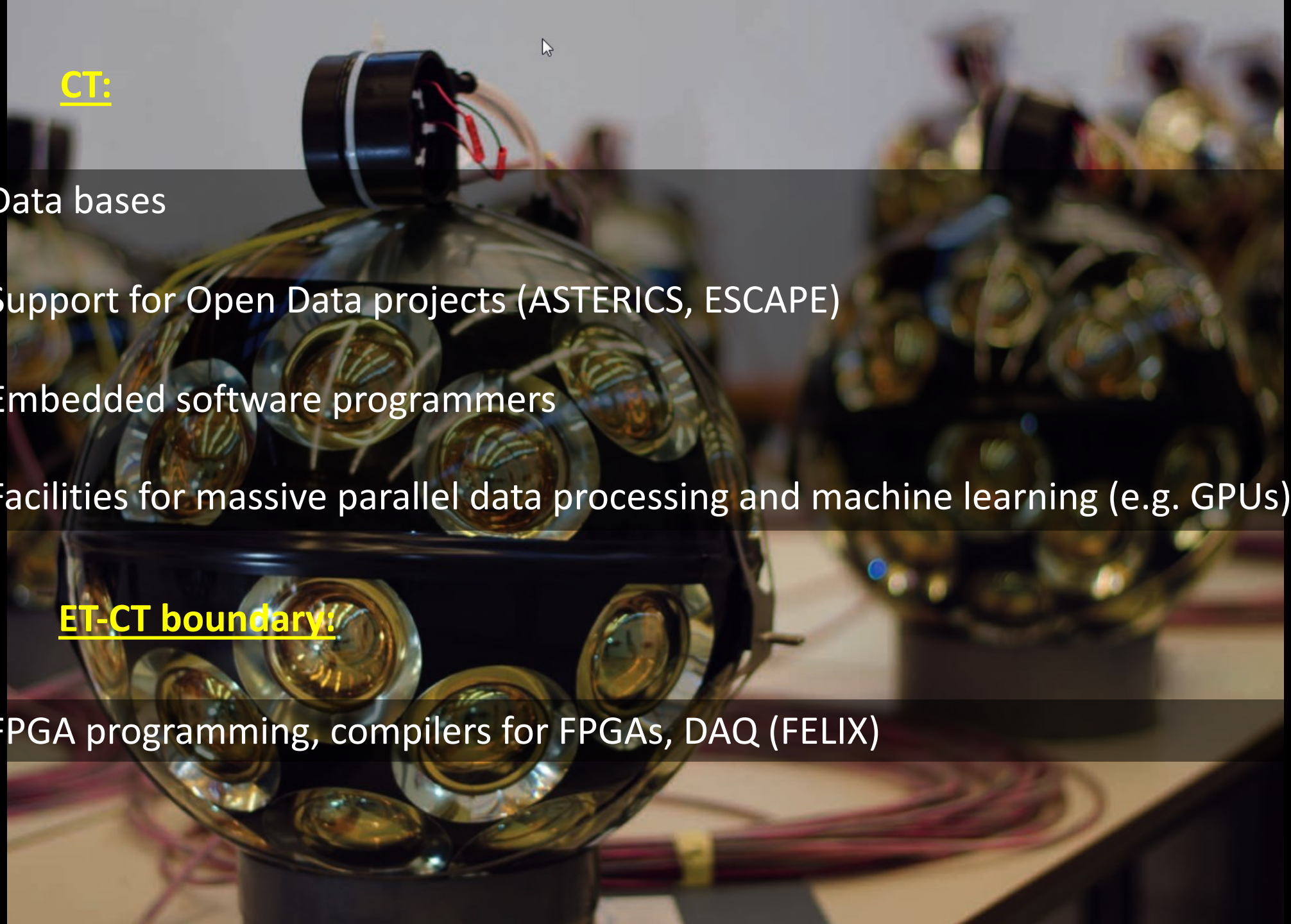
Optical communication, optical fiber technology, transceivers etc.

Precise timing and synchronization over long distances

ASIC design

PCB design (PMT bases)

Help from ET in speedy realization of test setups



CT:

Data bases

Support for Open Data projects (ASTERICS, ESCAPE)

Embedded software programmers

Facilities for massive parallel data processing and machine learning (e.g. GPUs)

ET-CT boundary:

FPGA programming, compilers for FPGAs, DAQ (FELIX)