

EIROforum Workshop on Knowledge Management

Welcome to the EIROforum Workshop on Knowledge Management

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This work has been carried out within the framework of the EUROfusion Consortium, funded by the European Union via the Euratom Research and Training Programme (Grant Agreement No 101052200 – EUROfusion). Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Commission. Neither the European Union nor the European Commission can be held responsible for them.



Agenda

Tuesday: Nuclear knowledge management – EUROfusion and IAEA

Wednesday: Space research – ESO, ESA and NASA

Thursday: Biology and Particle Physics - EMBL and CERN

Friday: round table discussion session

- capturing and transferring knowledge from retiring experts
- bridging the generational gap between design, construction, commissioning and operations
- integrating lessons learned into new projects



Organisation of the meeting

- Each talk is 20 minutes with additional 20 minutes allocated for discussion
- Slides are available on the public Indico site (if agreed with the speaker)
- The workshop is recorded for internal purposes (to write minutes and conclusions)

- Please raise your hand if you have questions or use the chat function.
- When asking questions, state your name and affiliation.
- We encourage all participants to include your name and affiliation in the screen name on Zoom. (Go to participant list, click on yourself, select rename.)

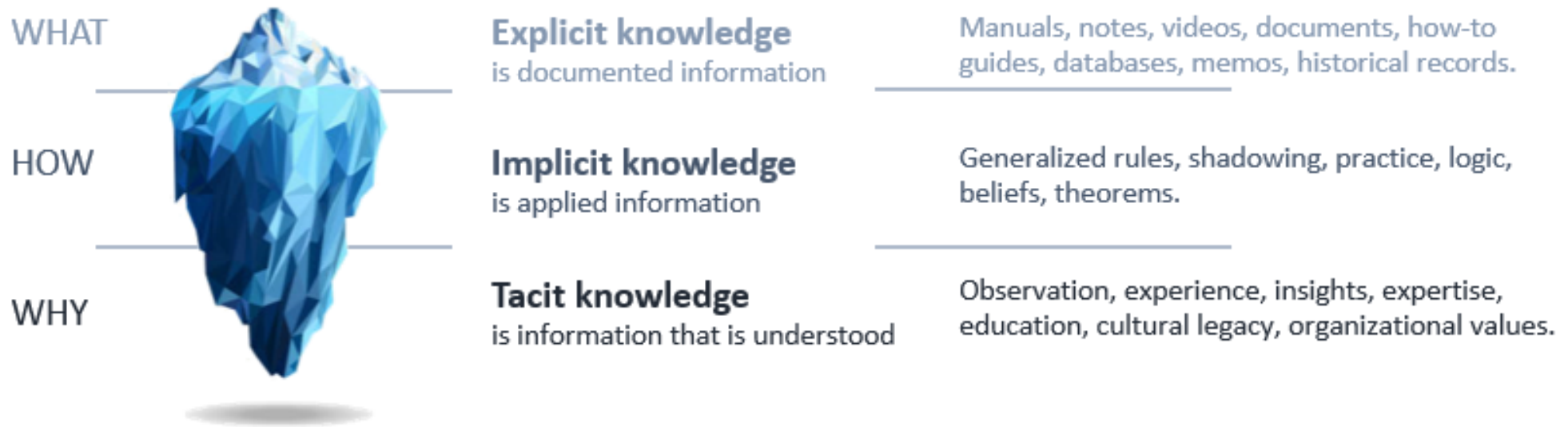
Please register to the workshop, if you have not yet done so. -> understand the background and positions of the attendees, their interests and topics to discuss, as well as to potentially stay in touch after the workshop related to follow-up events.



EIROforum to share experience and challenges

EIROforum is the **European Intergovernmental Research Organisation Forum**, that brings together eight of Europe's largest research organisations (ESO, ESA, CERN, EUROfusion, EMBL, European XFEL, ESRF and ILL).

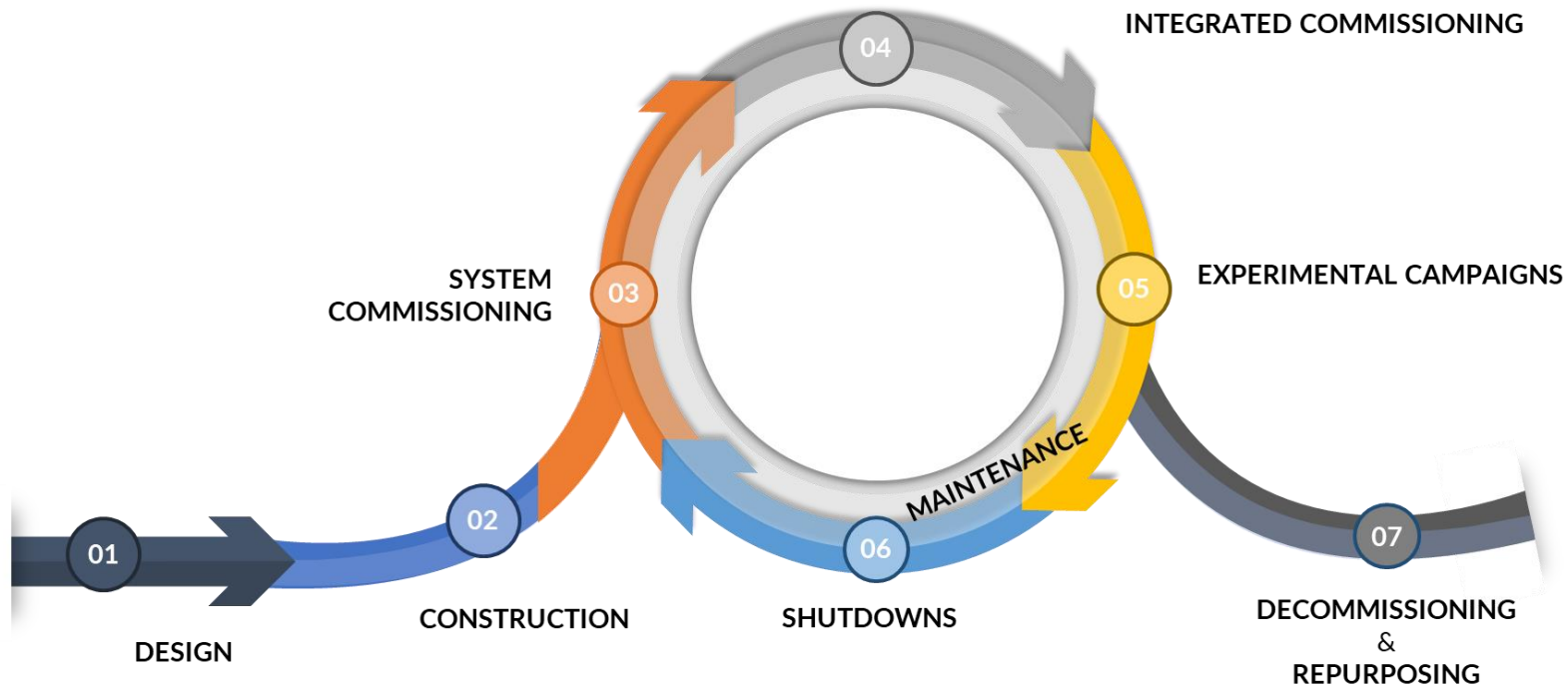
We share some common challenges like the **capture and transfer of tacit knowledge of our experts**, including their experience gained often over decades that is difficult to easily codify.





How to do knowledge management in scarce and/or difficult areas?

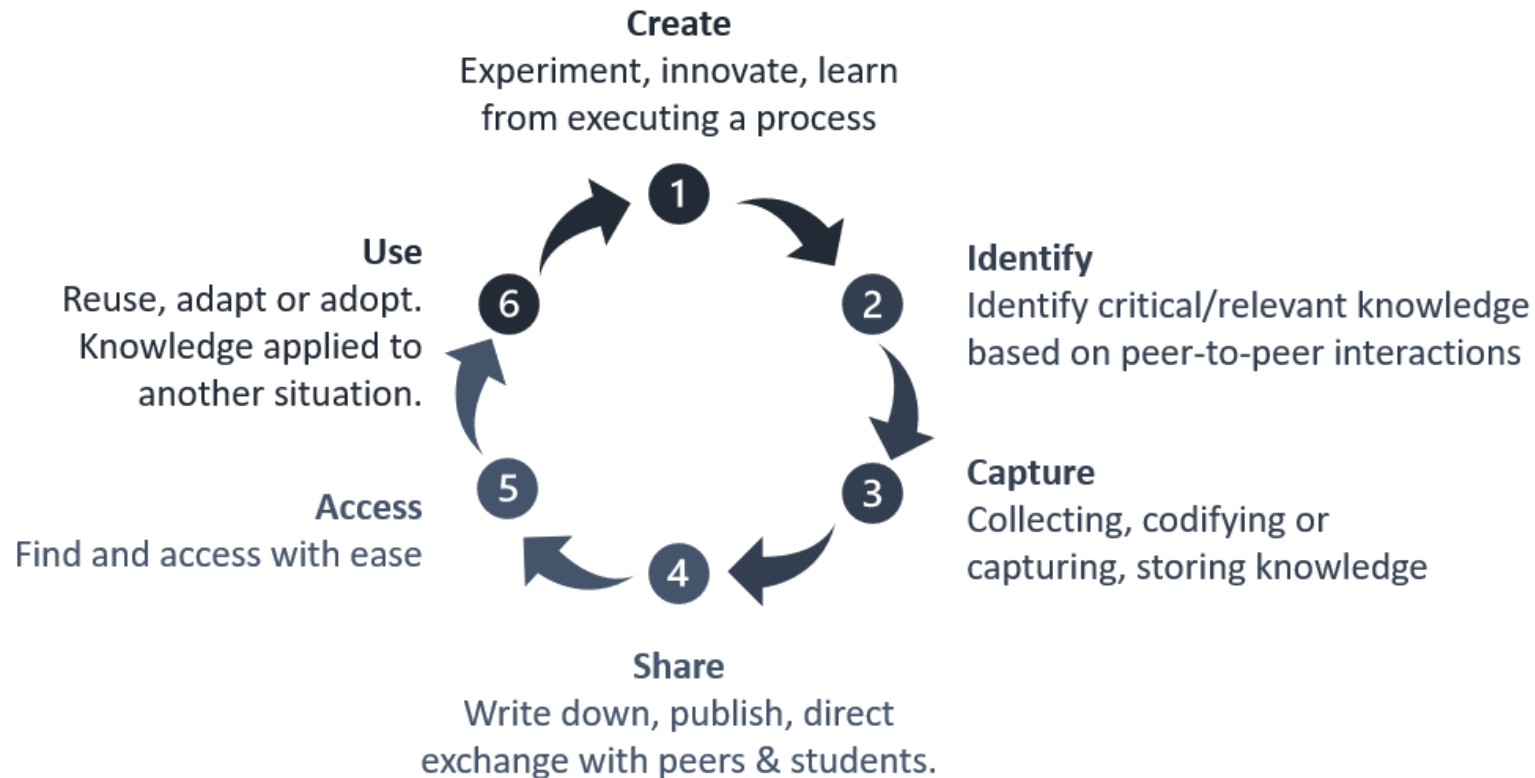
- **Scientific exploitation:** Often there are strong processes in place (books, courses, conferences, publications).
- **Engineering and technology:** Some materials, courses and conferences.
- **Commissioning, operations and maintenance:** less commonly shared, but issues can cause long delays.





Aim of the workshop is to share experience and best practices

- Discuss and share **strategies, challenges, lessons-learned and best practices related to the capture, codification, and transfer of tacit knowledge** between experts in highly technical research fields.
- Identify topics to discuss further in potential follow-up meetings.





What are the frameworks and processes suitable for us?

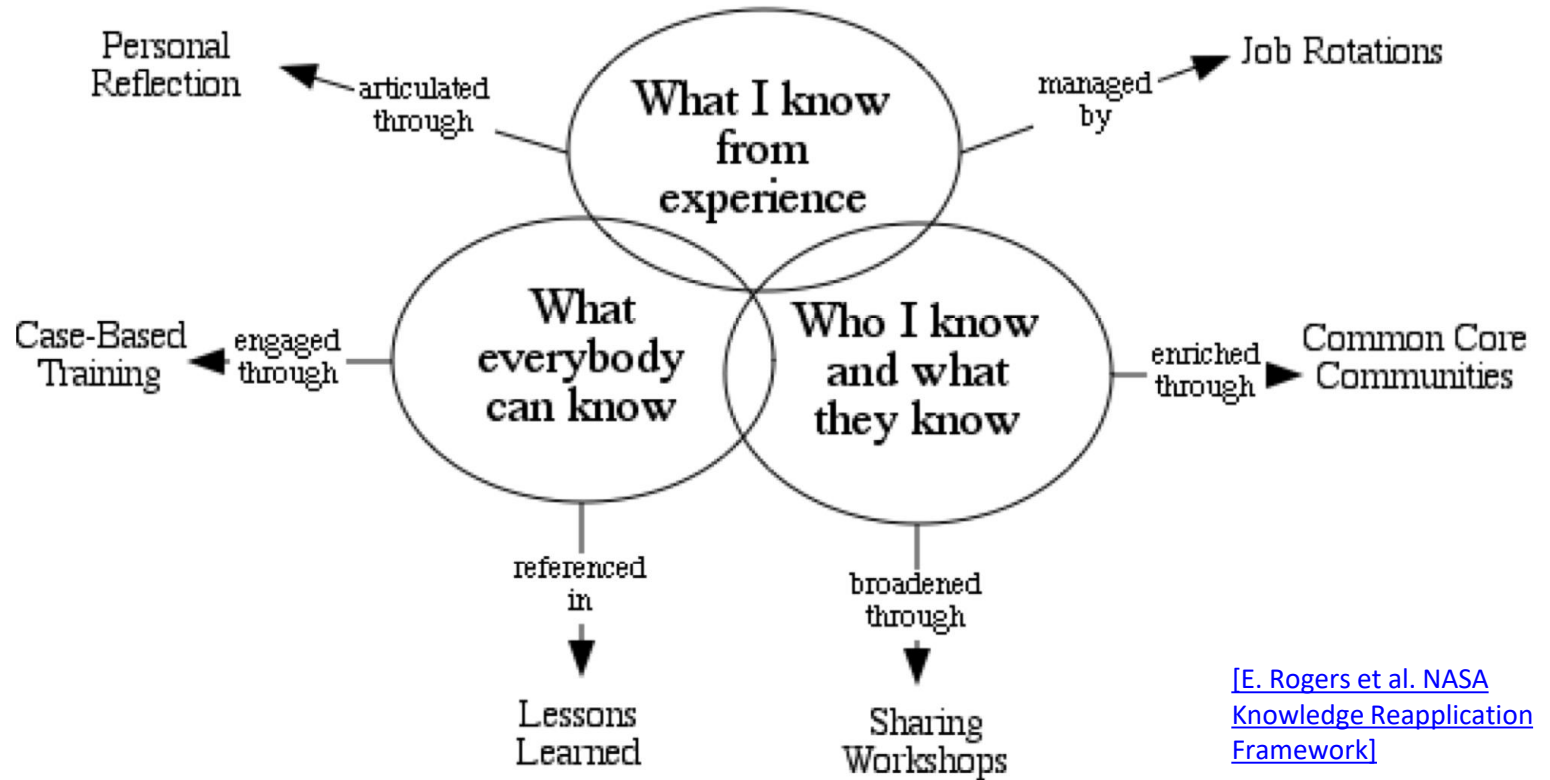
The NASA framework shown the **importance of communities and personal exposure** in the learning and transfer process beyond only knowledge capture.

IAEA knowledge management guides, visits and school.

What other frameworks, processes and best practices are there to consider?

FIGURE 1: KNOWLEDGE REAPPLICATION MODEL

Integrated Knowledge Reapplication Processes and Enhancing Knowledge Management Practices



[\[E. Rogers et al. NASA Knowledge Reapplication Framework\]](#)



Similar challenges and topics for discussion

- **Retiring experts:** Sharing and capturing experience and know-how before they leave
- **Long-time scales between lifecycle phases:** bridging the generational gap, the decades between design, construction, commissioning, operations, maintenance and scientific exploitation.
- **Synthesis and integration of lessons-learned and experience into new projects**