BigScience.dk
Genvejen til Big Science markedet

BigScience.dk & brokerage events

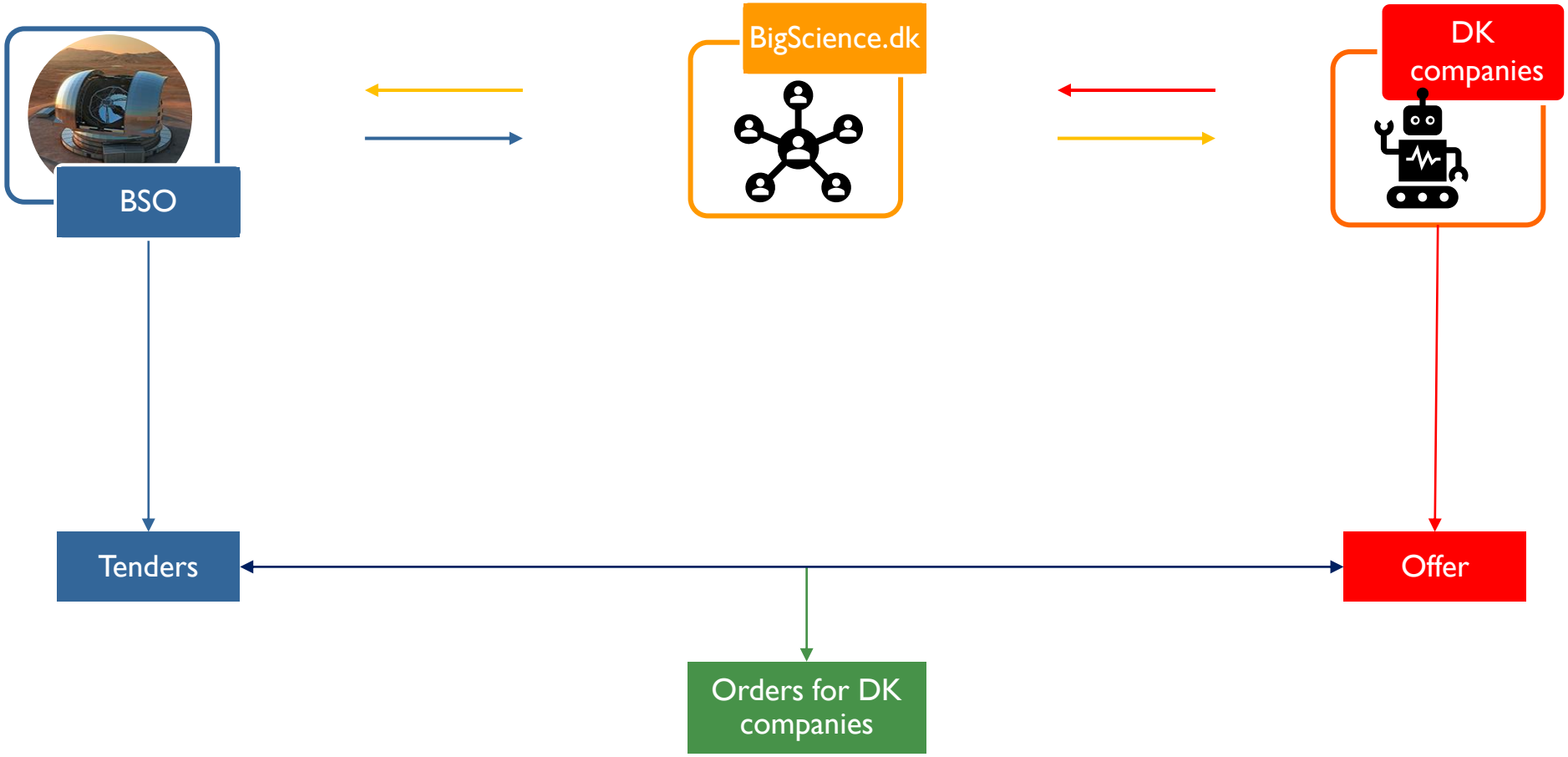
Nikolaj Zangenberg
Director, Danish Technological Institute
BigScience.dk
CERN Industrial Liaison Officer for Danmark

Uddannelses- og Forskningsministeriet
—
Styrelsen for Forskning og Uddannelse

TEKNOLOGISK INSTITUT

DTU Danmarks Tekniske Universitet

BigScience.dk – Link between Big Science Org and DK companies



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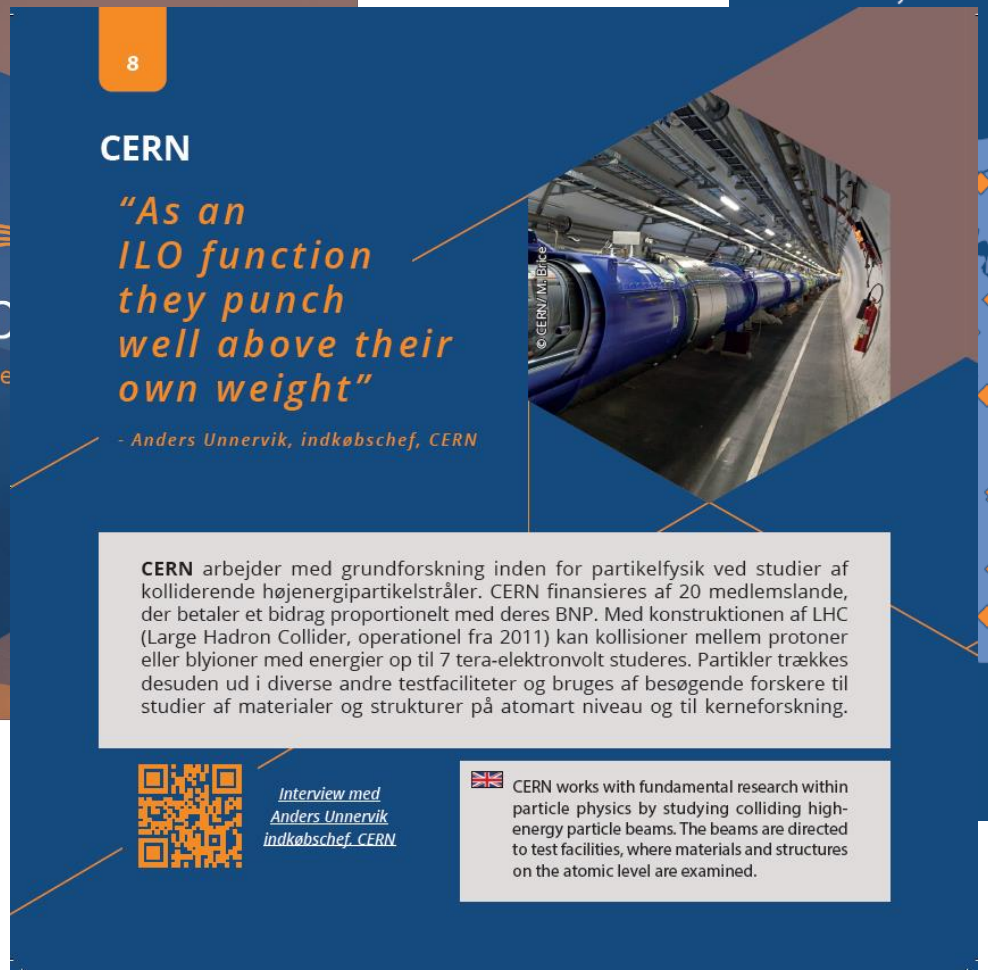
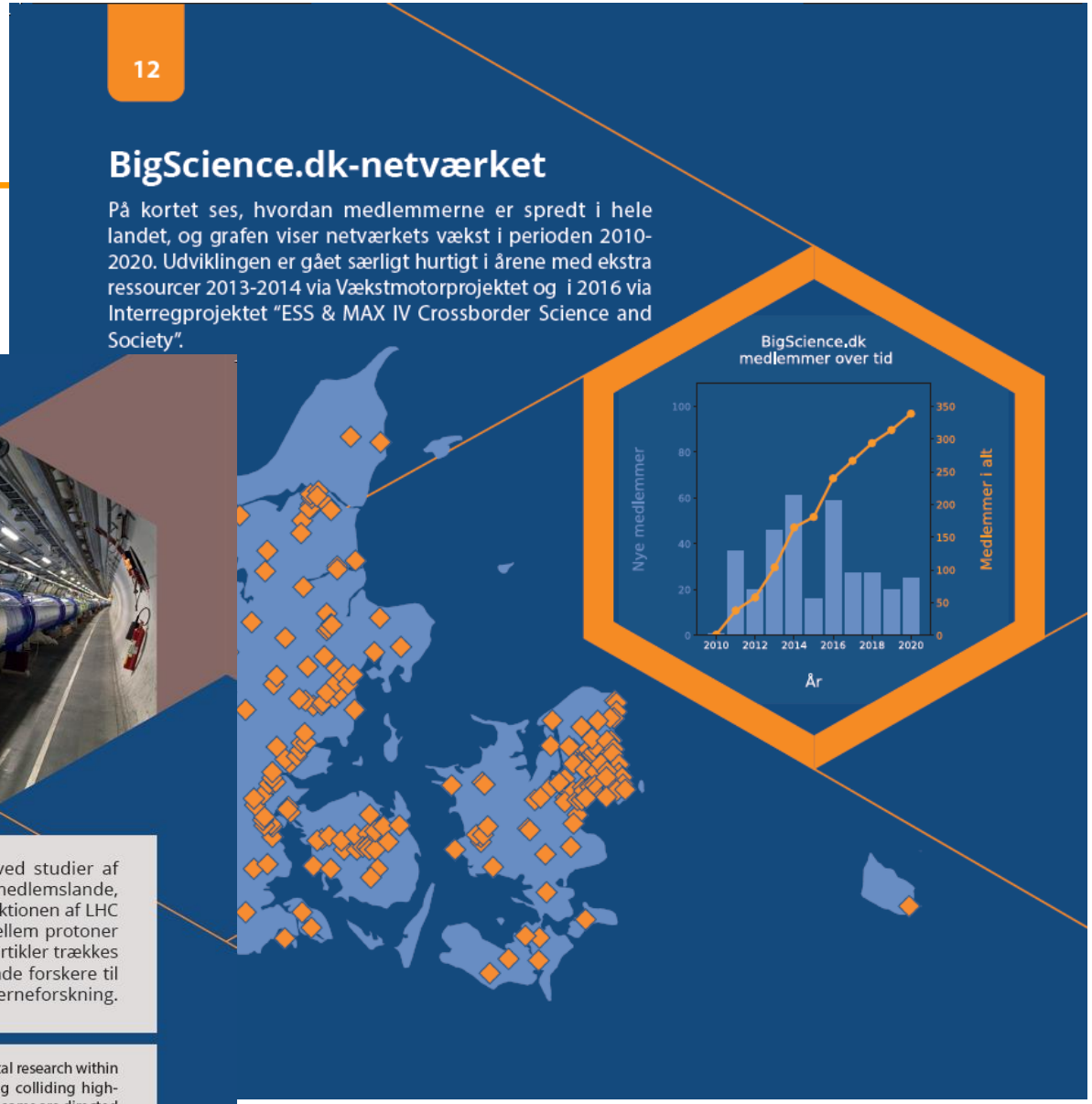
2020: 10-year anniversary





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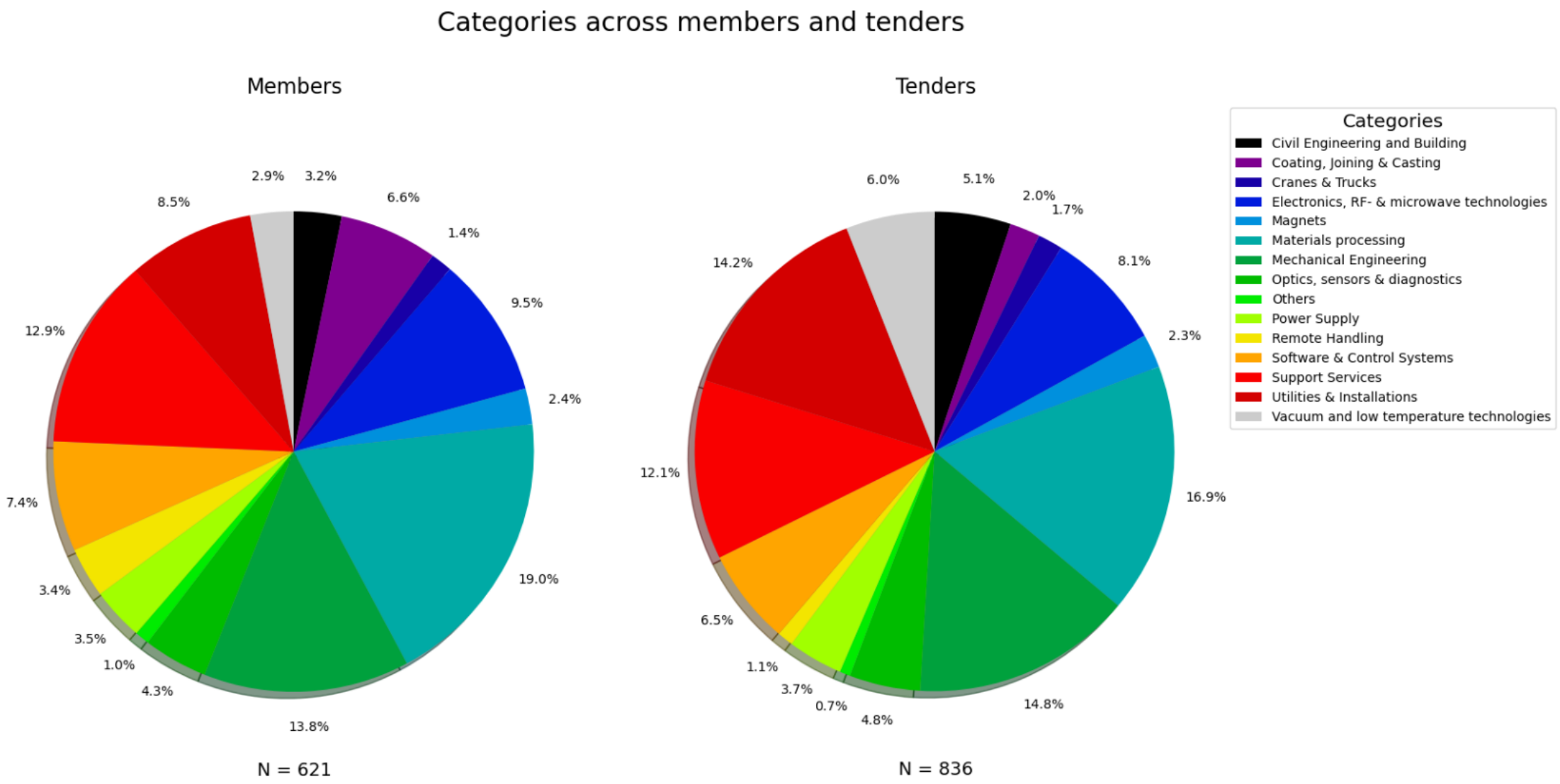
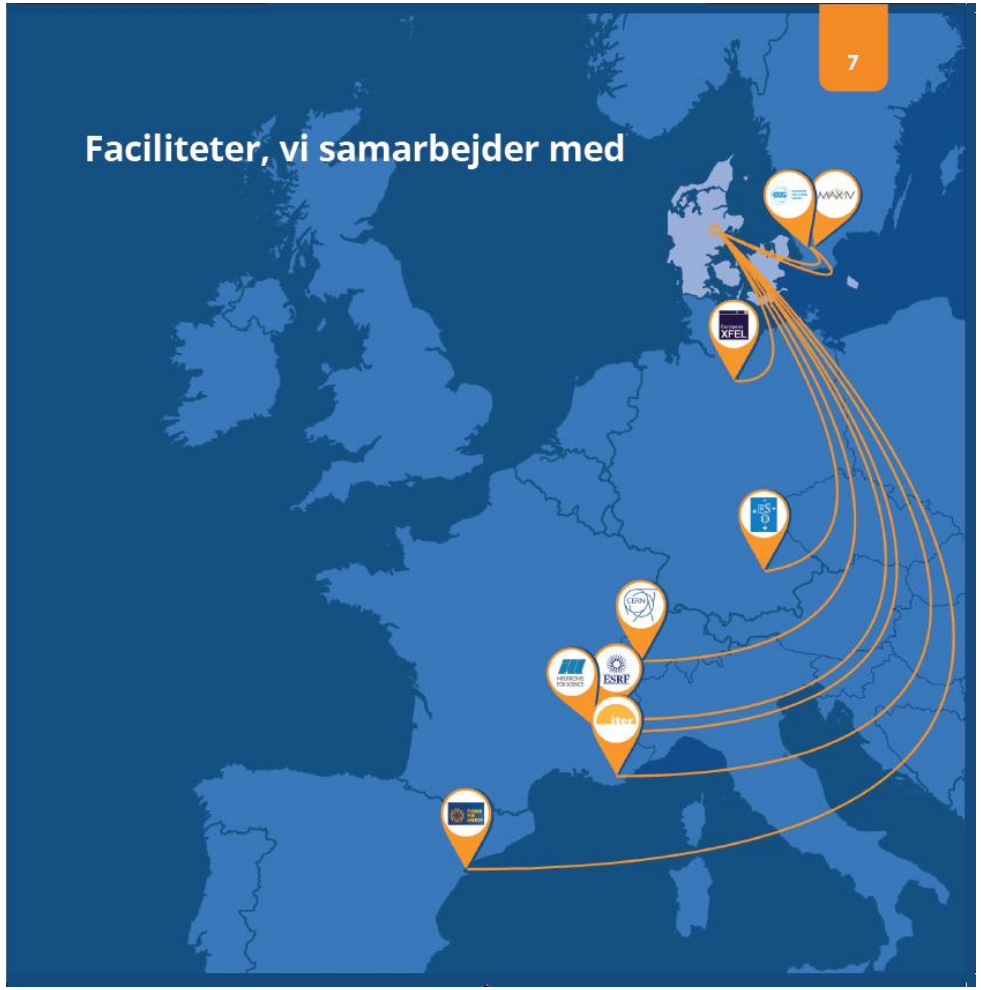
Match between BigScience.dk member's offers and demand



BigScience.dk and the role of Industrial Liaison Officer



Peter Frank
ILO for ESO
Network manager

Arne Jensen
ILO for ESS

Søren Bang Korsholm
ILO for F4E (ITER)

Nikolaj Zangenberg
ILO for CERN, ESRF & European-XFEL

Jonas Okkels Birk
ILO for ILL

Henrik Bak Jeppesen
Co-ILO på CERN & ESRF

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Suppliers for the **Big Science** market

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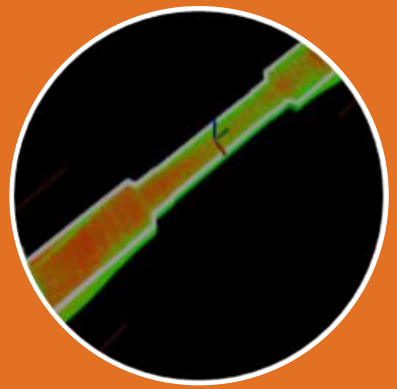


Technologies from **Big Science** applied in industry

Analytical services for companies at **Big Science** facilities

DTI – Big Science Center

Best practices from organising RI events

Big Science Business Forum, International, Feb 2018

Worlds first industry fair on the Big Science market for suppliers

- **1037 participants** from 530 companies from 29 countries
- **120** presentations of BSO procurement needs
- Survey:
  - **95%** satisfaction
  - **98%** would participate in future BSBF

Key ingredients for success:

- Political support (€)
- Buy-in from facilities (CONTENT)
- Engage ILOs (OUT-REACH)
  - Disseminated to ILO-fora at each BSO
  - Promotion at single-BSO supplier events

Materials from Big Science to Industry, National, Sep 2019

Pilot event on Technology Transfer

- **30 participants** - few actual companies
- Presentations from **CERN, ESA BIC, ITER**
- Examples from companies

Evaluation:

- Good presentations (CONTENT)
- Poor engagement with companies (OUT-REACH)
  - Alignment with co-organisers

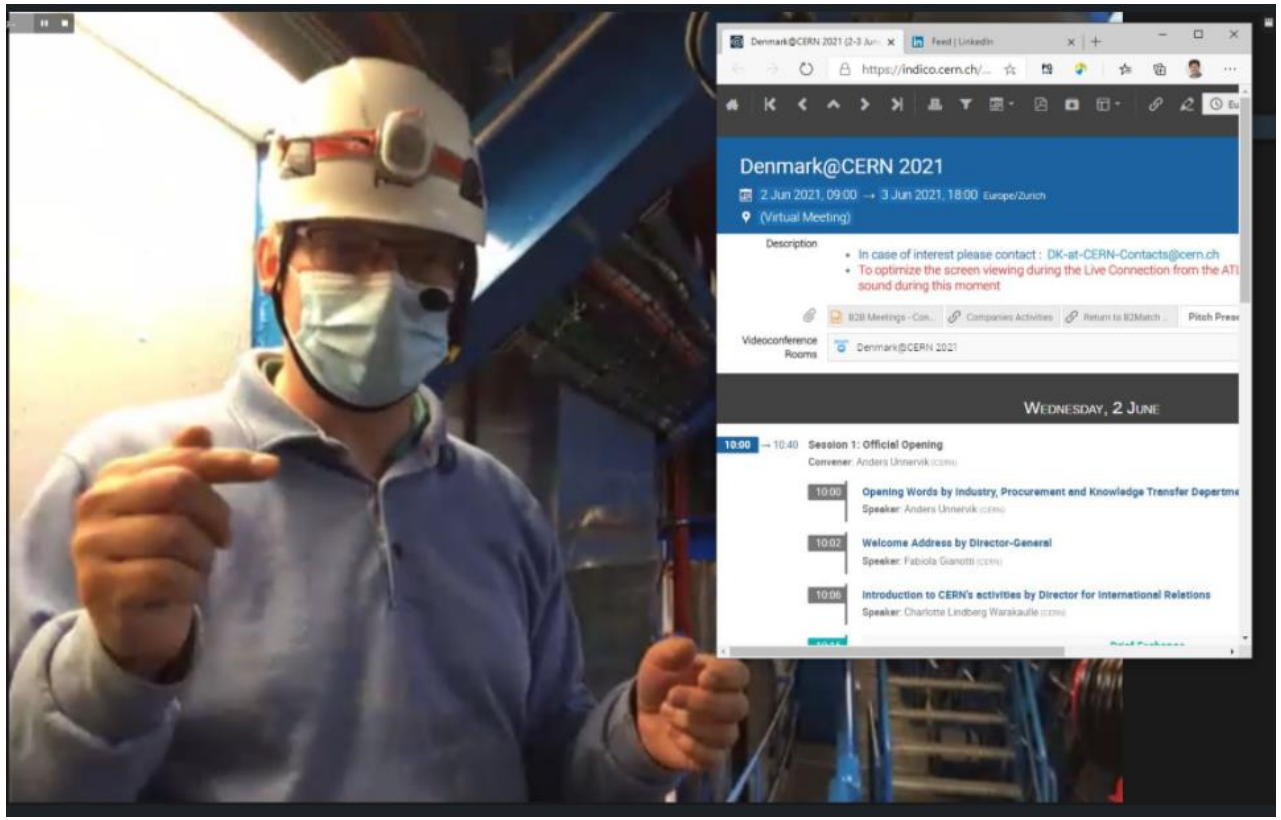
DK@CERN, National, June 2021

CERN standard event for suppliers

- ”Brand recognition” - organised every 2 years
- **17 companies** participated in 2021
- Online event with:
  - general presentations
  - a tour (!)
  - B2C meetings

Evaluation:

- Feedback from companies – ongoing…
- Excellent e-tools and support from CERN
- Improve pre-event interaction with companies



Use succes stories to promote events

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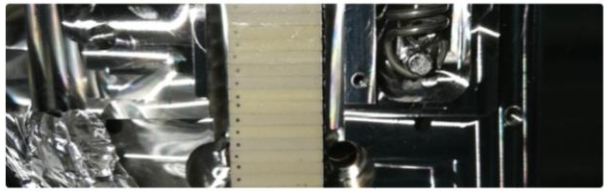
Members of the network Success stories

CTS Ceramics



Development collaboration with CERN led to a high-tech order for CTS Ceramics Denmark

In 2020 CTS Ceramics Denmark delivered 5 custom-made actuators to CERN, while 15 more are expected to be delivered for a total contract value of more than half a million DKK

Custom-made piezoelectric actuators are one of CTS Ceramics Denmark's ompetencies. The company, previously called Noliac, entered into a partnership CERN in 2014 to develop actuators that can withstand high temperatures. nted to test crystal collimation as part of the Large Hadron Collider (LHC) ing piezoelectric actuators.

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Members of the network Success stories

PVD-manufacturer wins large framework contract at ITER

The PVD equipment manufacturer Polyteknik is a supplier to both CERN and ESO. The company has recently won a four-year framework contract at ITER, where it will develop a system for self-cleansing mirrors.

The many mirrors on the ITER reactor will over time become contaminated by deposits from the use of the reactor. Therefore, the ITER organisation has ched for a supplier who can develop a system for the mirrors to clean lves and has chosen the Danish company Polyteknik, which has won a framework contract.

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Members of the network Success stories

RECAB works with ESS on embedded computer systems

High performance and flexible systems means that RECAB's solutions have caught the interest of the Big Science organisations.

For many years, RECAB has delivered embedded computer systems for demanding applications, primarily within the telecommunications industry. In 2012, the company met engineers from the European Spallation Source, which at the time was in its early stage.

k then, we met with people from ESS at technology meetings, where we d how the technology we work with could meet the needs of ESS, says Sørensen, Country Manager & Engineering Director at RECAB.

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