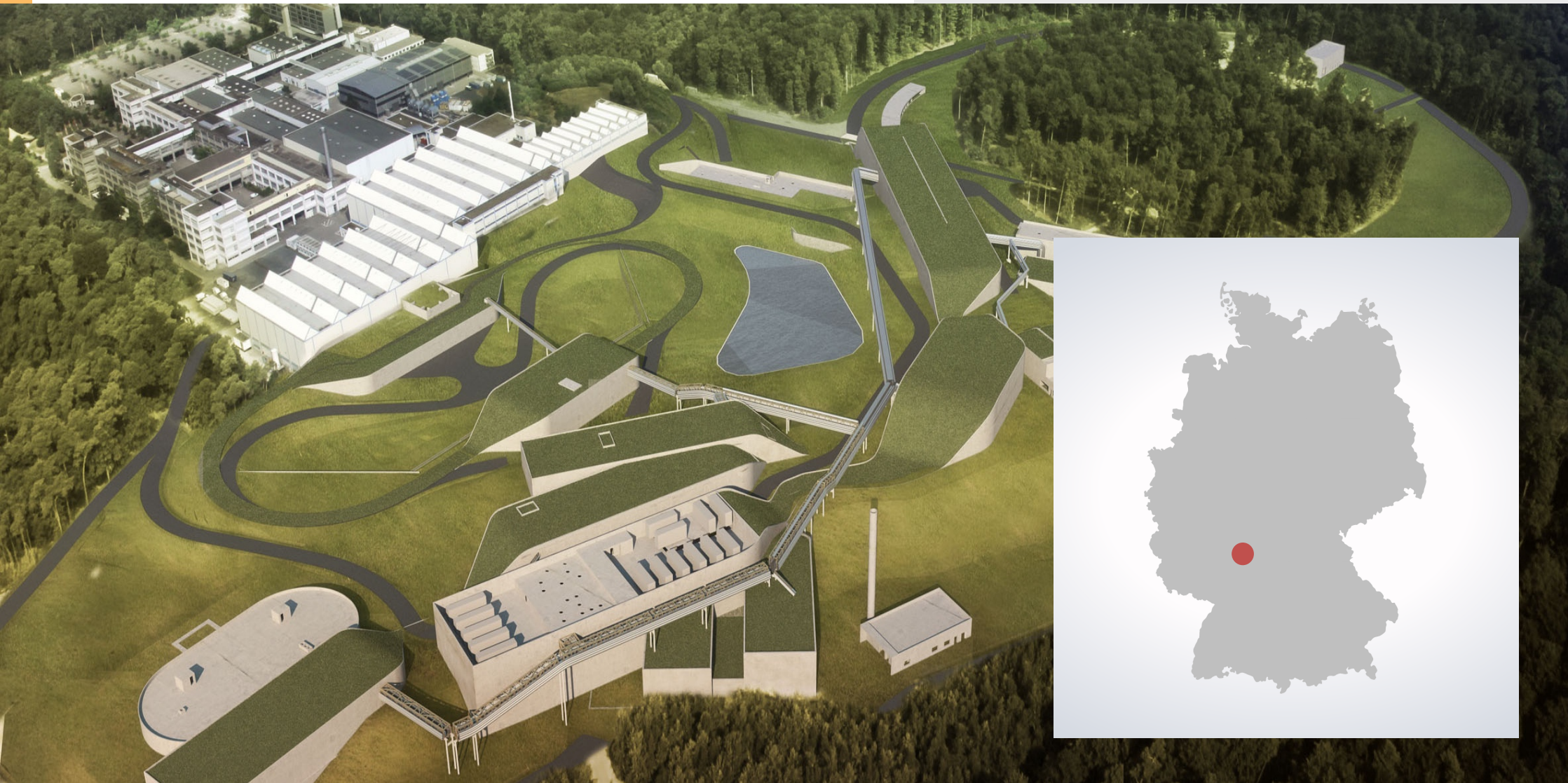
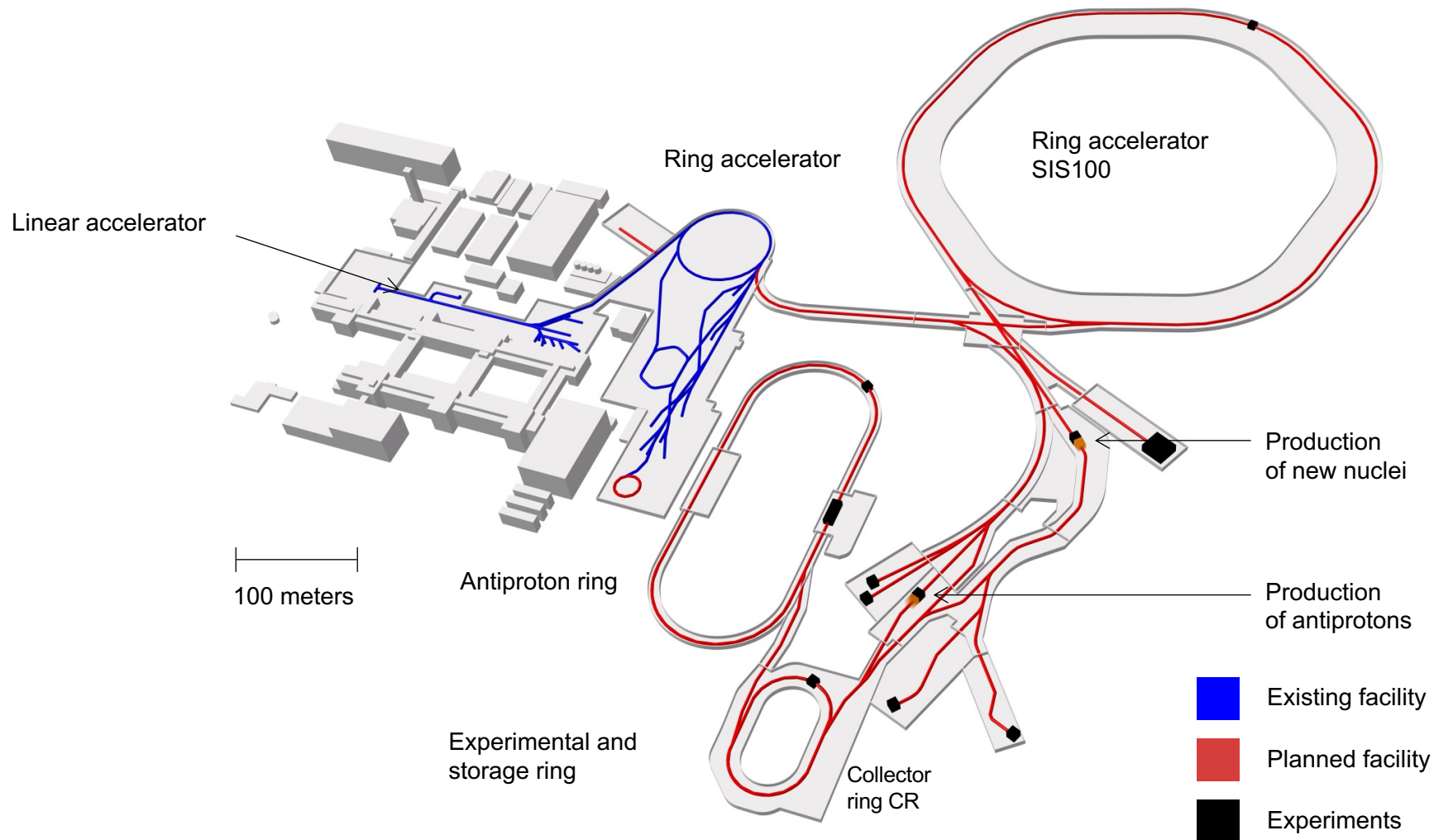


FAIR: the universe in the laboratory

Presented by Sonia Utermann
24th November 2020



FAIR – The facility



The four scientific pillars at FAIR



NUSTAR

Nuclear Structure, Astrophysics and
Reactions: Stars and nuclei
(850 scientists)

CBM

Compressed Baryonic Matter:
Inside a neutron star
(500 scientists)

PANDA

Antiproton-Annihilation at Darmstadt:
Antimatter research
(500 scientists)

APPA

Atomic, Plasma Physics and Applications:
From atoms to planets to cancer research
(720 scientists)

Why supply Big Science?



- x It's not for the money...
- x and it's not because we are easy customers!
- ✓ Reputation and marketing
- ✓ Knowledge, skills, R&D
- ✓ Many companies seek out opportunities to supply Big Science as part of their **innovation strategy**

When FAIR needs innovative solutions

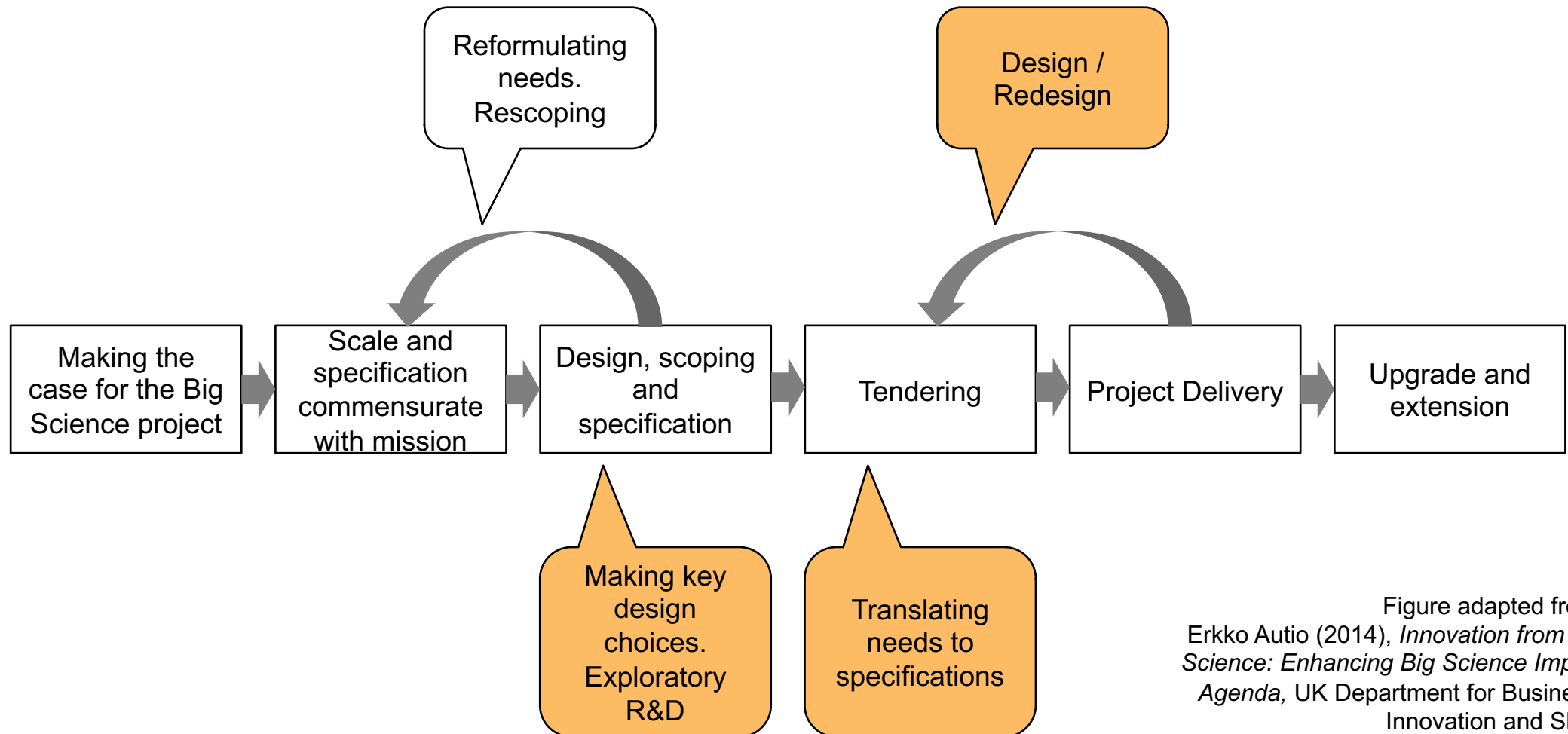


Figure adapted from:
Erkko Autio (2014), *Innovation from Big Science: Enhancing Big Science Impact Agenda*, UK Department for Business, Innovation and Skills

Tendering Process

- without or
- with negotiation

German national tender for < 214 k€
EU-tender for > 214 k€

In-kind (Vetenskapsrådet)

Degree of R&D or innovation sought
defines the procurement process

Functional
specifications:

“It should do x”
-not-
“build it like this”

Tendering Process

- without or
- with negotiation



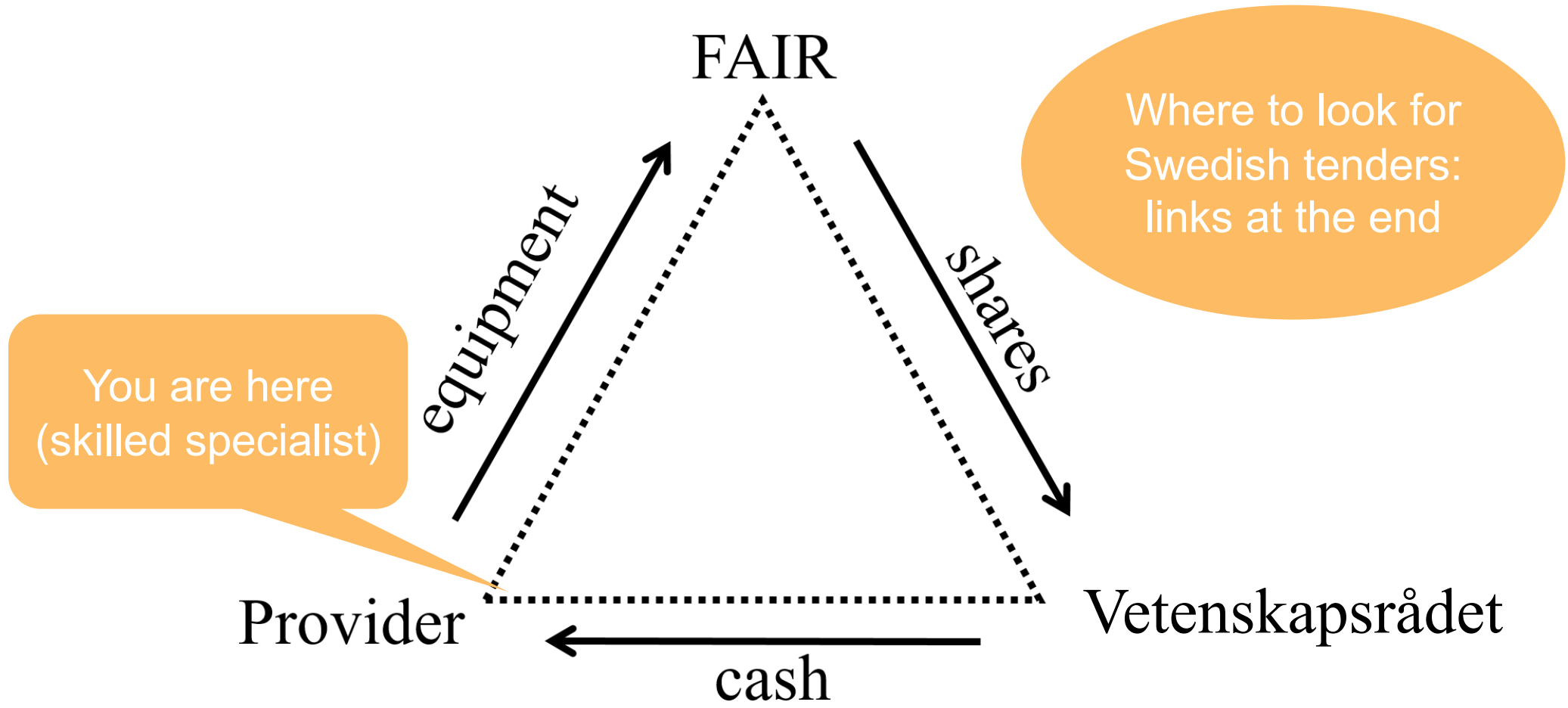
Where to look for
FAIR and GSI
tenders: links at
the end

In-kind (Vetenskapsrådet)

Functional
specifications:

“It should do x”
-not-
“build it like this”

Degree of R&D or innovation sought
defines the procurement process



Supplying FAIR

Perform R&D with our scientists

Use FAIR as a specification factory
(anticipate market needs)

Share R&D risk with FAIR

Extend your knowledge network

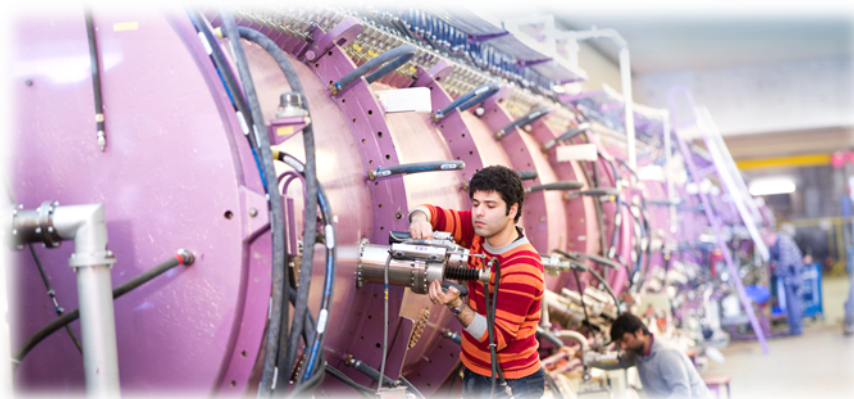
- Take a look at the BSBF procurement handbook:
https://www.bsbf2020.org/module_api/282492/blog/bsbf2020-news/post/318374-bsbf2020-procurement-handbook
- Contact your industry liaison officers (ILOs) at Big Science Sweden
- Check out Swedish tenders launched by our partners:
<https://www.upphandlingsmyndigheten.se>
<https://www.opic.com/upphandlingar/sverige/?q=vinnova>
- Check out our open tenders at FAIR and GSI:
https://www.gsi.de/en/start/business_industry.htm

GSI & FAIR: a source of innovation for industry

Our laboratories for material sciences, biophysics and IT are often partners to industry for new technological developments.

GSI & FAIR: innovation in cooperation

Several internal groups for electronics, vacuum technology, sensors and others have a broad range of profound expertise, which they contribute to prosperous cooperations with suppliers.



Office of Technology Transfer: *Your connecting bridge to GSI/FAIR innovations*

E-mail: transfer@gsi.de Web: www.gsi.de/transfer

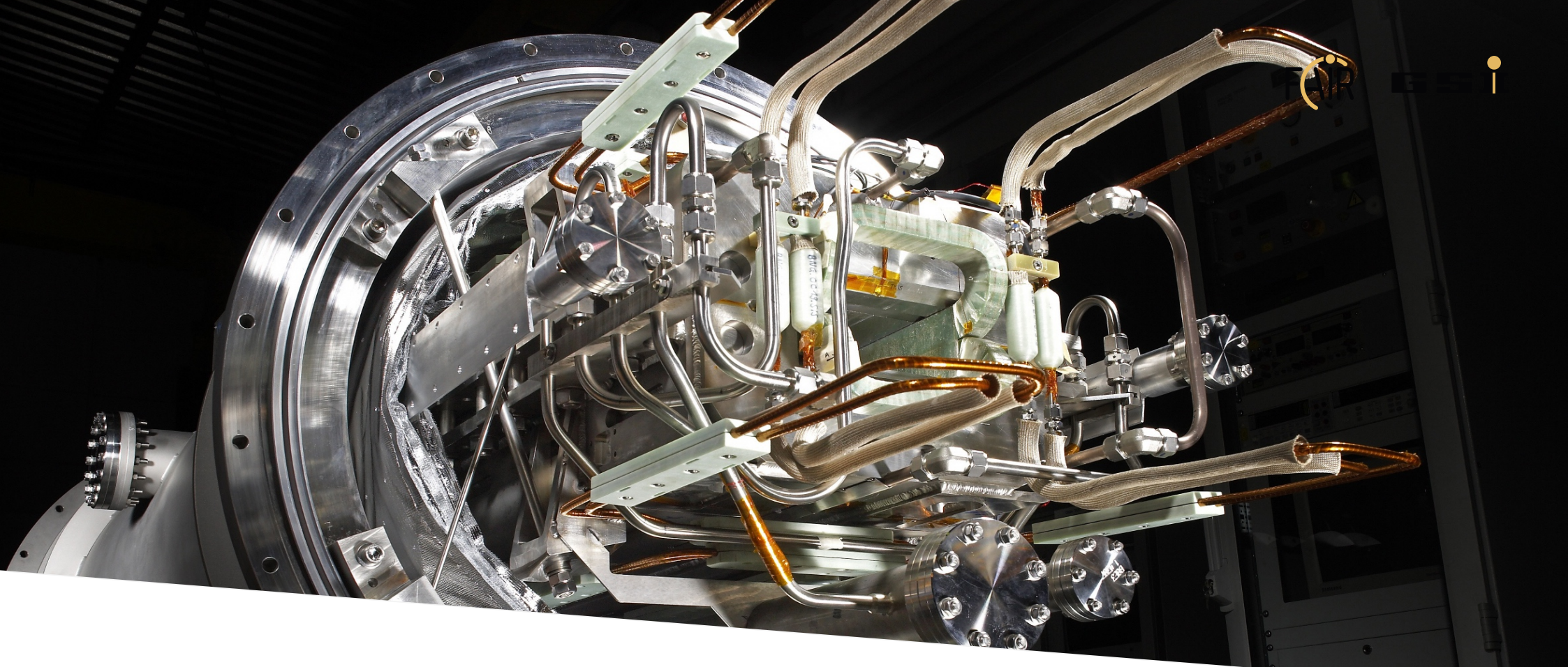
- Contact the Technology Transfer team at FAIR and GSI:
www.gsi.de/transfer
- Knowledge transfer session this afternoon (Han Dols)
- Save the date for the 3rd BSBF webinar on technology transfer on 14th February 2021
- Check out the TT proposals at the Big Science Business Forum:
https://www.bsb2020.org/Technology_transfer_proposals

Thank you for your attention

Dr. Sonia Utermann

FAIR in-kind office and export control

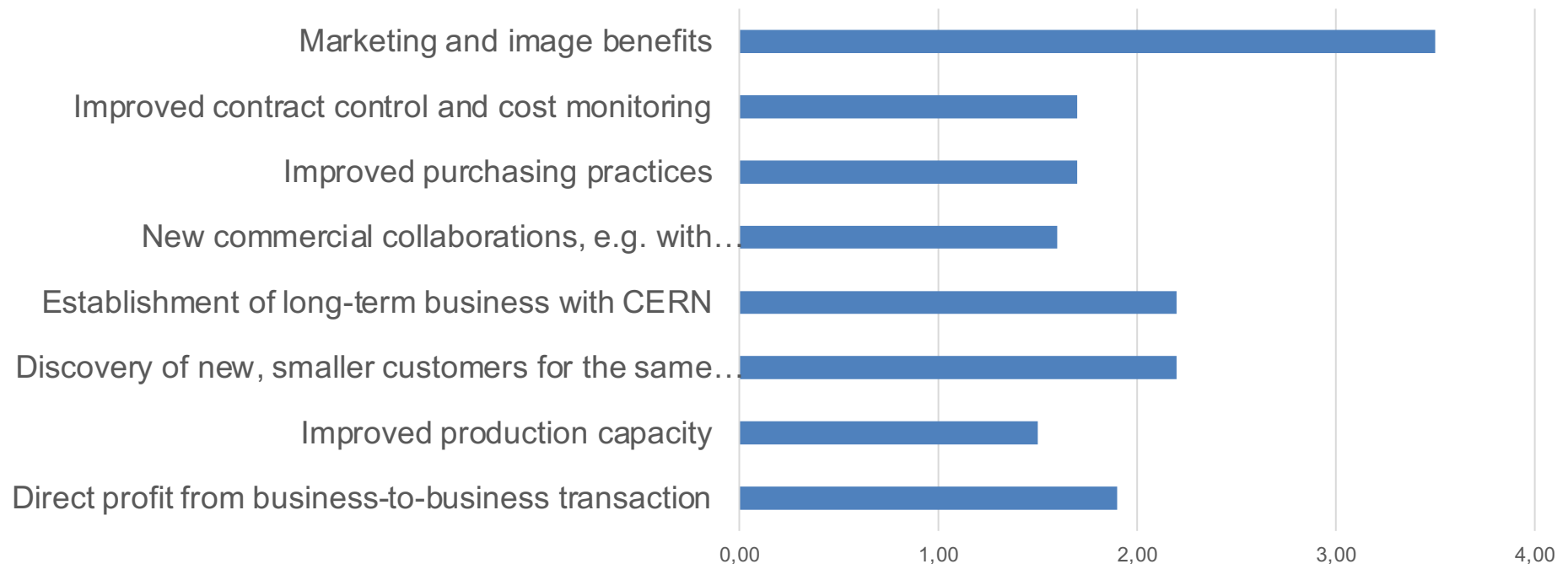
s.utermann@gsi.de



Extra slides

Why supply Big Science?

Economic benefits of supplying CERN



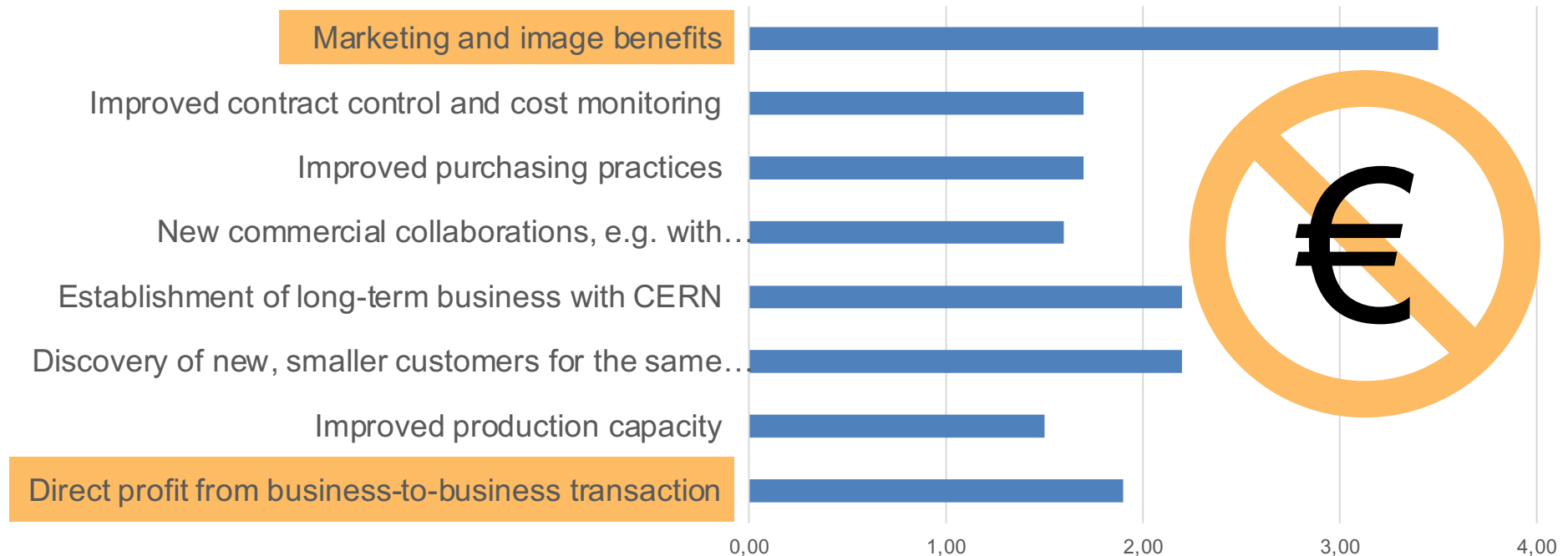
Data taken from:

Autio, E., Hameri, A.-P., & Nordberg, M. (1996). A framework of motivations for industry - big science collaboration: a case study. *Journal of Engineering and Technology Management JET-M*, 13, pp. 301-314



Why supply Big Science?

Economic benefits of supplying CERN

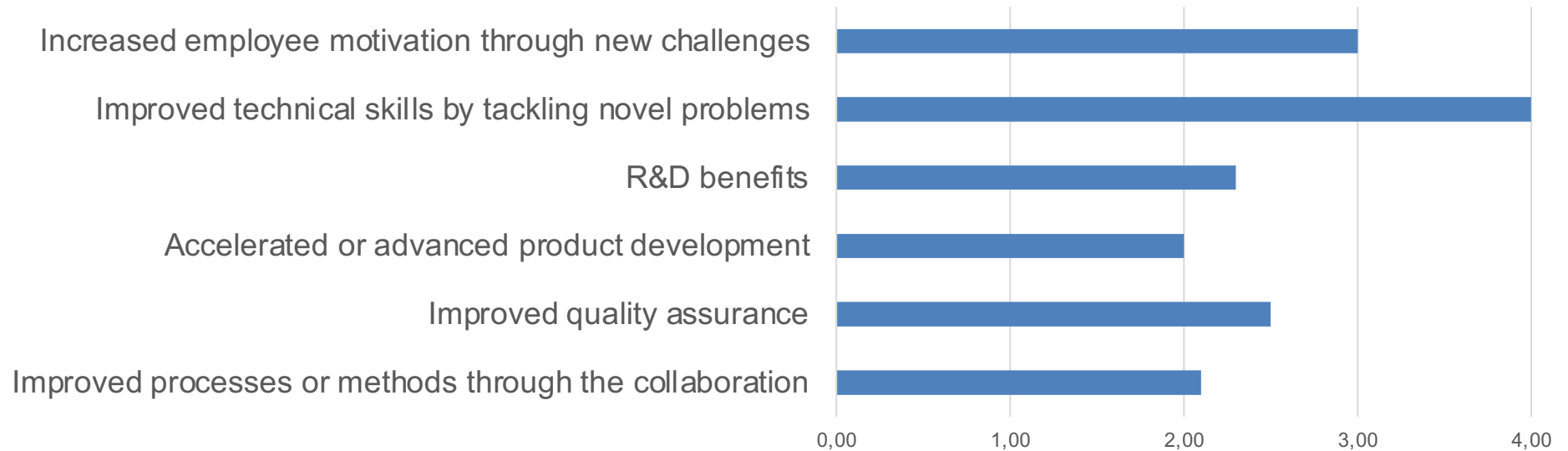


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Why supply Big Science?

Technical benefits of supplying CERN

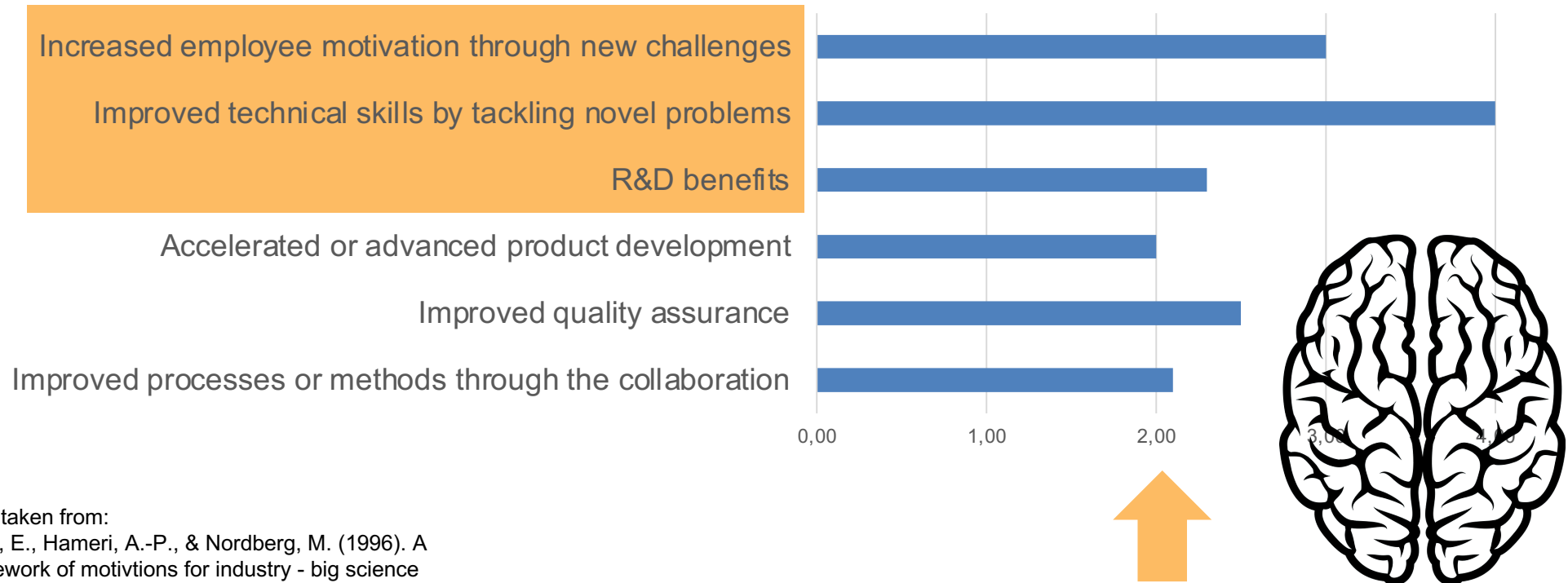


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Why supply Big Science?

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Procurement processes at FAIR

e.g. Procurement value 2019:

- 169 M€ worth of tenders
- of which just ~ 1.4 M€ were off-the-shelf

2019 Purchase type	No. tenders national (<221 k€) above 25K€	No. EU tenders (>221 k€)
Without negotiation	102	18
With negotiation	165	24



increasing
degree of R&D or
innovation sought

- Accounts for about half of accelerator procurement