Industry access to ESS

Setup, Implementation, Outreach
Discussion at ESS STAP meeting April 27, 2021

Grethe V. Jensen

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ESS Access schemes

Peer-reviewed Access

Quick Access

Discretionary Access

Industrial Proprietary Access

Required setup for industry access to ESS

➤ Industry outreach and collaboration
- o Routes to reach new potential industry users
- o Models for continually engaging with industry

➤ Peer-reviewed access:
- o Terms and conditions
- o Terms of reference for industry track – with industry relevant assessment parameters
- o KPIs or other factors to monitor

➤ Industrial proprietary access:
- o Terms and conditions
- o Requirements and procedures for IP protection for transparent contract handling
- o Requirements and procedures for allocation and scheduling of beamtime
- o Services provided and price list
- o Requirements for allocation of facility staff and resources
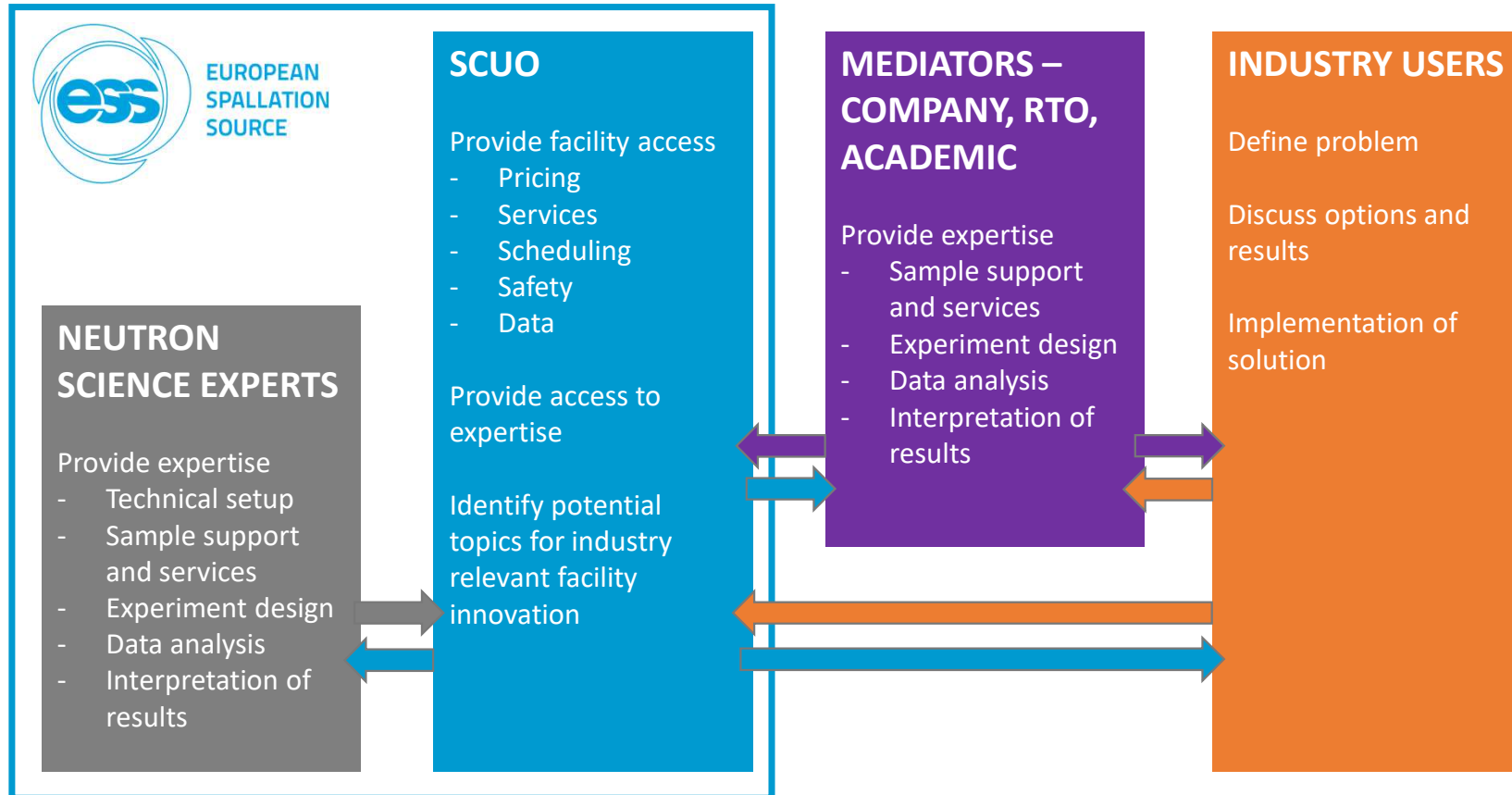- o KPIs or other factors to monitor

ESS Access schemes
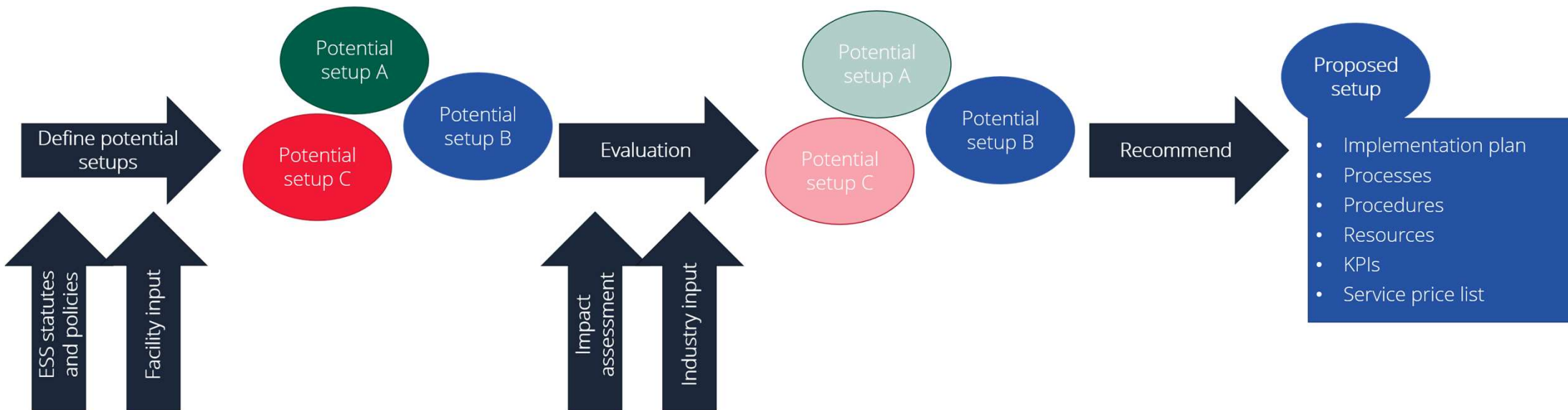
Peer-reviewed Access

Quick Access

Discretionary Access

Industrial Proprietary Access

Task: Define setup and implementation for industry access

Methodology:

Input from facility interviews

Industry Outreach

- Reaching new industry users is hard!
- New industry users can be reached through
    - In sector-oriented conferences, networks, etc.
    - Industry conferences/workshops (join or organise)
    - Open fora for matchmaking, problem-solving, …
    - Visiting or inviting industry representatives
    - Training of industry representatives
    - Communication efforts on SoMe, webpages etc.
    - Transfer of people
- Important to break the barrier of lack of knowledge
  e.g. using case studies
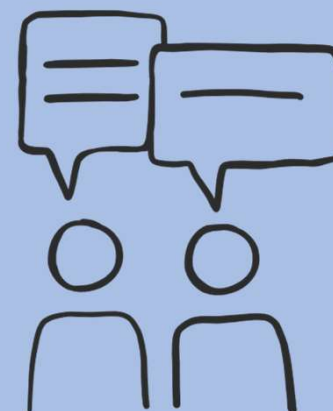
Scenarios from facility interviews

General peer-reviewed access

Targeted towards academic use
A few annual submission deadlines
Requirement for publication

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Serving typical users

- Some (few) are able to compete for beamtime on scientific terms
- Most apply in collaboration with universities – often with limited involvement

Breaking barriers

- Uncertainty of results
- Allow flexible change to proprietary?
- Easy access to feasib. tests (Quick Access)?
- Scientific assessment
- Specific industry calls?
- Assessed on technolgical or socio-economic impact, innovation potential
- Rolling proposal for low numbers of proposals?
- Matchmaking with academic partners

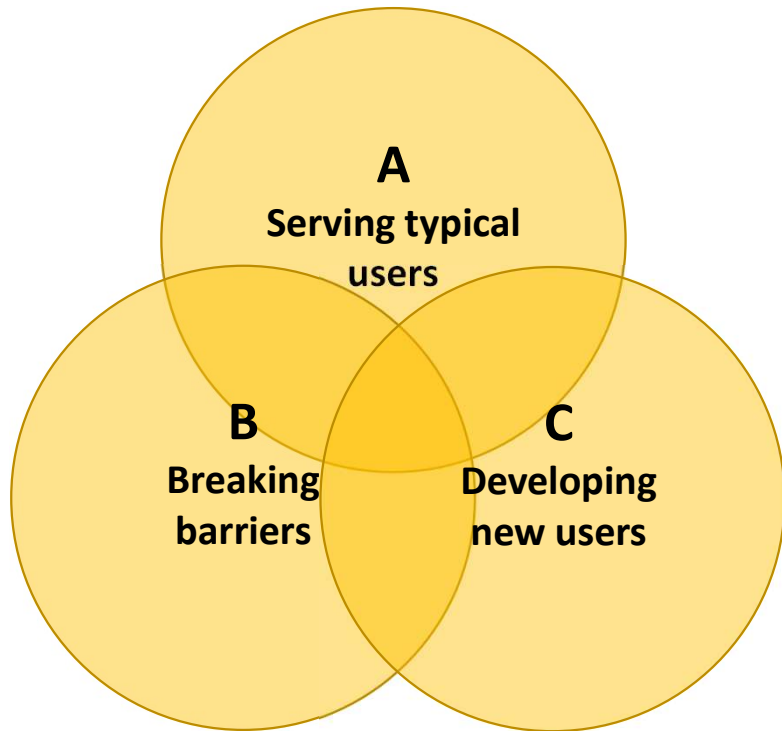## Developing new users

- Continuous training and dissemination required for development of independent industry users
- Involvement in projects, consortia, collaborations
- Outreach targeted towards specific sectors/problems

Scenarios from facility interviews

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General peer-reviewed access

A
Serving typical users

B
Breaking barriers

C
Developing new users

Setup can affect:

ESS impact:
Number of industry users, proposals, publications, connections…
Storytelling, communicating the facility impact, societal value, and industry use

Required ressources:
Staff, assessment panels, engagement in outreach an collaborative projects

Meeting of industry needs:
Understanding of possibilities and of potential value-creation

Questions for STAP:

What should the industry program do?
What should be prioritised?

What is the timeline? (short/medium/long)

What would you like to see at next STAP meeting?

Scenarios from facility interviews

Industrial Proprietary Access

Access on commercial terms
Data and IP fully confidential

Scenarios from facility interviews

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- Many users for certain techniques, fewer for others
- Most industry users from large companies within pharma, biotech, chemicals, materials, energy
- Industry users from (small) mediator companies or RTOs, performing analyses for other companies
- Few facilities allow for academic use

Typical users

- Caps on proprietary beamtime often enforced to ensure scientific focus
- Beamtime is priced to cover facility running costs (at full operation) and in some cases (depreciated) facility construction
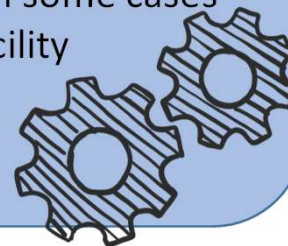
Terms

- Maintain a schedule with open or flexible slots to allow for faster proprietary access
- Provide full assistance for formalities such as sample declaration, safety training, site access, etc.

Recommendations

Scenarios from facility interviews

Industrial Proprietary Access

Access on commercial terms
Data and IP fully confidential

Further industry support:
Data collection (e.g. mail-in)
Sample handling
Data analysis
Reporting
Further discussion of experiments
and results

Scenarios from facility interviews

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At facility industry unit

- Large, industry-dedicated specialist unit
- Must cover range of techniques and fields
- Requires consistent critical mass of industry users

At facility beamlines

- Use of facility scientists for industry support
- Flexible for lower numbers of users
- Scientists' time not dedicated to industry – bottle necks and sometimes lack of motivation or understanding of industrial priorities
- Must recognize scientist contribution and maybe allocate income to beamlines/groups

At external units

- Mediator companies, RTOs, etc., performing analyses for other companies
- Focused on industry problem-solving with range of techniques – not limited to e.g. neutrons
- Provide dedicated assistance to industry

Scenarios from facility interviews

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Industrial Proprietary Access Extended support

A
At facility industry unit

B
At facility beamlines

C
At external unit
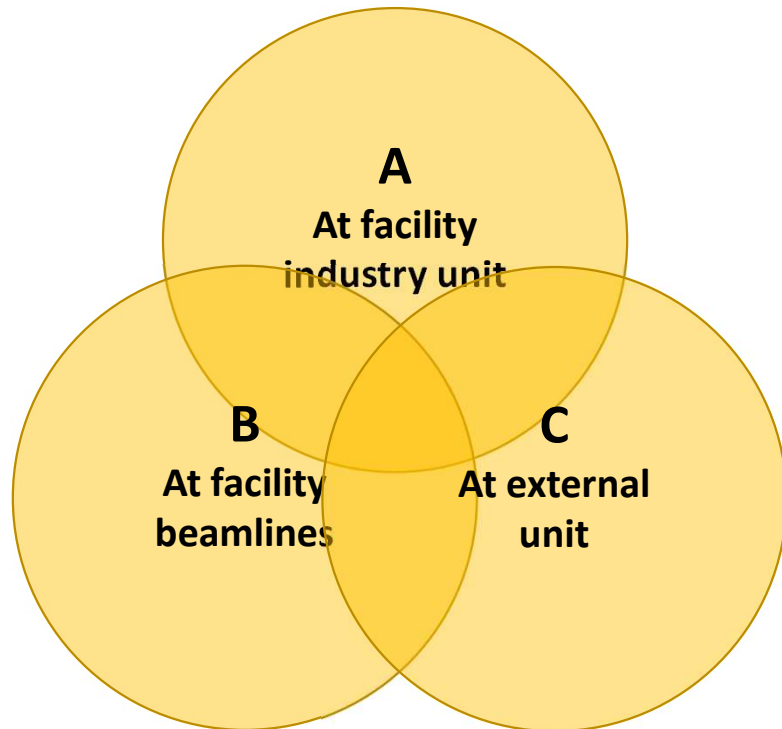
Setup can affect:

ESS Impact
Number of industry users and connections, Income, Socio-economic impact
Story-telling/communication

Required ressources
Scientists w. full or partial dedication to industry users,

Meeting of industry Needs
Fast, easy, reliable access and results
'Standardised' measurements
Focus on problem-solving rather than technique

Questions for STAP:

**What should the industry program do?
What should be prioritised?**

**What is the timeline?
(short/medium/long)**

What would you like to see at next STAP meeting?