GreenComp

The European sustainability competence framework

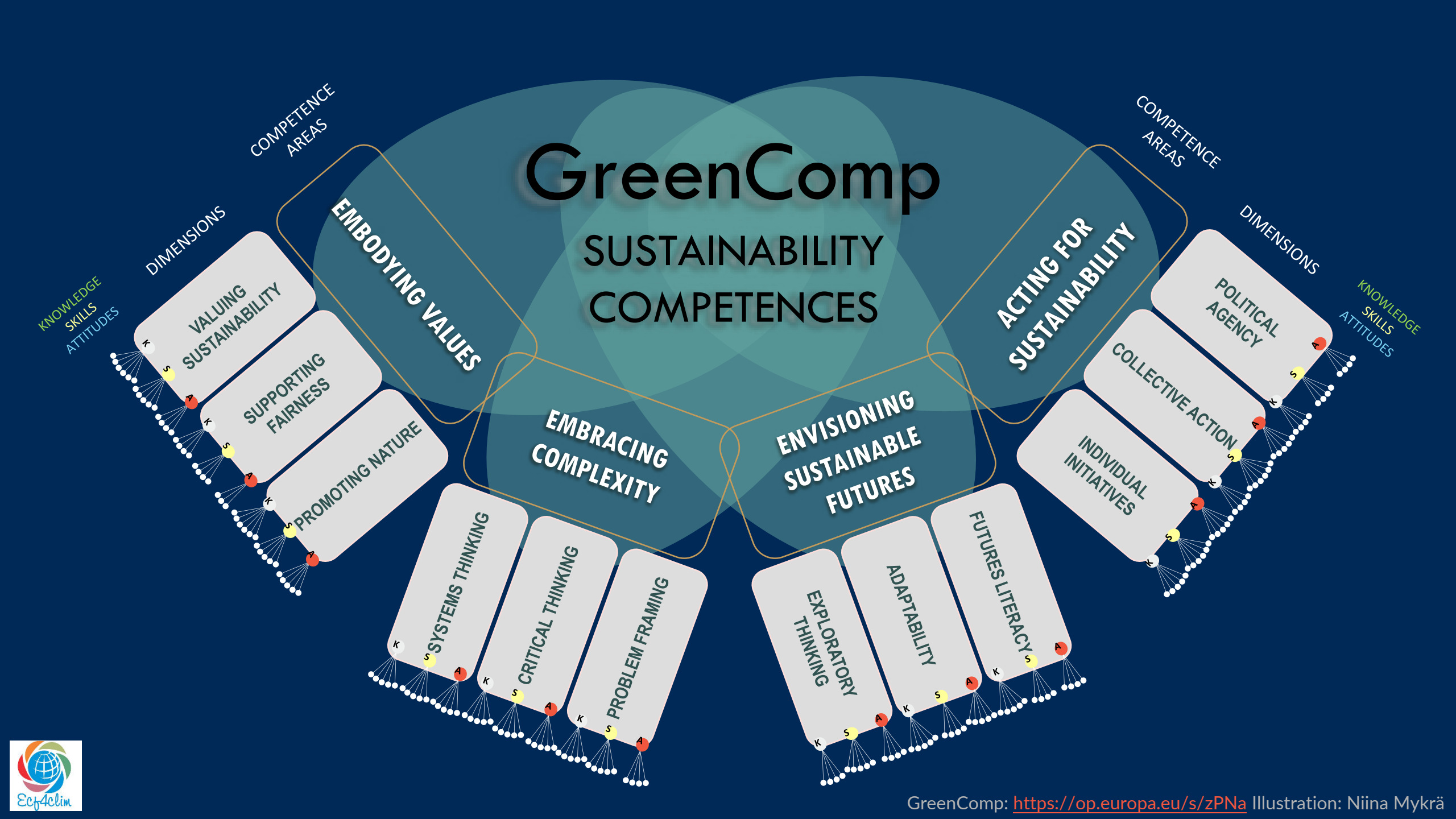
- Describes what are sustainable development and sustainability competences
- Part of the policy actions by EU (Green Deal)

Available: https://op.europa.eu/s/zPNa

Sustainability
prioritising the needs of all life forms and of the planet by ensuring that human activity does not exceed planetary boundaries.

A sustainability competence
empowers learners to embody sustainability values, and embrace complex systems, in order to take or request action that restores and maintains ecosystem health and enhances justice, generating visions for sustainable futures.

GreenComp:



GreenComp: https://op.europa.eu/s/zPNa Illustration: Niina Mykrä

GreenComp areas, competences, and descriptors

AREA	COMPETENCE	DESCRIPTOR
1. Embodying sustainability values	**1.1 Valuing sustainability**	To reflect on personal values; identify and explain how values vary among people and over time, while critically evaluating how they align with sustainability values.
	1.2 Supporting fairness	To support equity and justice for current and future generations and learn from previous generations for sustainability.
	1.3 Promoting nature	To acknowledge that humans are part of nature; and to respect the needs and rights of other species and of nature itself in order to restore and regenerate healthy and resilient ecosystems.
2. Embracing complexity in sustainability	**2.1 Systems thinking**	To approach a sustainability problem from all sides; to consider time, space and context in order to understand how elements interact within and between systems.
	2.2 Critical thinking	To assess information and arguments, identify assumptions, challenge the status quo, and reflect on how personal, social and cultural backgrounds influence thinking and conclusions.
	2.3 Problem framing	To formulate current or potential challenges as a sustainability problem in terms of difficulty, people involved, time and geographical scope, in order to identify suitable approaches to anticipating and preventing problems, and to mitigating and adapting to already existing problems.
3. Envisioning sustainable futures	**3.1 Futures literacy**	To envision alternative sustainable futures by imagining and developing alternative scenarios and identifying the steps needed to achieve a preferred sustainable future.
	3.2 Adaptability	To manage transitions and challenges in complex sustainability situations and make decisions related to the future in the face of uncertainty, ambiguity and risk.
	3.3 Exploratory thinking	To adopt a relational way of thinking by exploring and linking different disciplines, using creativity and experimentation with novel ideas or methods.
4. Acting for sustainability	**4.1 Political agency**	To navigate the political system, identify political responsibility and accountability for unsustainable behaviour, and demand effective policies for sustainability.
	4.2 Collective action	To act for change in collaboration with others.
	4.3 Individual initiative	To identify own potential for sustainability and to actively contribute to improving prospects for the community and the planet.

Reference: European Commission, Joint Research Centre (2022). GreenComp, the European sustainability competence framework, pp. 14-15. Publications Office of the European Union. Available: https://data.europa.eu/doi/10.2760/13286

Each competence has 4-6 specifying statements

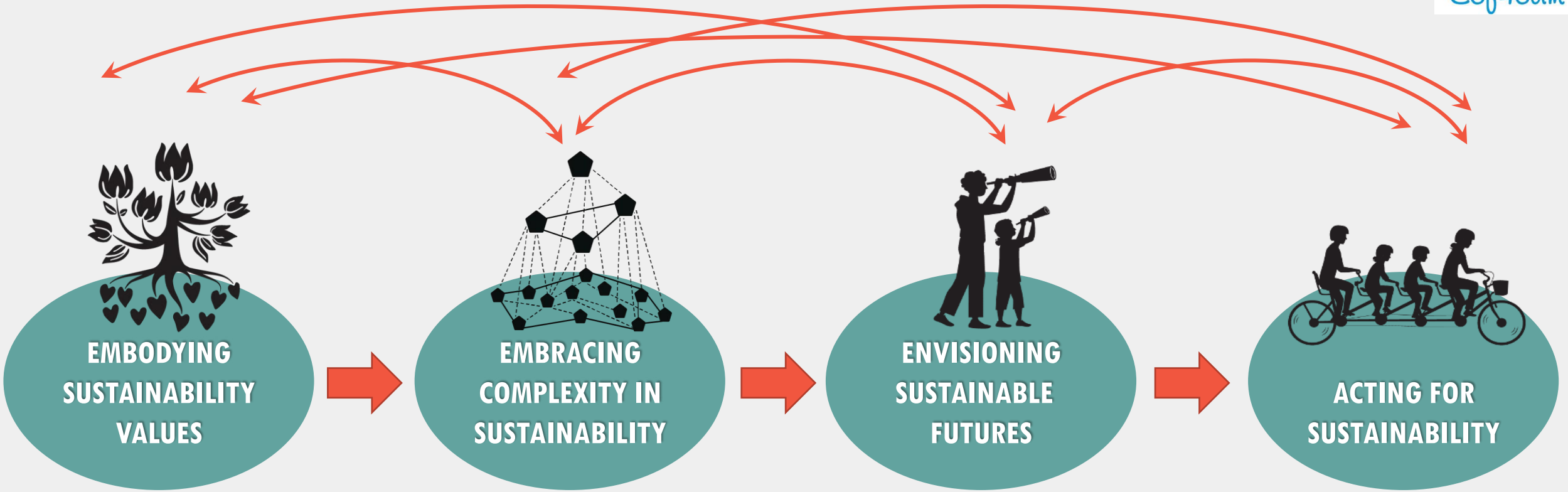
For example

- Knows the main concepts and aspects of complex systems and their implications for sustainability.
- Can assess how humans and nature interact across space and time.
- Cares about systemic consequences of environmental crises for current and future generations and for other species.

INITIAL LIST OF EXAMPLES
LIVING DOCUMENT

Embracing complexity in sustainability		
2.1 **Systems thinking**	To approach a sustainability problem from all sides; to consider time, space and context in order to understand how elements interact within and between systems.	
KSA		*Statements*
Knowledge	1	Knows that every human action has environmental, social, cultural and economic impacts.
	2	Knows that human action influences outcomes across time and space, leading to positive, neutral or negative results.
	3	Knows about life cycle thinking and its relevance for sustainable production and consumption.
	4	Knows the main concepts and aspects of complex systems (synthesis, emergence, interconnectedness, feedback loops and cascade effects) and their implications for sustainability.
	5	Knows the United Nations SDGs and is aware of interconnections and possible tensions between individual goals.
Skills	1	Can describe sustainability as a holistic concept that includes environmental, economic, social, and cultural issues.
	2	Can assess interactions between environmental, economic, social, and cultural aspects of sustainability action, events and crises (e.g. migration caused by climate change or wars caused by resource scarcity).
	3	Can assess how humans and nature interact across space and time.
	4	Can use life cycle thinking to analyse the risks and benefits of human action.
	5	Can identify in a system those challenges and opportunities that have the greatest potential to trigger change for sustainability.
Attitudes	1	Acknowledges the root causes of unsustainability for which humans are responsible, such as climate change.
	2	Has a holistic grasp of connections and interactions between natural events and human actions.
	3	Is concerned about the short- and long-term impacts of personal actions on others and the planet.
	4	Cares about systemic consequences of environmental crises for current and future generations and for other species.
	5	Is concerned about unpredictable cascade effects of human action.

INITIAL ROADMAP FOR SUSTAINABILITY EDUCATION



ENGAGEMENT

Why and how to promote sustainability?

CONNECTIONS

How to frame the problem?

VISIONS

What are the possible futures in our context?

ACTION

How to proceed?

Heikkinen, Nokkala, Lehtonen & Mykrä (2022) Based on GreenComp: The European sustainability competence framework (Bianchi, Pisiotis & Cabrera Giraldez 2022)

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101036505.

GreenComp and Roadmap

- Individual competences
- Collective competences
- Material capabilities

ENGAGEMENT

EMBODYING VALUES

- VALUING SUSTAINABILITY
- SUPPORTING FAIRNESS
- PROMOTING NATURE

CHANGE

ENVISIONING SUSTAINABLE FUTURES

- FUTURES LITERACY
- ADAPTABILITY
- EXPLORATORY THINKING

CONNECTIONS

EMBRACING COMPLEXITY

- SYSTEMS THINKING
- CRITICAL THINKING
- PROBLEM FRAMING

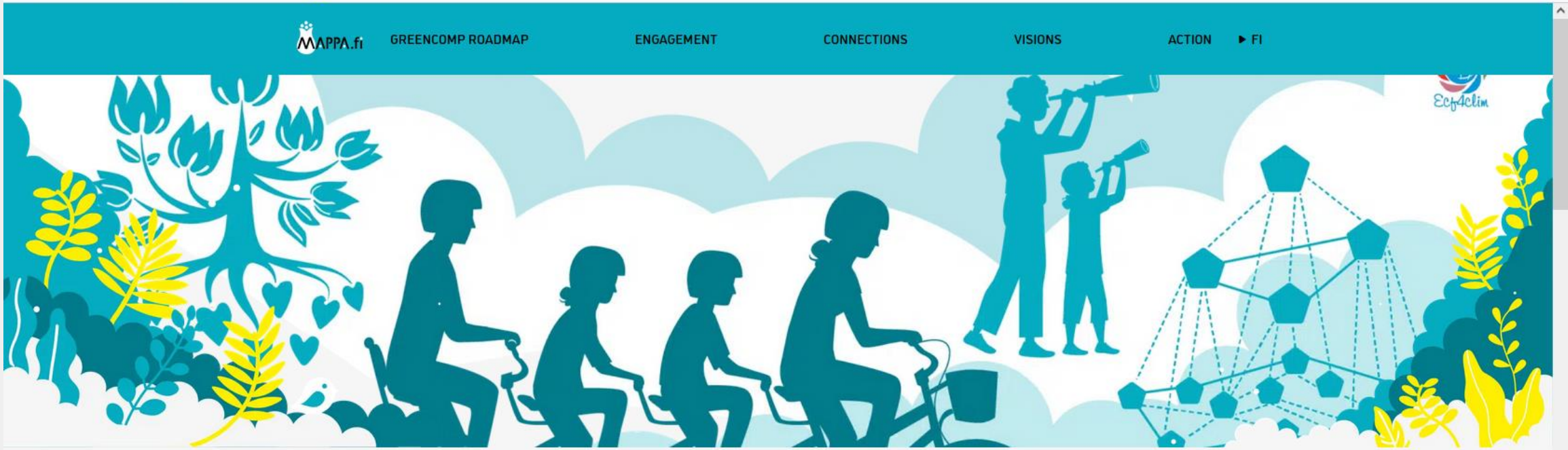
REALIZATION

ACTING FOR SUSTAINABILITY

- POLITICAL AGENCY
- COLLECTIVE ACTION
- INDIVIDUAL INITIATIVES

GreenComp: https://op.europa.eu/s/zPNa Illustration: ECF4CLIM & Niina Mykrä

https://mappa.fi/greencomp-roadmap/



GREENCOMP and ROADMAP for sustainability competences

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Save the Planet Escape Room Game

-Made with QR-codes and google forms

-Will be a simple online game in the end of this spring

Engagement:

- The policies of the institution concerning sustainability values
- Your values: https://www.sitra.fi/en/publications/motivation-profiles-of-a-sustainable-lifestyle/

Connections:

- Connections of curriculum and subject matters, with sustainability challenges
- Connections of own choices with sustainability and environvental load

Visions / Change:

- Worries, strategies, and steps to sustainability in general: imagining the better
- Your future: how would you need sustainability competences in your future work. Work application.

Action/ realization

- Who is working for sustainability today?
- What would you do for sustainability and nature?

PROMOTING SUSTAINABILITY IN EDUCATION

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Ecf4clim

https://www.jyu.fi/en/projects/ecf4clim

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