

# Interdisciplinarity in Education for Environmental Citizenship research: opportunities and challenges

2<sup>nd</sup> Training School

European Network for Environmental Citizenship (ENEC)  
COST Action

Dr Andri Christodoulou, University of Southampton  
Coordinator Early Career Investigators' Events  
Committee

21-22 September

2021

Southampton  
Education School  
University of  
Southampton

[www.enec-cost.eu](http://www.enec-cost.eu)



UNIVERSITY OF  
**Southampton**



European Network for  
Environmental Citizenship  
Cost Action CA16229



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<https://enec-cost.eu/>

## 2<sup>nd</sup> Training School Aims

- Present approaches to developing environmental citizenship through formal and non-formal education
- Consider the opportunities and challenges that interdisciplinarity, multidisciplinary and transdisciplinarity offer for EEC
- Develop a network of ECIs focusing on dimensions of Environmental Citizenship and Education for Environmental Citizenship

## Our trainers

- **Dr Danielle Wilde**, Department of Design and Communication, University of Southern Denmark
- **Prof Marcus Grace**, Southampton Education School, University of Southampton
- **Dr Andri Christodoulou**, Southampton Education School, University of Southampton

# Overview of Day 1

Tuesday 21  
September  
2021

10.00-10.45	Training School Overview and Aims  Introduction to Education for Environmental Citizenship: the ENEC approach	Dr Andri Christodoulou
10.45-12.00	Participant Introductions	All
12:00-13:00	Break/Lunch	
13.00-15.00	Workshop 1: Radical Responsiveness	Dr Danielle Wilde
15:00-16.00	Group discussion	Dr Danielle Wilde Dr Andri Christodoulou Prof Marcus Grace

# Overview of Day 2

Wednesday  
22 Sept 2021

10.00-10.30	Overview of Day 1	Dr Andri Christodoulou
10.30-12.30	Workshop 2: Case studies from research for engaging people in education for environmental citizenship: opportunities and challenges	Prof Marcus Grace
12:30-13:30	Break/Lunch	
13.30-15.30	Group discussion	Dr Danielle Wilde Prof Marcus Grace Dr Andri Christodoulou
15:30-16.00	Closing	

## Guiding questions for each workshop

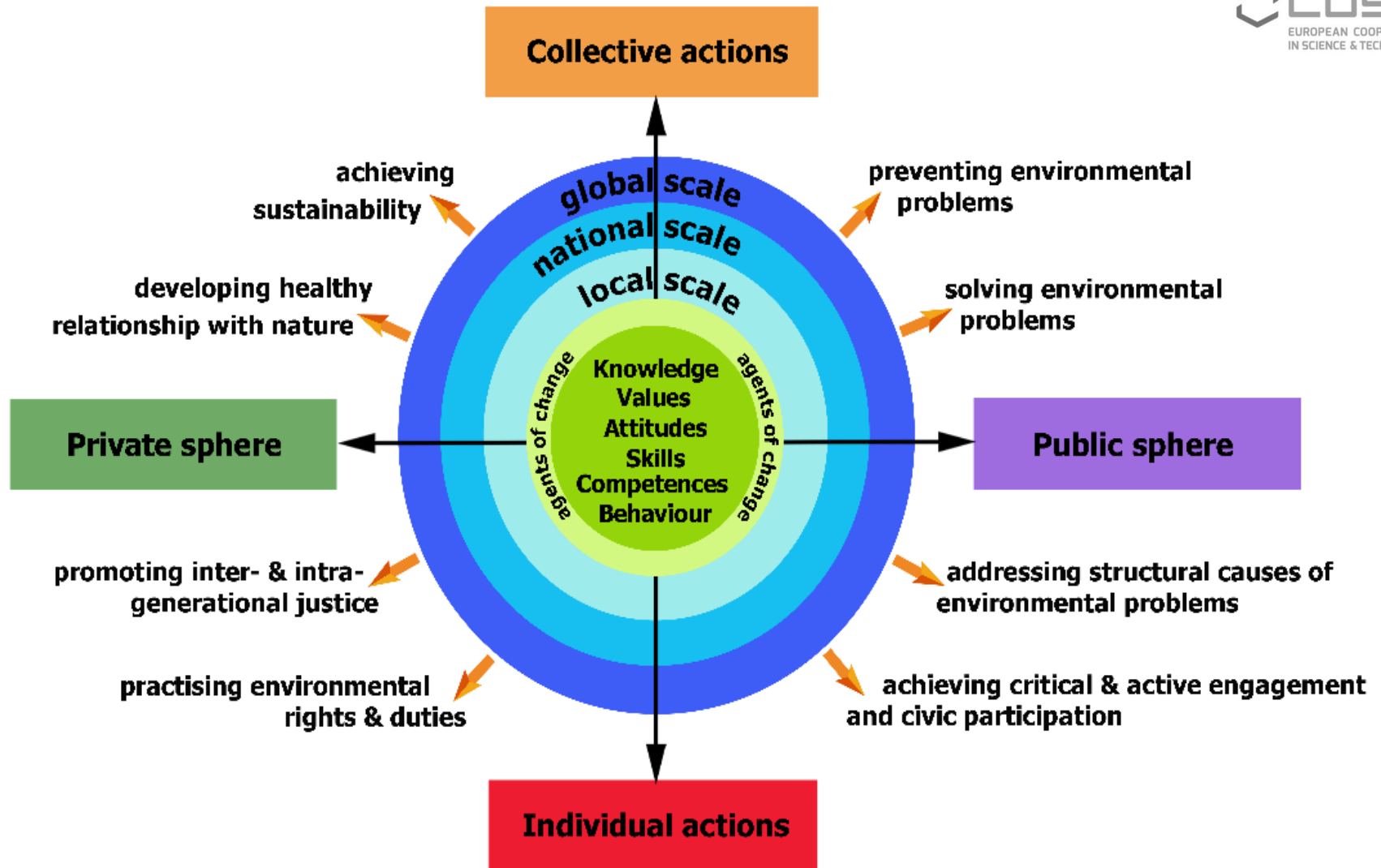
- How does the workshop presentation fit in with your own research focus?
- What perspectives of Environmental Citizenship and Education for Environmental Citizenship could you bring in from your disciplinary perspective?

## Environmental Citizenship definition

“*Environmental Citizenship*” is defined as the responsible pro-environmental behaviour of citizens who act and participate in society as **agents of change** in the **private** and **public sphere**, on a **local, national** and **global scale**, through **individual** and **collective actions**, in the direction of **solving** contemporary **environmental problems**, **preventing** the creation of new environmental problems, **achieving sustainability** as well as **developing a healthy relationship with nature**. “*Environmental Citizenship*” includes the **exercise of environmental rights and duties**, as well as the identification of the underlying **structural causes** of environmental degradation and environmental problems, the development of the **willingness** and the **competences** for **critical** and **active engagement** and **civic participation** to address those structural causes, acting individually and collectively within democratic means, and taking into account **inter- and intra-generational justice**.

<https://enec-cost.eu/our-approach/>



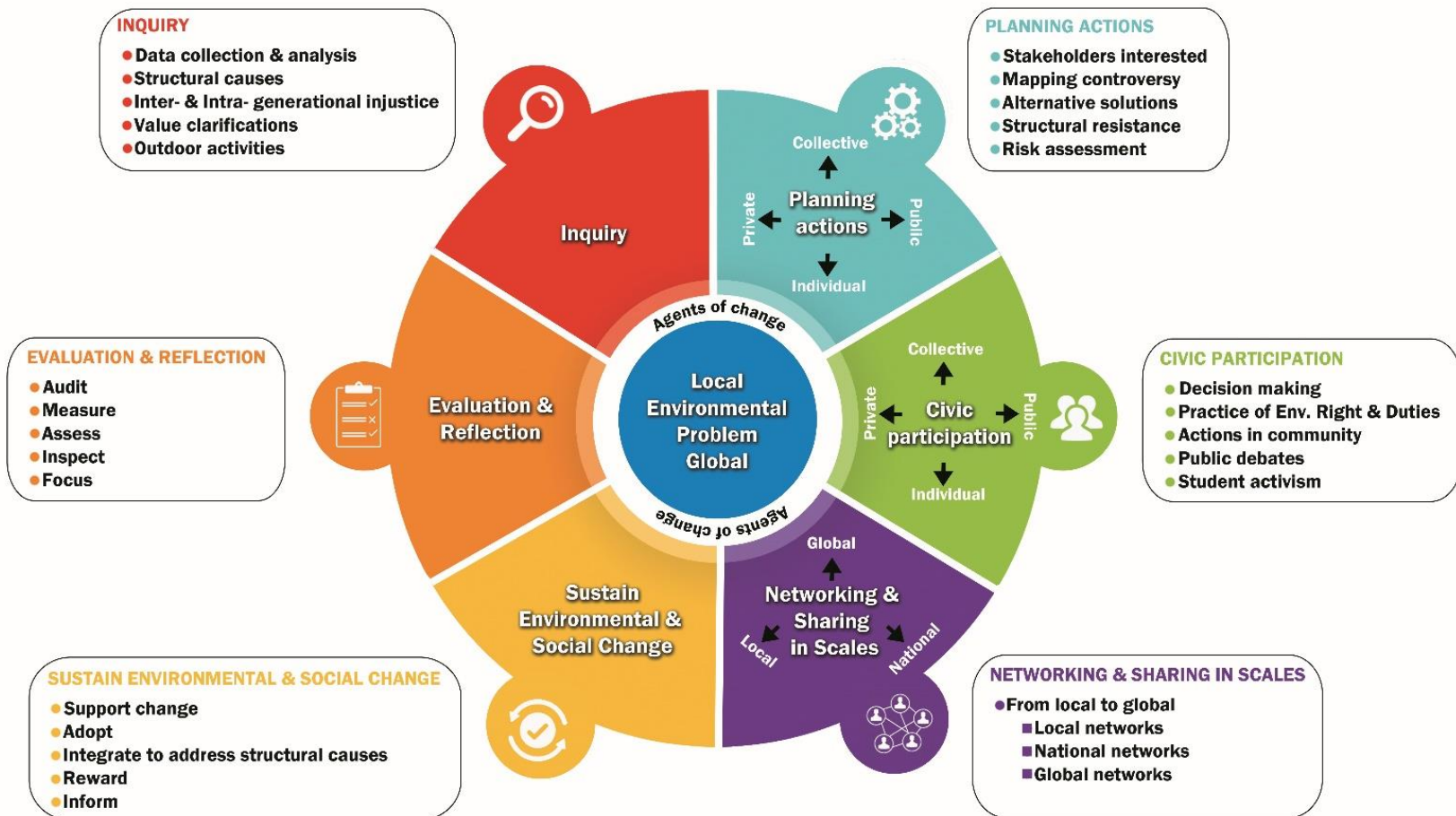


## The place of Action in the EEC Model

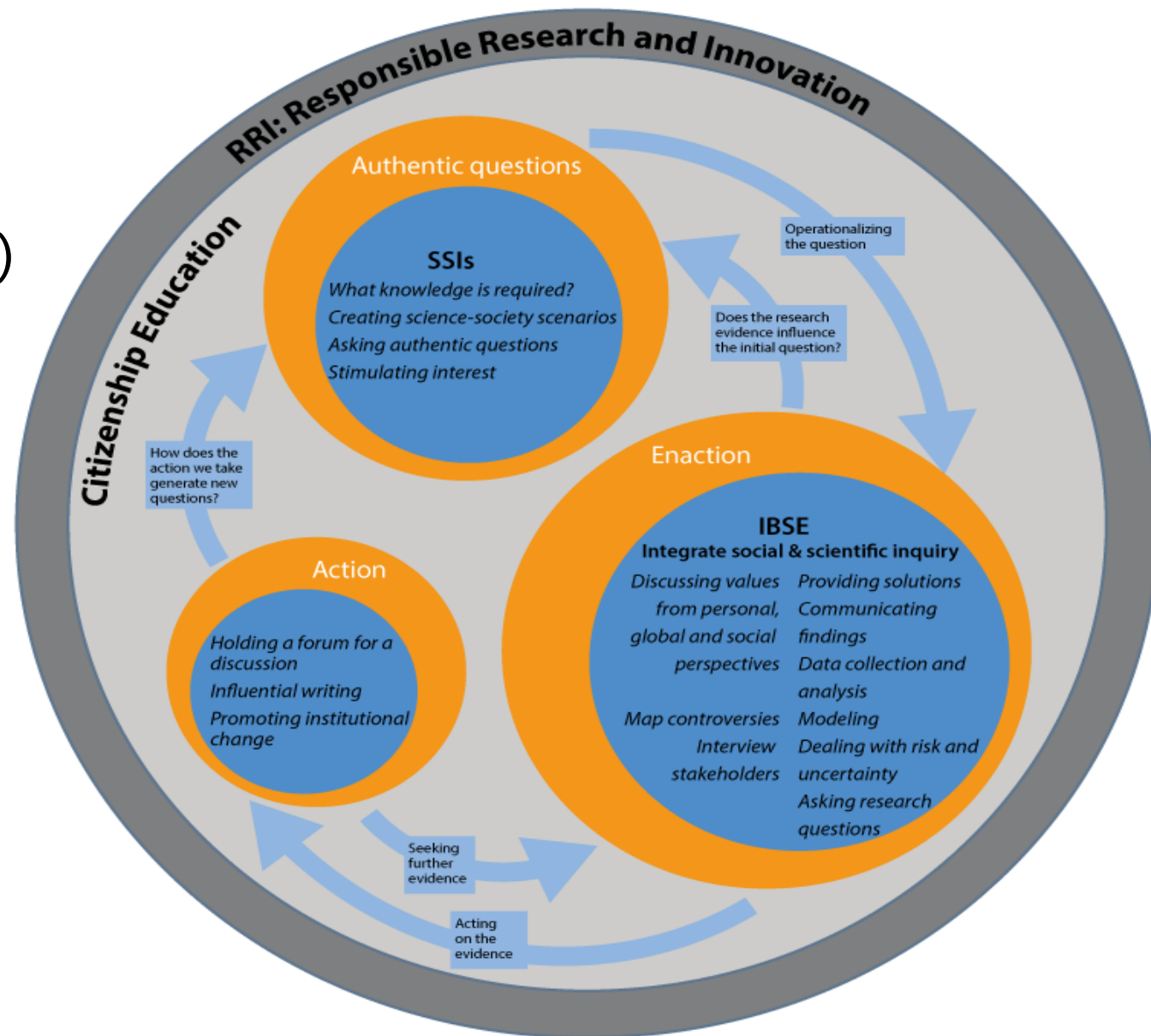
Environmental Citizens could  
undertake Actions in:

- 2 Dimensions: **Individual** and **Collective**
- 2 Spheres: **Private** and **Public**
- 3 Scales: **Local, National, Global**

# Education for Environmental Citizenship Pedagogical Approach



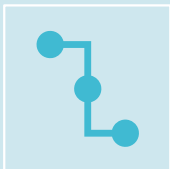
# Socioscientific Inquiry-based Learning (SSIBL) pedagogy



# Disciplinary interconnections



**Multidisciplinary** draws on knowledge from different disciplines but stays within the boundaries of those fields; it is ***additive***



**Interdisciplinarity** analyses, synthesizes and harmonizes *links* between disciplines into a coordinated and coherent whole; it is ***interactive***



**Transdisciplinarity** integrates the natural, social and health sciences in a humanities context, and in doing so transcends each of their traditional boundaries; it is ***holistic, reflexive, emergent***

## Disciplinary interconnec- tions

Transdisciplinarity in STEM education: A  
critical review (Takeuchi et al., 2020)

the essence of transdisciplinarity is that it  
can liberate disciplinary boundaries

'the synthetic whole that results from  
disciplinary integration is greater than the  
sum of its parts' (p.216)

# Disciplinary interconnec tions

- What characterises each discipline involved in education for environmental citizenship?
- What are the values and assumptions that guide these disciplines and their integration?
- How are learners and learning conceptualised within multi/inter/transdisciplinary approaches for EEC?
- EEC for *whom*?

Who you  
are...

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7 participants

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1 ECI & 6 PhD candidates

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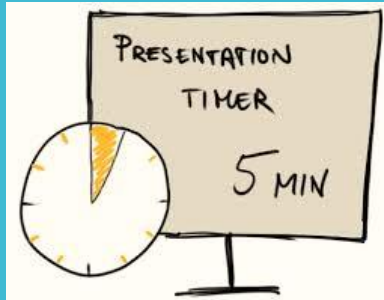
7 institutions



## Day 1

## Presentations

- Natalia Beldyga, Kaunas University of Technology, Kaunas, Lithuania
- Oier Pedrera, University of the Basque Country, UPV/EHU, Spain
- Georgios Ampatzidis, University of Patras, Greece
- Eleni, Sinakou, University of Antwerp, Belgium
- Isabel Cruz, University of Málaga, Spain
- Michiel van Harskamp, Universiteit Utrecht, The Netherlands
- Supa Tanprasertkun, University College London, UK

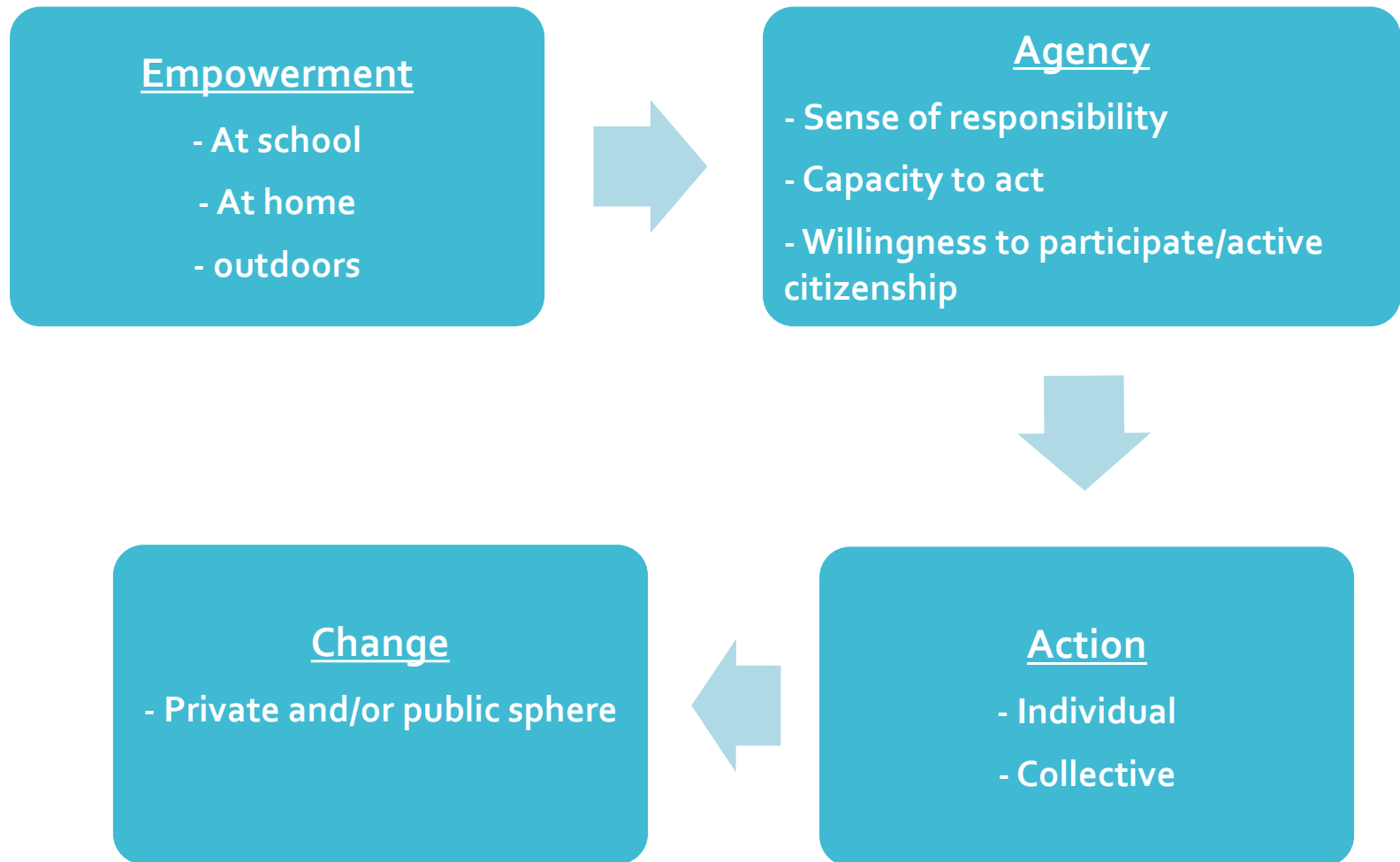


- Afternoon session - Discussion

## Day 2

Wednesday  
22 Sept 2021

10.00-10.30	Overview of Day 1	Dr Andri Christodoulou
10.30-12.30	Workshop 2: Case studies from research for engaging people in education for environmental citizenship: opportunities and challenges	Prof Marcus Grace
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- How can we design learning environments that foster the empowerment needed for environmental citizenship?
- How can these learning environments be liberated by disciplinary boundaries that restrict empowerment/agency/action/change?

## Some reflections from Day 1

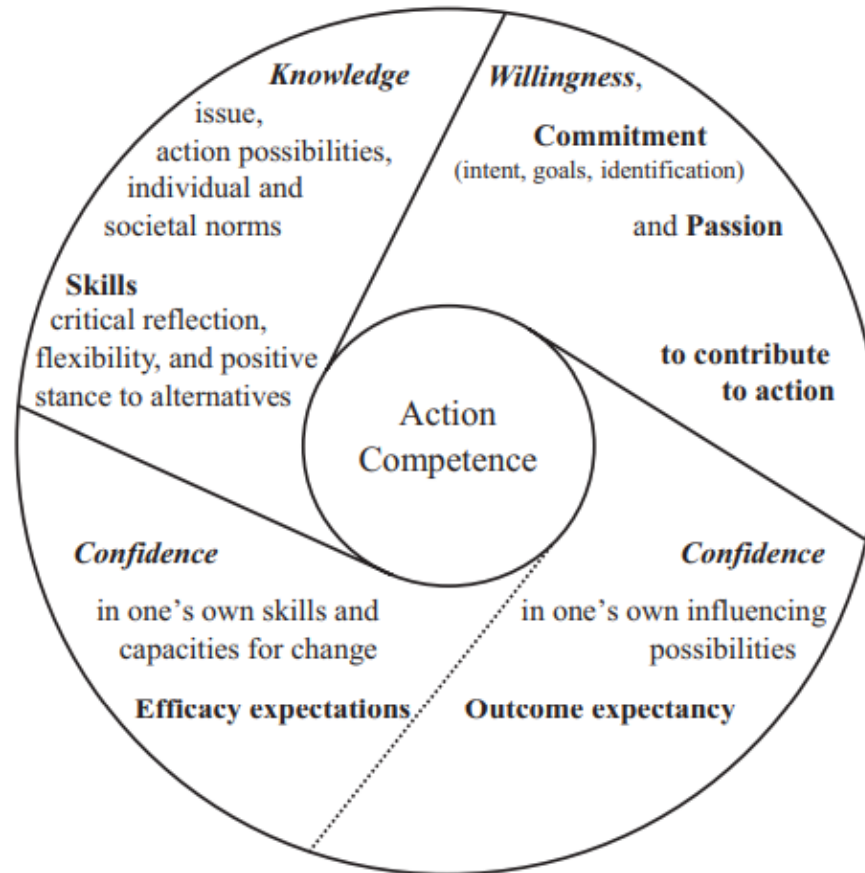
- Empowerment can stem from educational approaches based on Biesta's (2009, p.41) **subjectification** – enabling learners to 'become more autonomous and independent in their thinking and acting'



Action competences at individual and collective levels as a result of this function of education (Sass et al., 2020)

Some  
reflections  
from Day 1

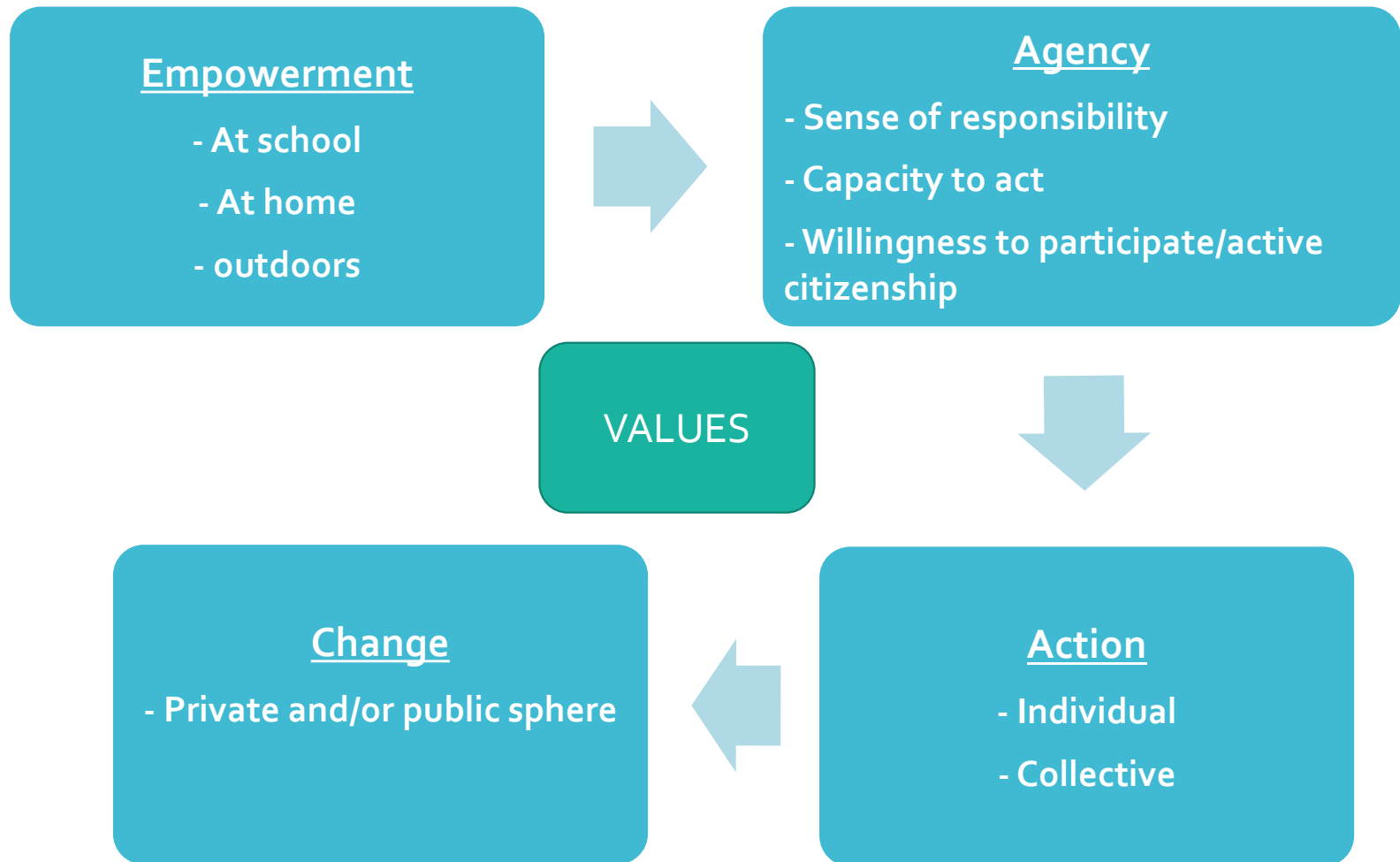
Action competences framework (Sass et al., p.298)



Learning to include Action as part of classroom teaching...



Amos, R. & Christodoulou, A. (2018) Really Working Scientifically: strategies for engaging students with socio-scientific inquiry-based learning. *School Science Review*, 100(371), 59-65.



- How can we design learning environments that foster the empowerment needed for environmental citizenship?
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# Values

- education for environmental citizenship (EEC) aims to develop the individual's capacity, as part of one's identity as a citizen, to contribute to broader societal transformation towards sustainability
- EEC goes well beyond knowledge transmission (cognitive domain) or promoting sustainable behaviors; it emphasizes developing and cultivating the mindsets (affective domain) and capacities of individuals so that they actively engage in civic participation and have the ability to identify and address the underlying structural causes of environmental problems and function as catalysts of social change

(Sarid & Goldman, 2021, p.2)

EEC for whom?

## AUDIENCE

- Who do you want to engage? (emotions, intelligence, personal relevance, motivation & values)
- What is the context and disciplinary boundaries in which EEC is to take place?

## OUTCOMES

- Action competences
- Citizenship – how do we learn to be citizens?
- Change - systemic change requires working within communities, and families

# Overview of Day 2

Wednesday  
 22 Sept 2021

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10.30-12.30	Workshop 2: Case studies from research for engaging people in education for environmental citizenship: opportunities and challenges	Prof Marcus Grace
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## Guiding questions for each workshop

- How does the workshop presentation fit in with your own research focus?
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- Afternoon session - Discussion



## Your questions

1. In what ways is environmental citizenship connected with scientific literacy? (Georgios)
2. How is Education for Sustainable Development related to Education for Environmental Citizenship? Why are we looking for a new approach instead of re-orientating ESD, which is quite open and still developing? (Eleni)
3. How can we include the multiple disciplinary representation of sustainability/EC in schools, in such a way that students appreciate its diversity but do not get lost among different school subject approaches? (Michiel)
4. If the final objective of EEC is to promote individual and/or collective actions, what do you think is/are the most important aspect/s to take into account to favor behavioral changes? (Isabel)
5. How can we, as educators, encourage people to value their social and political actions, especially in the context where citizens' voices are often overlooked by the state? (Supa)
6. Do the different frameworks proposed and labelled as "effective" in Education for Environmental Citizenship Research have the sufficient universality to be implemented in different sociocultural contexts? (Oier)
7. Can education on human values be introduced to school curriculum and be treated as a regular and necessary subject for primary education? (Natalia)

Choose 1-2 questions and consider what the answers would be based on our discussions as well as your own expertise

40 min

ENEC events  
and further  
information



## **iREEC 2022: 2nd International Conference of International Researchers of the Education for Environmental Citizenship 2022**

**Prague, Czech Republic (Charles University)**

**12-13 of March 2022**

**Deadline for Abstract Submission on the 30<sup>th</sup> of  
September 2021, more info here: [https://enec-  
cost.eu/ireec22/](https://enec-cost.eu/ireec22/)**





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### Education for Environmental Citizenship

Guest Editors:

**Dr. Andreas Ch. Hadjichambis**

**Dr. Pedro Guilherme Rocha  
dos Reis**

**Dr. Demetra Paraskeva-  
Hadjichambi**

**Dr. Marta Romero Ariza**

**Dr. Jelle Boeve-de Pauw**

**Dr. Niklas Gericke**

**Dr. Marie Christine P.J.  
Knippels**

**Dr. Andri Christodoulou**

#### Message from the Guest Editors

The scope of this Special Issue is to provide a platform for researchers to share their research work on the field of education for environmental citizenship including aspects of civic engagement and civic participation, democratic action, social and environmental change, individual and collective actions, environmental actions, socio-political actions, environmental justice, inter- and intra-generational justice and connectedness to nature.

In this Special Issue, we encourage researchers to submit empirical, theoretical, methodological research articles or reviews in various fields considering EEC, for instance, in the frameworks of formal and non-formal education. Submissions using qualitative, mixed method, or quantitative research approaches are welcome.

ENEC events  
and further  
information

Special Issue in *Sustainability* journal on Education for  
Environmental Citizenship

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Thank you