



ENRIO 2025 Congress

The Open Science Learning GATE - Supporting Capacity Building

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STATE OF OS
TODAY

RESEARCH

EVOLVING
STATE OF OS

UNDERSTANDING
OS

TARGETED SOLUTIONS
for and with OS Communities

DOING
OS

Agenda

1

WHY WE NEED THE GATE

2

HOW IT WORKS - GATE's functionalities and goals

3

ENGAGE WITH GATE- how to contribute to & benefit from the GATE

4

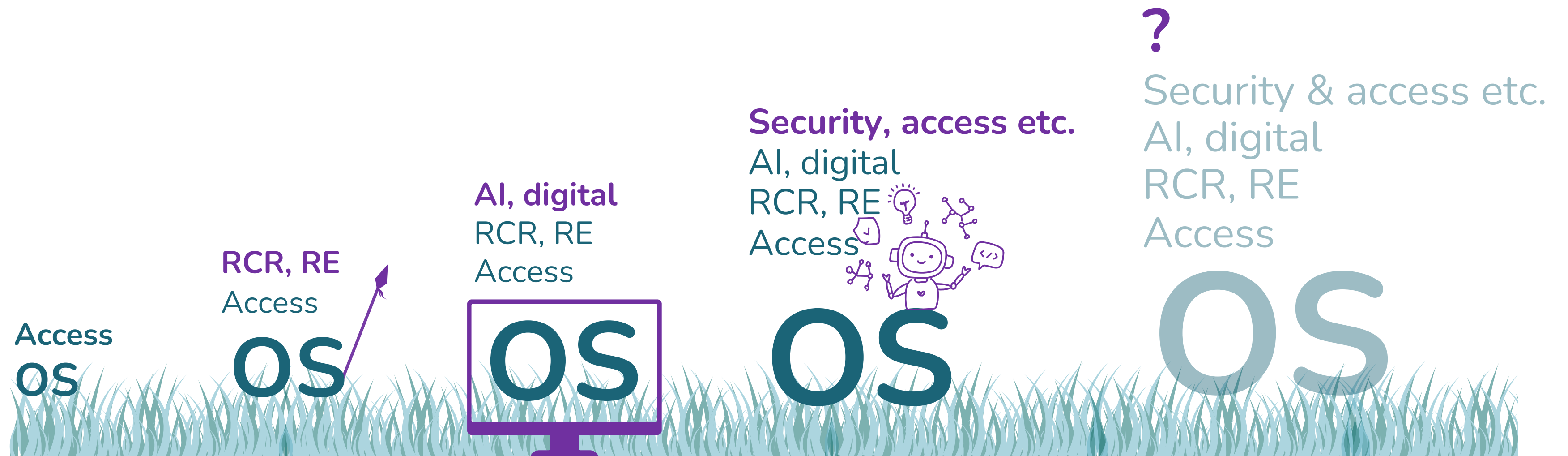
GATE'S OUTPUT - knowledge about OS & targeted actions to advance OS

1 Why we need the GATE

*“Ask what OS is today and
you’ll be surprised what it is tomorrow.”*

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“Ask what OS is today and you’ll be surprised what it is tomorrow.”

Therefore, we need to both...

understand the current concept of OS:
practices, guiding thoughts &
understandings, values, policies etc.

“OS today”

be aware of the continuously evolving
research landscape.



“OS tomorrow”

1 Why we need the GATE

GATE supports continuous and community-based knowledge exchange on OS practices & guiding thoughts.

(with RRC & RE as the fundamental concepts of OS – also in the context of the ethical use of AI).

“OS today”

“OS tomorrow”

2 How it works

Continuous knowledge exchange
Goals

Transparent, collaborative, and accessible science fosters trust, equity, and innovation.

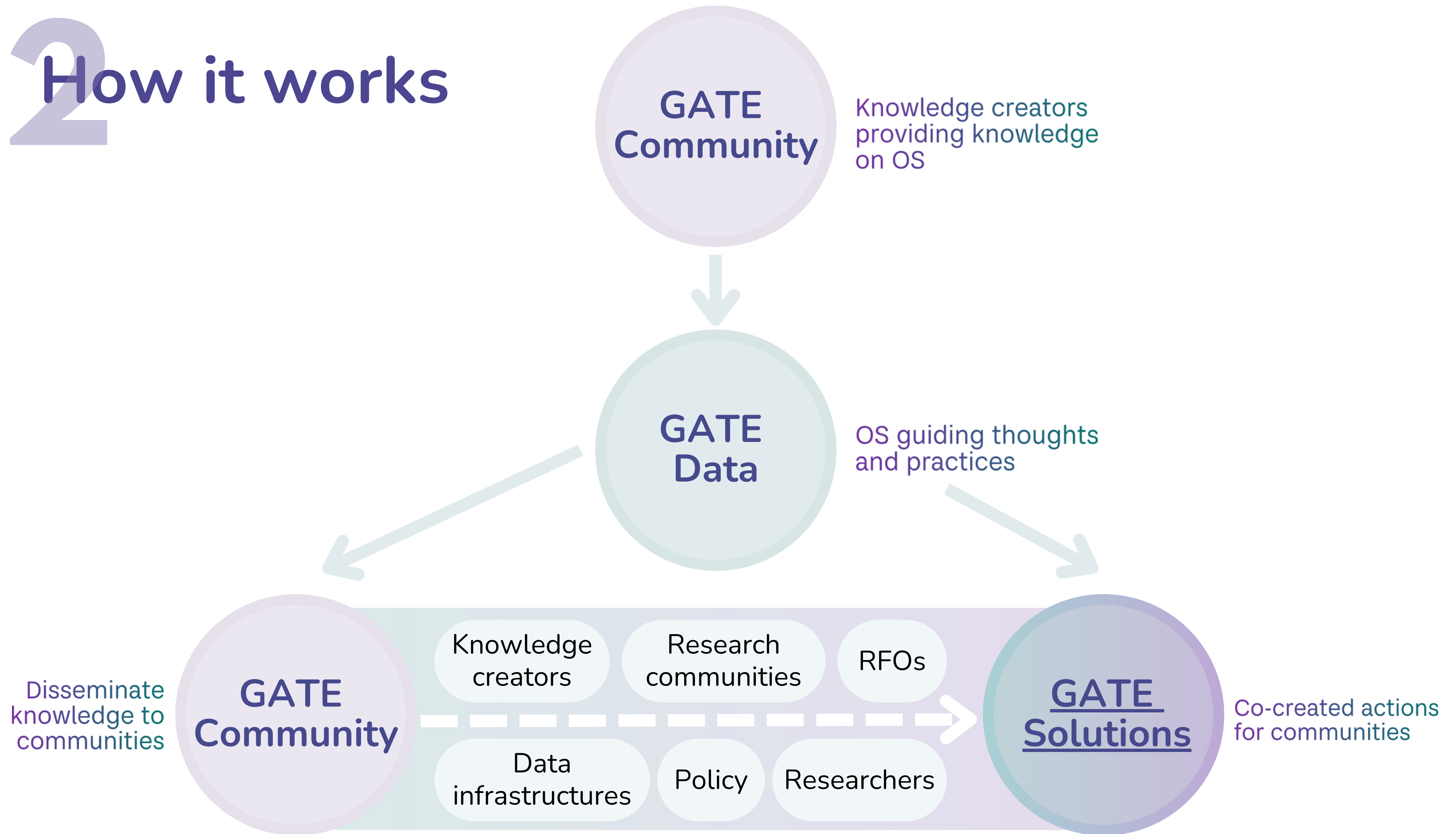
The What
The Why
UNDERSTANDING ✓

But real change requires both individual action and systemic reform.

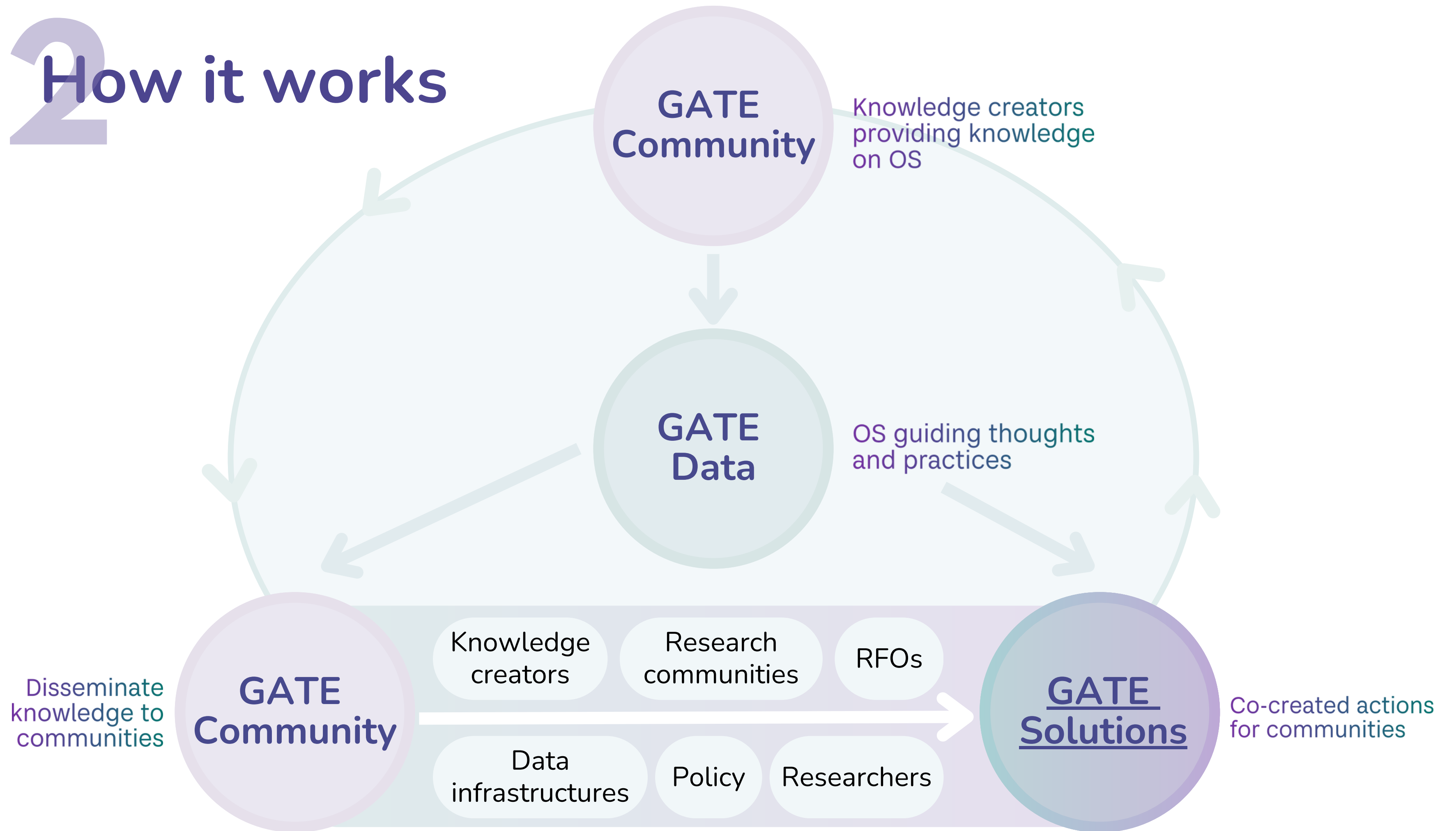
The How
DOING A

2 How it works

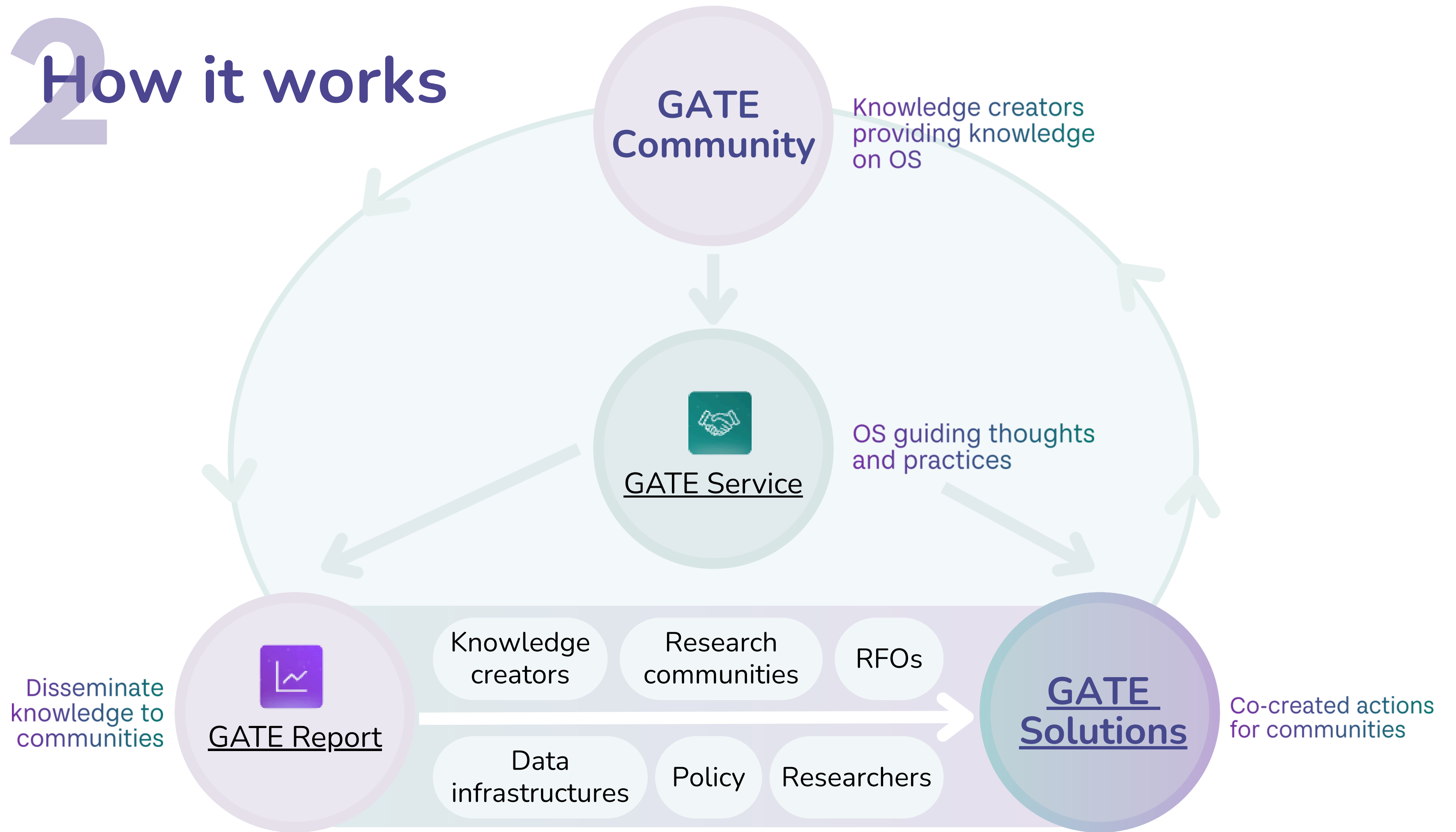
UNDERSTANDING



2 How it works



2 How it works



3 Engage with GATE

Are you a knowledge creator?

Provide your knowledge on OS via the GATE Service.



GATE Service

Benefits:

- Find out which guiding thoughts are currently being emphasised by others
- **Receive guidance to optimise your materials**
- Be named as author of **high-quality OS materials** in the GATE Report
- Enhance visibility of your materials

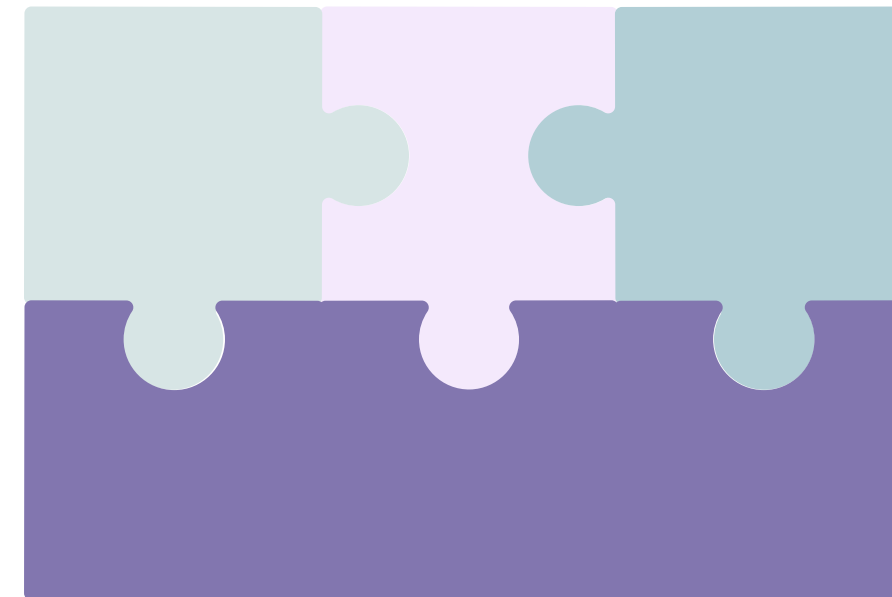
4 GATE's outputs

UNDERSTANDING

- GATE Service: Collecting community-based knowledge on OS
- Understand what OS is today and how it evolves
- GATE Report: Disseminating OS knowledge to communities
- **OS Communities derive their own conclusions:** optimise their materials, scale-up their (data) infrastructures, align their policies etc.

DOING

GATE Workshops:
Co-creation of **solutions and actions to advance OS within specific communities**



4 GATE's outputs

UNDERSTANDING

Examples of guiding thoughts and practices collected:

- Accessibility
- Accountability
- As open as possible - as closed as necessary
- Bias free (also AI)
- FAIR
- Data confidentiality
- Data and IP Protection
- Equity
- Factual accuracy (also AI)
- RCR
- Explainability (also AI)
- Honesty
- Inclusiveness
- Interpretability
- Openes
- Privacy (also AI)
- Reduce data amalgamation (also AI)
- Reproducibility (also AI)
- Traceability (also AI)
- Transparency (also AI)
- Value-based decision making (AI)
- ...

DOING

Examples of solutions:

- Training (how to license data, use repositories)
- Knowledge (tools, storage, OA platforms)
- Policy (also funders) and institutional processes
- Community & Collaboration (peers or mentors)
- **Open-lab Workbooks** (better documentation of progress and best practice examples)
- **(Internal) code & reproducibility checks** (reducing errors and encouraging code sharing)
- **Trusted repos.** (maintain data confidentiality)
- **Federated data systems** (analyse data, while it stays in the system, ensures data confidentiality)
- ...

4 GATE's outputs

RESEARCH

- Qualitative analysis of GATE Data
- Building formal vocabularies (reiterating the GATE process in order to achieve consistent vocabulary)
- Use Knowledge Graph models to organise the GATE data incl. their semantic relationships

HOW WE PROCEED

- Enhance qualitative richness of GATE Data



GATE Service



- proceed community participation
→ needs assessment & targeted solutions



- GATE Report to become an ontology (representation of OS fields, good practices, and relations between these practices)

Thank you!



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Teodor Metodiev | Tom van Drimmelen

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