Leading Sustainability in Education

Community for Educational Innovation (CEI)

June 10, 2026

European Commission | CEI

About

CEI

Community for Educational Innovation

Created by the Directorate General for Education, Youth Sport and Culture (DG EAC) of the European Commission.

1,500+
Members

100+
Countries

57%
Higher education
+ other stakeholders

Connects

Higher education, industry, public sector and civil society

Advances

Educational innovation and entrepreneurial mindsets across Europe

Synergies

HEInnovate and EHESO (European Higher Education Sector Observatory) Strategic Transformation Toolbox.

Thematic strands 2025-2026

2025 - I

Thematic Strand 1
Entrepreneurial Skills and Mindsets in Education

2025 - II

Thematic Strand 2
Bridging the Innovation Gap in Higher Education

2026 - I

Thematic Strand 3
Education for Green and Digital Innovation

2026 - II

Thematic Strand 4
Lifelong Learning for an Innovative Workforce

Report on Thematic Strand 1 available!

Report on Thematic Strand 2 available!

Thematic strand 3

Education for Green and Digital Innovation

Webinar topics:

- Twin Transition – Understanding the Why and Building the How (Mar. 05),
- Educating to Thrive in the Digital World (Apr. 29),
- Capacity-building for Leading Sustainability in Education (Jun. 10).

Study visit

- New Bulgarian University, Sofia (July 2026).

Calls for good practices & polls

- Share your **good practices** on Education for Green and Digital Innovation.
- Take our quick semester **poll** and share your insights.

Thematic report

- Summarises thematic strand activities.

Agenda

15:30	Welcome & introduction
15:40	**Intervention 1 –** Closing the sustainability gap: Learning to live our values. *Gabriela Gliga*
16:00	**Intervention 2 –** GreenComp for futures-oriented science education: A framework for orientation. *Olivia Levrini*
16:20	**Intervention 3 –** The role of academic leaders in sustainability transformations at higher education institutions and underlying tensions. *Anete Veidemane*
16:50	Introduction Education for Climate Coalition
16:55	Closing remarks

Objective

Explores how the education sector transforms sustainability commitments into practices.

Key objectives

- Exploring institutional gaps between sustainability values and practice.
- Applying the GreenComp to futures-oriented education.
- Understanding institutional tensions faced by academic leaders in sustainability transformations.

Gabriela Gliga

Professor at the Atlantic Technological University

Intervention 1

Closing the sustainability gap: Learning to live our values

- **Lecturer at Atlantic Technological University, Ireland**

  Teaches marketing and sustainability while serving as a research supervisor. Participation in the EU GREEN Alliance.

- **Research and teaching excellence**

  Published in leading journals and recognised as an Advance HE Senior Fellow with awards in Teaching and Learning Innovation.

- **Academic and pedagogical background**

  Holds a PhD in Marketing from the University of Galway, alongside Master's degrees in Business Studies and Teaching & Learning.

CEI · LEADING SUSTAINABILITY IN EDUCATION · 10 JUNE 2026

Closing the Sustainability Gap

Learning to Live Our Values

Dr Gabriela Gliga
Atlantic Technological University

ATU Ollscoil Teicneolaíochta an Atlantaigh / Atlantic Technological University

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The Gap

WHAT WE PROFESS

- EU frameworks
- Mission & values statements
- Strategic plans & charters
- Graduate profiles

THE GAP

WHAT WE PRACTISE

· The everyday

Turning values into action

Transformative Learning

Mezirow, 1997, 2000

Transformative learning encourages learners to critically question deeply held assumptions, encounter disorienting dilemmas, and reconstruct entirely new perspectives on the world around them.

Action Competence

Jensen & Schnack, 1997

Action competence describes the unique combination of capacity, willingness, and opportunity to act meaningfully on sustainability challenges.

GreenComp: from embodying sustainability **values** to **acting** for sustainability.

*Our learners must become **agents of change**, people who act, contribute and shape futures.*

GreenComp: The European Sustainability Competence Framework (doi.org/10.2760/13286)

Teach sustainability by doing it.

One principle: We come to live the values we practise.

1. **Start with doing** (concrete experience).
2. **Anchor it in a real problem** (in the learner's own world).
3. **Hand over the agency** (the "decide" and "act").
4. **Build in reflection** (insight they can carry forward).

Drawing on experiential learning (Kolb, 1984)

How do we do it?

Case study: ReLoop. A game for circular thinking

Lighten the Load
Design out waste early

Make It Loved
Design to last and be valued

Keep It Flowing
Reuse, repair, remanufacture

Give Back
Regenerate nature

Smarten It Up
Use data & tech to improve systems

Design for Everyone
Make access fair and inclusive

Source Responsibly
Trace, localise, and improve supply chains

2. Lighten the Load

Can you swap disposable elemen for something reusable, modula or digital?

Example 1: A conference replaces pa handouts with an event app.

e 2: A skincare brand replaces sin with refillable containers cus and reuse.

2. Design for Everyone

Can you co-create with your users to ensure inclusivity and relevance?

designs with

3. Ke

Could you repair, or refresh used pr again?

5. Source Responsibly

Can you measure and improve the sustainability of your supply chain over time?

Example 1: A food supplement brand sco suppliers each year on waste, water us energy, and switches to better-per partners to lower their impact.

Example 2: An events company track emissions from travel and logistics ject and works to reduce them.

Challenge Card

Does your idea contribute to one (or more) of the UN Sustainable Development Goals (SDGs)?

SUSTAINABLE DEVELOPMENT GOALS

1 NO POVERTY · 2 ZERO HUNGER · 3 GOOD HEALTH AND WELL-BEING · 4 QUALITY EDUCATION · 5 GENDER EQUALITY · 6 CLEAN WATER AND SANITATION · 7 AFFORDABLE AND CLEAN ENERGY · 8 DECENT WORK AND ECONOMIC GROWTH · 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE · 10 REDUCED INEQUALITIES · 11 SUSTAINABLE CITIES AND COMMUNITIES · 12 RESPONSIBLE CONSUMPTION AND PRODUCTION · 13 CLIMATE ACTION · 14 LIFE BELOW WATER · 15 LIFE ON LAND · 16 PEACE, JUSTICE AND STRONG INSTITUTIONS · 17 PARTNERSHIPS FOR THE GOALS

1. Give Back

How could your bus back to the envi t

4. Smarten It Up

Can your service improve through feedback or user data?

Example 1: A personal care (shampoo, body wash etc.) refill station adjusts placement and timing based on real-time customer usage data.

Example 2: An app-based food delivery service learns customer preferences and optimises routing.

2. Make It Loved

Could your product/service evolve over time through upgrades or modular parts?

Example 1: A modular smartphone lets users swap out the camera or battery.

Example 2: A desk with adjustable height grows with the user's needs.

Challenge C

hat part of your ends on behaviour chang would you actually sup ange?

5. Smarten It Up

Could you automate part of your circular system to make it easier or more consistent?

Example 1: An industrial laundry automated sensors to sort, wei loads efficiently, reducing wa waste.

Example 2: A bike-sharing rebalance bikes across stations b patterns.

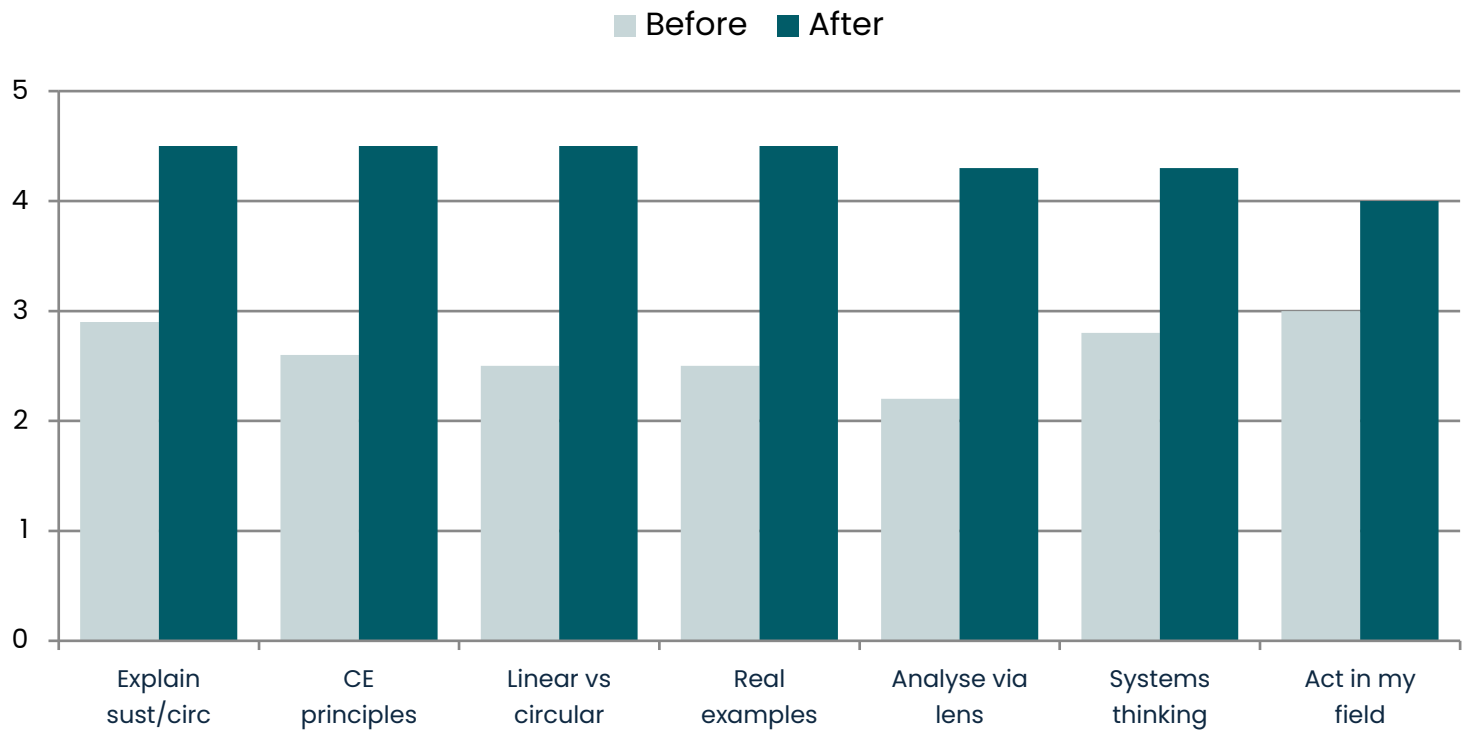
5. Make It Loved

How could your product/service build emotional value and long-term loyalty ?

Example 1: A kitchenware brand shares stories and recipes tied to their products.

Example 2: A bag company offers engraving for milestones like graduation or travel.

Knowing moves faster than doing... But they both move



Pre/post self-assessment, ReLoop @ EU GREEN Summer School, 2025.

Understanding surged. Agency followed (more slowly).

"I never thought about circularity. In our little bubbles, it's the starting point for an eco-friendly world."

"Everyone is capable and should be responsible."

This is learning to live our values.

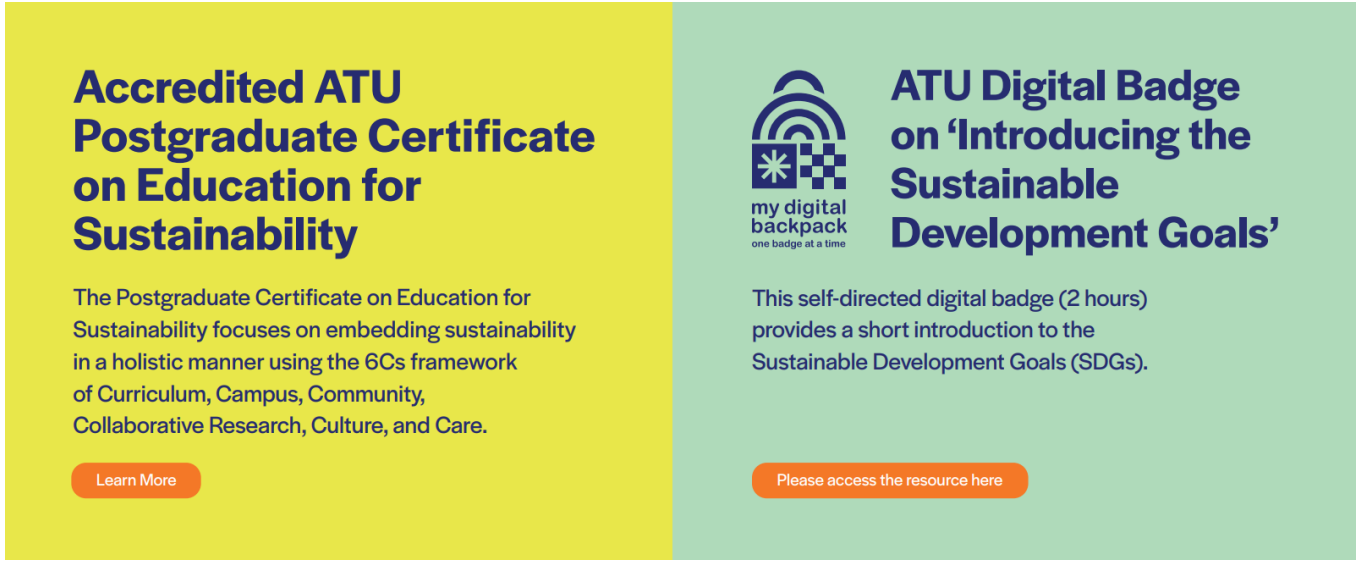
Educator capacity is a crucial leverage point.

The educator is a unit of change and a multiplier.

To close the gap across a system, we need to multiply the design and facilitation of experiences that turn values into action.

INSTITUTIONAL: ATU ESD Academy

- Training opportunities.
- Resources.
- Place to share best practice.
- Wide scope



ATU Education for Sustainable Development (ESD) Academy (atu.ie)

PARTNERSHIPS: EESF and EU GREEN

Engineering Education for a Sustainable Future

OERs Open Educational Resources

Engineering Education for Sustainable Futures: ready-to-use, open resources any educator can adapt to embed sustainability in their teaching. (Erasmus+)

eesfproject.eu/resources

EU GREEN Alliance

An alliance of nine European universities: shared MOOCs, digital badges and staff development, scaling sustainability capacity across borders.

eugreen-alliance.eu

COMMUNITY: CEI

The scaling pathway: each level widens the reach.

1 · INDIVIDUAL

Educators & Learners

Capacity and ownership built through lived experience.

↗

2 · INSTITUTIONAL

ATU ESD Academy

Embedding capacity through structures and support.

↗

3 · PARTNERSHIPS

EESF & EU GREEN

Sharing practice across partner universities and borders.

↗

4 · COMMUNITY

Community for Educational Innovation

Amplifying impact through shared learning.

Thank you.

Let's close the gap together.

gabriela.gliga@atu.ie

Ollscoil Teicneolaíochta an Atlantaigh
Atlantic Technological University

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Olivia Levrini

Professor at the University of Bologna

Intervention 2

GreenComp for futures-oriented science education: A framework for orientation

- **Academic leadership**

  Full Professor of Physics Education and History of Physics in Italy and Honorary Research Fellow at the University of Oxford.

- **Coordination of key European educational projects**

  Led major EU initiatives, including I SEE and IDENTITIES, and currently coordinates the EU Teacher Academy FEDORAS.

- **Strategic advisory for future studies**

  Contributes to long-term institutional foresight as a member of the Administrative Board of the Italian Institute for the Future Foundation.

The FEDORAS Teacher Academy

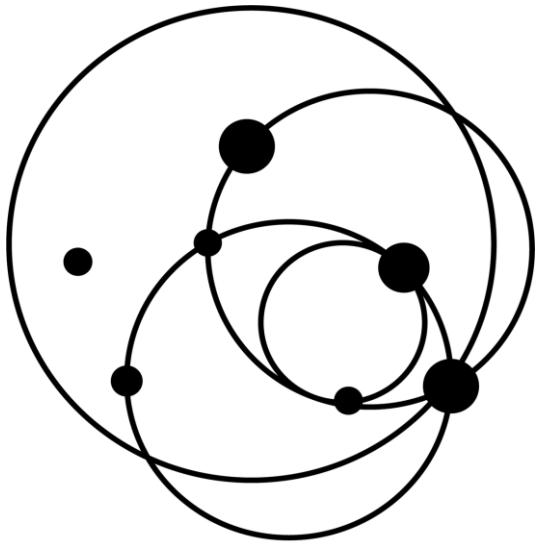
9.4.2026

GreenComp for Futures-Oriented Science Education: A Framework for Orientation

Reflections from the FEDORA project and FEDORAS teacher Academy

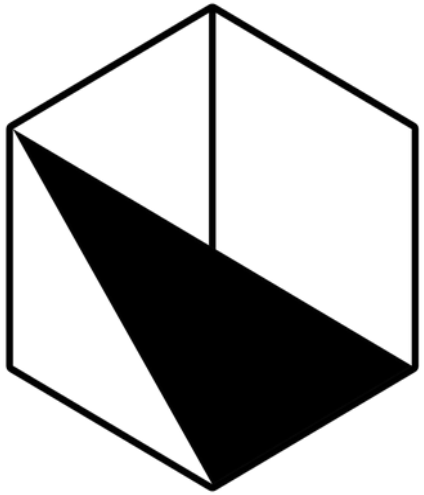
Olivia Levrini, Department of Physics and Astronomy «A.Righi», Univesity of Bologna, Italy

FEDORAS Academy received funding from the European Union under the program ERASMUS-EDU-2024-PEX-TEACH-ACA — Grant Agreement n° 101196137



FEDORA

2020-2023



The
FEDORAS
Teacher
Academy

2025-2025

FEDORA

ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA

ktu
1922

UNIVERSITY OF HELSINKI
FACULTY OF EDUCATIONAL SCIENCES

UNIVERSITY OF
OXFORD

TEACH THE
FUTURE

formicablu
la comunicazione lascia una traccia

This project received funding from the European Union's Horizon 2020 Research and Innovation program under Grant Agreement n° 872841 www.fedora-project.eu

PARTNERS

ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA

Universitat de Girona

UNIVERSITY OF HELSINKI

ktu 1922

UNIVERSITÀ DEGLI STUDI DI MILANO

UiO : University of Oslo

Oslo

INFO DESIGN LAB

Associated partners

- Institut de Celrà School, Gerona, Spain
- Istituto di Istruzione Superiore "Baracca", Forlì, Italy
- Liceo "A. Einstein", Rimini, Italy
- Lyceum Normal, Helsinki

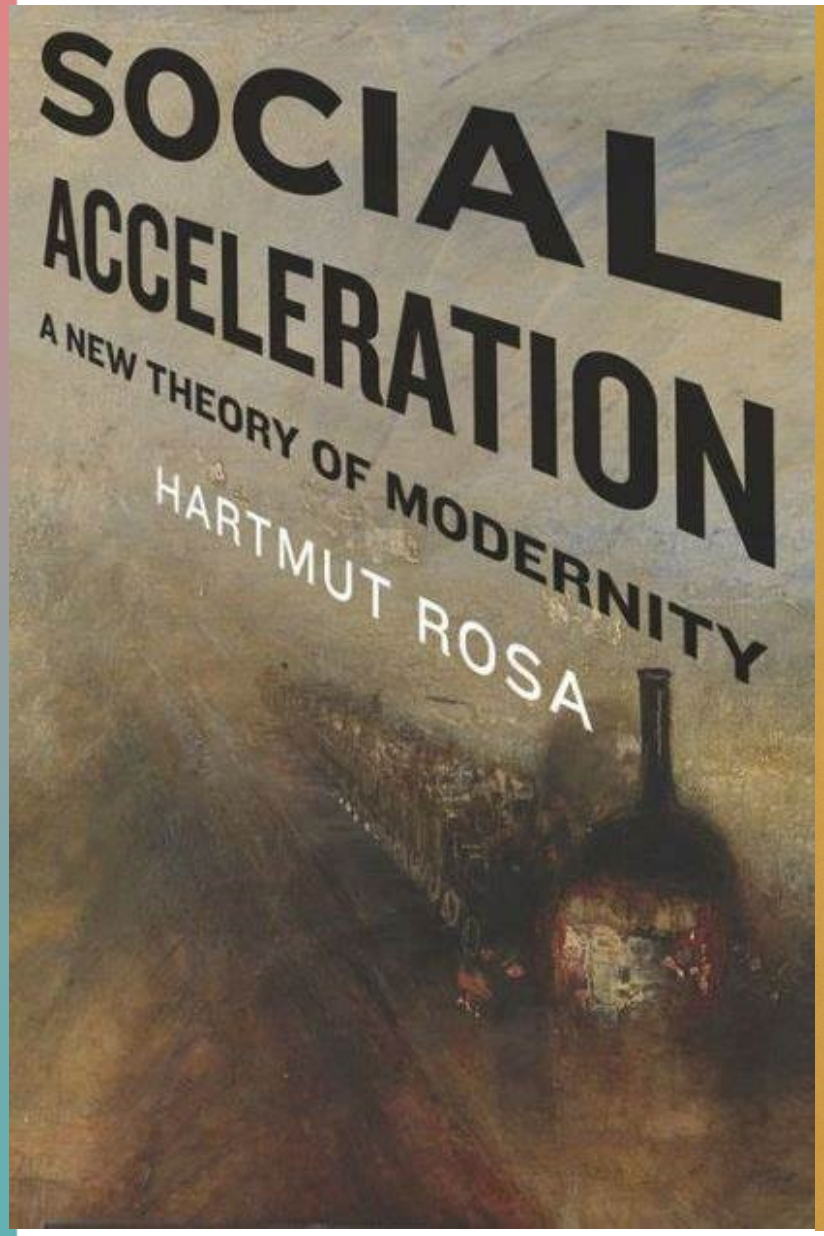
01 The origin of FEDORA-FEDORAS

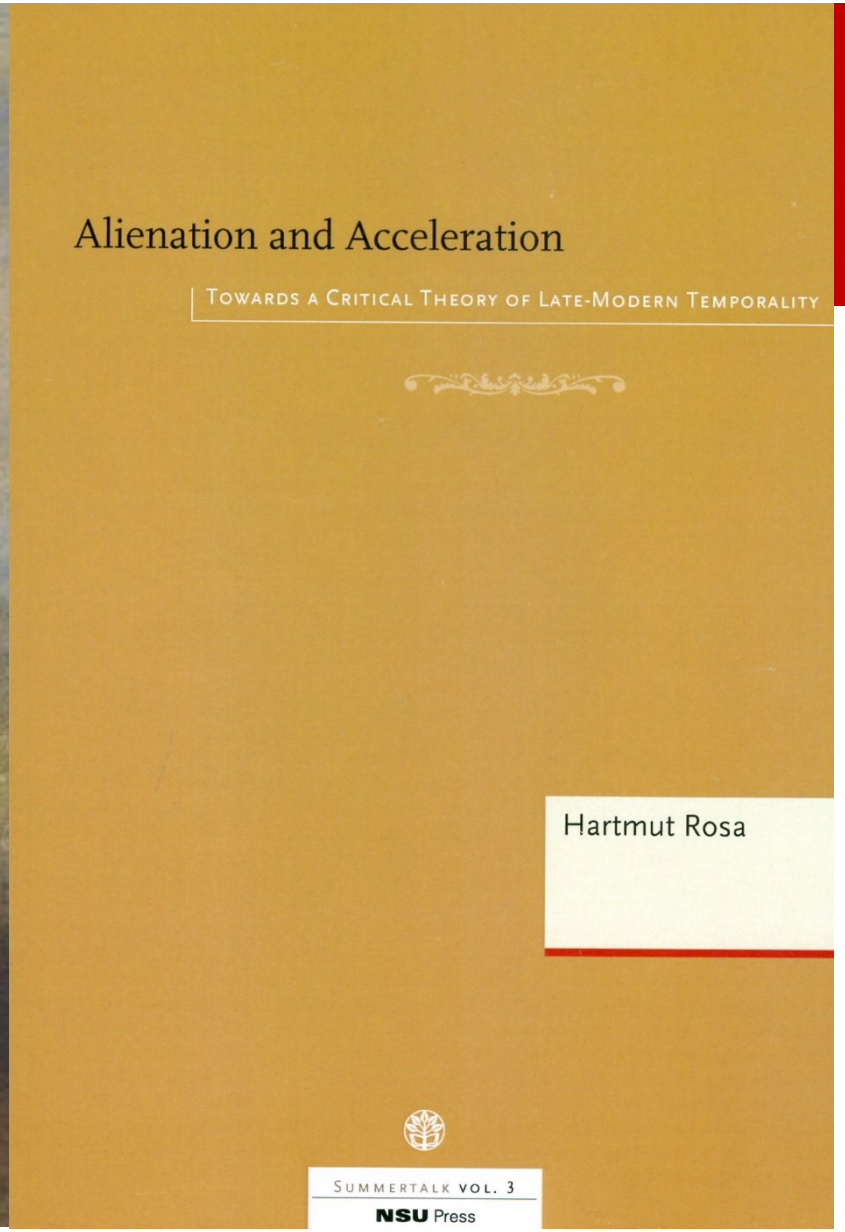
An episode happened about 10 years ago in the Liceo A. Einstein in Rimini

A statistical survey that UNIBO made with secondary school students (of the last year, 18-19 years old) to picture their university intentions.
The questionnaire created an unexpected crisis: instead of lasting 10 minutes, the students took almost one hour.

“I think something very deep is happening here, this generation of students has a way to deal with future that I have never perceived before” (the teacher: Paola Fantini)

Future-anxiety

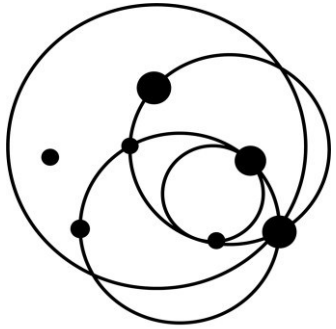




The "society of acceleration" (H. Rosa, 2013)

"Future shock":
«too much change in too short a period of time»
(Toffler &Toffler, 1970)

Future-anxiety



FEDORA

How can the ecosystem of science learning (in both formal and informal environment) can be regenerated to keep the pace of change in our “the society of acceleration”? In particular, how can we FUTURIZE science education?

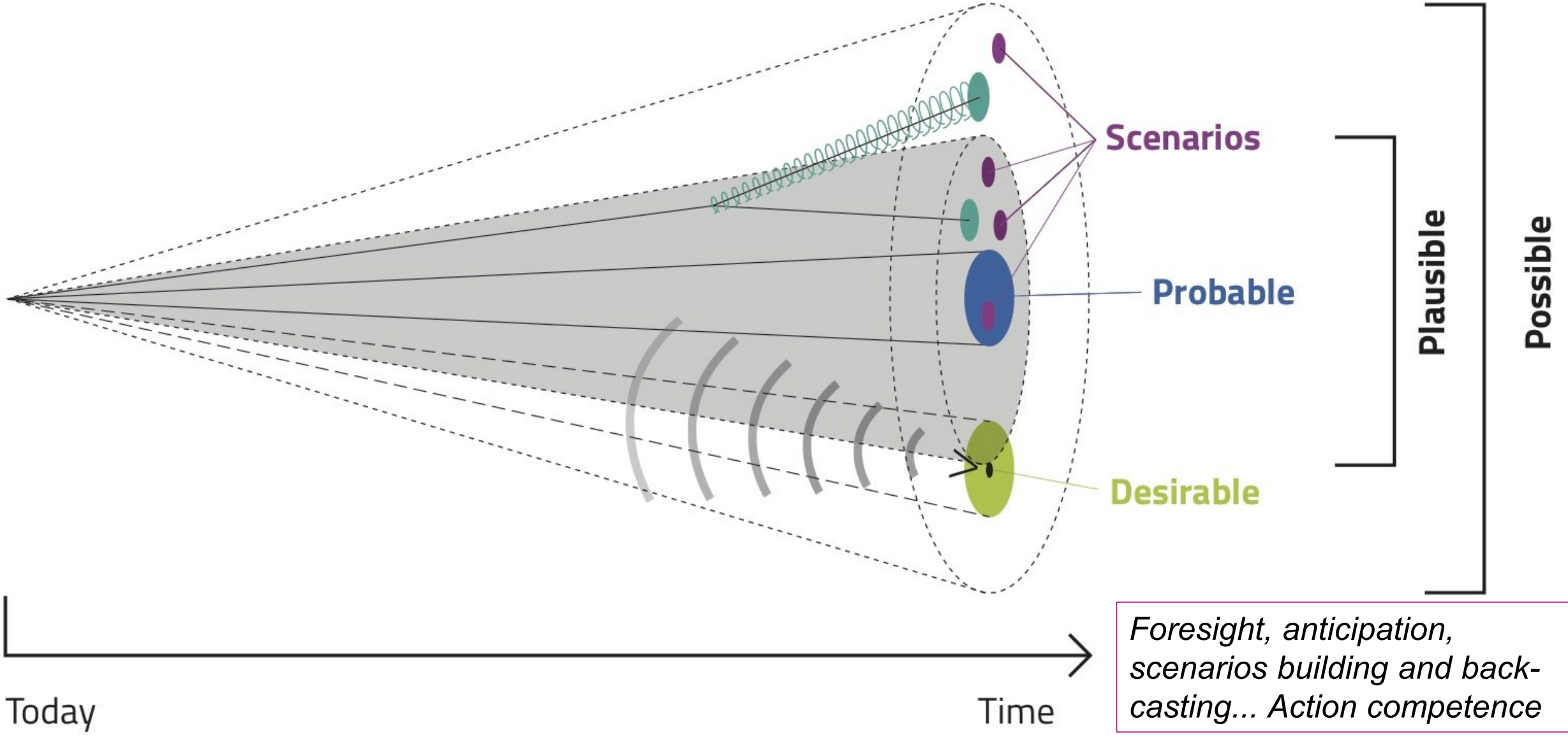
FUTURES STUDIES: “Teaching the futures”

Futures studies (e.g. Bishop et al., 2007; Kousa, 2011; Rickards et al., 2014): a interdisciplinary field involving *sociologists, philosophers, historians, political scientists, psychologists* and *economists*, but also scholars and practitioners from the arts, natural sciences, technology and engineering.

Futures studies investigate trends and other sources, patterns and causes of change and stability in order to develop foresight and create possible, probable and desirable future scenarios.

(www.teachthefuture.org).

Futures' cone



Foresight, anticipation, scenarios building and back-casting... Action competence

“Teaching the futures as future thinking” (P. Bishop, https://www.youtube.com/watch?v=8QWTiFGZK3o)

Key-ideas from the futures studies:

- We do not teach to predict what will happen but to *anticipate* ***what could happen***;
- We teach “***what if,*** in addition to what is and what was” (critical thinking)
- We teach to imagine alternatives, i.e. ***many possible, plausible, desirable futures*** (***scenarios***)
- We teach to prepare people to ***multiple contingencies*** and think contingently;
- We teach not only to describe what could happen but also to ***influence it***, choosing what we want to happen and use our time and talent to make it so.

Describing alternative futures and empowering students to influence them

Time and future are intrinsic to science (physics)

They are absorbed and integrated into the epistemological structure of science and they appear, both as concept (with a complex conceptual profile) and in the models of change, systems evolution, prediction, foresight and causal explanation gradually elaborated by science (physics *in primis*).

TimeS and FutureS in physics

Quantum physics: the (non-epistemic) probabilistic models for prediction

Newtonian relativistic physics: deterministic predictions and linear causality

Science of complex systems

A new vocabulary: *uncertainties*, *space of possibilities*, *future scenarios*, *projection* instead of *deterministic prediction*, *feedback* and *circular causality*…

Futures-scaffolding Skills (*) that enable to construct ways to “see the future” that empower action in the present with an eye on the horizon

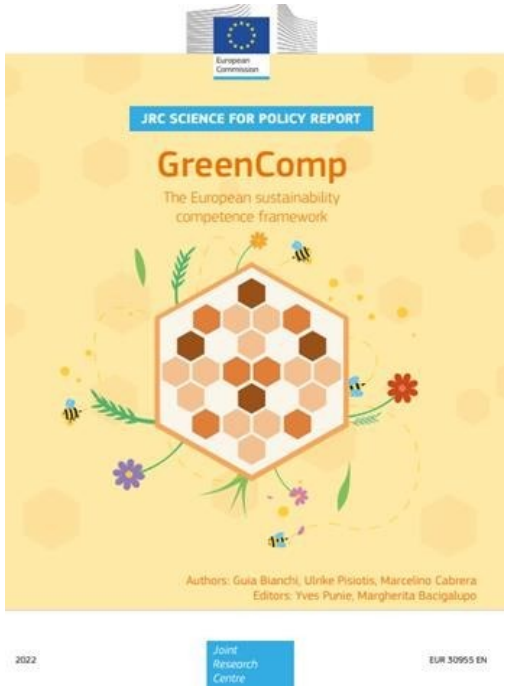
(*) Levrini, Tasquier, Branchetti, Barelli, (2019).
Levrini, Tasquier, Barelli, Laherto, Palmgren, Branchetti, & Wilson, (2021).

2. The resonance with the GreenComp

GreenComp

the European sustainability competence framework

Slide from: Ulrike Pisiotis

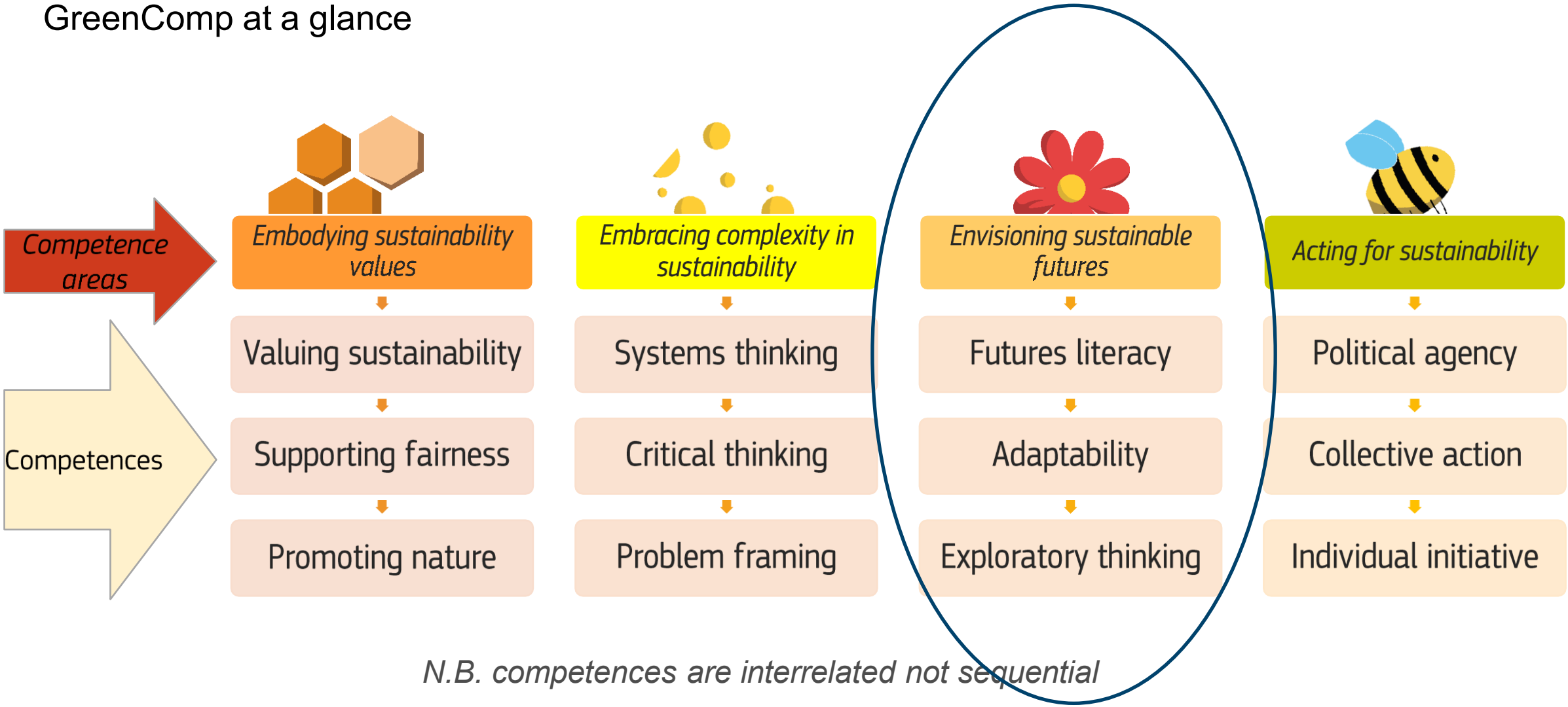


January 2022
Guia Bianchi, Ulrike Pisiotis, Marcelino Cabrera. JRC

GreenComp describes a set of **sustainability competences** which can help learners think, plan and act with empathy, responsibility, and care for the planet.

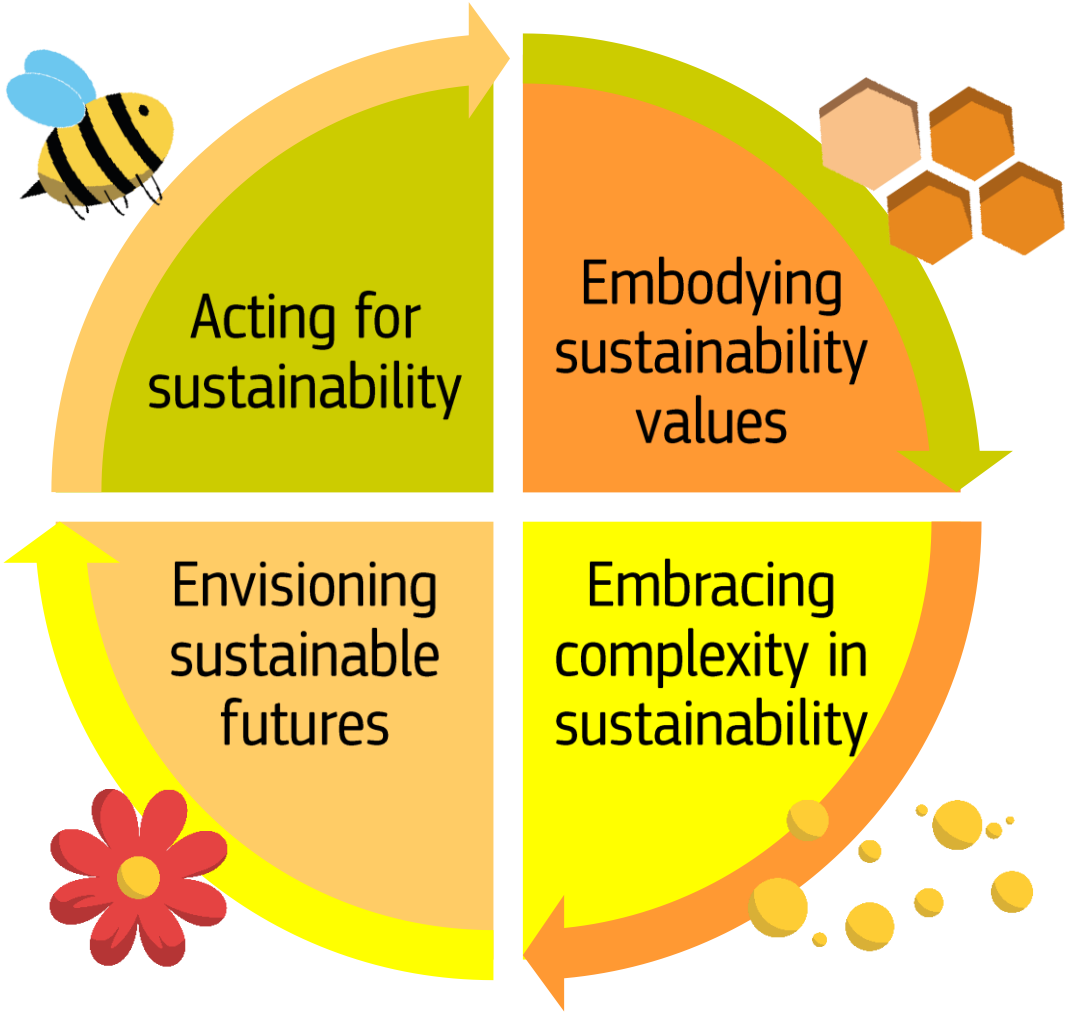
European Commission

GreenComp at a glance

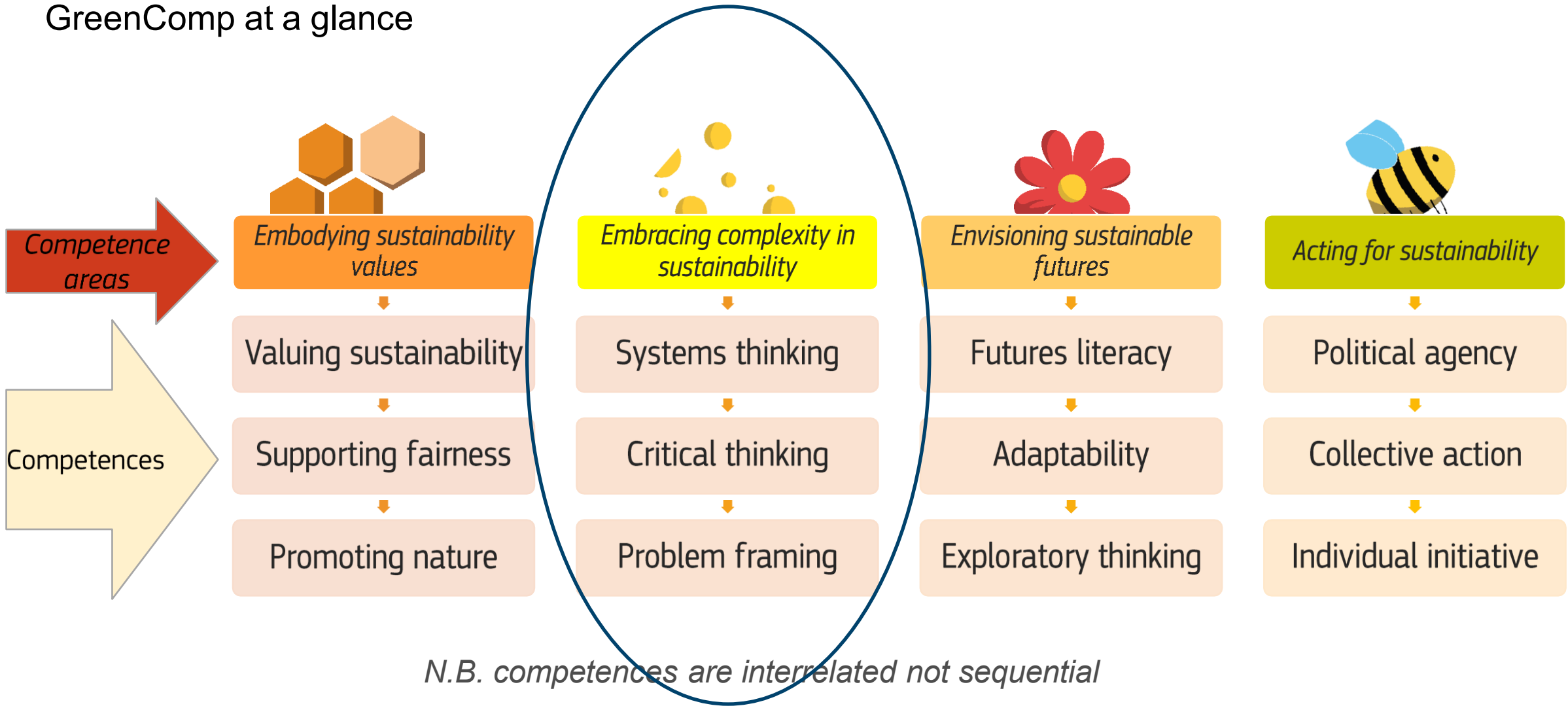


N.B. competences are interrelated not sequential

Competence areas



GreenComp at a glance



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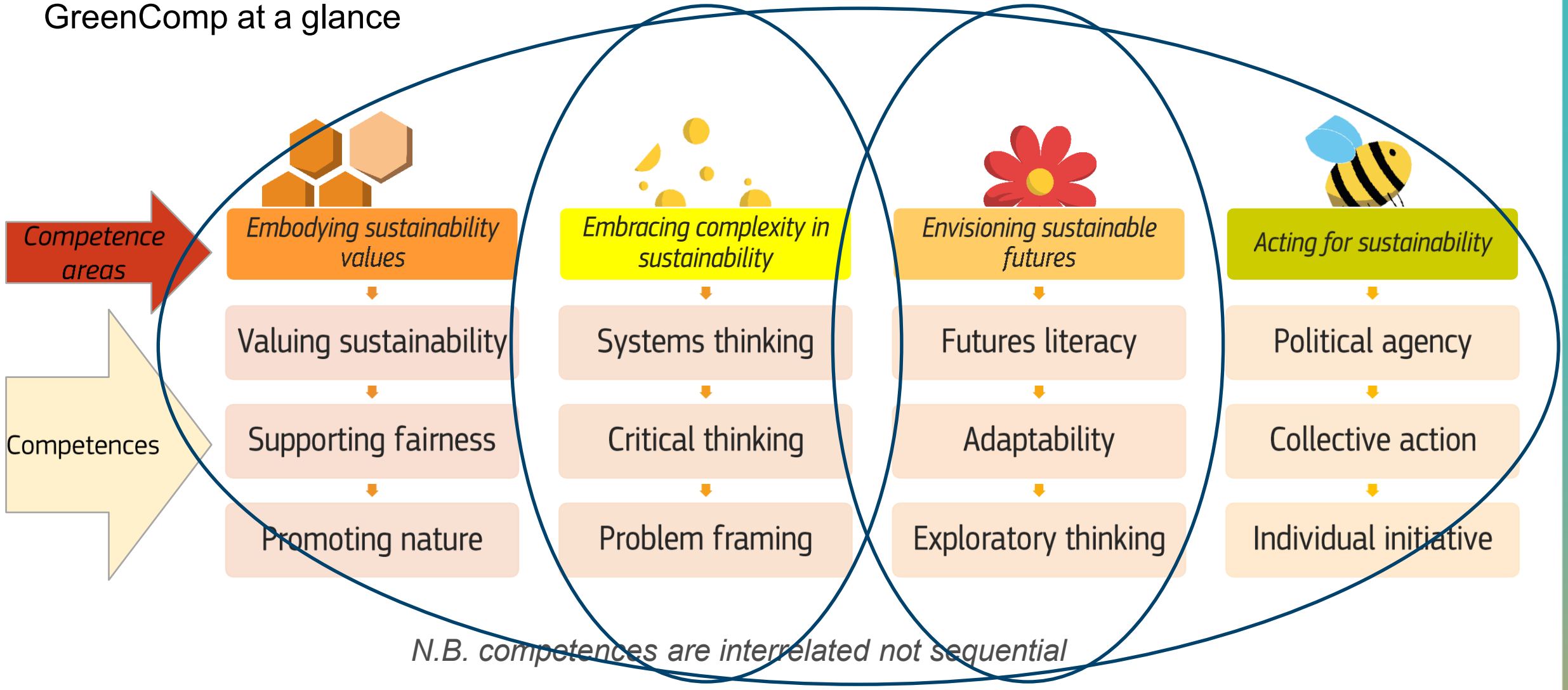
GreenComp at a glance



N.B. competences are interrelated not sequential

03 Design and implementation of activities

Scientific Lyceum “A. Einstein” in Rimini (Italy)

SARA MORESCO
Italian literature teacher
«A. Einstein» high school

PAOLA FANTINI
Physics teacher-researcher
«A. Einstein» high school - University of Bologna

Scientific Lyceum “A. Einstein” in Rimini (Italy)

Goal: regenerate the curriculum (!) by leveraging Complexity as the **epistemological backbone** of **interdisciplinarity**

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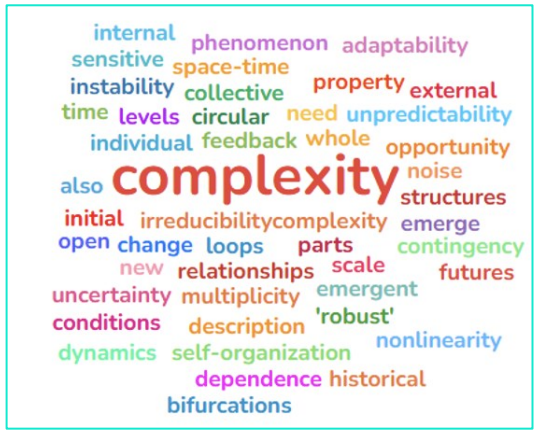
***Kairos* project**
(a.y. 2022-2023)

- One class (grade 10 – 15-16 years old students)
- Two teachers

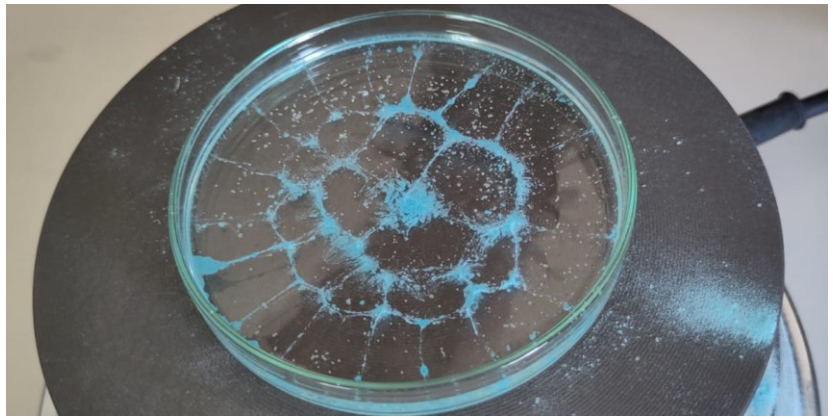
***Salomon* project** (a.y. 2024-2025)

- Five classes (grades 11-12 - 16-18 years students)
- Seventeen teachers and the vice-principal

Key Activities on the *science of complexity*



Activity:
The words of complexity science



Laboratory activity:
Bénard's Cells

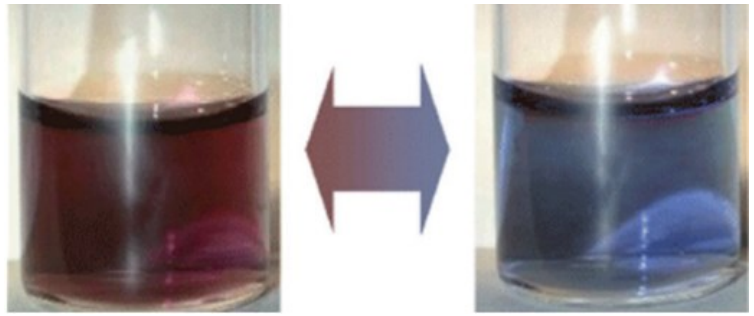


Image taken from (Miyazaki,2013)

Laboratory activity:
Oscillating chemical systems (Belousov–Zhabotinsky reaction)

The words of the science of complex systems

Irreducibility

Feedback loops and Circular relationships between the whole and the parts or the collective and the individual

Multiplicity

Need to **change** the **levels** and the **space-time scale in the description** of the phenomenon

Emergent property and **Self-organization**

Unpredictability and **uncertainty**

Instability as an opportunity for new 'robust' structures to emerge (**adaptability**)

Contingency

Sensitive dependence on initial conditions (but also on internal dynamics and external “noise”)

Nonlinearity

Open futures

Historical time (**bifurcations**)

The words of the science of complex systems

Irreducibility

Emergent property and **Self-organization**

Sensitive dependence on initial conditions (but also on internal dynamics and external “noise”)

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Contingency

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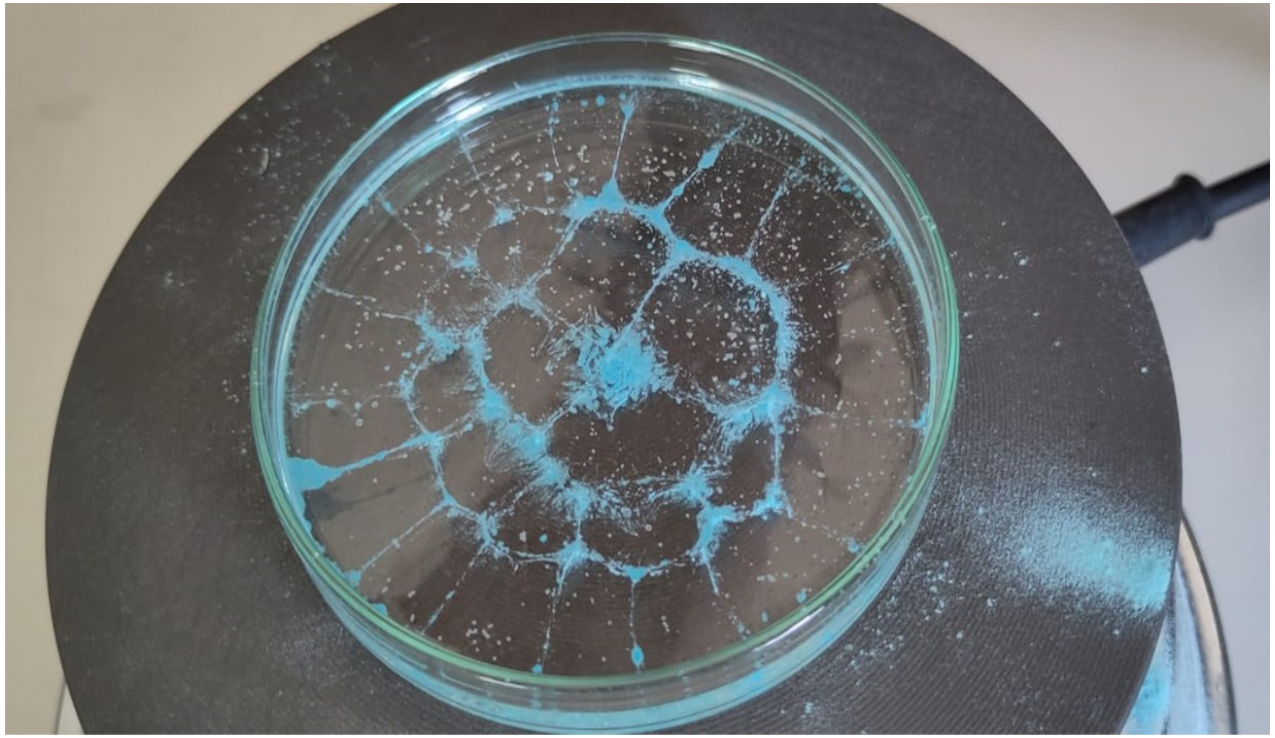
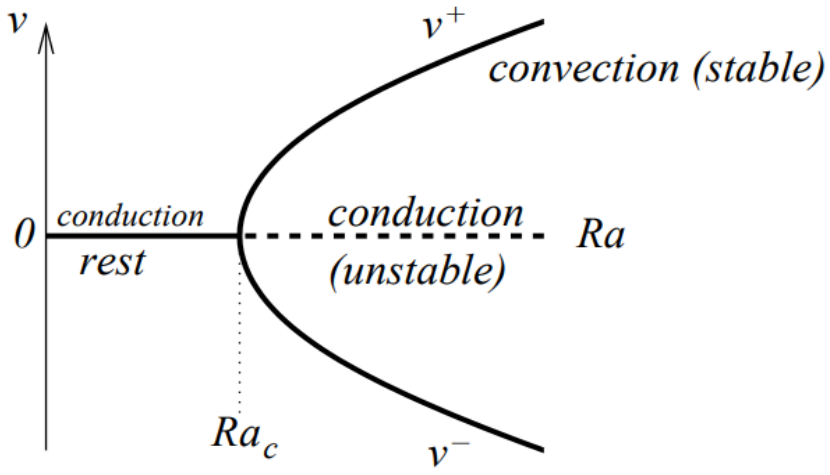
Laboratory activity: *Bénard's cells*





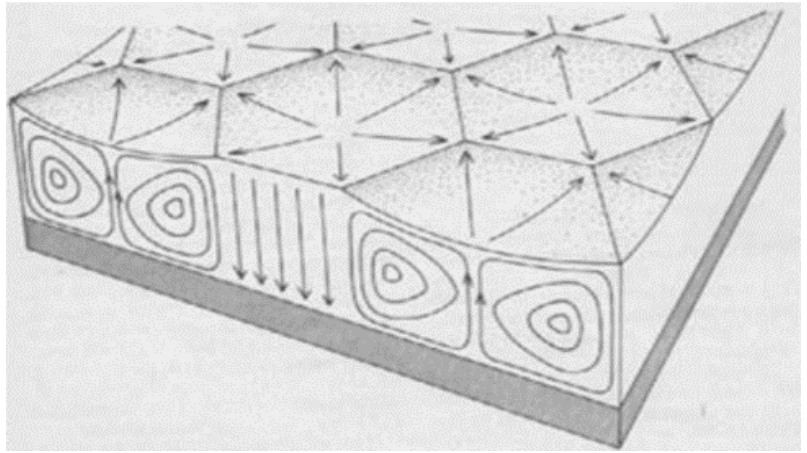
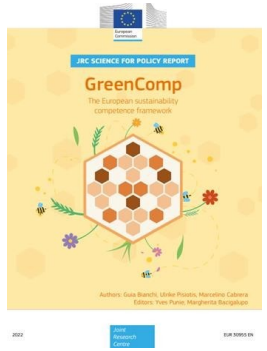
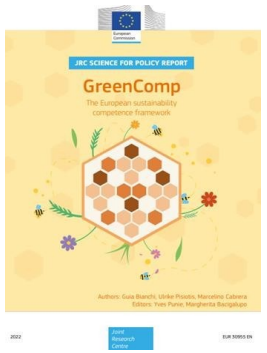


Image taken from (Velarde & Normand, 1980)

Topic: Bénard cells as a prototypical case of complex system	
Fundamental scientific ideas of Climate Change **Embracing complexity**  	The activity brings into focus, from a physical point of view, some important concepts typical of complex systems such as: - **circular relationship between the whole and the parts**; - order as an **emergent property**: unpredictable, at the level of the constituent elements, collective behaviour, meaning self-organization emerging from microscopic dynamics; - need to **change the space-time** scale in the description of the phenomenon; - **instability** as an opportunity for **new 'robust' structures to emerge**; - **multiplicity**; - **unpredictability** and the role of **contingency**.

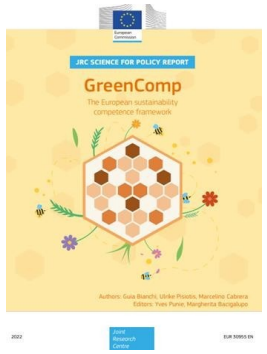
Embodying sustainability values



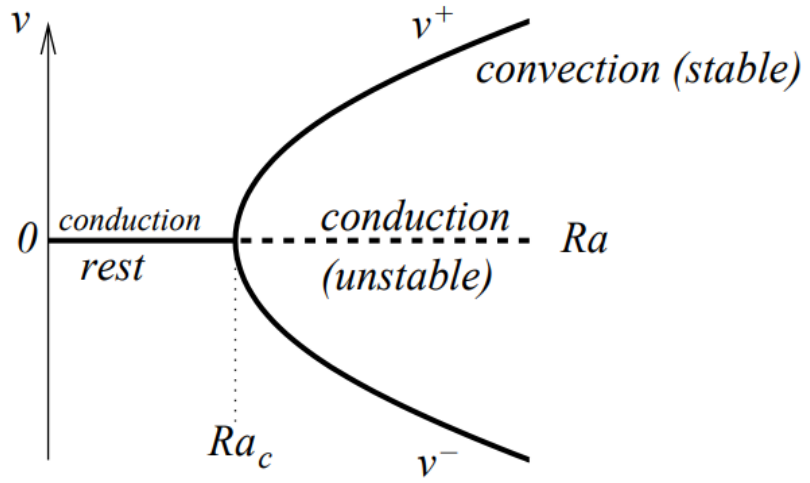
- Enlarging the span of known and experienced ***epistemic values in science:*** *the values of* ***systemic non-linear connections, change, contingency, probabilistic thinking,*** *the* ***circular relationship between different dimensions and spacetime scales****, the values of recognising* ***links between what appears fragmented or separate*** *(systemic holistic view).*
- Recognising the “Laplacian world view” and the mechanistic values as valid only under some assumptions and not as “natural” or “true in absolute”.
- Enlarging the span of possibility to conceptualize the relation between nature-knowledge-artifacts

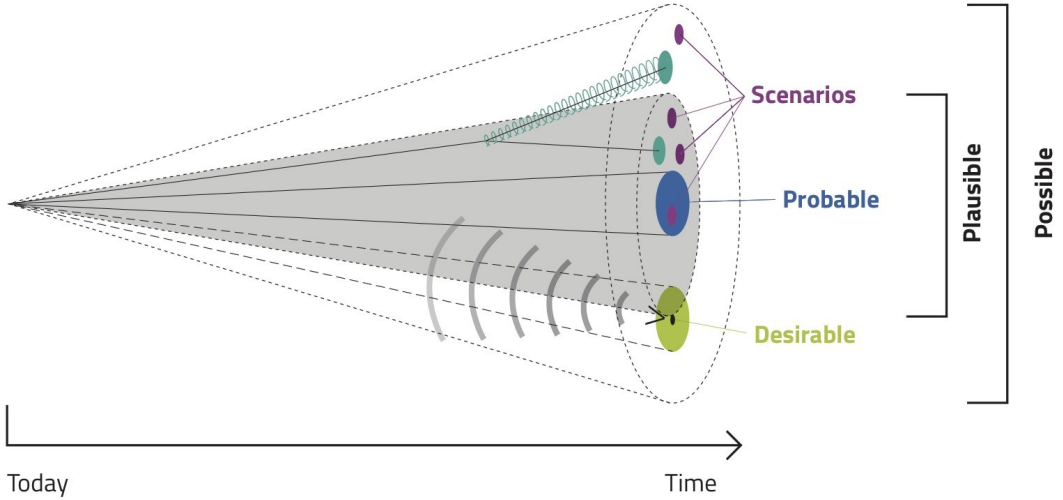
Beyond: ***deterministic, linear, mechamistic view****, grounded in values like* ***certainty****,* ***ontologicl stability*** *trust in human capacity to* ***control nature,*** *belief in the* ***effectivess*** *of a* ***reductionist hierarchical*** *organization of knowledge*

Envisioning futures

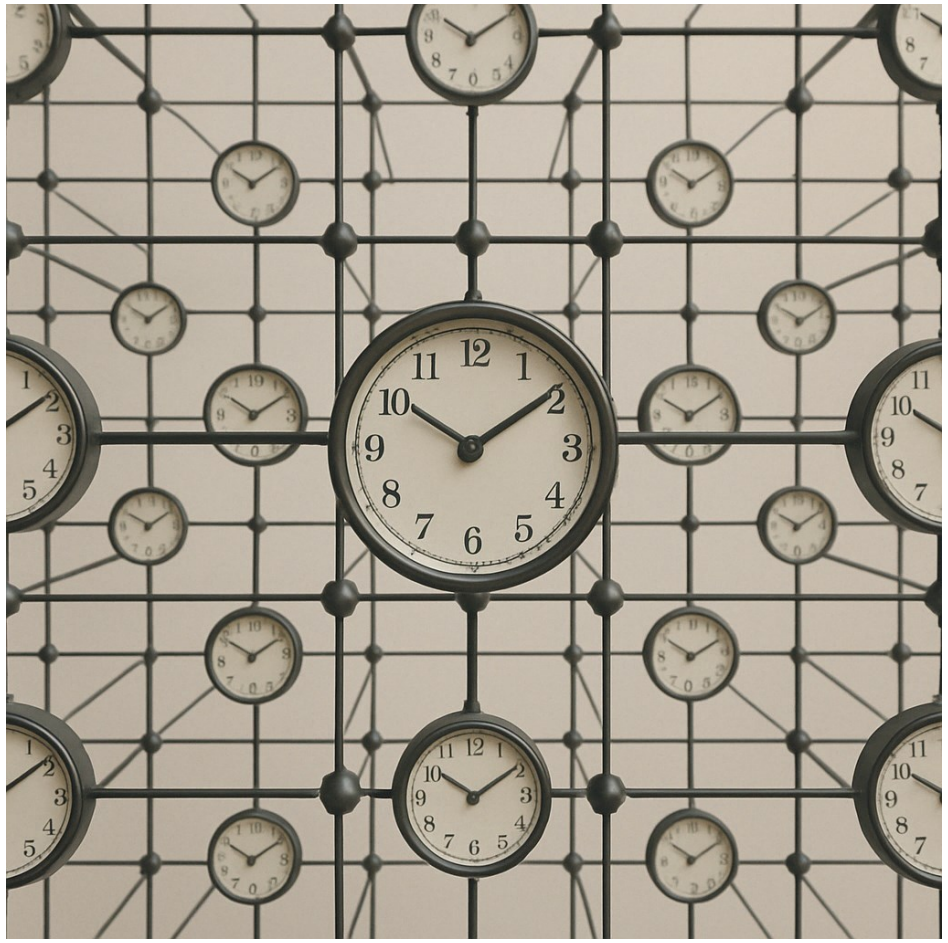


- Knowing and recognising a special form of temporality where bifurcations (possible FUTURES), the role of **uncertainty and contingency**, the role of “rumor” **open possible alternatives** and challenge the linear, deterministic temporal view of classical science.





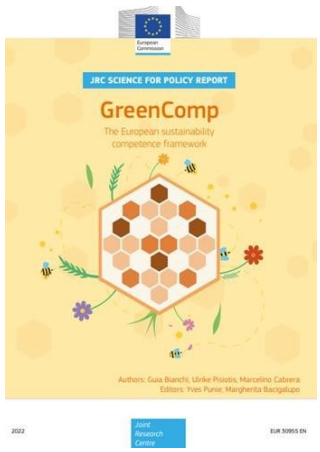
External (*Chronological*) time of Classical Newtonian Physics



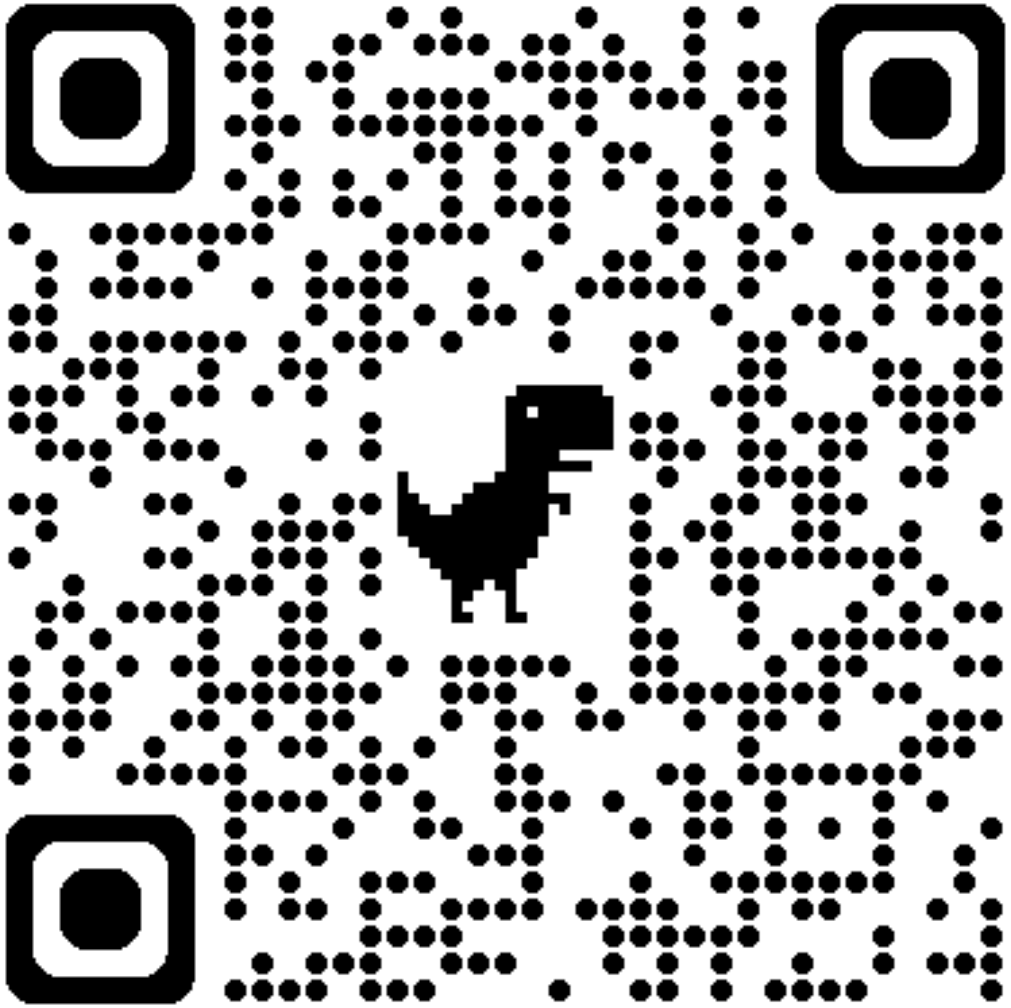
Internal time (with *Kairological moments*) of Complex systems Science

Prigogine, I. (1980). *From being to becoming: Time and complexity in the physical sciences*. W. H. Freeman

Acting for sustainability	Complex dynamics can be epistemologically and socially elaborated to show that: - individual ***action*** can influence (with positive, neutral and negative results) global emergent properties on a different time-space scale than the local scale where the action takes place (development of ***active hope***); - there are connections and interactions between natural events and human ***actions***; - the short- and long-term impact of personal ***actions*** on others and the planet also depends on the individual-collective interaction (development of ***active hope***).



The materials produced so far within FEDORAS



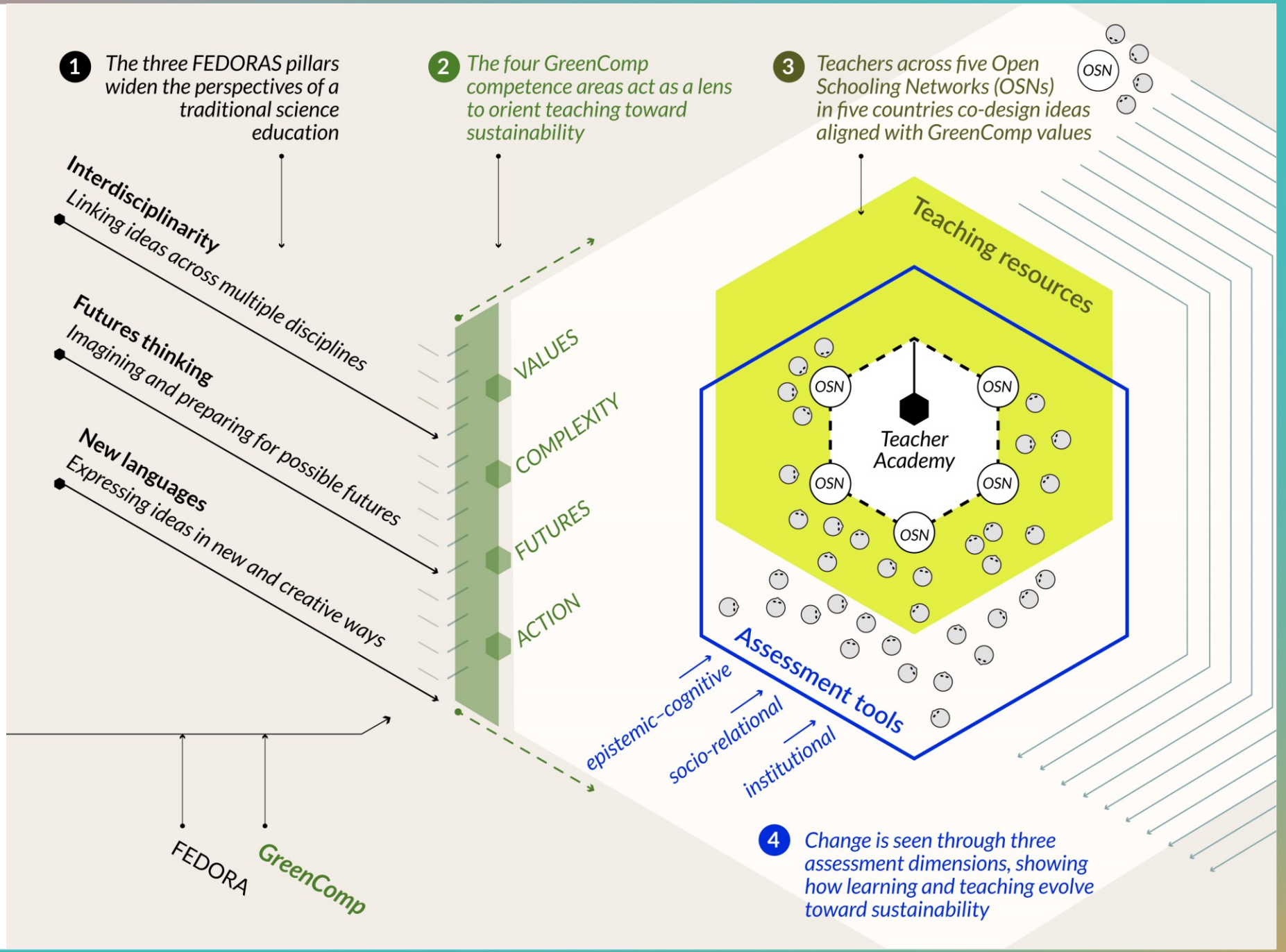
The main challenges and tensions

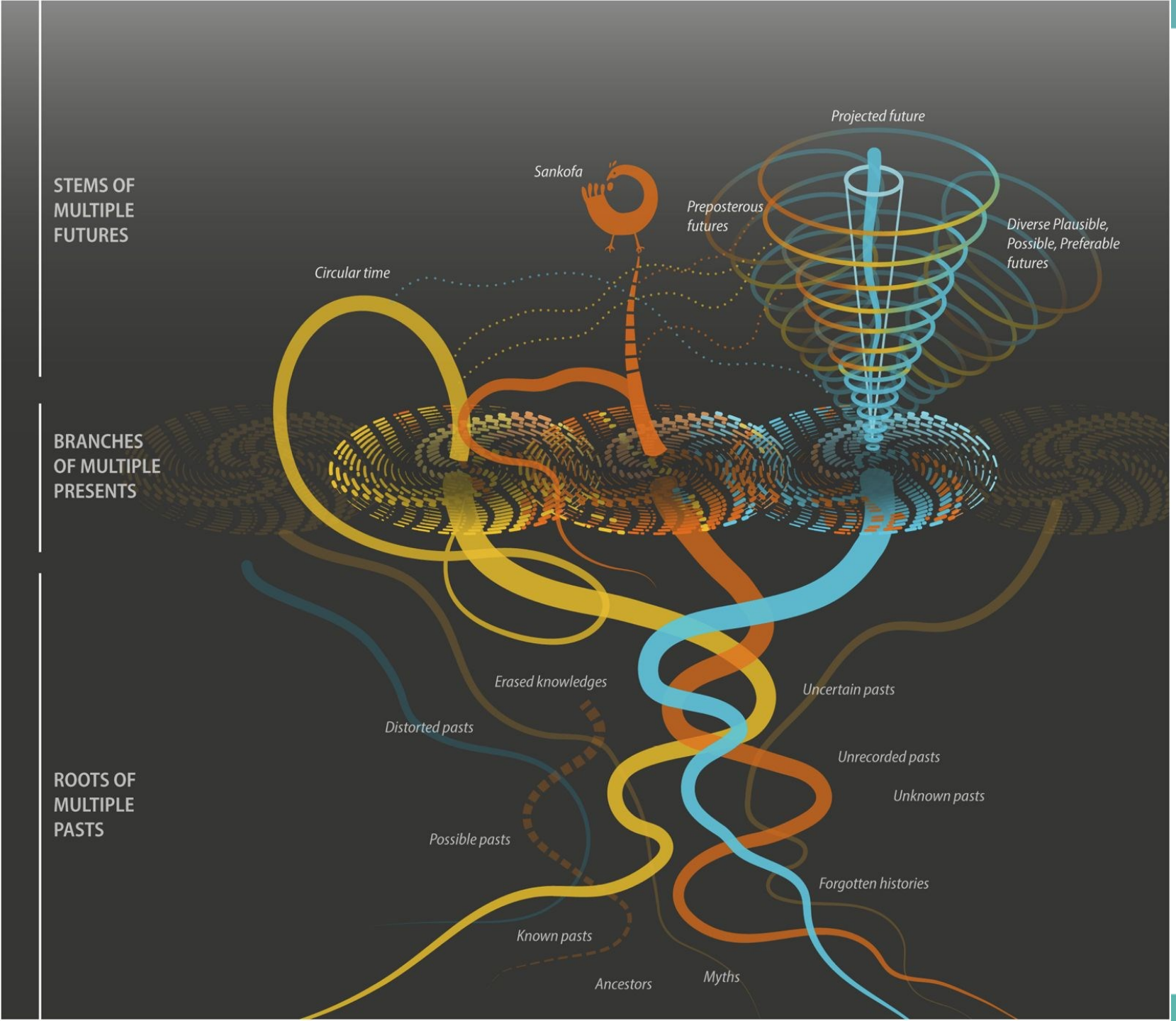
1. Making materials increasingly flexible and suitable for different contexts, thus maximizing their innovative potential (mainly among SCIENCE TEACHERS).

   They can be used to influence teaching/learning activities in the classroom, in the relational network between teachers, and/or to impact the school as an institution.

2. Address two key issues that the Consortium has identified as critical to preserving the materials' transformative potential: the assessment approach and the school ecosystem (Open School Network model and relationship dynamics).

The conceptual structure of FEDORAS





The Entangled Time Tree

Terry, Naomi, Castro, Azucena, Chibwe, Bwalya, Karuri-Sebina, Geci, Savu, Codruta, Pereira, Laura. 2023. Inviting a decolonial praxis for future imaginaries of nature: Introducing the Entangled Time Tree. *Environmental Science & Policy*. https://doi.org/10.1016/j.envsci.2023.103615

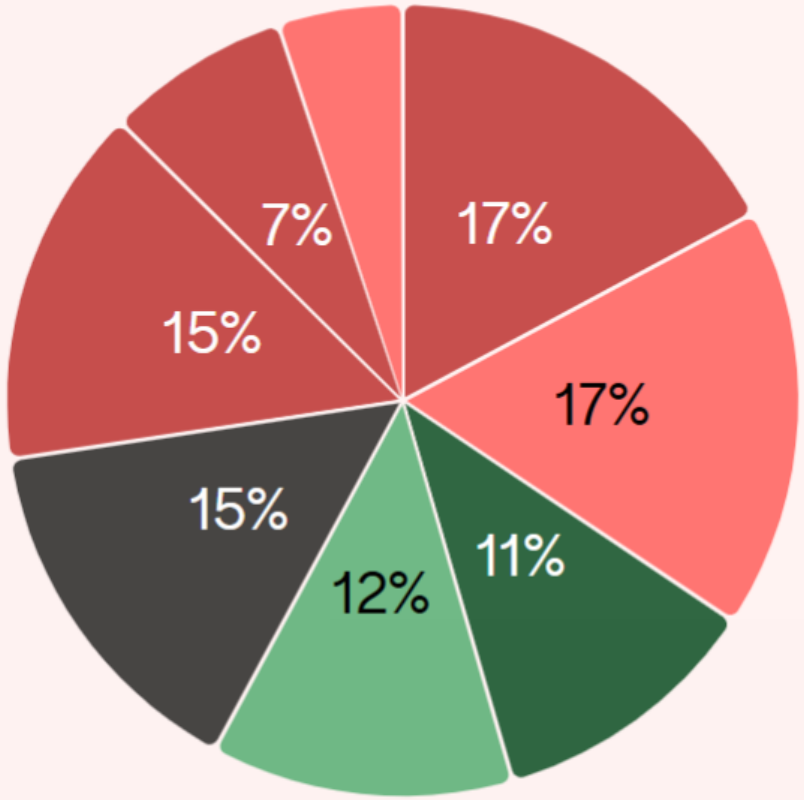
Fondazione IIF-Italian Institute for the Future

Per guardare più lontano.

FONDAZIONE ITALIAN INSTITUTE FOR THE FUTURE

Thank you for your attention

Which barriers prevent the achievement of green transition and sustainability targets in education?



- 17% Strategic marginalisation: Sustainability remaining a peripheral 'add-on' rather than a core priority.
- 17% Operational silos: Disciplinary and departmental barriers that block the a 'whole-institution approach.'
- 11% Assessment gaps: Absence of institutional approaches to track student competence in sustainability.
- 12% Incentive misalignment: A lack of career rewards or structural support for educators and researchers.
- 15% Curricular rigidity: Difficulty in making sustainability a cross-curricular component.
- 15% Institutional costs: The cost of decarbonising physical infrastructure (energy, mobility, facilities).
- 7% Regional absorption capacity: Lack of local partners capable of adopting or scaling the institution's green research.
- 5% Data fragmentation: Lack of comparable metrics to benchmark institutional efforts against national or EU standards.

Anete Veidemane

Researcher at the Center for Higher Education Policy Studies - KiTeS (University of Twente)

Intervention 3

The role of academic leaders in sustainability transformations at higher education institutions and underlying tensions

- **Higher education policy research**

  Researcher at KiTeS (formerly CHEPS), specialising in institutional sustainability and finishing a PhD on leadership in university transformations.

- **Expertise in European sustainability**

  Contributed to DECODE, U-Multirank indicator development, and ongoing green research projects with the European Commission and OECD.

- **Teaching on sustainability and change**

  Focuses on topics such as global crisis, local challenges, crossing borders, and discovering change.

Knowledge, Transformation & Society - University of Twente

SUSTAINABILITY TRANSFORMATIONS AT UNIVERSITIES & THE ROLE OF ACADEMIC LEADERS

ANETE VEIDEMANE (WITH THANKS TO BEN JONGBLOED)
JUNE 10, 2026

PRESENTATION PREPARED FOR HE INNOVATE COMMUNITY FOR EDUCATIONAL INNOVATION
THEMATIC STRAND: EDUCATION FOR GREEN AND DIGITAL INNOVATION

Image generated by DALL·E, an AI by OpenAI

AGENDA

- Sustainability at HEIs & leadership
- Drivers & obstacles
- Policy tools & Impact Pathways
- Role of leaders & underlying tensions

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AGENDA

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UNDERLYING PROBLEM

ON A GLOBAL SCALE, WE LIVE IN A MANNER THAT IS NOT SUSTAINABLE.*

UNIVERSITIES CAN PLAY A CRITICAL ROLE IN TRANSFORMING TO SUSTAINABLE SOCIETIES.

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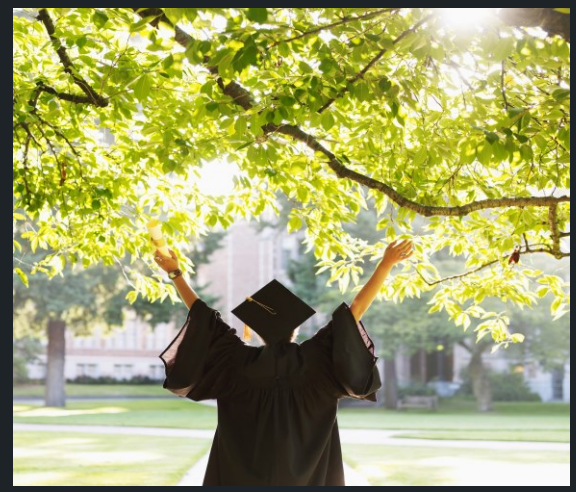
HOW CAN UNIVERSITIES HELP?

EDUCATE FUTURE SUSTAINABILITY LEADERS & ADVOCATES

RESEARCH TRANSDISCIPLINARY SUSTAINABILITY CHALLENGES

ENGAGE WITH SOCIETY (E.G., GREEN CITIZEN SCIENCE)

ROLE-MODEL THROUGH GREEN CAMPUSES & GOVERNANCE



In 2022 there were 18.8 million tertiary education students and 4.3 million graduates in the EU.

Eurostat. (2024). Tertiary education statistics - Statistics Explained (europa.eu)

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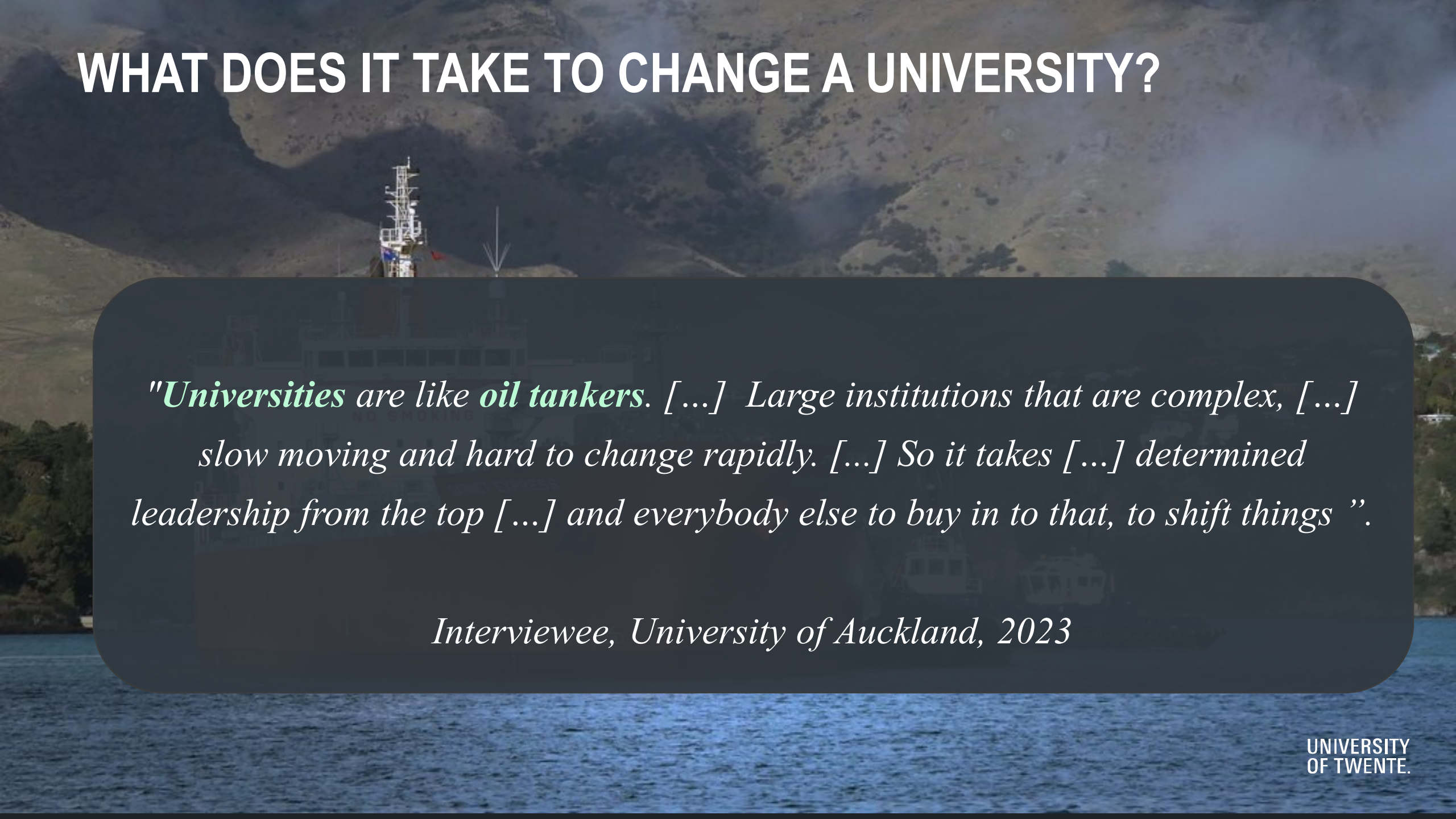
WHAT DOES IT TAKE TO CHANGE A UNIVERSITY?



*"**Universities** are like **oil tankers**. […] Large institutions that are complex, […] slow moving and hard to change rapidly. […] So it takes […] determined leadership from the top […] and everybody else to buy in to that, to shift things ".*

Interviewee, University of Auckland, 2023

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WHO IS RESPONSIBLE FOR SUSTAINABILITY TRANSFORMATIONS AT UNIVERSITIES?

TOP-DOWN

Central leadership (vice-chancellor, rector + team

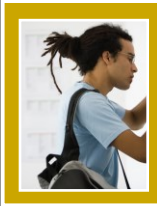
MIDDLE-OUT

Faculty leadership (deans, heads of schools, etc.)

Services leadership (strategy & operations)

BOTTOM-UP

Academics



Students

Professional & Services staff

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AGENDA

- Sustainability at HEIs & leadership
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The DECODE project

Co-funded by the Erasmus+ Programme of the European Union

European Deans Council for Sustainable Development

Project period: 2020-2023

Five project partners:

ACEEU

GUNI GLOBAL UNIVERSITY NETWORK FOR INNOVATION

cheps Center for Higher Education Policy Studies

Università degli Studi di Napoli *Federico II*
Centro Interdipartimentale di Ricerca
Laboratorio di Urbanistica e di Pianificazione Territoriale
"Raffaele d'Ambrosio" (L.U.P.T.)

1862 RIGA TECHNICAL UNIVERSITY

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DECODE Project Aim

Deans are uniquely positioned **to connect top-down** and **bottom-up** efforts into their department-specific sustainability pathways. Yet their potential is often overlooked.

DECODE aims to **translate (decode)** the complex task of integrating **sustainability** into academia by developing manageable tool-supported process & **impact pathways** to support **deans** as **change agents.**

We also identified **drivers, obstacles, support needs and success factors** to support deans.

About the DECODE "products"

- **Literature review**
- **Interviews** (30 deans, 22 countries)
- **Surveys** (509 deans, 314 academics, 27 EU countries)
- **DECODE Toolkit** (Instruments, best practices & self-assessment tool)
- **DECODE Deans Council** (A peer2peer network of European deans)

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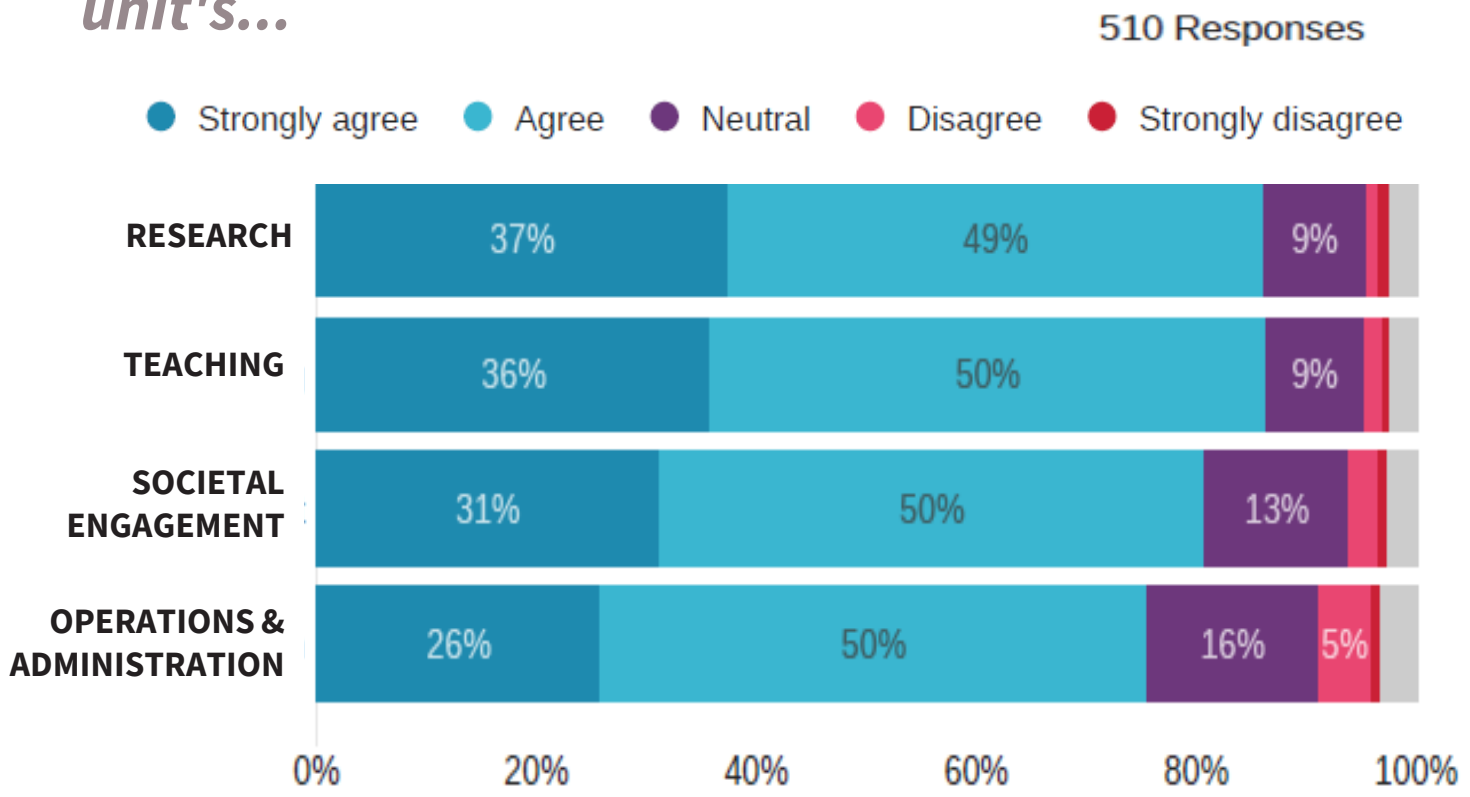
Our DECODE survey:

FUTURE OUTLOOK

More than ¾ of deans (76-86%) believe that more attention will be paid to sustainability in their academic units across all functions

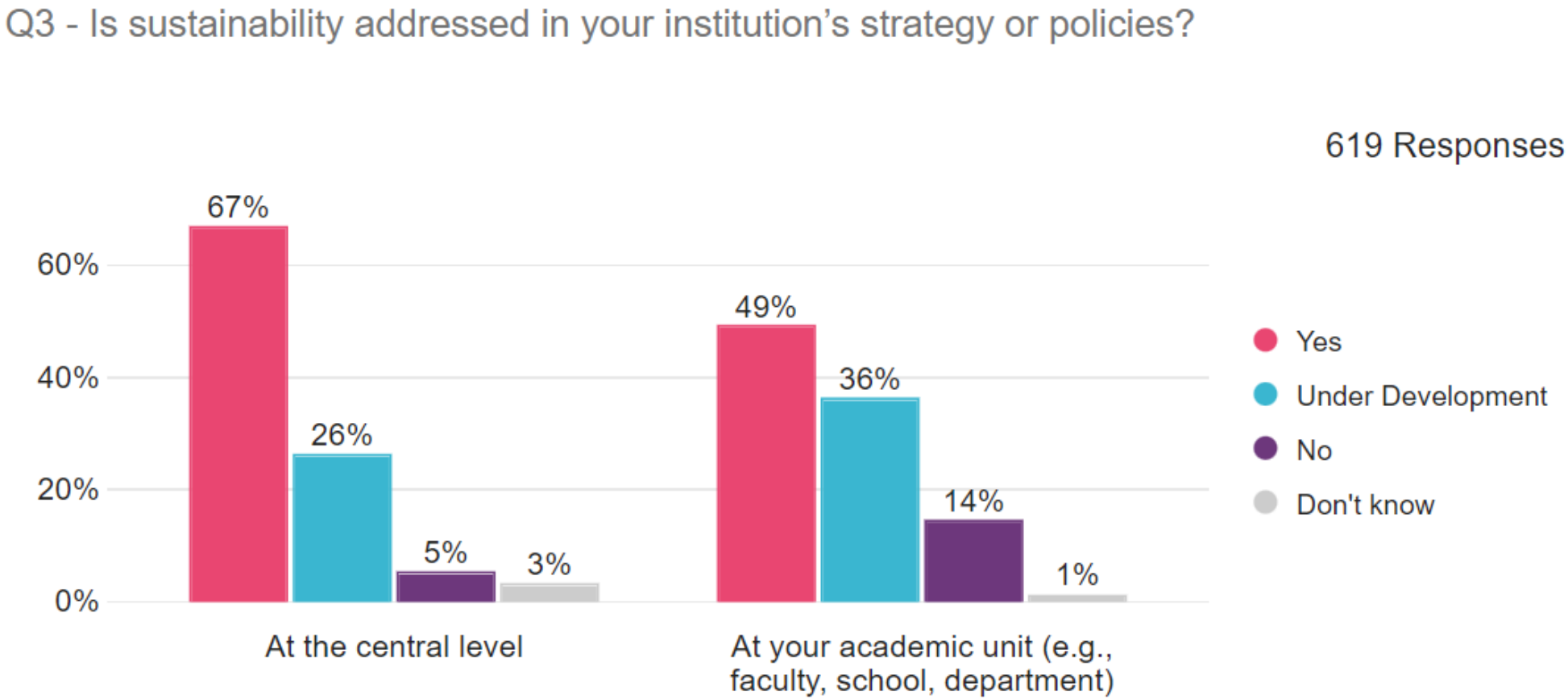
Attention to sustainability or SDGs is likely to increase in the next five years in our academic unit's...



Jongbloed, B., Veidemane, A. (2021). *Embedding sustainability in academia: Deans as change makers. Survey of academics.* Center for Higher Education Policy studies. October, 2021. https://decode-council.org/wp-content/uploads/2021/11/Deans_Survey_Report_2021.pdf

DECODE Survey: STRATEGIES & POLICIES

Is sustainability addressed in the strategy or policy of your institution and/or academic unit?



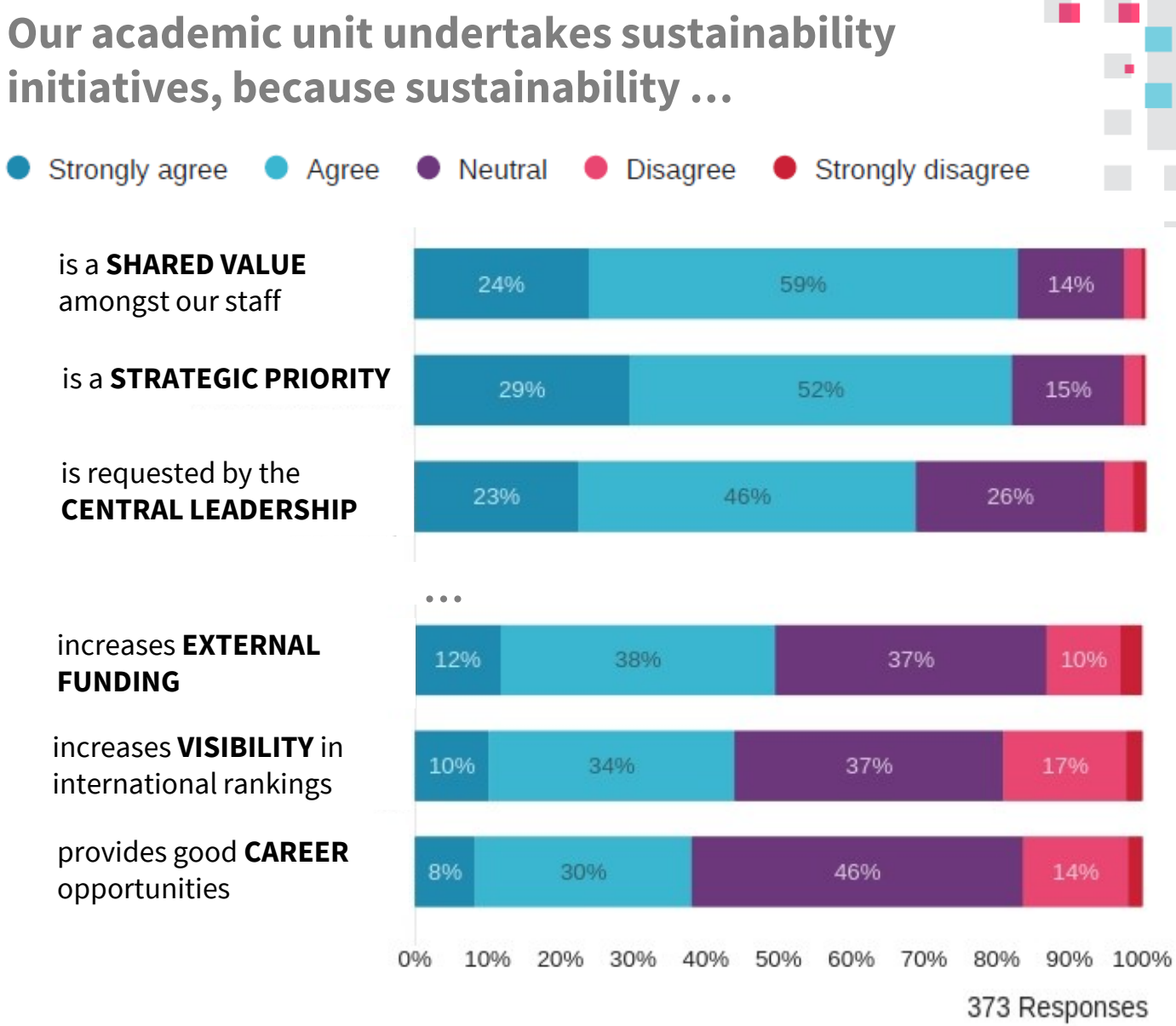
Drivers:

Respondents **strongly agree** or **agree** on the following drivers (nr.=8)

TOP 3: Shared value (83%) & strategic priority (81%) & Central leadership (69%)

BOTTOM 3: external funding (50%) & rankings (44%), career (38%)

Intrinsic & strategic motivation leading.

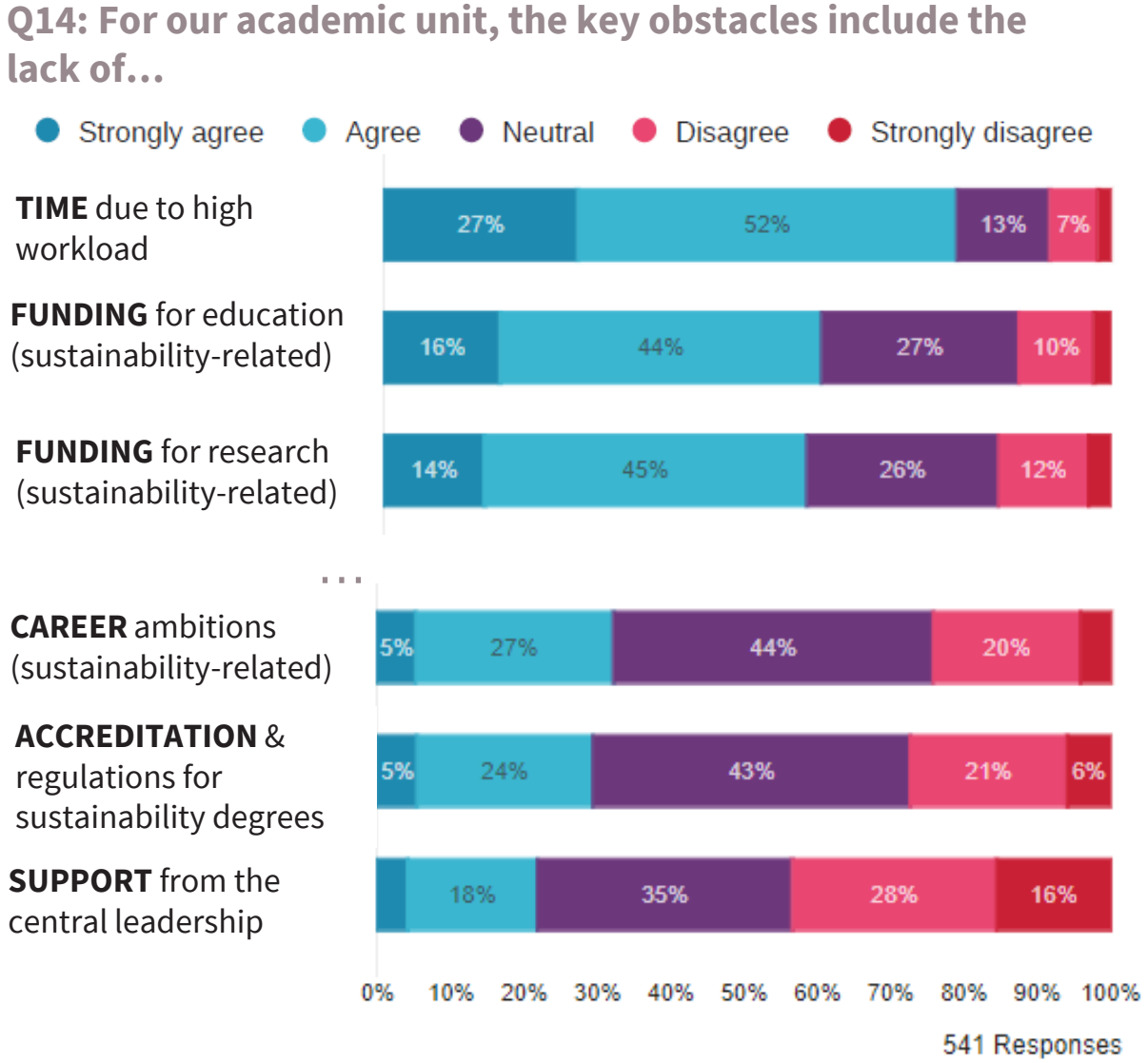


Obstacles:

Respondents **strongly agree** or **agree** on the following obstacles (lack of) (nr.=11)
TOP 3: time (79%) & education funding (60%) & research funding (59%)

BOTTOM 3: career ambitions (33%) & accreditation (29%), support from the central leadership (21%)

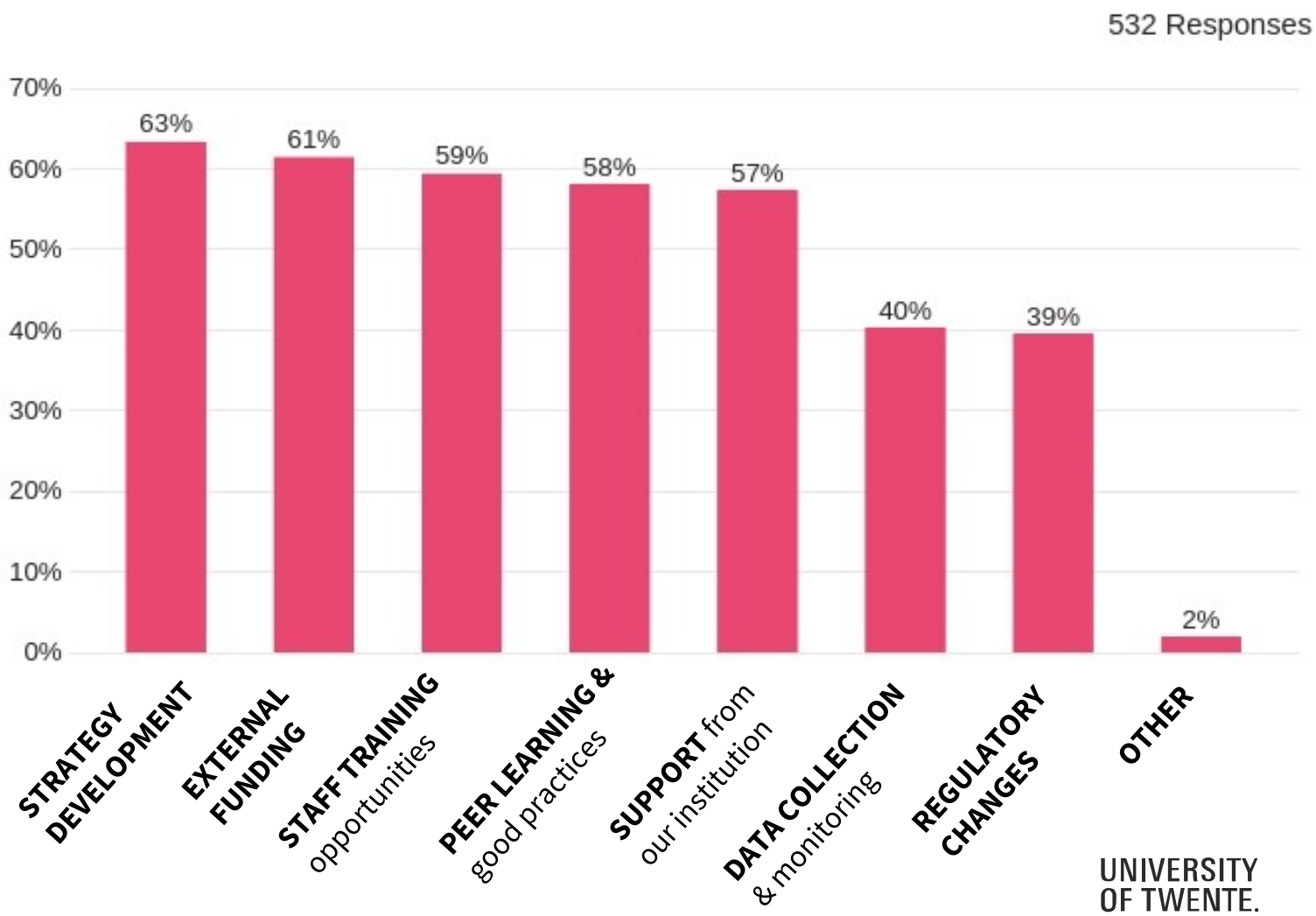
Lack of time & funding leading.



Support needed:

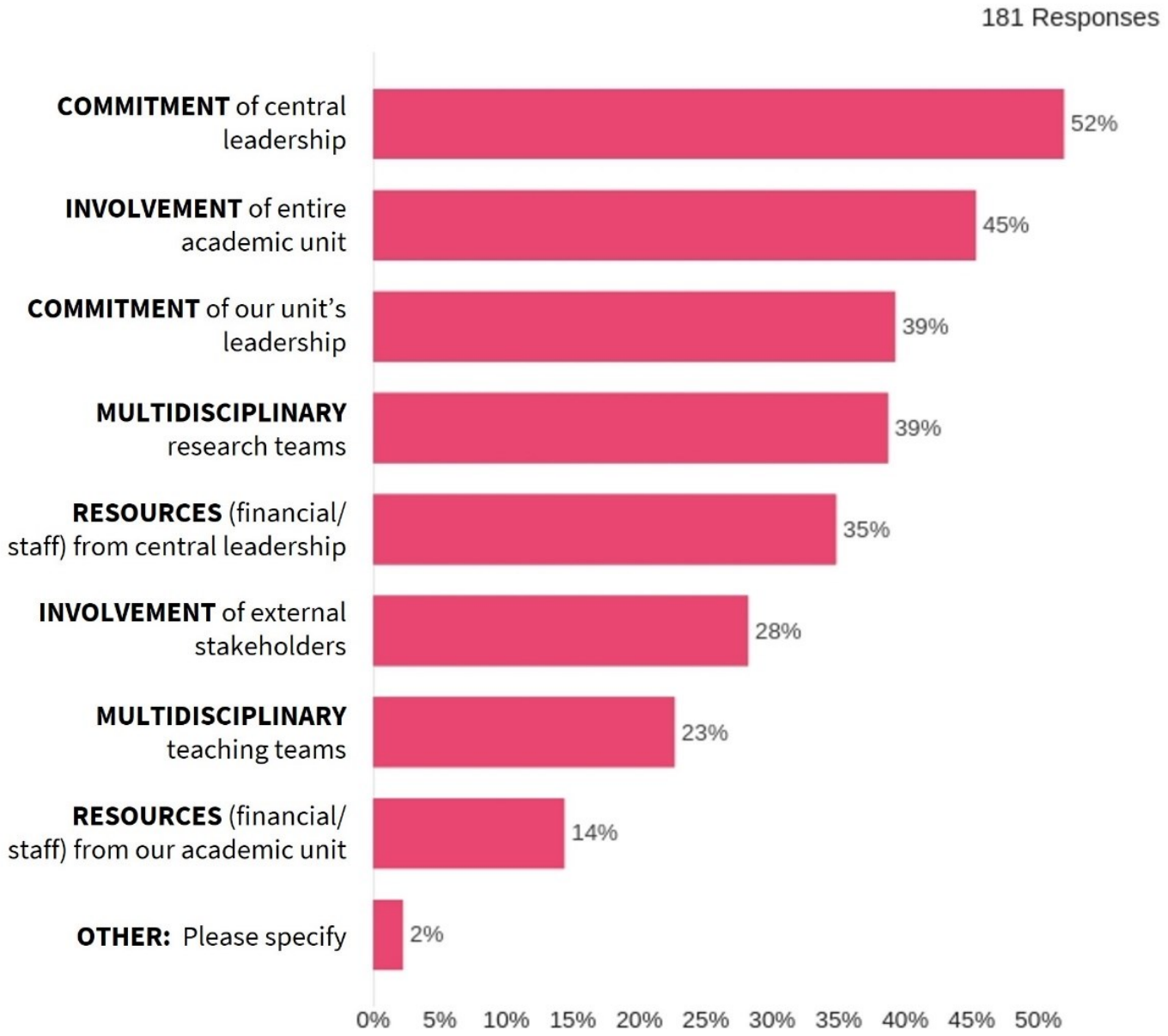
What type of **support** is needed by deans to make progress on the Sustainability agenda?

The more support the better, but top priorities – **strategy development (63%) & funding (61%)**



Critical success factors: [top 3 priorities]

- Commitment of **central leadership** and **academic unit leadership** are seen as **key success factors**
- Many of remaining success factors **require support from leadership** (e.g. financing, establishing multidisciplinary structures)



on embedding sustainability in academia

See our DECODE reports for more details

Key success factors:

- Commitment of central leadership (52%)
- Involvement of my entire academic unit (45%)

Obstacles:

- Lack of time (83%)
- Lack of financial resources (59-60%)

There's no 'one-size fits all' approach.

Need for:

- Support to develop unit's sustainability strategy (63%)
- External funding (61%)
- Professional development of staff (59%)
- Engaging in Peer2Peer Learning (58%)

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AGENDA

Sustainability at HEIs & leadership

Drivers & obstacles

Policy tools & Impact Pathways

Role of leaders & underlying tensions

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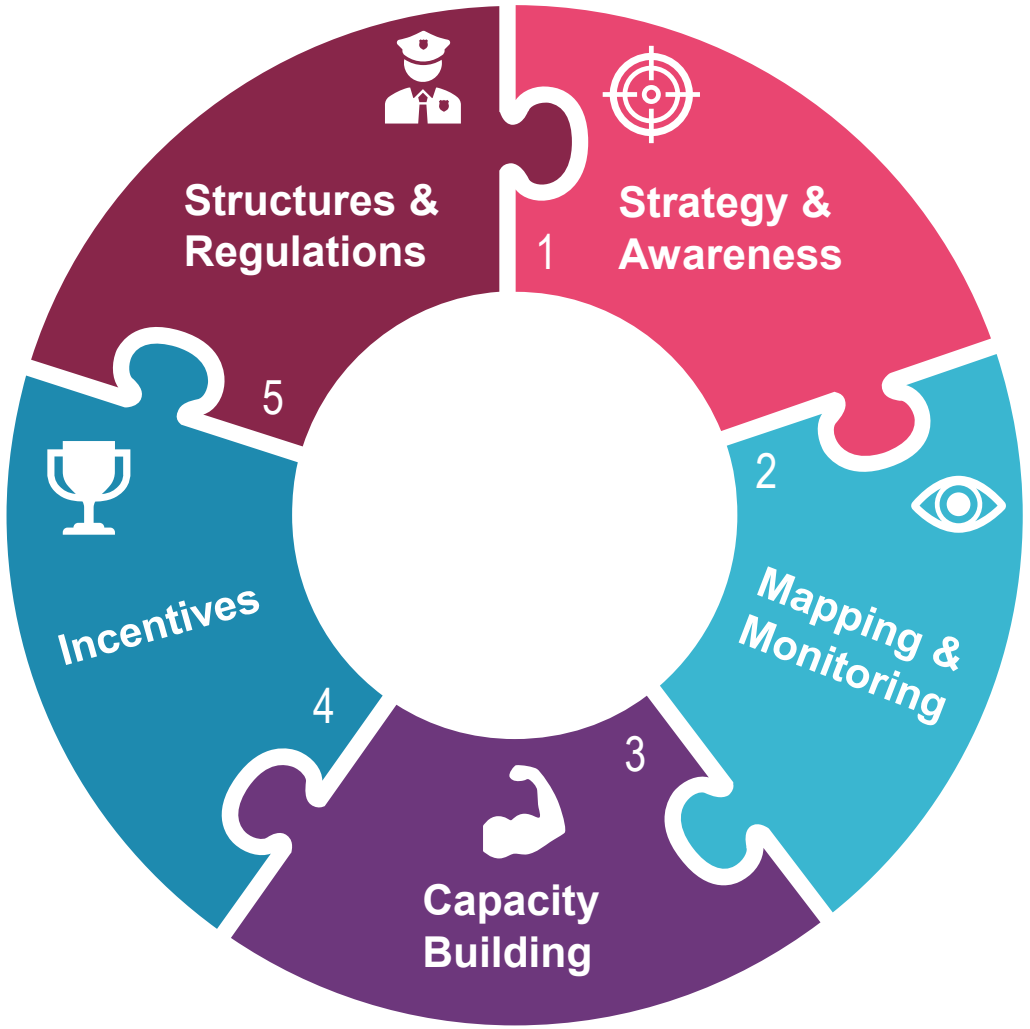

Tools for leaders to promote sustainable development

(building blocks)

1. Strategy & Awareness
2. Mapping and Monitoring
3. Capacity building
4. Incentives
5. Structures and Regulations

Based on Schneider and Ingram (1990), Behavioral assumptions of policy tools, *Journal of Politics,* 52(2), 510-529.

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Strategy & Awareness

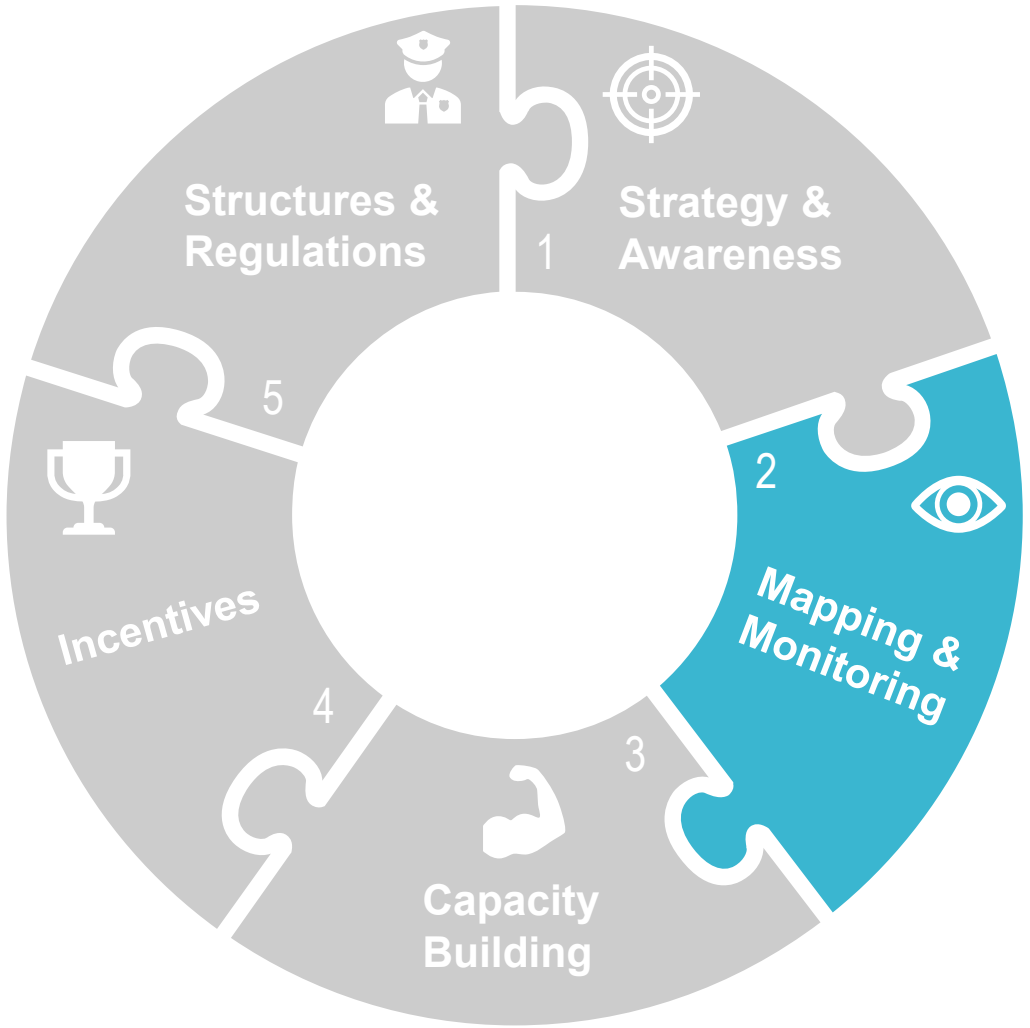
Use cases:

- ***Signalling:*** Giving priority to sustainability in a HEI's strategy is a strategic choice & strong signal.
- ***Vision:*** The strategic vision is often driven by the central leadership & gives direction.
- ***Implementation:*** The operationalization of the vision often happens at the faculty/department level, may lead to intention-action gap (loosely-coupled organisations) → faculty level strategy.

Examples of tools:

- University strategy, sustainability strategy, Net Zero strategy, faculty strategy
- Broad yet context-specific vision, Shared Narratives

Based on Schneider and Ingram (1990), Behavioral assumptions of policy tools, *Journal of Politics,* 52(2), 510-529.



Mapping & Monitoring

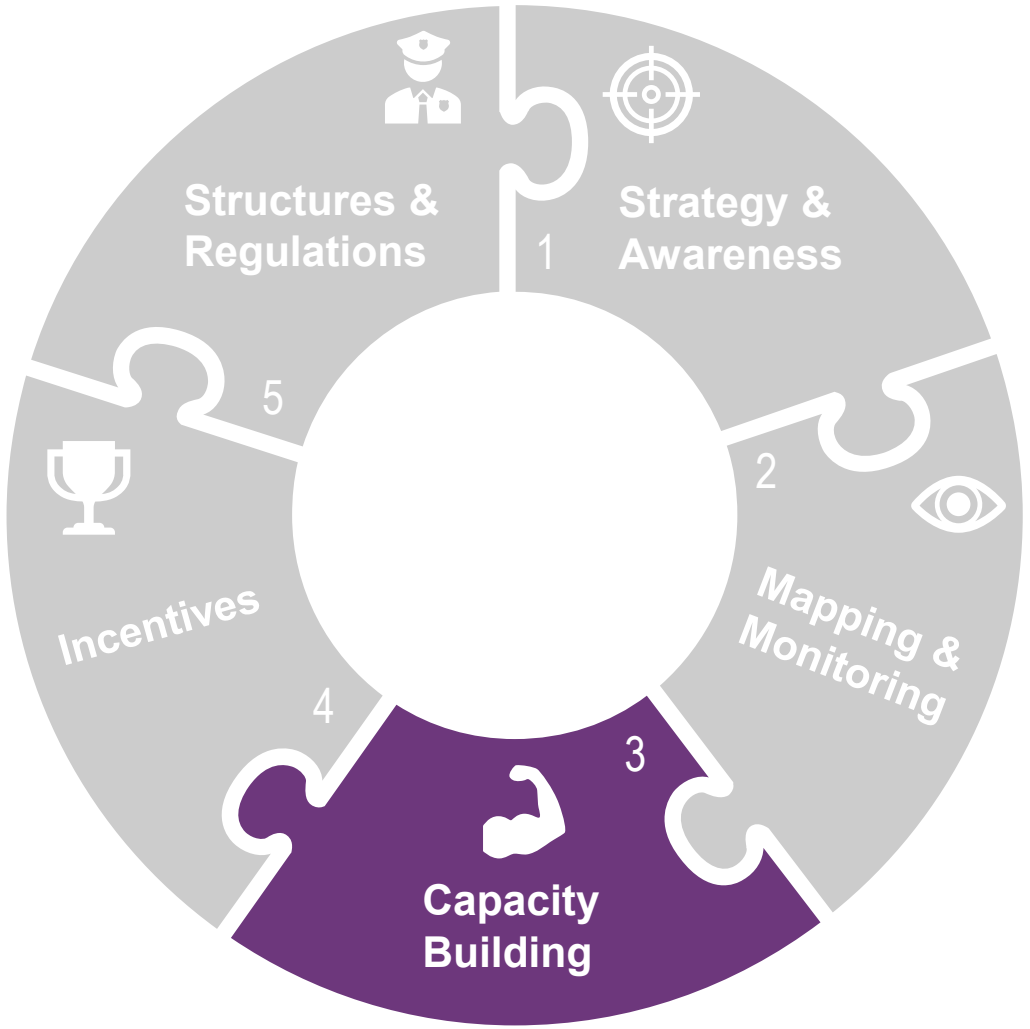
Use cases:

- ***Mapping*:** Identify what is available & good, missing, biggest culprits (e.g., labs, flights) → baseline
- ***Monitoring:*** Being able to quantify metrics allows to monitor progress and benefits organisational learning
- ***Decision-making:*** Mapping & monitoring allows leaders to make evidence-based decisions

Examples of tools:

- Annual Sustainability Reports, GHG emissions audit/reporting, FlyingLess Toolbox
- Granular operational data sent to decision-makers
- Shared narratives

Based on Schneider and Ingram (1990), Behavioral assumptions of policy tools, *Journal of Politics,* 52(2), 510-529.



Capacity Building

Use cases:

- ***Orgnized courses:*** Strengthen the capacity of educators, researchers, professional staff trough organised, internal/external courses
- ***Self-directed learning:*** Provide time, space and information about self-directed learning and opportunities for pper2peer learning
- ***Networks:*** Leverage existing and new networks for knowledge exchange

Examples of tools:

- The Carbon Literacy Training & organised courses
- SDG Academy & MOOCs courses
- Peer learning groups & networks (e.g., European University Alliances)

Based on Schneider and Ingram (1990), Behavioral assumptions of policy tools, *Journal of Politics,* 52(2), 510-529.

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Incentives

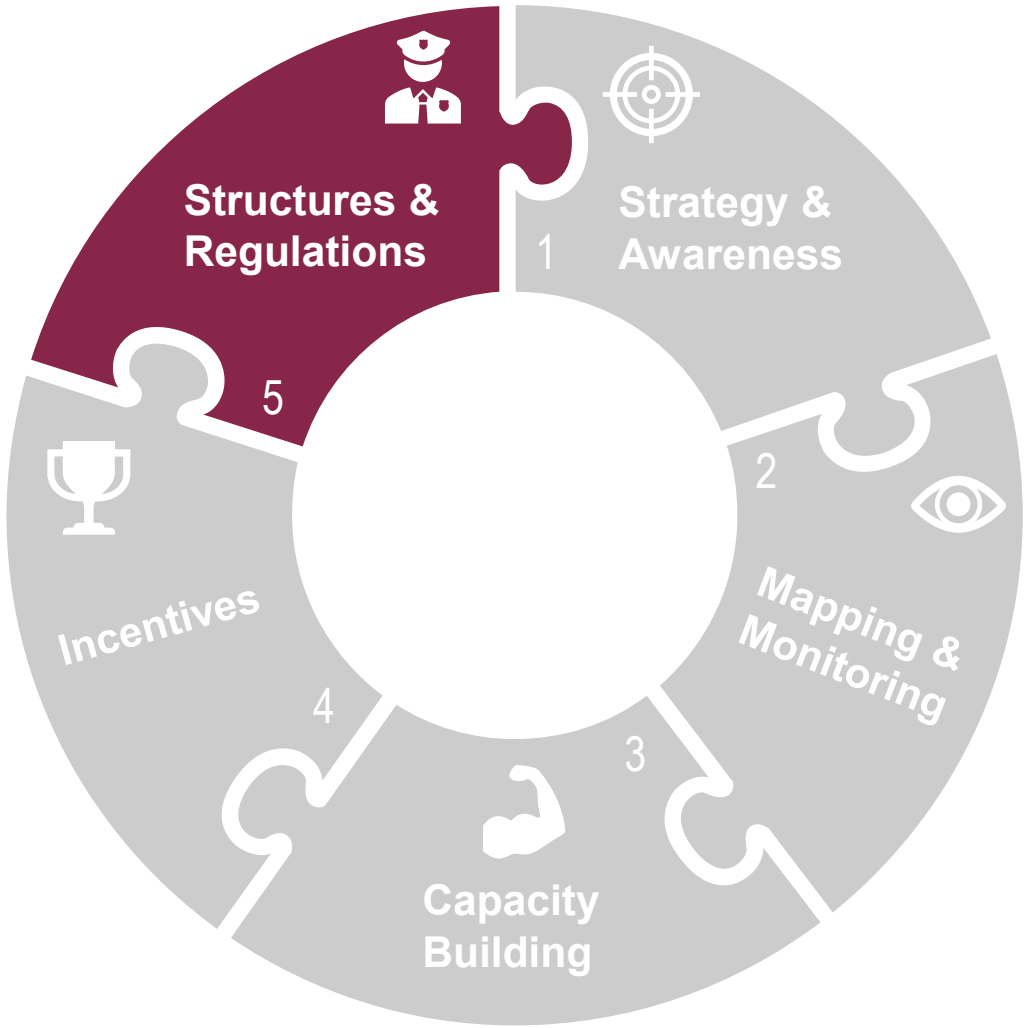
Use cases:

- ***Monetary:*** Funding incentives through grant and research bodies & companies, subsidies, performance-based funding criteria
- ***Reputational:*** Increased reputation and marketing (e.g., attracting (international) students) by participating in green rankings, awards, prizes, promotional criteria at individual level
- ***Nudges:*** Choice architecture regarding mobility (e.g., bike sheds), flying, food choices, water usage

Examples of tools:

- THE Impact Ranking , UI Green Metric, QS Sustainability
- Groene Peper [Green Pepper] Awards (NL)
- UNEP. (2020). The Little Book of Green Nudges

Based on Schneider and Ingram (1990), Behavioral assumptions of policy tools, *Journal of Politics,* 52(2), 510-529.



Structures & Regulations

Use cases:

- ***Structures:*** Establish transdisciplinary research institutes, Green offices, Living Labs, Citizen Science Labs, enable democratic bottom-up actions
- ***Regulations:*** From soft to hard, HEIs can establish lighter policies or stricter rules for internal accreditation, flying & commuting & recruiting policies, guidelines, codes of conduct, develop mandatory sustainability courses
- ***Voluntary pledges:*** Commit and internalize national or international pledges

Examples of tools:

- Copernicus Institute of Sustainable Development, DRIFT
- UoA's travel policy – only essential travel
- ACUPCC (2006) - the American College & University Presidents' Climate Commitment

Based on Schneider and Ingram (1990), Behavioral assumptions of policy tools, *Journal of Politics,* 52(2), 510-529.

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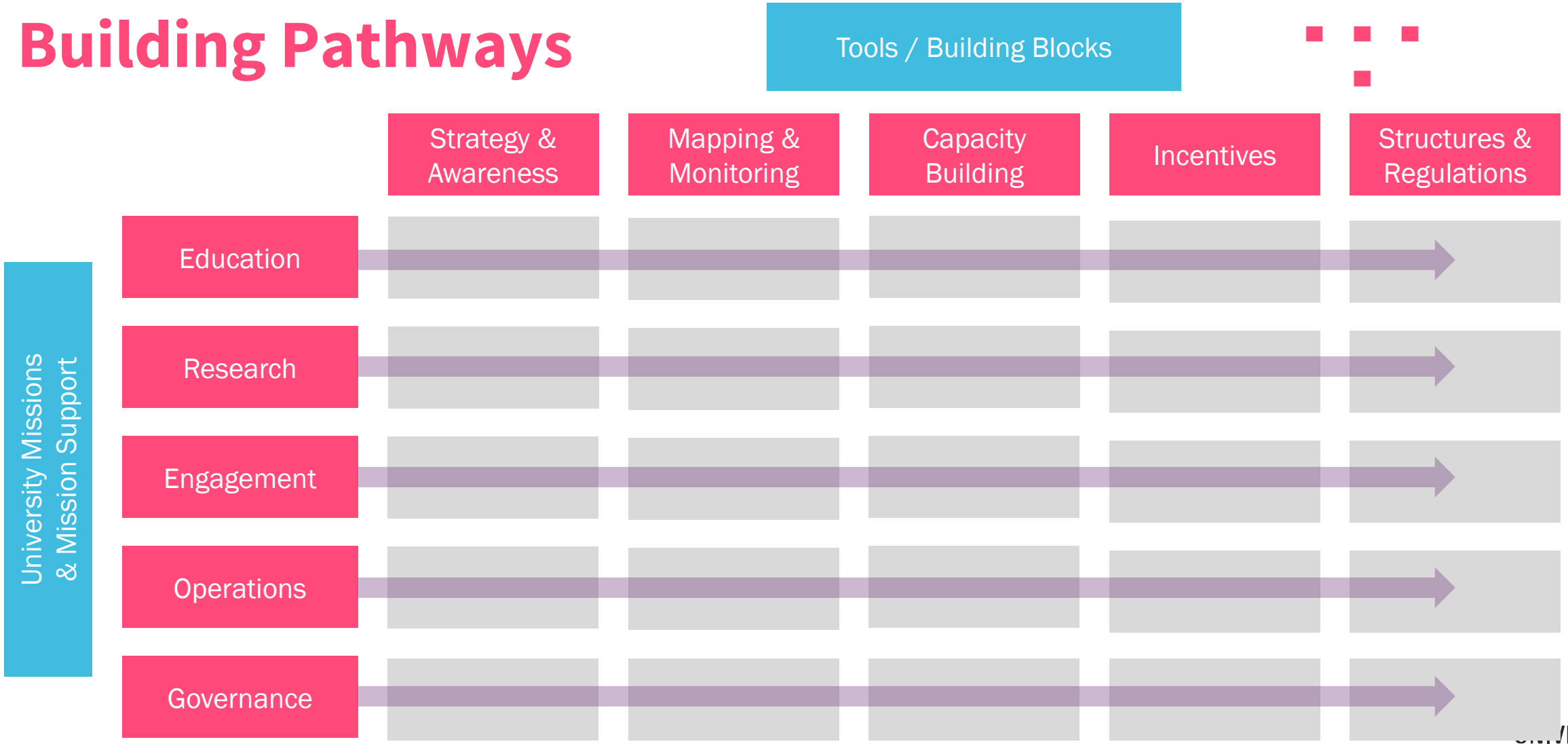
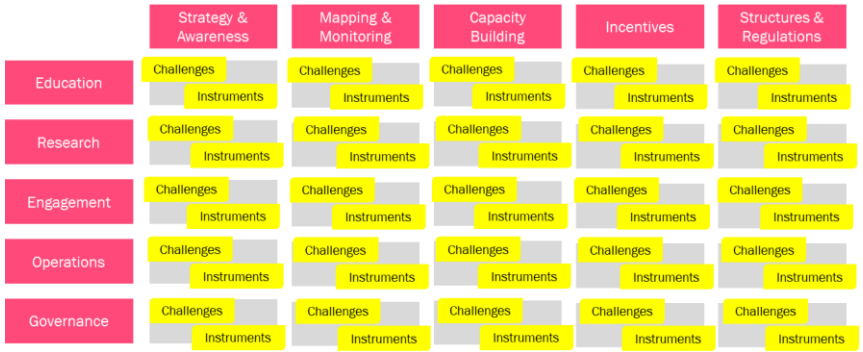
Building Pathways



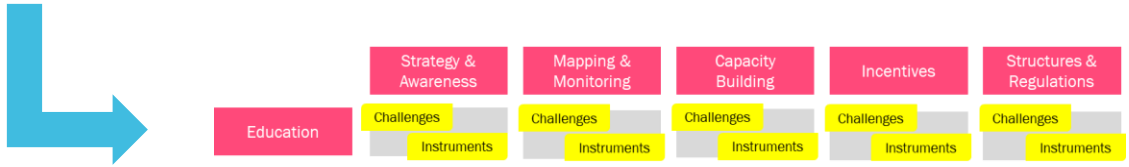
From pathway to roadmap

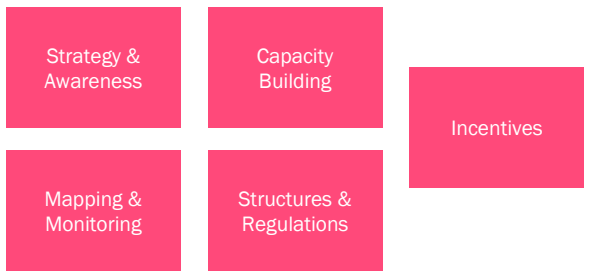
Creating your own roadmap



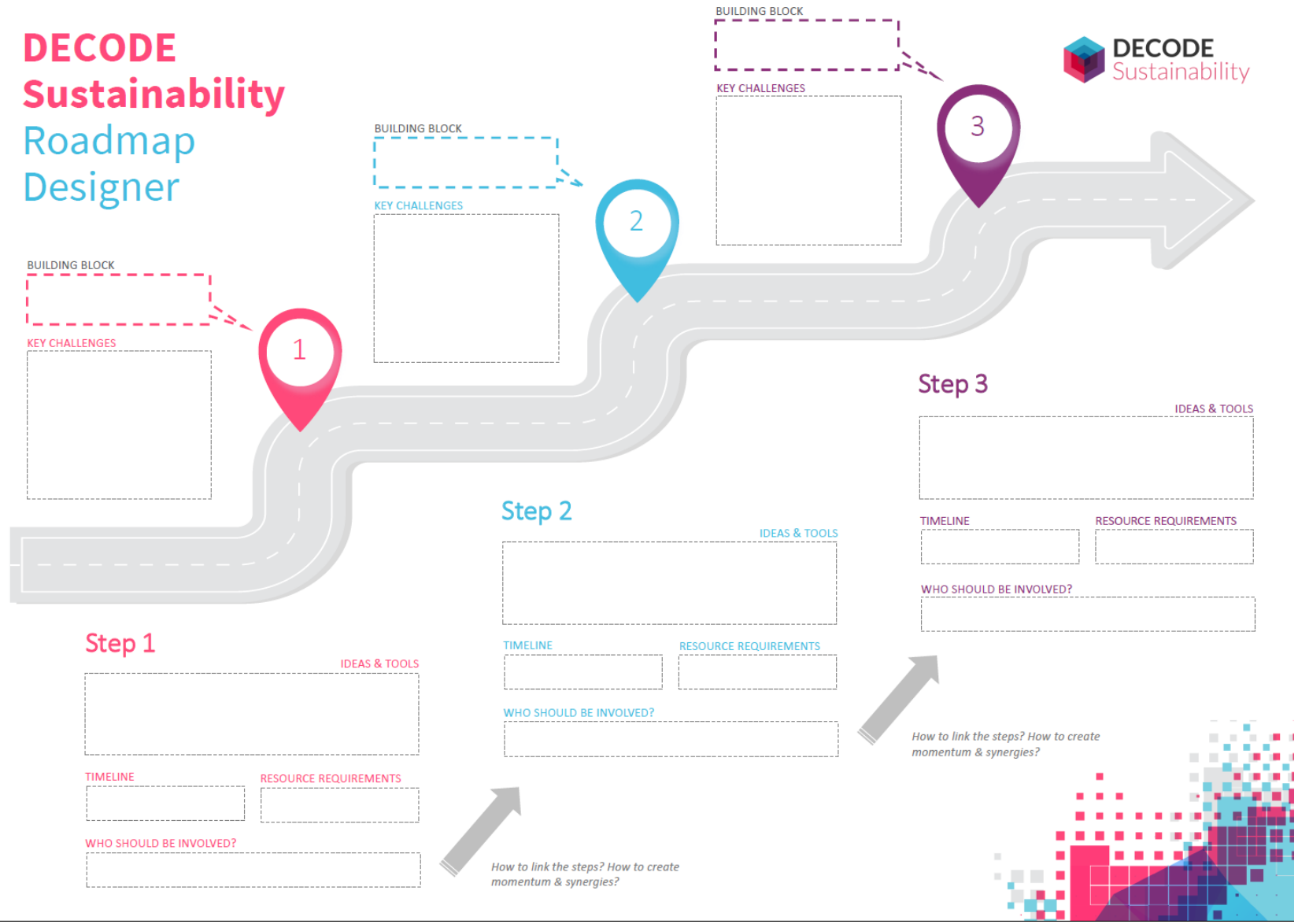
Step 1: Select your pathway (focus area/ priority → education; research; blended)

Step 2: Recognise your baseline and prioritize the building blocks





DECODE Sustainability Roadmap Designer



We have organised Roadmap Building Workshops for leaders, program directors, academic staff and students.

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AGENDA

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Overarching Research questions:

*RQ1: What are the **CRITICAL EVENTS** in sustainability transformations at higher education institutions?*

*RQ2: What are the **ROLES** of academic leaders in sustainability transformations (in those critical events) at higher education institutions?*

*RQ3: What are the underlying transformation **TENSIONS** that academic leaders encounter? [added inductively]*

Veidemane, A., Craciun, D., & van der Meulen, B. (2025). Critical sustainability events and perceived roles of academic leaders at a leading university in sustainability: CIT case study. *Discover Sustainability*, *6*(1), 468. https://doi.org/10.1007/s43621-025-01185-x

METHODOLOGY

Case study at the University of Auckland (2023)

Why UoA?

- UoA - 1st in THE Impact Ranking 2019, 2020
- THE Impact Ranking - 1st to assess university contribution to SDGs

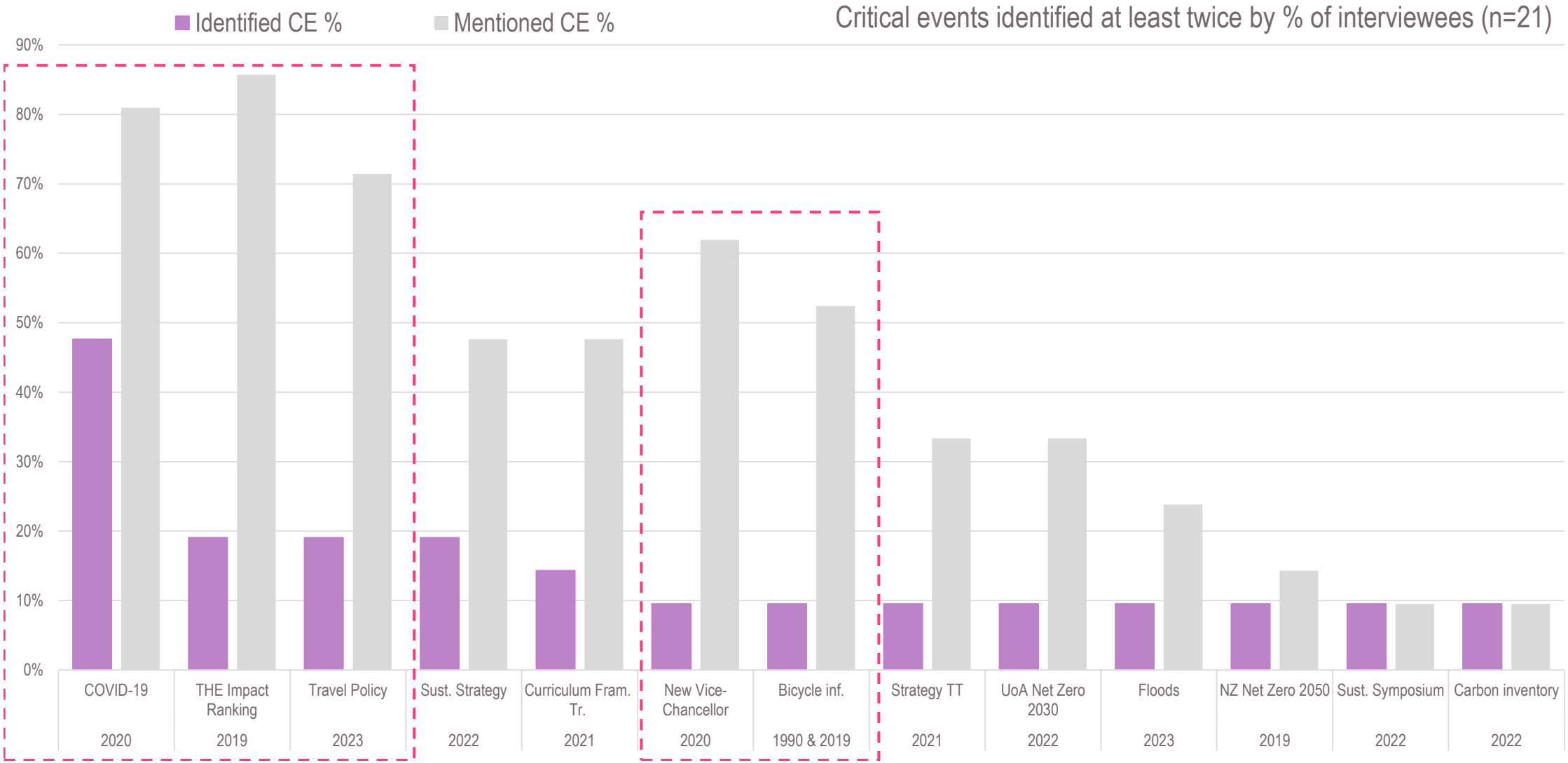
How?

- semi-structured expert interviews (n=21)
- critical incident technique (CIT)
- perceived role of leaders in critical events (indirectly)

Flanagan, J. C. (1954). The critical incident technique. *Psychological bulletin,* 51(4), 327

Butterfield, L. D., Borgen, W. A., Amundson, N. E., & Maglio, A. S. T. (2005). Fifty years of the critical incident technique: 1954-2004 and beyond. *Qualitative research*, 5(4), 475-497.

RQ1: Frequency of critical events – identified vs mentioned



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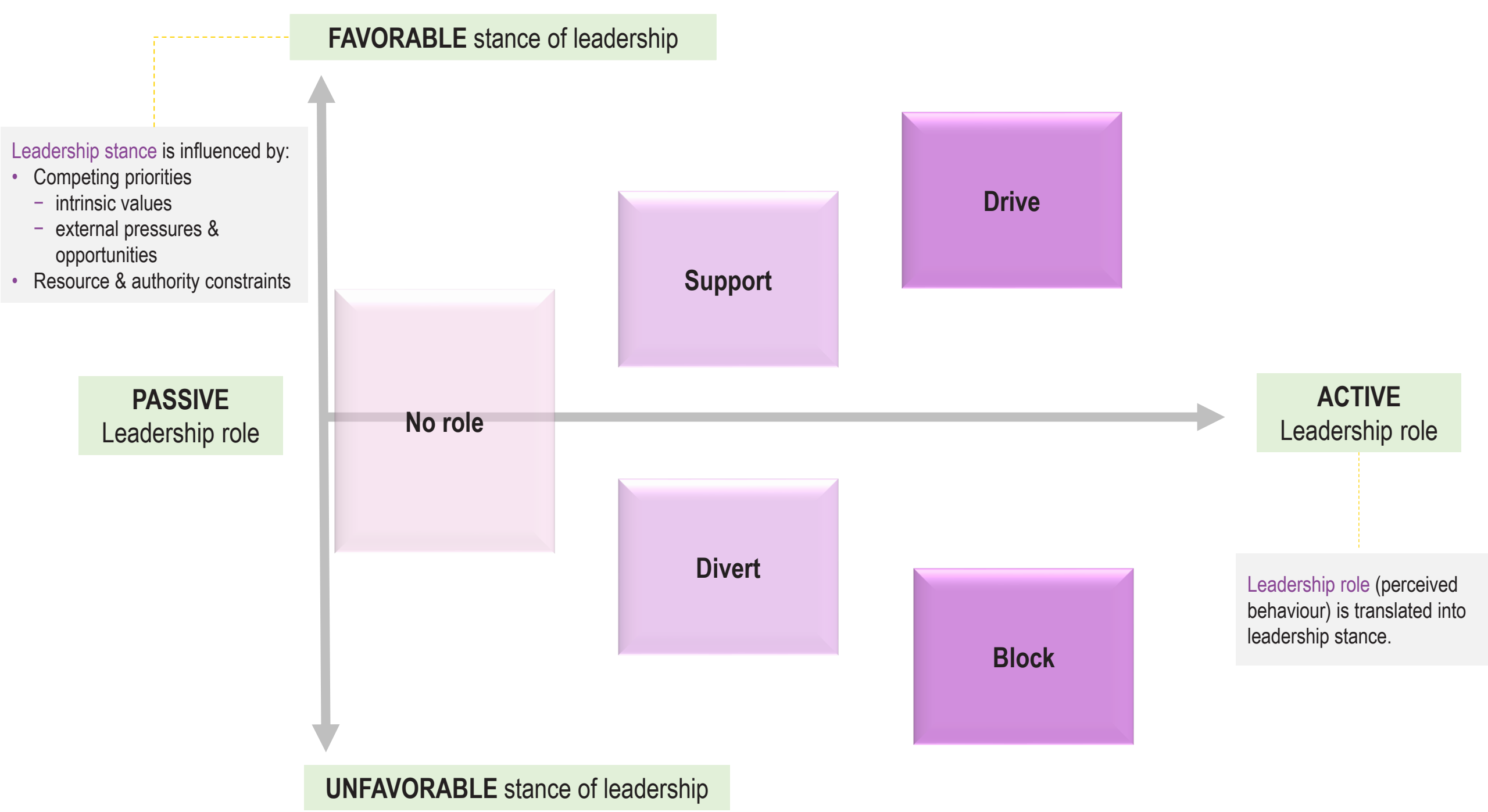
RQ2: Roles of academic leaders in critical events

Roles	Descriptors	Critical Events
DRIVE	ACTIVE: “drive”, “push through”, “prioritize”, “commitment”, “central mandate”, “direct initiative”, …, “swift”, “quick”, “clear”.	New strategic plan Taumata Teitei; Net Zero Carbon strategy (by 2030); Curriculum Framework Transformation.
SUPPORT	(RE)ACTIVE: “support”, “recognize”, “approve”, “encourage”, “endorse”, “foster”, “embrace”	Provided grants for sustainability initiatives and initiatives promoting the ranking, recognized staff’s time commitment and vision in strategic sustainability documents, supported students during COVID-19.
NO ROLE	PASSIVE: “no or minimal role”, not recalled, “on their radar”, led by role-models or services staff	Led by services departments or role models, carbon inventory, THE Impact ranking submission, sustainability symposium.
DIVERT	REACTIVE: “no sign of significant change”, “speed of progress very slow”, “questions …deflected”, “no answers”, “not very clear”, “run into the sand”.	Delayed and unclear decision-making for travel policy, bicycle-sheds (in 90s), roof garden, lack of response on building over bicycle parking, deflected questions in symposium
BLOCK	(RE)ACTIVE: “roadblock”, “defensive”, “resistance”, “pushback”, and “reluctance’’.	Blocked proposals for reduced speeds on the highway, fossil fuel divestments, reduced air travel (previous leadership) , bicycle sheds (in 90is)


FAVORABLE stance of leadership
Leadership stance is influenced by:
• Competing priorities
– intrinsic values
– external pressures & opportunities
• Resource & authority constraints
Drive
Support
PASSIVE Leadership role
No role
ACTIVE Leadership role
Divert
Block
Leadership role (perceived behaviour) is translated into leadership stance.
UNFAVORABLE stance of leadership

RQ3: TRANSFORMATION TENSIONS

In transformational change a **shared vision** - multi-dimensional and holistic - of a sustainable university is beneficial for engaging diverse stakeholders.

However, three **transformation tensions** emerge as the discussion moves from a **vision** to **implementation**:

- ***priorities*** (competing sustainability dimensions)
- ***pace*** (desired speed of transformation)
- ***process*** (desired consultation for transformation)

These tensions are displayed in the Triangle of Transformation Tensions.

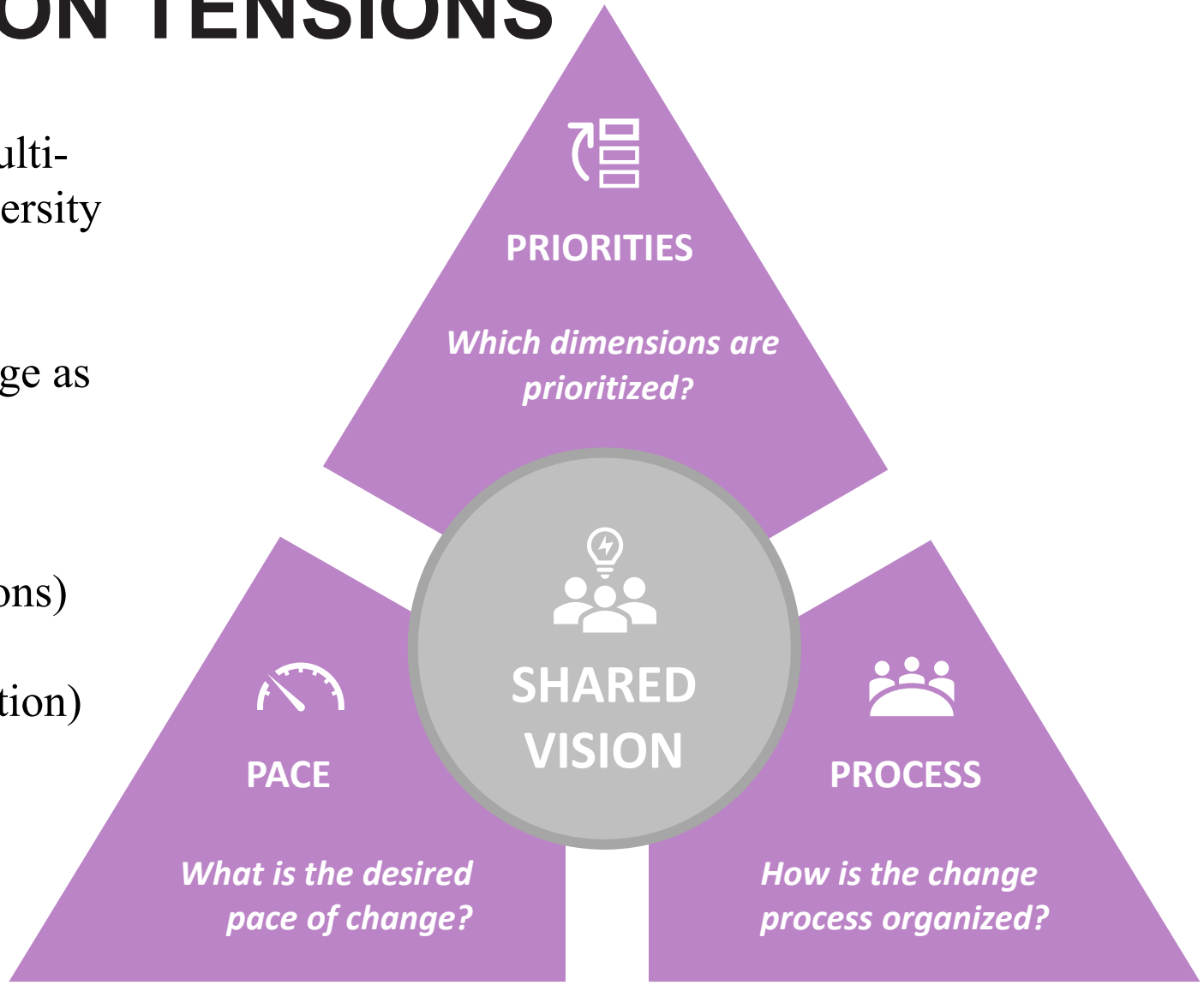


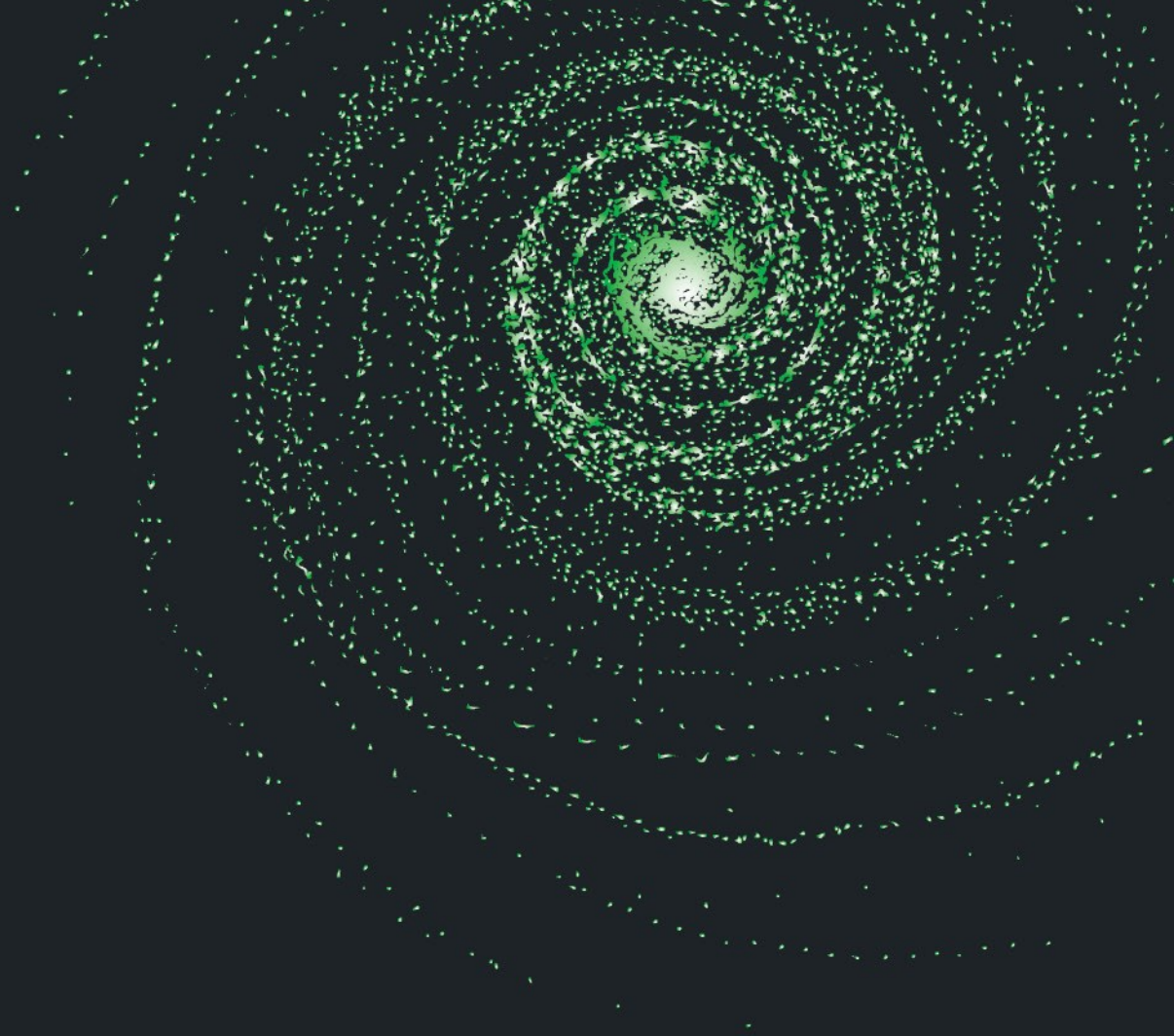
Figure 1: Triangle of transformation tensions

Discussion: Roles & Transformation tensions

Roles	Transformation Tensions
DRIVE	Priorities – advocated by leadership Pace – likely fast Process – may lack consultation
SUPPORT	Priorities – co-created & endorsed Pace – likely slower than drive Process – offers consultation
NO ROLE	Priorities – not specified (services, role models) Pace – no pace (or invisible) Process – opportunity for grassroots
DIVERT	Priorities – not supported by leadership Pace – delayed Process – ambiguous , confusing
BLOCK	Priorities – opposed by leadership Pace – halted Process – often lack consultation, could spark uprising

There is no one 'best role' but each has a distinct way to navigate transformation tensions.

UNIVERSITY OF TWENTE.



THANK YOU

Untold critical event - discussion amongst UoA staff:

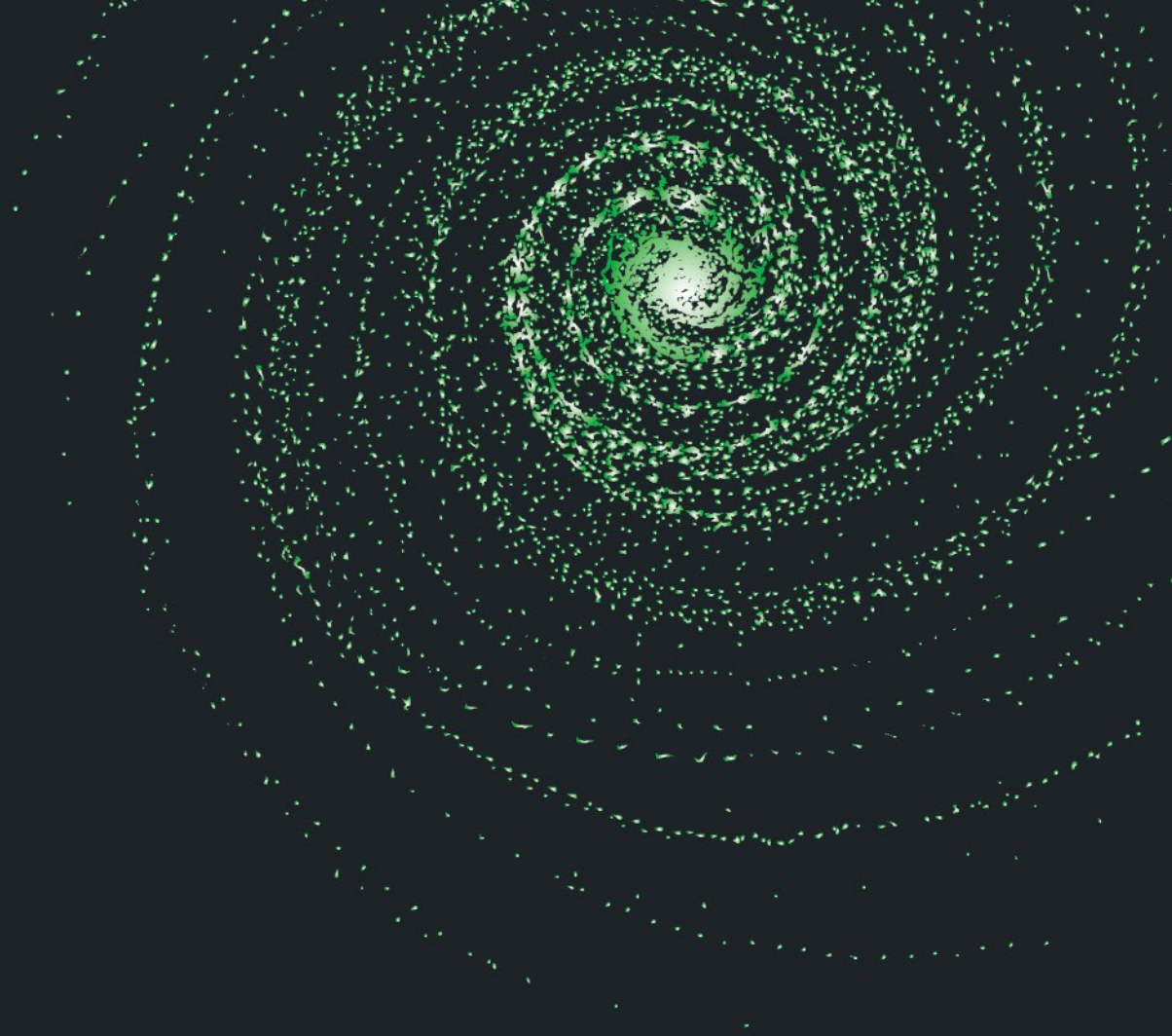
*"NOT BEING THE BEST **IN** THE WORLD,*

*BUT THE BEST **FOR** THE WORLD"*

CONTACT: ANETE VEIDEMANE
A.VEIDEMANE@UTWENTE.NL, CENTER FOR HIGHER EDUCATION POLICY STUDIES; KNOWLEDGE, TRANSFORMATION & SOCIETY

UNIVERSITY OF TWENTE.

APPENDIX



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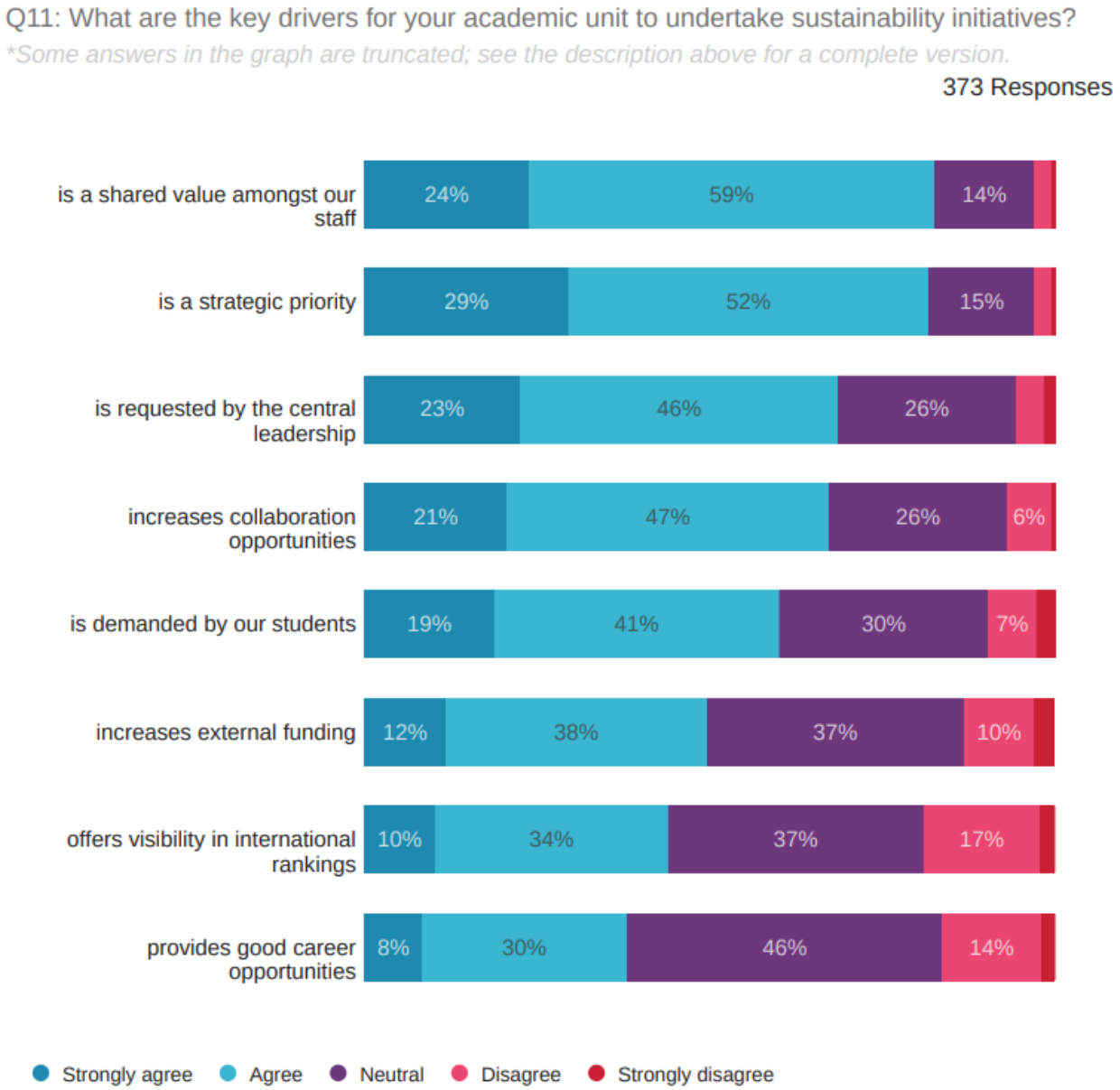
Drivers:

Respondents **strongly agree** or **agree** on the following drivers

- Shared value (83%) & strategic priority (81%)
- Central leadership (69%) & collaboration (68%)
- Increased funding (50%) & rankings (44%)

Intrinsic motivation leading.



Jongbloed, B., Veidemane, A. (2021). *Embedding sustainability in academia: Deans as change makers. Survey of academics.* Center for Higher Education Policy studies. October, 2021. https://decode-council.org/wp-content/uploads/2021/11/Deans_Survey_Report_2021.pdf

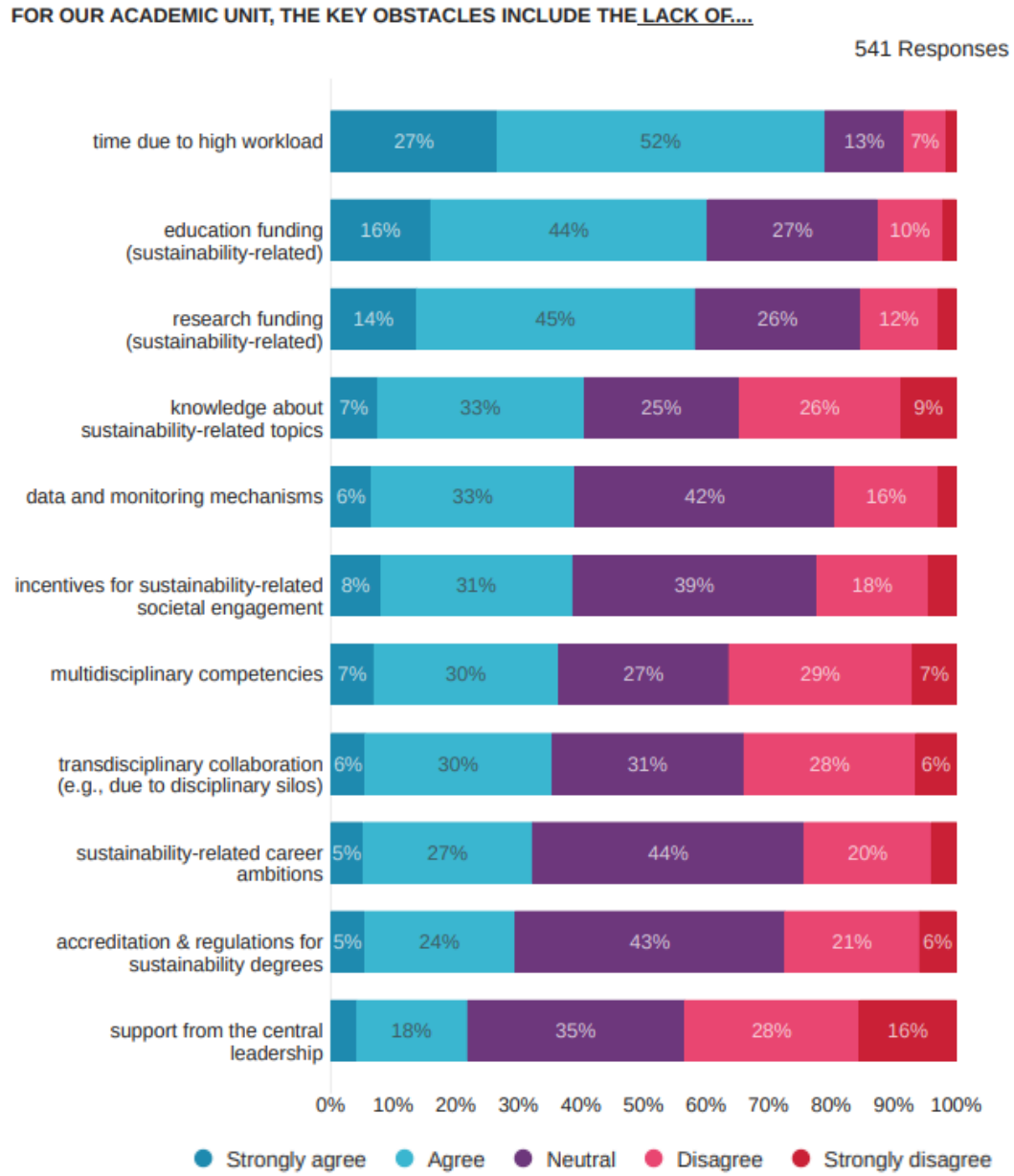
Obstacles:

Respondents **strongly agree** or **agree** on the following obstacles (lack of) (nr.=11)
TOP 3: time (79%) & education funding (60%) & research funding (59%)

BOTTOM 3: career ambitions (33%) & accreditation (29%), support from the central leadership (21%)

Lack of time & funding leading.

Q14 - What are the key obstacles that stand in the way of your academic staff to undertake sustainability initiatives?
*Some answers in the graph are truncated; see the description above for a complete version.



Introduction:

Education for Climate Coalition

EDUCATION FOR CLIMATE COALITION

Is an online community where you **connect** with peers, take on **challenges**, explore practical **resources**, join **events**, and **co-create** solutions that make a real impact.

European Education and Culture Executive Agency (EACEA)
Susana Campoy Folgoso
EACEA-EDUCATION-FOR-CLIMATE@ec.europa.eu

European Commission

POLICY CONTEXT

- **Communication on achieving the European Education Area by 2025 stresses:**
  - the need for changing behaviour
  - boosting skills for the green economy
  - fostering new sustainable education and training infrastructure
- **The Education for Climate Coalition set out as a flagship initiative in the EEA Communication in December 2020**
  - key instrument for mobilising students, teachers and education stakeholders + connecting them across borders to work towards the green transition and sustainable development

POLICY CONTEXT

- **Council Recommendation on learning for the green transition and sustainable development [June 2022]:**

➢ to support Member States, schools, higher education institutions, non-governmental organisations and all education providers in equipping learners with understanding and skills on sustainability, climate change and the environment

- **European competence framework on sustainability competences, 'GreenComp' [January 2022]:**

➢ maps out sustainability skills and competences for learners of all ages in all educational settings, formal, non-formal and informal

What is Education for Climate Coalition

- Education for Climate Coalition is an European participatory community for school and university-level students, educators, researchers, policy makers, NGOs and other stakeholders from the industry to act on innovative education solutions for environmental sustainability.

- The Coalition enables its users (1) to explore peers' initiatives and competencies; (2) to engage and get support for education for climate challenges; (3) to ideate and innovate concrete actions; (4) to implement, reach out and share collective solutions to build capacity.

European Commission

The Coalition facilitates cooperation around 5 main priority areas:

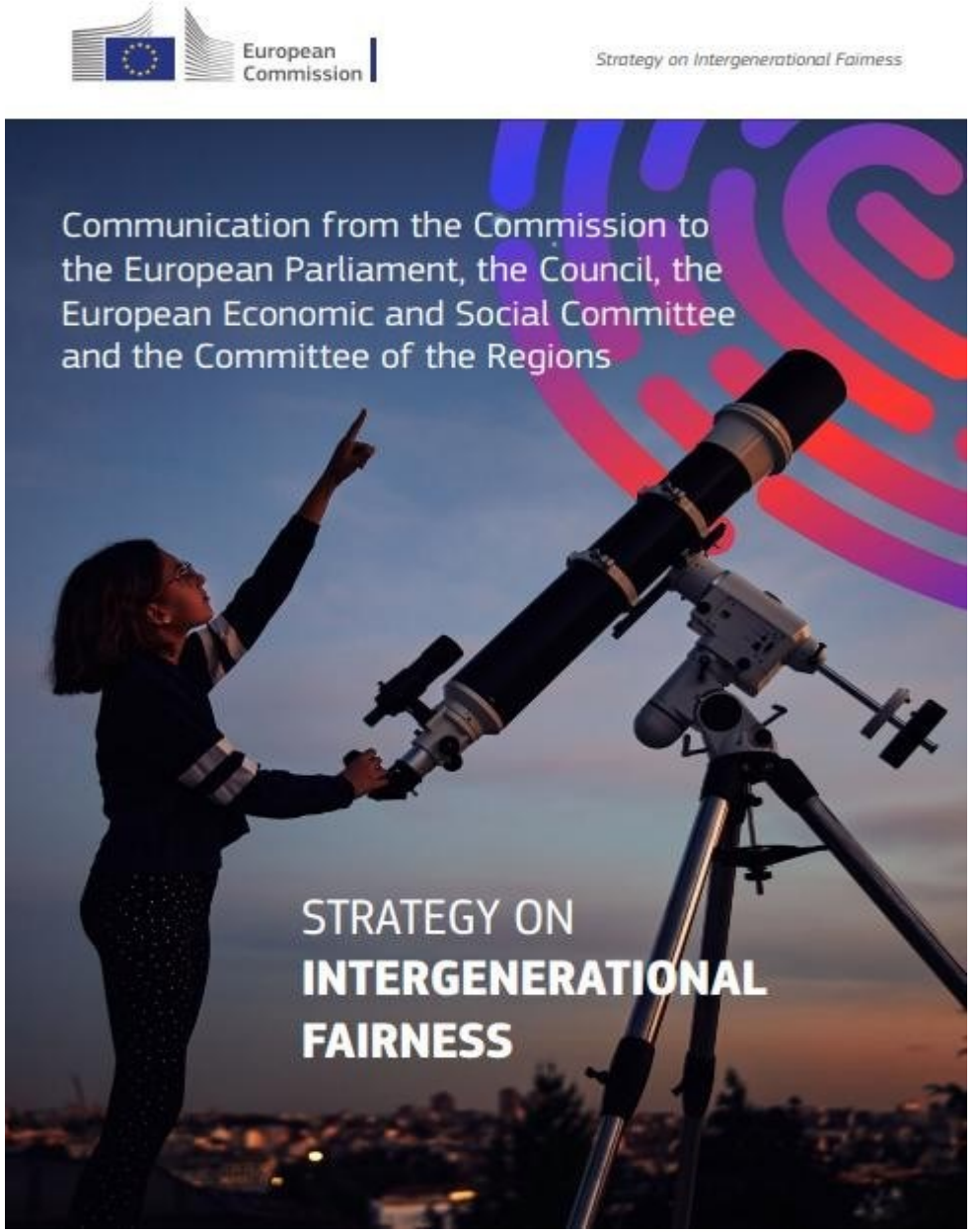
- Teacher training
- Bridging education with science
- Developing green competencies
- Raising awareness
- Changing behaviour

European Commission

2026 Priority
Intergenerational Fairness

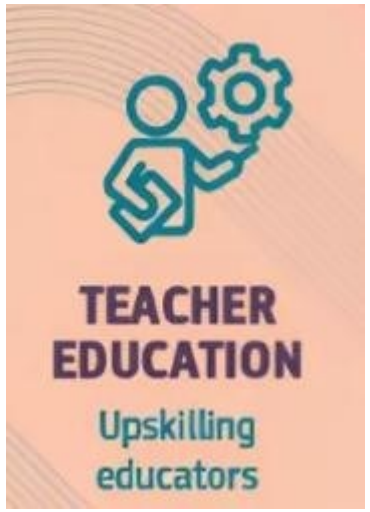
[Making sure no generation gets left behind - European Commission]

One of the key themes is the responsibility of current generations to care for the planet through collective global action, as climate change and environmental degradation pose existential threats that extend beyond national borders and the lifetimes of those living today



European Commission

2026 Focus Areas



1. Teacher education: Upskilling educators

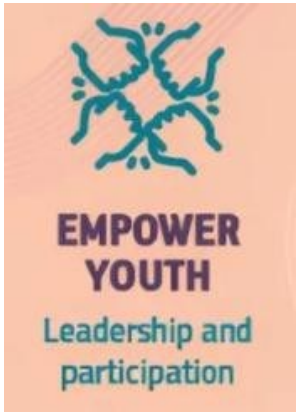
Support the upskilling of educators in sustainability and climate education through peer-learning networks, practical toolkits, digital resources, and interdisciplinary collaboration. A particular focus will be placed on innovative teaching methods, including arts, storytelling and EdTech, while helping educators address climate disinformation and integrate long-term thinking and responsibility towards future generations into teaching and learning.

2. Green Competences: Bridging education with science

Advance the integration of GreenComp into STE(A)M education, supported by practical toolkits for educators and innovative gamified learning approaches. Particular attention will be given to the ‘envisioning futures’ competence, helping learners develop long-term thinking and consider the consequences of present actions for future generations.

2026 Focus Areas

3. Youth: Leadership and participation

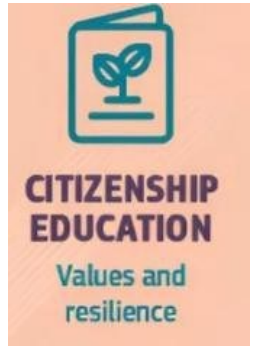


Strengthen youth leadership and participation by supporting youth-led initiatives and enabling young people to co-design climate solutions. Particular attention will be given to the practical implementation of ideas developed through the Youth Climate LAB and to fostering intergenerational dialogue, cooperation, and fairness.

4. Greening schools: Community partnerships

Advance the whole-school approach to sustainability by supporting schools as living environments where sustainability is learned, experienced, and practised daily. Particular attention will be given to community partnerships that promote sustainable practices, healthy learning environments, and intergenerational responsibility.

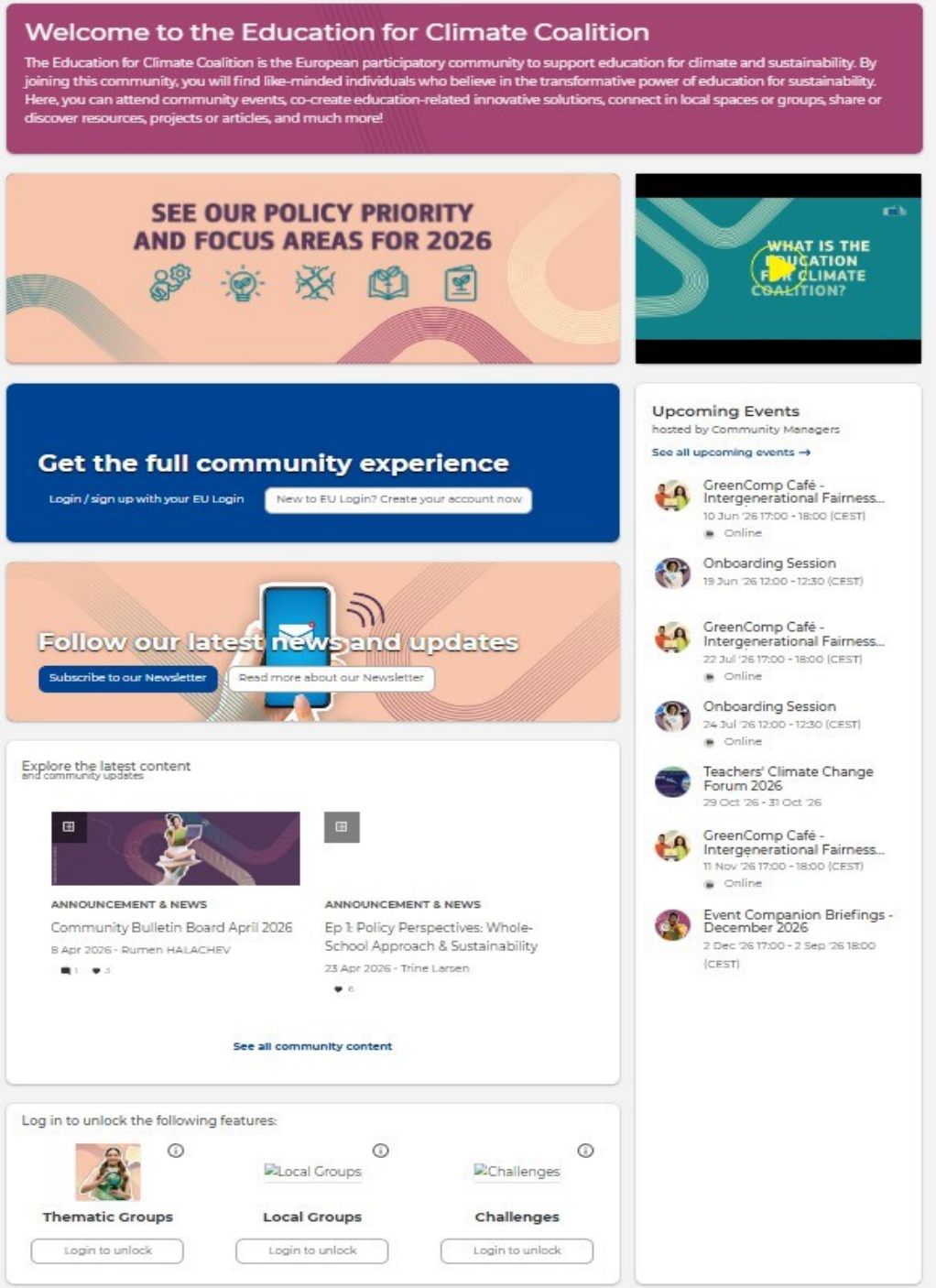
5. Citizenship education: Values and resilience



Strengthen citizenship education through values-based learning, emotional resilience, and democratic participation. Particular attention will be given to media literacy, critical-thinking skills, and combating disinformation, while fostering empathy, active citizenship, and intergenerational responsibility.

Why join the platform?

- **Safe and trusted space** for exchanges – access is through **EU Login** and all members are **verified.**
- **Voluntary participation** – you join and contribute at your own pace.
- **Create your own dedicated group** to organise discussions, activities or collaboration.
- **Local facilitators and youth coordinators support you:** connecting country-level conversations with the wider European community
- **Community Managers support you in a daily basis**
- **New features coming soon**, including:
  - BigBlueButton (web conferencing)
  - Mobile App



Education for Climate Coalition

Home | Community | Challenges | Resources | Events | News | About

Dashboard | Home | (This block is only visible to content and site managers) Edit

Welcome back!

Pick up where you left off and check out what's new in the Education for Climate Coalition!

Recent activity

Trine Larsen @external commented on Trine Larsen's event in GreenComp Community
6 hours ago

Hi Fons, please join us - we would love to work (more) with the EU Climate Pact Amabassadors! Feel free to share our activities in your networks also.

0 likes

Show all 6 comments

Rumen HALACHEV created a topic in Education for Climate

Education for Climate Community

- Join our local community spaces, GreenComp community and Youth Group.
- Explore who have been selected as Advisory Group members for 2026 and connect to receive guidance
- Connect with our newest members. Check out their profile below

GreenComp Topics

ANNOUNCEMENT & NEWS Public

Green Tales: Children's Artistic Vision of Sustainability

16 Feb 2026 - Oerlemans Lisa

7

DISCUSS & SHARE Public

Let's Bring GreenComp to Life in STEAM Education

3 Dec 2025 - Petra Moreno

2 10

Browse GreenComp Topics

Recent members
in the community

Marc Souaibi

Andrea Peña

Juan Guerrero

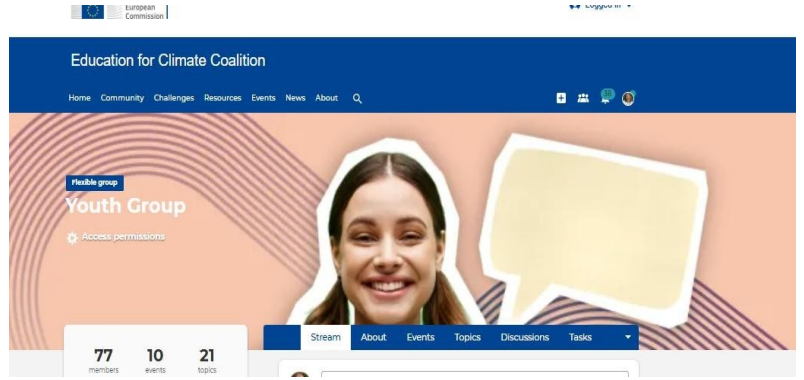
All members

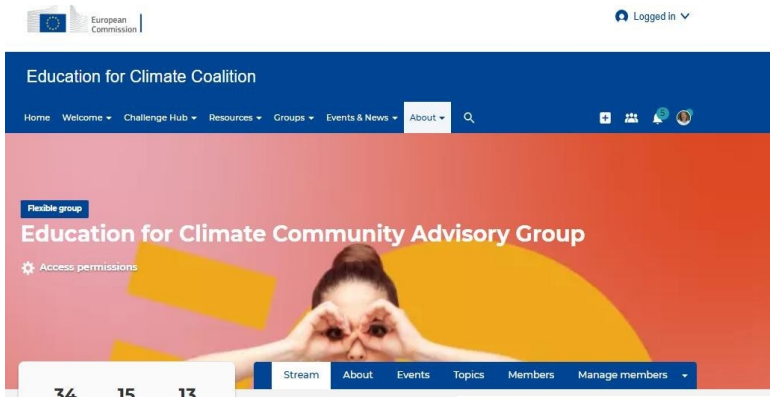
Trending tags

English | Education for Climate Coalition | community information | platform tutorial | develop green skills and competences | raise awareness | activity | SDG (04) Quality Education | 2.1 Systems thinking (Embracing Complexity in Sustainability) | education stakeholders

Community groups

- **Youth Group**: a space for young members (16-26) to co-create climate education through activities like Youth Climate Lab
- **Local spaces**: 33 spaces of the European Education Area countries where local facilitators and members connect in their own language and share local initiatives
- **GreenComp Community**: a community of people and organisations building on the European sustainability competence framework to develop knowledge, skills and attitudes to live, work and act sustainably
- **Advisory Group:** A selected group of active members consulted on community priorities, platform improvements, and strategic direction





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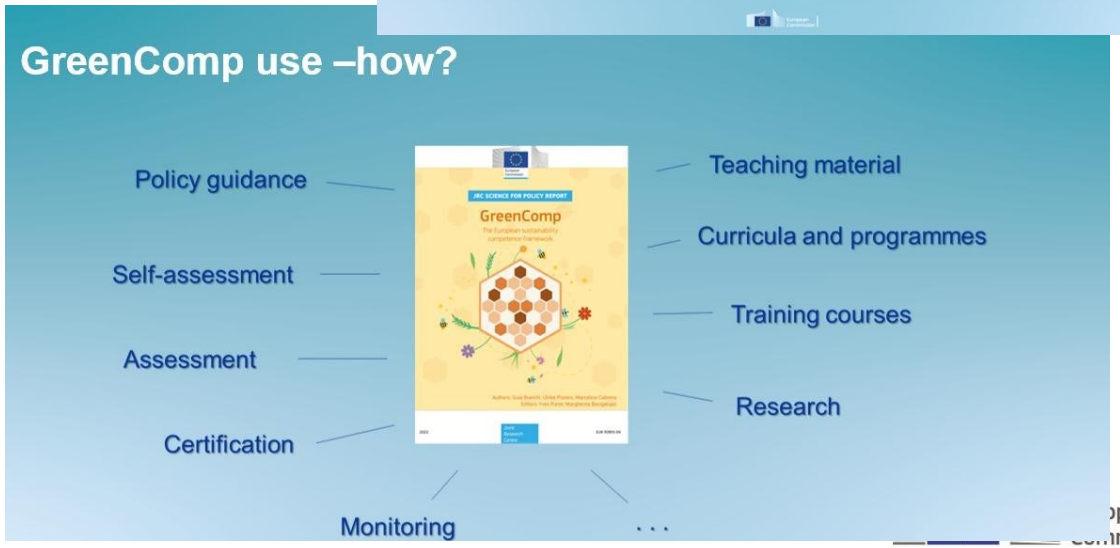
GreenComp community

- GreenComp is a reference framework for sustainability competences. GreenComp provides a common framework for sustainability competences, offering guidance to educators and learners across all ages and learning settings. It supports the development of knowledge, skills, attitudes, and values that enable individuals to think critically, act for sustainability, and contribute to a sustainable future.



Existing community resources

Learning s Teaching tools:

- **GreenComp Knowledge Library:** practical resources aligned with the EU sustainability competence framework
- **GreenComp Digital version:** interactive access to the GreenComp framework
- **GreenComp learning scenarios:** examples of classroom activities shared by teachers from across Europe
- **GreenComp Game:** a conversational game to explore green competences

Inspiration s Knowledge:

- **Education for Climate TALKs and podcasts:** short interviews with educators and innovators in climate education
- **Climate Education Topics:** discussions and resources on key themes

Map of innovative projects: real-world examples of good practices from across European
Mentoring and Job board: opportunities to grow, connect, and collaborate with like-minded climate education enthusiasts

Newsletter: latest news on climate education and relevant EU opportunities
Community Bulletin: monthly updates on community events, calls, and highlights

European Commission

Community engagement opportunities

- The community offers multiple engagement opportunities, including **monthly cafés**, community groups and other activities, like annual call for projects or GreenComp Game play sessions.
- Among the various activities, we recommend to browse and contribute to the **Challenge HUB ideas**, inspiring challenges or other engagement opportunities.

Feel free to share information about what you are working on by creating topic or organising events.

Tutorials are available here: How to create an event and a topic.

Upcoming events and calls

- **Youth Climate Lab (13 to 18 July)** - Focus on eco-anxiety and resilience through education
- **Call for Local Facilitators (open until 22 June)** -to guide and energise a group of peers from their country,
- **Call for Youth Coordinators (open until 22 June)** - to guide and energise a group of peers
- **Annual Call for Innovative Green Education Actions (open until 6 September)**
  - ✓ youth leadership and intergenerational dialogue for climate action,
  - ✓ citizenship education and institutional action for sustainability,
  - ✓ envisioning sustainable futures in teaching and learning with GreenComp

- **Education for Climate Day 2026 Event (22 October)**
- **Call for local side-events –** Launch a local level event from 1 September to 21 October

Thank you

Subscribe to the Education for Climate Newsletter
https://education-for-climate.ec.europa.eu/community/newsletter

Upcoming activities

June 10	July 06	June 26	June 12
HEInnovate Information Session Introduction to HEInnovate tool	**Study visit** New Bulgarian University, Sofia (Jul. 2026).	**CEI Poll** 3-question poll on Education for Green and Digital Innovation.	**Call for Good Practices** Initiatives, practices, policies on green and/or digital innovation.

Thank you!

CEI

cei@ppmi.lt

European Commission