122 ideas for national AI-Centres – where do we go from here?

Status, and the way forward for the AI research-
and innovation investments at the Research
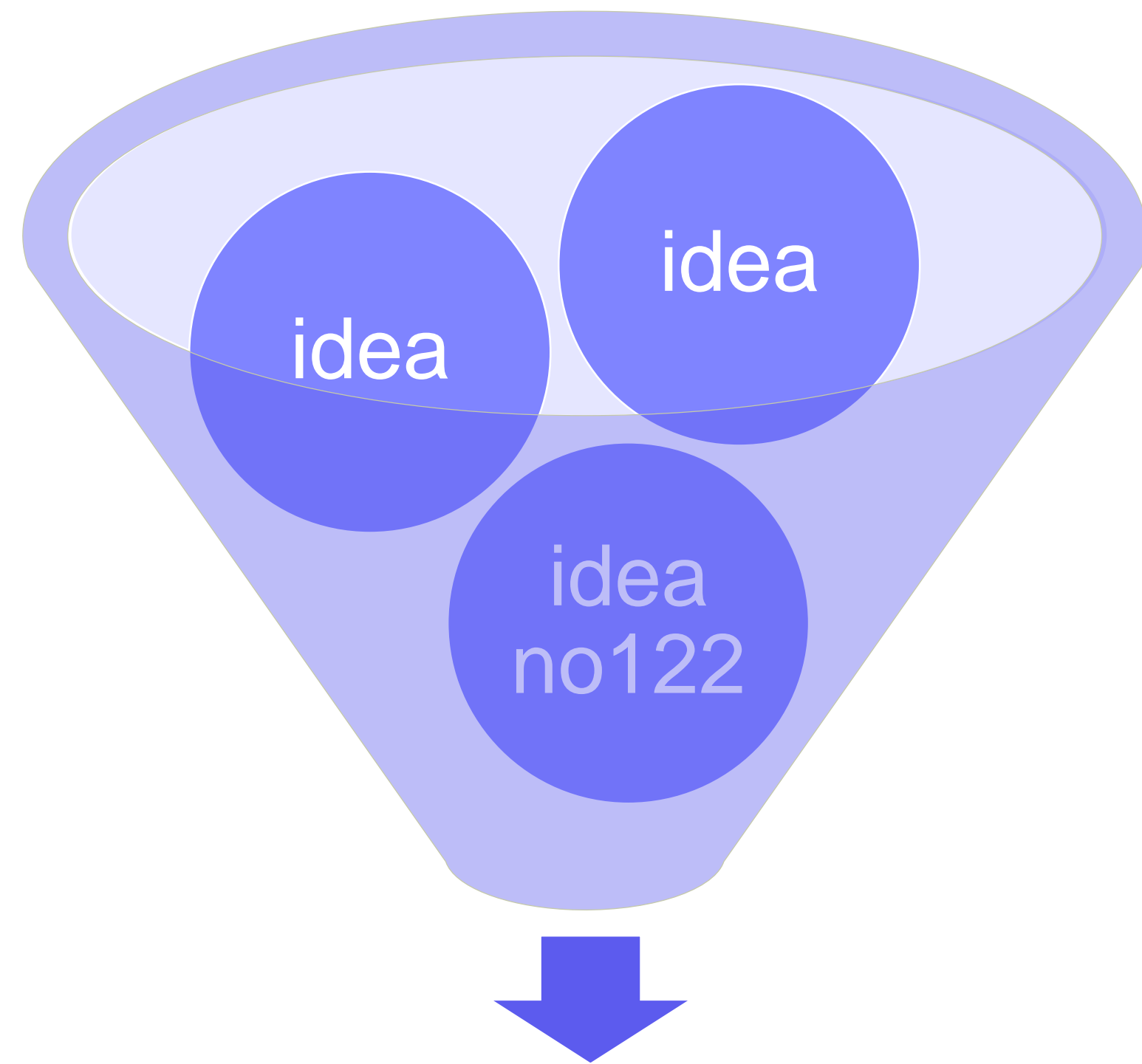Council of Norway

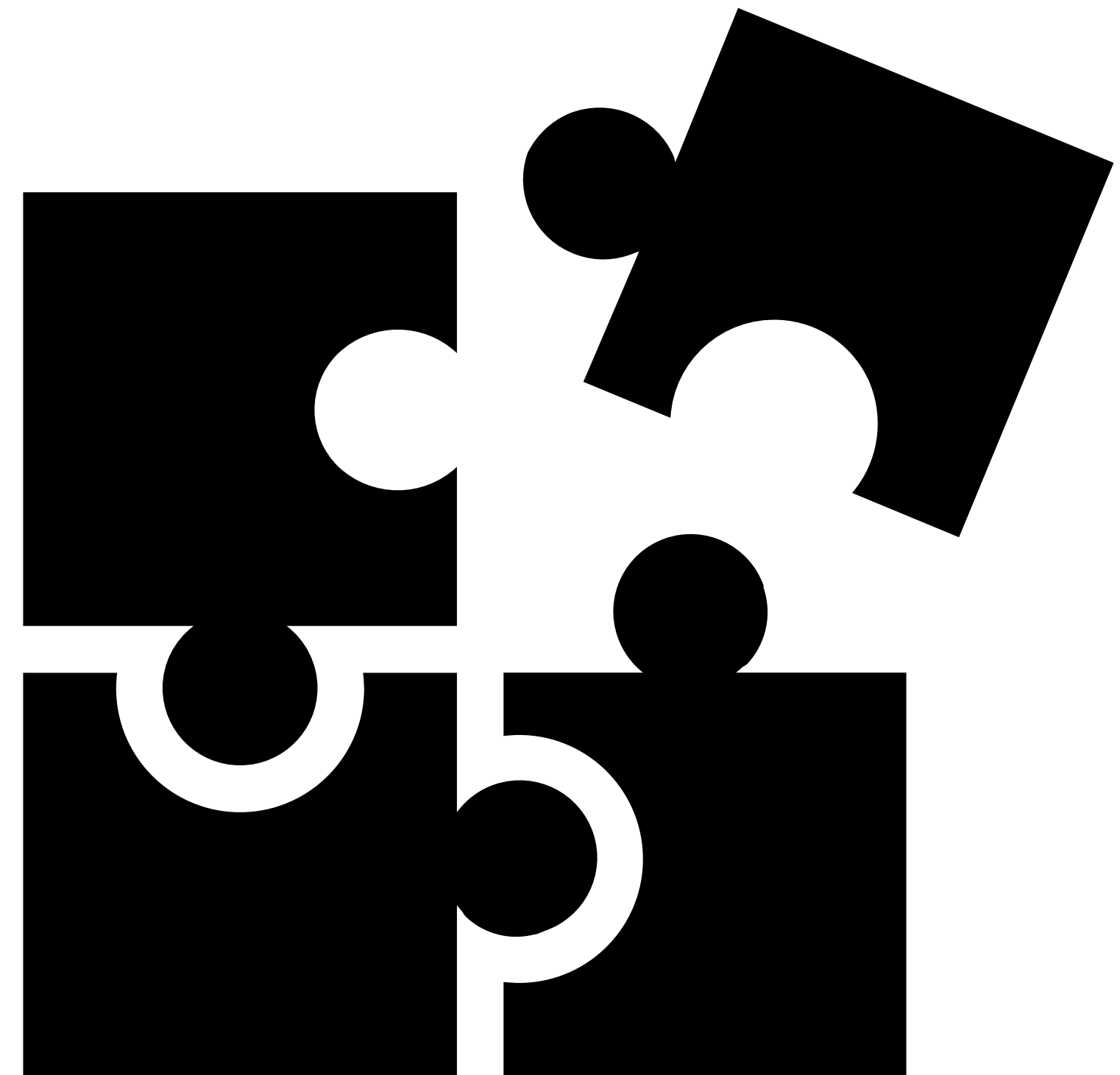Olaug Råd, Special Adviser

Department for Enabling Technologies

September 24th Trondheim

The Research
Council of Norway

122   Ideas/outlines   =>   X applications   =>   4 – 6 AI centres

January 2025: X applications

The AI centres will complement each other and collectively cover the three tracks – impacts, technology and innovation

In the call text we ask for National AI Research Centres, and

The core of an AI centre is to conduct research on AI and AI-relevant issues
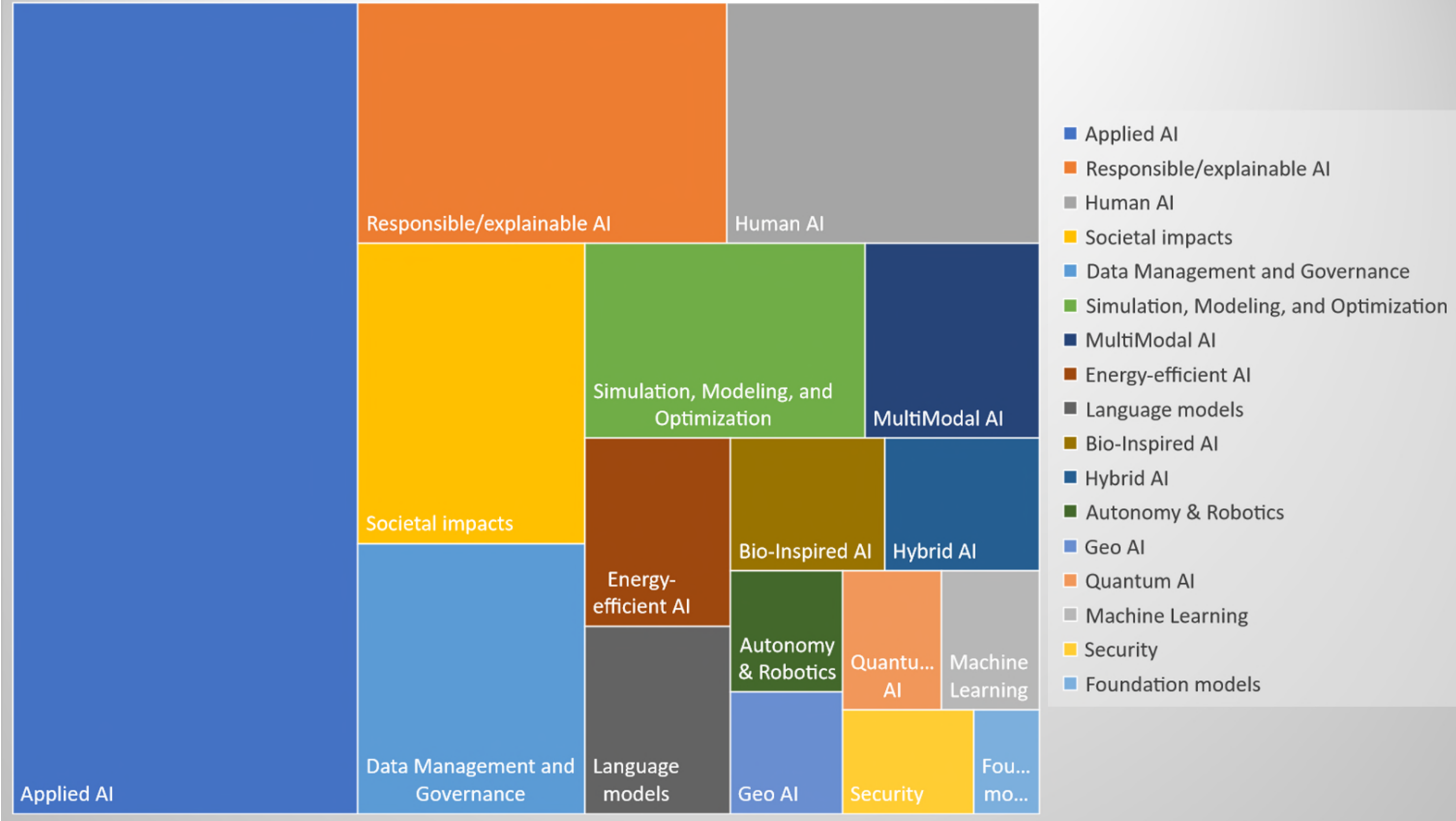
- general and relevant to a wide range of stakeholders and areas of application.
- transfer value to more actors and areas of application than those represented in the centre.

See full call text: Research Centres for Artificial Intelligence (AI Centres) (forskningsradet.no)

The AI centres shall collectively cover the three tracks

- **Societal consequences** – research on the societal consequences of AI
- **Technology** – research-based development of AI and AI-relevant technologies
- **Innovation** – research on how to use AI and any other digital technologies

AI and AI relevant research topics in Centre outlines

Legend:
- Applied AI
- Responsible/explainable AI
- Human AI
- Societal impacts
- Data Management and Governance
- Simulation, Modeling, and Optimization
- MultiModal AI
- Energy-efficient AI
- Language models
- Bio-Inspired AI
- Hybrid AI
- Autonomy & Robotics
- Geo AI
- Quantum AI
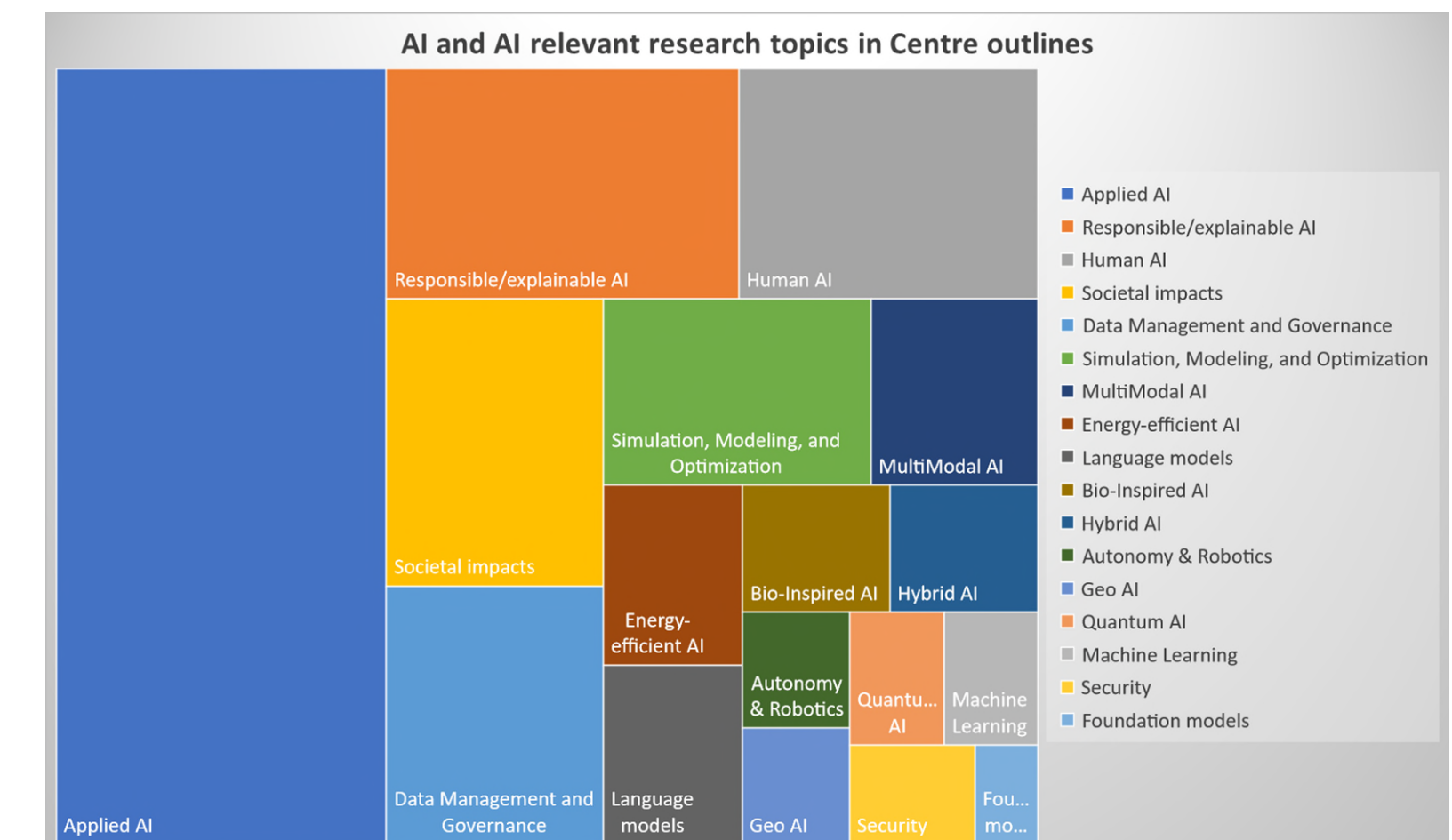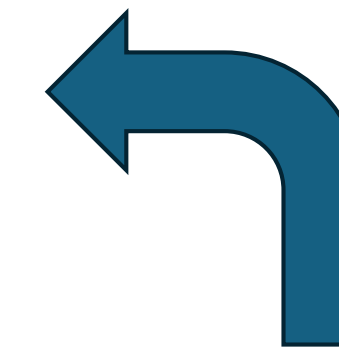- Machine Learning
- Security
- Foundation models

These are AI- and AI-relevant research topics collected from the centre's outlines. We can see many overlapping topics. Some with a social or human research angle, and some from the technology side, and very many from the applied side. We think the research topics respond very well to the assignment from the Ministry of Science and Knowledge, and the call, that "The AI centres shall collectively cover the three tracks; Societal consequences, Technology and Innovation.
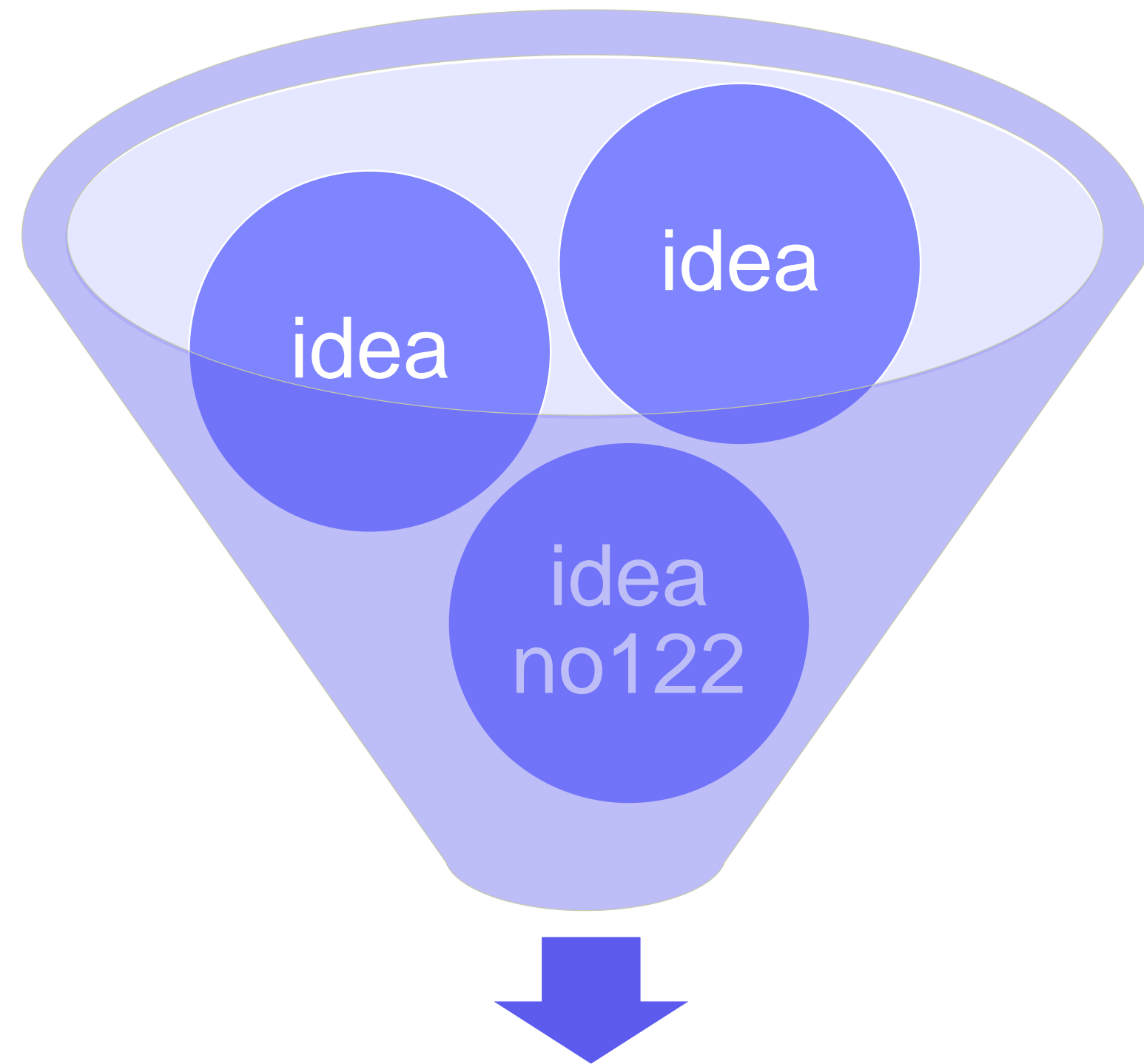
«Applied AI» breakdown

APPLIED AI - APPLICATION AREAS IN OUTLINES

Health & biotech | Public sector | Climate | Ocean / Maritime | Education | Secure Societies | Energy | Construction | Agriculture
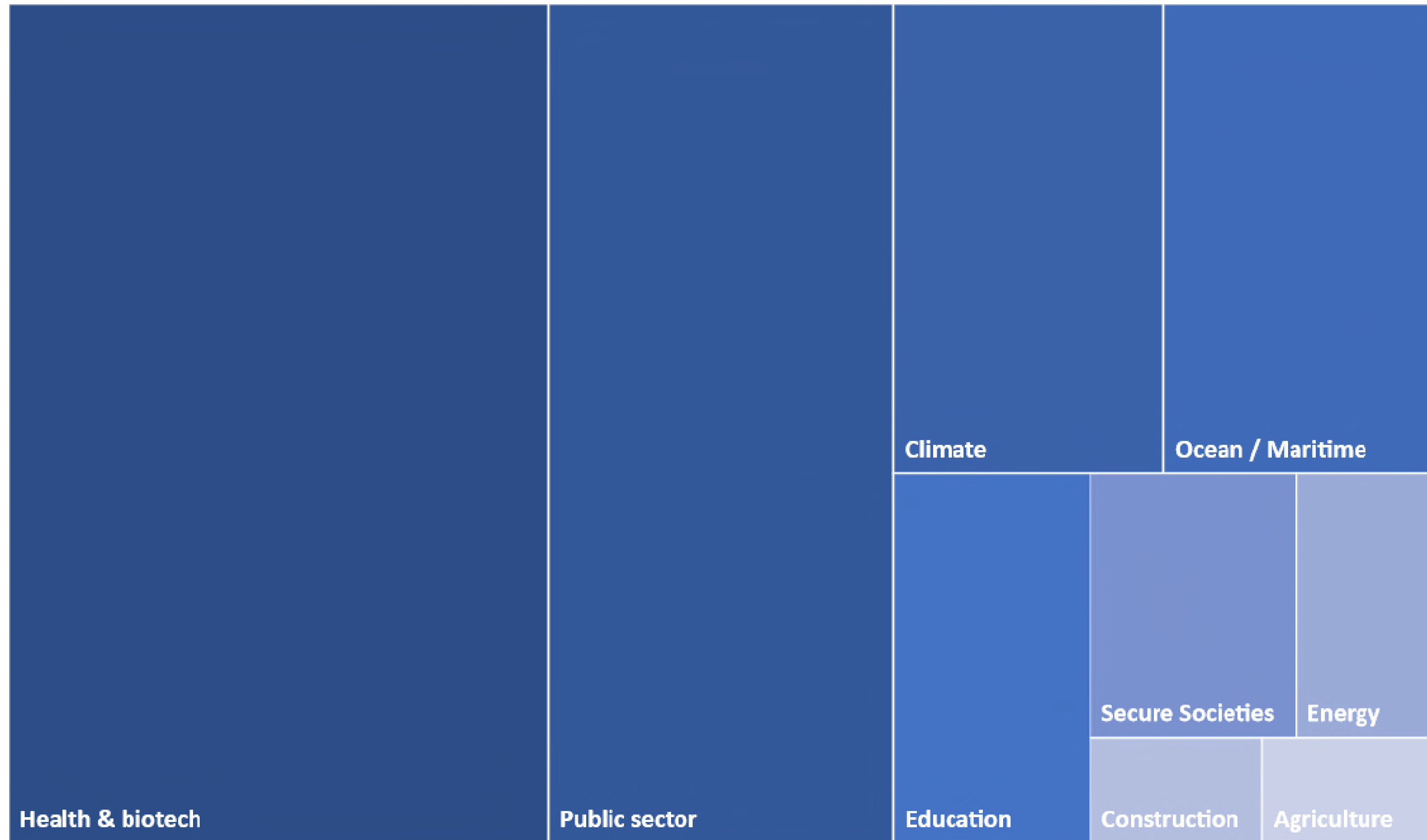
In the outlines, there is a significant interest and demand for new AI applications. Many of these applications could serve as excellent cases for AI centres. However, they often lack the necessary focus on AI research topics to justify forming independent centres. Nevertheless, these outlines can help identify where AI is already being utilized and highlight areas with great potential for AI-driven innovation.

AI and AI relevant research topics in Centre outlines

- Applied AI
- Responsible/explainable AI
- Human AI
- Societal impacts
- Data Management and Governance
- Simulation, Modeling, and Optimization
- MultiModal AI
- Energy-efficient AI
- Language models
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- Geo AI
- Quantum AI
- Machine Learning
- Security
- Foundation models

122 Ideas/outlines => X applications

The process

- Open
- Dialogue
- Q&A

- Matchmaking, developing ideas and consortia

➢ new understanding
➢ new partnerships and constellations

idea

idea

idea no122

January 2025: X applications

X applications => 4 – 6 AI centres

- The 122 applications will eventually result in x applications.
- The applications will be assessed by international experts (excellence, impact, implementation and relevance)
- Then the 4 – 6 centres will be picked based on an overall portfolio consideration
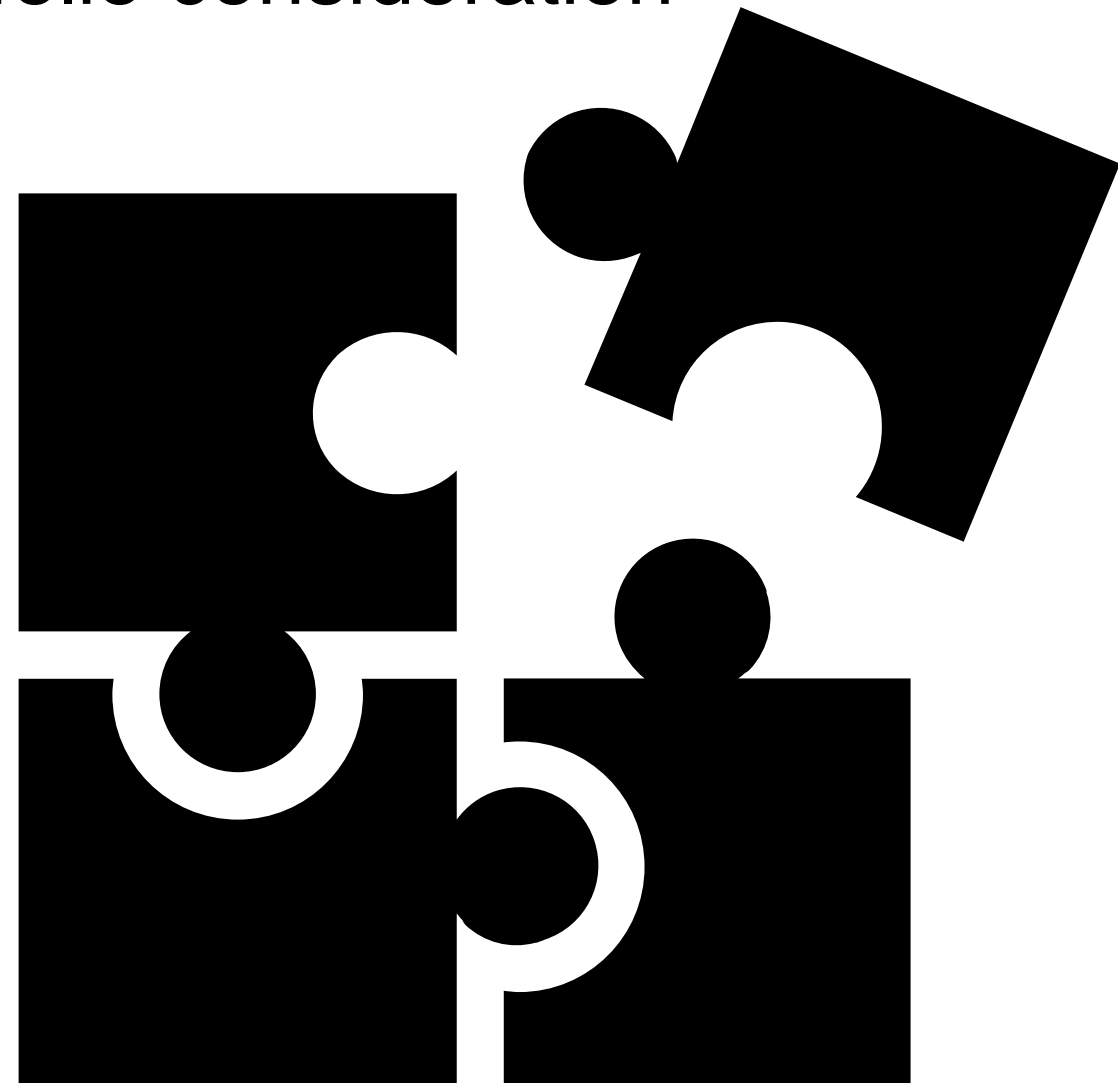
- Portfolio criteria:
  - Overall, cover **all three tracks**

  - Overall, provide a good breadth of AI and **complement each other** in terms of research topics and areas of application.

  - Overall, **complement and develop ongoing** RCN AI-portfolio

  - Overall, contribute to **supplementary funding**

One Billion <=> Funding boost
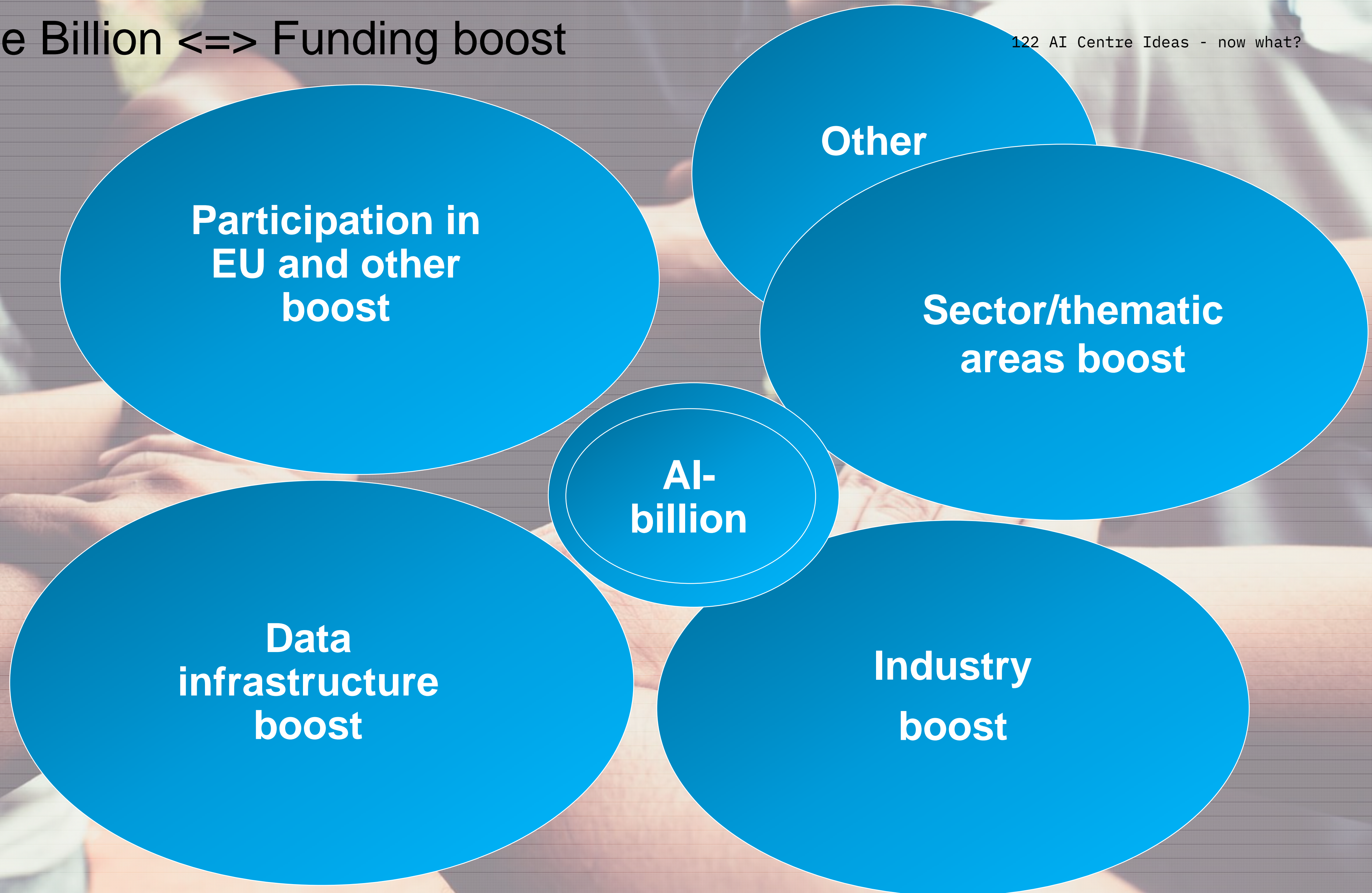
2025 – 2030: Footprint AI Centres / AI billion

- **People** – Competence - Capacity

- **Knowledge** – **in use** by Researchers, Industry, Public sector, Society in general

- **Collaboration**
  - ✓ Interdisciplinary
  - ✓ Research – Public – Private
  - ✓ Institutional
  - ✓ International

- **Increased national AI efforts beyond the AI billion**

- **AI technology and systems – more responsible, more creative, more sustainable, more competitive**
- **- more able to solve complex problems and societal challenges**

Important dates

- **10 October 2024: Q&A Webinar**
- **01 November 2024: Open for applications**
- **15 January 2025: Application deadline**
- **10 June 2025: Decision meeting AI Centres**

More information:

- <u>Satsing på kunstig intelligens (forskningsradet.no)</u>
- <u>Spørsmål og svar om KI-senterutlysningen (forskningsradet.no)</u>
- <u>(25) KI-satsingen | Groups | LinkedIn</u>

- Email: ki-satsingen@forskningsradet.no

Empowering ideas for a better world

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