

DECIDE

Democratizing AI – Empowering Citizens through
Transparent Decision-making

DEMOCRATIZING AI

EMPOWERING
CITIZENS

through
TRANSPARENT

DECISION MAKING



€7 MILLION FOR MULTIDISCIPLINARY PROJECT ON DEMOCRATISING AI

🕒 Thursday 3 July 2025

The Dutch Research Council (NWO) has awarded €7 million to the project DECIDE Democratizing AI, Empowering Citizens through Transparent Decision Making, with the democratisation of artificial intelligence (AI). The grant has been allocated through the ORC programme of the National Science Agenda, which supports research driven challenges.

The project is led by [Mieke Boon](#), Full Professor of Philosophy of Science at the University of Twente, and investigates how AI systems can be developed with citizens rather than by them, with a focus on transparency, explainability, and inclusivity.

How can we develop AI **with** citizens rather than **for** them?

Through transparent, citizen-centred
AI that supports better public decisions

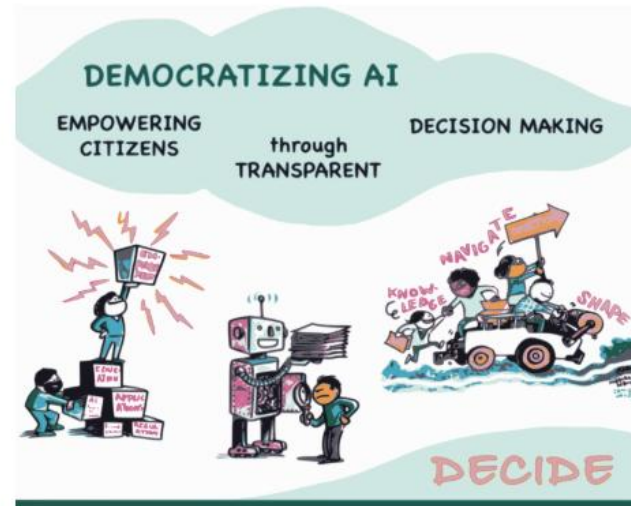
[Learn more](#)

Artificial intelligence increasingly influences decisions that affect our daily lives — from healthcare and mobility to public services. Yet for most people, it is unclear how these decisions are made. AI often feels like a black box.

DECIDE wants to change that.

The project develops transparent and citizen-centred AI systems, designed *with* citizens rather than *for* them. Instead of starting from technology, DECIDE starts from a simple question: how can AI help people understand, influence and take part in decisions that affect them?

By making AI more transparent and involving citizens in its development, DECIDE helps build a more **democratic, fair and trustworthy digital society**. Making sure that AI serves the interests of all, not just a few.



Mieke Boon

Prof. dr. ir | Chair: *Philosophy of Science in Practice*

Leader (PI) DECIDE projec

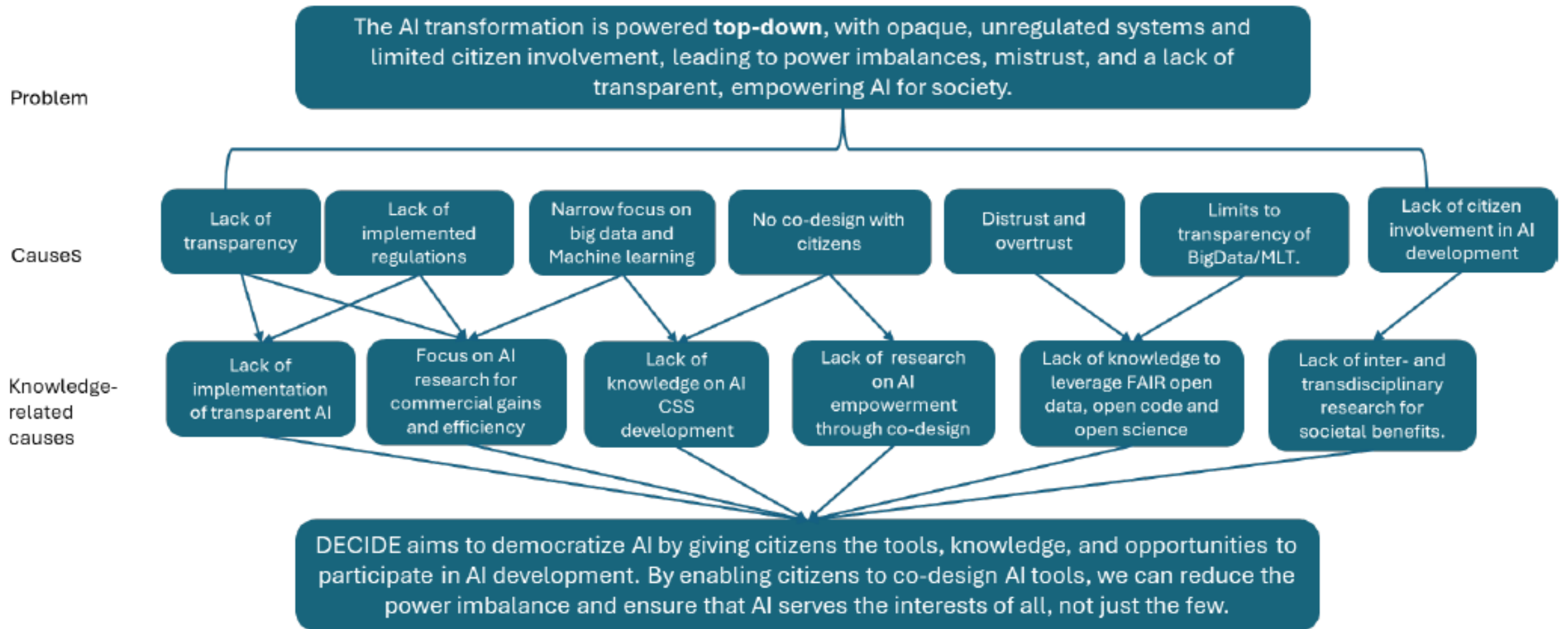


Figure 1. Problem analysis DECIDE.

Work Package/ CES Collaboration	CES Description	WP2: Empowerment of Citizens	WP3: AI-Literacy Education in AI-CSS	WP4: AI-Based Citizen-Support Systems	WP5: Decision-Making with AI	WP6: AI Governance and Regulation	WP7: Foundations of Transparent AI
WP Description		Focuses on transparency and empowerment in AI systems for citizens.	Develops educational tools and training programs to increase AI literacy and co-design capabilities.	Creates AI-Citizen Support Systems (AI-CSS) to aid citizens in making informed decisions.	Develops transparent and explanatory AI-Decision Support Systems (AI-DSS) about citizens.	Explores implementation of governance and regulation frameworks for AI systems.	Investigates transparency and trustworthiness in AI systems.
WP-CES1: Decision Support in Healthcare	A case study focused on improving healthcare decision-making, ensuring AI-based decision systems are transparent and trustworthy.	✓ Involved in exploring transparency and citizen empowerment.			✓ Supports decision-making processes and AI-DSS transparency.	✓ Engages in regulation and governance aspects.	✓ Supports transparency and trust-building in AI-DSS.
WP-CES2: Decision Support in Sustainable Mobility	Aims at developing AI systems that enhance decision-making in sustainable mobility contexts, focusing on citizen engagement and transparency.	✓ Focuses on citizen empowerment in mobility.	✓ Educates and engages citizens in AI literacy for mobility.	✓ Develops citizen support systems for decision-making in mobility.	✓ Enhances decision-making tools for sustainable mobility.		✓ Supports transparency in sustainable AI mobility solutions.
WP-CES3: Citizen Support Systems for Informed Decision Making	Co-design AI tools to enhance transparency and citizen engagement in democratic processes, empowering citizens to participate actively.	✓ Investigates transparency and empowerment in democratic processes.	✓ Develops educational tools for democratic AI literacy.	✓ Provides support systems for decision-making by citizens.	✓ Contributes to interactive and contestable AI-based decisions.	✓ Focuses on governance and ethical issues in decision-making.	✓ Establishes frameworks for transparent democratic AI systems.
WP-CES4: AI-Driven Healthy Lifestyle Recommendations	Investigates the use of AI in promoting healthy lifestyle choices, ensuring recommendations are transparent and ethically sound.	✓ Focuses on empowerment in health-related decision-making.		✓ Develops citizen-support systems for health and lifestyle.	✓ Supports decision-making for behavioural change.		✓ Addresses transparency and trust in health-related AI systems.
Collaboration between WPs		WP2 collaborates with WP3, WP4, WP5 on citizen empowerment.	WP3 collaborates with WP2, WP4 on education and literacy development.	WP4 collaborates with WP5 for complementarity.	WP5 collaborates with WP2, WP4 for decision-making integration.	WP6 collaborates with WP2, WP3, WP5, WP7 for governance and regulation.	WP7 collaborates with WP2, WP4, WP5, WP6 for transparency and trust.

Table 1. Overview of DECIDE WPs and WP-CESs (case study WPs). The thematic WPs are in mutual interdisciplinary research collaborations and the WPs interact transdisciplinary with the WP-CESs via the vertical line.

DECIDE: AI DSS FOR SUSTAINABLE MOBILITY



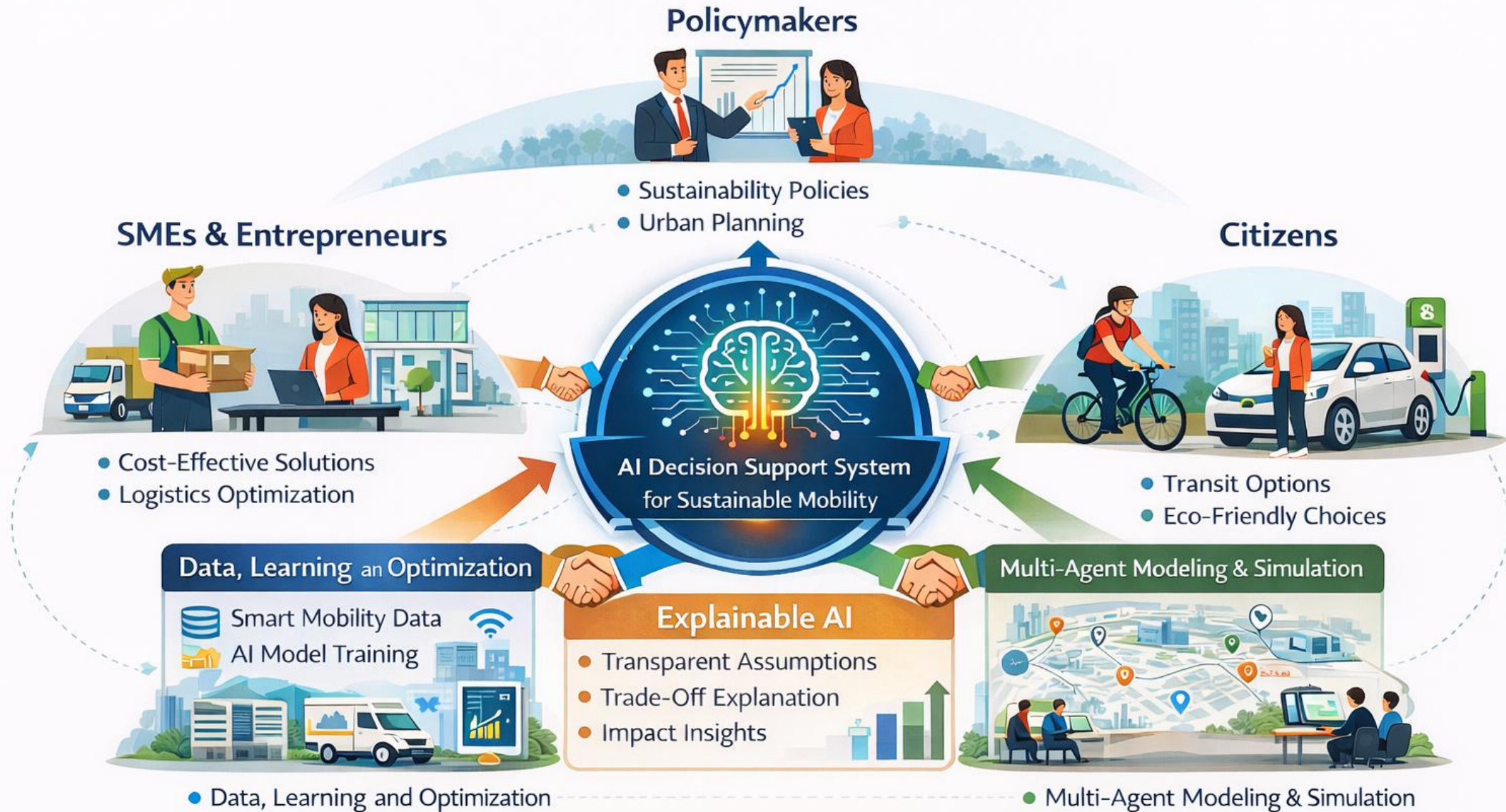
SmartwayZ.NL program, representing municipalities in Zuid-Nederland, aims to fundamentally shift travel and freight to healthy, sustainable forms.

Expectation: Citizens/businesses adjust their behaviors and decisions to align with the sustainability goals.

Conflict: Sustainability goals <-> Economic reality

Hypothesis: Transparency → Understanding → Empowerment → Better decisions

Co-Creating Sustainable Mobility



Collaborative Insights for Balanced Decisions

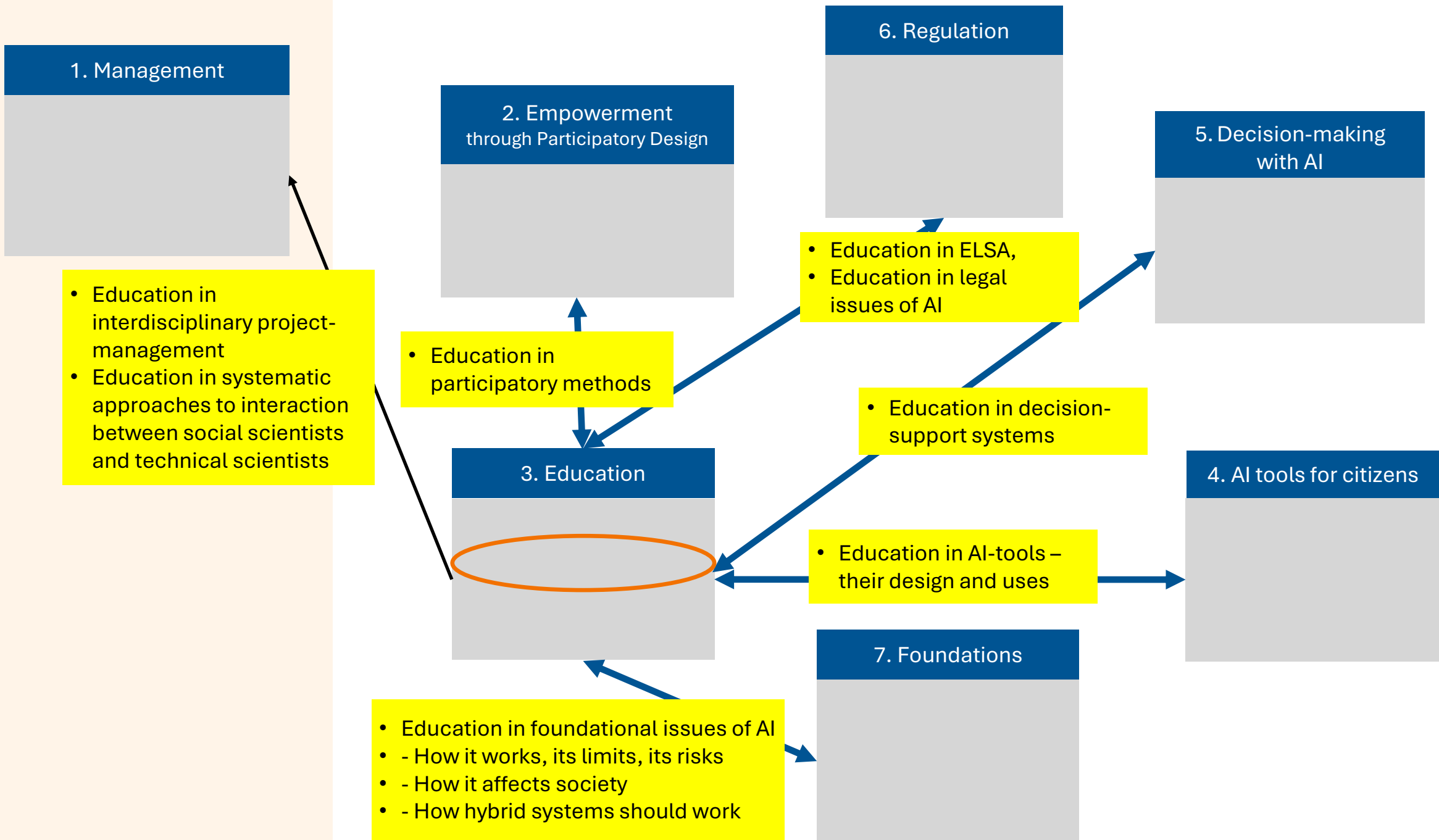
MENTIMETER QUESTIONS

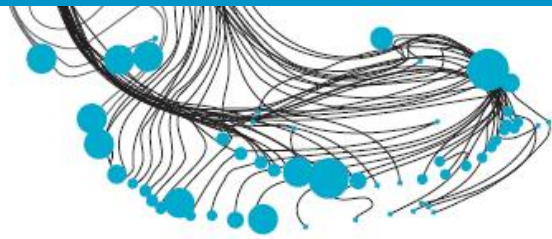
• WP-CES2: AI Decision Support Systems in Sustainable Mobility

1. What is the most critical element for success?
2. What should the system help stakeholders understand?
3. Which stakeholder is least supported?
4. What should the system prioritize?
5. What should explanations (for citizens) include?

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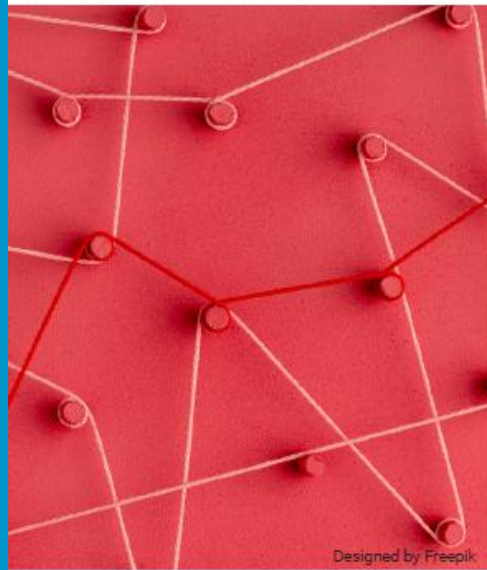
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MINOR

INTELLIGENCE, CREATIVITY, AND RESPONSIBLE TECHNOLOGICAL INNOVATION IN SOCIETAL TRANSFORMATIONS (ICR&TIST)



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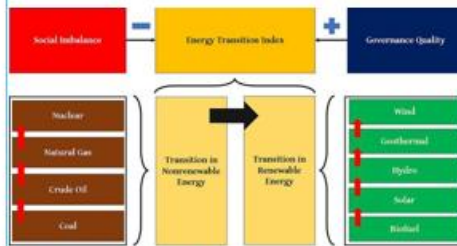
TODAY'S SOCIETY IS IMPACTED BY COMPLEX, FAST- AND CONTINUOUSLY CHANGING PROBLEMS. THESE NEED TO BE ADDRESSED IN AN INTER- MULTI- AND TRANSDISCIPLINARY WAY. THE ICR&TIST MINOR CHALLENGES YOU TO DIVE INTO THIS COMPLEXITY AND MAKE A CHANGE THROUGH RESPONSIBLE RESEARCH AND INNOVATION.

Minor: Intelligence and Creativity in Science and Technology (ICR&TIST)

Teachers: Mieke Boon, Kishore Sivakumar, Miles MacLeod, Jacqueline Drost, Arturo Susarrey Arce, Anne Leferink, Jan Buitenweg, Ariana de Gayardon, Daniela Craciun, Ringo Ossewaarde, Gianluca Ambrosi, Leon van der Neut (TA)

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Source: <https://doi.org/10.1016/j.jenms.2023.106643>

Scientific Research and Design for Society A new paradigm

- Scientific research in professional contexts involves the production of knowledge and understanding of the specific (complex) socio-technological problem at hand.
- Such research is usually *interdisciplinary* (IDR) and *transdisciplinary* (TDR).
- Academically trained professionals should therefore be trained in research that uses science (its knowledge, methods and thinking strategies) and in IDR and TDR in complex real-world problems.
- Students at universities are usually trained in *academic* research, but less in research for real-world problems.
- The ICR&TIST minor offers new research methodologies and educational approaches to prepare for professional roles.

An INTER- and TRANSDISCIPLINARY HTHT CBR/L MINOR

ICR&TIST (stands for): *Intelligence, Creativity, and Responsible Technological Innovations in Societal Transformations*

Learning objective: Responsible inter- and transdisciplinary research in complex socio-technological challenges.

This ability requires **personal, professional, and academic skills**. These skills will be transferable to all kinds of other professional and research and design settings.



Welcome

Welcome to one of the most innovative real-world learning programs in the world, ICR&TIST. This minor is designed to help you find your way in inter-transdisciplinary research and prepare you with future proof research skills to excel in science and technology-oriented careers.

Intelligence, Creativity, Critical thinking, and innovation are highly valued and nurtured through this program. We encourage you to question and explore your interests, and to make your own choices in this highly empowering learning environment. The goal of the HTHT CBR/L-minor is to illuminate specific societal challenges for which the UT develops High Tech Human Touch solutions. You will create these solutions by conducting high-quality research in a multidisciplinary environment which will shape your mindset as a student and professional. You will be exposed to diverse ways of teaching and learning. In addition to courses and workshops, you will have the opportunity to learn how to tackle real-world complex socio-technological issues by doing projects with societal partners, and to interact with researchers, experts, and various stakeholders on pressing transdisciplinary research topics.

The 30 EC minor adopts a Challenge-Based Research and Learning (CBR/L) approach meaning you will be engaged in research and learning while contributing to solving real-world challenges. You will engage in a CBR/L collaborative project characterized by three phases (*Explore, Investigate, and Integrate*) along with nine micromodules to support your research skills, and dedicated workshops to support your professional skills. The real-world challenge in 2024 will be local energy-transitions.

Information: Osiris course code and name: BMS-IM-ICR Intelligence and Creativity in Science and Technology

Minor coordinator: Kishore Sivakumar (contact person) k.sivakumar@utwente.nl & Prof.dr.ir. Mieke Boon
Students from all programs can participate. Please check whether bachelor's program allows you to participate.
This 30 EC minor takes place in Block 1A + 1B (M9 and M10). On consultation with the minor coordinator, a personalized 15 EC option can be offered.

A learning community through a CBR/L project

The team (Students, researchers, teachers and challenge providers) collaborate in the challenge



Education in the HTHT CBR/L minor

Focus on learning → Professional Development Reporting (PDR)

CBR/L: Challenge-based research and learning.

Micromodules (1,5 EC, four workshops each) to support train- and interdisciplinary research skills:

- **Module 1: The art of thinking** → Higher-order thinking skills
- **Module 2: Interdisciplinary, multi-, and transdisciplinary research**
- **Module 3: Research methods** in the social, natural and engineering sciences
- **Module 4: Designing measurement methods** in the social, natural and engineering sciences
- **Module 5: Conceptual modeling** in scientific research and design
- **Module 6: The value of reflection** in CBR/L
- **Module 7: Frame creation & stakeholder analysis**

Format:

- **Triple E!** (Explore, explain, implement) → Focus on learning by 'thinking themselves', promoted by peer learning

- **Scheduling 'Vignettes'**: 4 hours workshop (Explore & explain) → 4 hours assignment (Implement)

Three phases in the minor



Quotes from students

- "I had never thought that you can think about higher-order-thinking skills!"
- "Learning about 'having perspectives and concepts' is exciting, an eye-opener!"
- "In this minor, there has not been one moment that I didn't learn!"
- "I have never experienced this way of teaching - I love it!"
- "This minor focused on my learning. Doing many exercises without getting marks takes away a lot of stress."
- "The roster is very well structured so that I didn't need to work in the evenings and weekends."
- "The teachers are really supportive and inspiring."



Mentimeter Questions

WP3 (+ WP4): AI and Science Literacy education in *Design of AI-CSS Citizen Support Systems* that support citizens in (scientifically informed) decisions.

1. Can we pick your brains? We welcome your ideas on AI literacy education in this context of learning to design AI-CSS in CBL (challenge-based-learning) in multi-disciplinary student teams.
2. How would you specify AI-literacy in this context?
3. What should be included in this CBL-minor program?