



Future Lives with
Oceans and Waters

D3.3 Summary Report



Funded by the
European Union

FLOW has received funding from the European Union's Horizon Europe
research and innovation programme under grant agreement No 101093928.

Work Package:	WP3
Deliverable:	D3.3
Deliverable title:	Summary Report
Dissemination level:	PUBLIC
Authors:	Riyan van den Born, Radboud University (RU) Bernadette van Heel, Radboud University (RU) Noah Lauwers, Radboud University (RU) Melania Borit, UiT The Arctic University of Norway Zoheb Mashiur, UiT The Arctic University of Norway Max Priebe, Fraunhofer ISI
Date:	30.04.2024



Contents

1	Introduction.....	4
1.1	Aim, tasks and deliverables of WP3	4
1.2	Pioneering initiatives	4
2	Conceptual Background	6
2.1	Action for nature / water	6
2.2	Human – Nature Relationship	8
2.3	More-than-human perspectives	12
2.4	Experiences in nature/with water	13
2.5	Futures.....	13
3	Methodological approach	14
3.1	Ethics and data management.....	14
3.2	Studying pioneering initiative.....	14
3.3	Interviews with involved young people	15
4	Results	18
4.1	IVN Clean Rivers, The Netherlands.....	18
4.2	Embassy of the North Sea Design Contest, The Netherlands	23
4.3	Parlement de Loire, France	29
4.4	Klassenzimmer unter Segeln (Classroom under Sails), Germany.....	34
4.5	Centre for Coastal Culture, Portugal	39
4.6	Focus Groups.....	46
5	Discussion and Conclusion	53
6	Implications for Stewardship Assemblages.....	60
7	References.....	62
8	Appendices	68
8.1	Coding Document Analysis.....	68
8.2	Interview guide – board members/initiators	69
8.3	Interview guide – young people.....	72
8.4	Overview interviewees young people	75



1 Introduction

Contributing to the EU Mission Restore our Oceans and Waters by 2030, [FLOW](#) is an international and interdisciplinary project studying young generations' relations and engagement with water and oceans, their expectations, and emotions. Work Package (WP) 3 of FLOW investigated five European pioneering initiatives, in which we studied the engagement of adolescents and young adults (16-29 years old, hereafter referred to as 'young people') in acting for oceans and water by applying the theoretical lens of WP1 and WP2. This deliverable, D3.3 Summary Report, reports the findings from analysing and comparing the data from these five initiatives.

1.1 Aim, tasks and deliverables of WP3

The aim of WP3 was to gain insight into the characteristics of pioneering initiatives and participating young people's motivations to act. This objective is reached by:

- Evaluating the unique characteristics of the pioneer initiatives to be able to relate their approach to the motivations of the involved young people (Task 3.1)
- Developing an interview guide for interviewing young people engaged in the activities of the pioneer projects (Task 3.1) and a coding table for analysis of the interviews (Task 3.2)
- Understanding motivations and involvement of young people and how this matches up with the line and approaches of the pioneer initiatives, described in summary report (Task 3.2)
- Designing and conducting feedback focus groups with a broader group of young people to validate and strengthen the outcomes of the interviews with the engaged young people, to provide recommendations for fostering motivations and setting up engaging initiatives (Task 3.3)
- Providing input for the experiential futures workshops in WP4 as far as how engagement and motivations of young people can be represented (Task 3.3)

See Table 1

Table 1 for an overview of the tasks and deliverables within WP3.

Table 1 Overview of tasks and deliverables within WP3

TASKS	DELIVERABLES
T3.1 Studying the pioneer projects	D3.1 Workplan
T3.2 Ethnographic analysis of pioneer initiatives appeal to young people and how this relates to their motivations and involvement	D3.2 Template design focus groups
T3.3 Evaluating and transferring insights	D3.3 Summary report (<i>current deliverable</i>)

1.2 Pioneering initiatives

Five pioneering initiatives were selected as international case studies (Figure 1). The initiatives were selected for in-depth analysis as they represent a variety of approaches and themes and for their visibility as pioneering and innovative regarding their approach (e.g., involving citizen science or art projects) and theme (for instance agency of the sea), all in the realm of human-water relationships. Other key criteria were youth involvement, covering different regions in Europe, and embracing the idea of stewardship. The selected initiatives are: IVN Clean Rivers (The Netherlands), Embassy of the North Sea (The Netherlands), Klassenzimmer unter Segeln (Germany), Parlement de Loire (France) and Centre for Coastal

Culture (Portugal), see Figure 1. In the results section of this summary report, a detailed description of each of the initiatives is given.

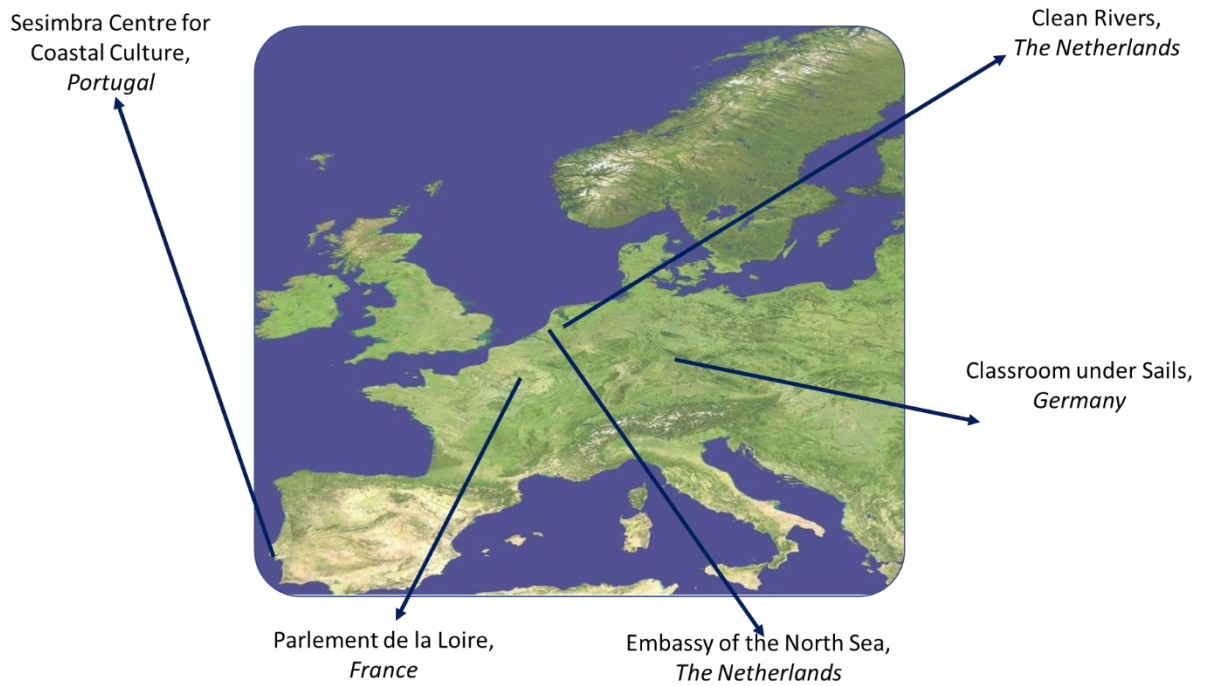


Figure 1 Overview of the five pioneering initiatives

2 Conceptual Background

The following concepts are at the basis of studying the pioneering initiatives. This section is largely extracted from the D1.1 FLOW Encyclopaedia (Mashiur et al., 2023).

2.1 Action for nature / water

Acting for nature covers a broad spectrum of activities, and actors for nature are equally diverse in their motivations and involvement (Ganzevoort & van den Born, 2020). In addition to everyday pro-environmental behaviour (e.g. Grilli & Curtis, 2021; Steg & Vlek, 2009), action for nature in the form of nature volunteering is often categorized along four types: recording numbers of species, maintaining landscape, educating others, and administration and management of nature organisations (Ganzevoort & van den Born, 2020). People's engagement to all degrees of action for nature is crucial for environmental conservation and people who voluntarily act for nature are even considered "The foundation for nature conservation" (Sloane & Pröbstl-Haider, 2019, p.158).

2.1.1 Motivations to act for nature / water

Peoples' motivations to act for nature are complex and diverse, and understanding these motivations requires an interdisciplinary approach (Admiraal et al., 2017). Previous studies have demonstrated the importance of eudemonia, moral values, and connectedness with nature (Admiraal et al., 2017; Ganzevoort & van den Born, 2020; van den Born et al., 2018) as motivations to act for nature.

Research shows the importance of relational values for action for nature (Chan et al., 2016), such as connectedness with nature, learning, care, and meaningfulness (van den Born et al., 2018). Higher commitments toward action for nature may be limited by all kinds of factors. These may be higher personal or material costs and (time) constraints (Kashima et al., 2014). Moreover, emotions such as feeling powerless or even environmental grief may hinder action for nature. In addition to connectedness with nature, studies among students demonstrated the importance of social context/values in motivating action for environment (Kashima et al., 2014; Tamar et al., 2021; Yu et al., 2019). Difficult situations people encounter when acting voluntarily for nature, are also often related to social interactions (Ganzevoort, 2021; Ganzevoort & van den Born, 2023). The social context, peers and meeting with like-minded people is also an important motivation for young people's action for nature (van Heel et al., 2023b). Among young people, an important barrier are a lack of time and the large changes go through from teenager to adulthood (Dean, 2015; Ganzevoort, 2021; Sundeen & Raskoff, 2000).

2.1.2 Self-Determination Theory

Deci and Ryan (1985) suggest in their self-determination theory that people are more motivated to act for something if they are self-determined or autonomously motivated. This requires that people need the competence to perform actions, have meaningful relations with others and feel autonomous in their actions (Deci & Ryan, 1985; Ryan & Deci, 2000). Ganzevoort & Van den Born (2023) show that in the context of action of nature, this relatedness with others should be broadened to relatedness with nature. Also among young people (18-30), previous research demonstrated that the basic psychological needs can be met in their action for nature and that young people also seek ways of satisfying those needs by their action for nature (van Heel et al., 2023b).

2.1.3 Environmental engagement and attitudes

Public engagement can be used as an umbrella term for practices such as communication, consultation, participation, or co-creation. There are various ways of theorizing engagement, including Arnstein's ladder of participation (Arnstein, 1969) that portrays different degrees of engagement/participation or Gaventa's power cube (Gaventa, 2006). Engagement plays a role in many different governance contexts, including engagement with nature. There are different forms and levels of engagement with nature. A distinction can be made between instrumental engagement and idealistic engagement. Within instrumental

engagement, this may be in the form of support (acceptation of policy), contribution to achieving goals (e.g., through volunteering), to recreation and education for support. Idealistic engagement may run from legitimacy, co-construction of nature (shared responsibility in nature conservation), and meaningfulness and health (allowing for personal development). Three discourses can be recognized in the types of arguments for engagement and instrumental/idealistic engagement: “Ecology First”, “Co-creation and Economy”, and “Broadening and Embedding” (Buijs et al., 2017). Research also distinguishes four other types of citizenship orientation: engaged trustful, engaged distrustful, unengaged trustful, and unengaged distrustful (Tzankova et al., 2021).

In environmental psychology many different concepts and measures are dedicated towards Environmental Attitudes. They all have in common that they portray “a psychological tendency expressed by evaluating the natural environment with some degree of favour or disfavour” (Milfont & Duckitt, 2010, p. 80). Research on the differences in people’s attitudes toward, and concern for, the environment reveals that in the majority of OECD countries gender differences in reported understanding and knowledge of climate change are small or non-existent, and that differences between age groups are as yet unclear or little. Education, however, seems to be the biggest determinant of individuals’ concern for the environment. Meanwhile, environmental concern is reduced during periods of economic recession and high unemployment. However, there are ongoing debates about the impact of experiencing natural disasters and other environmental problems on people’s environmental attitudes; while an OECD survey argues that experiencing natural disasters is likely to increase environmental concern, the World Values Survey suggests that economic conditions and political ideologies are much more important, and that countries that lack affluence and have low educational attainment may not have the resources to attain environmental goals regardless of their level of exposure to natural disasters (Li et al., 2018; OECD, n.d.; Running, n.d.). Meanwhile, a survey of environmental attitudes in Germany revealed more environmental consciousness in women and young people (age 14- 29), and that a growing percentage of the population are environmentally conscious and engaged. In this German study, six environmental awareness types are distinguished: the rejectors, consequentialists, sceptics, open-minded, and oriented (Umweltbundesamt (UBA), 2020).

2.1.4 Youth mobilisation

It is difficult to define youth in any general framework, but for the purposes of the FLOW project we are interested in the generations who will be the drivers of social change within a world that they will inherit. A generation itself is a concept that argues that those who live during a particular timeframe and its formative events share commonalities in group experience. Furlong (2012) argues that such an understanding, however, is less pronounced in (contemporary) scientific discourses on youth due to the perception that it lacks precision and adequate theoretical grounding. The claim that there exists something like a “generational consciousness” (Edmunds & Turner, 2002) that directly results from clash of values, most often triggered by a social, economic, or political crisis, is nowadays rarely supported in research. Research with and on young people does not necessarily have to ascribe a fixed set of generation-specific attributes to people segmented in different age groups. There is an extensive body of research and knowledge on young generations (namely on what has been labelled generation Z and generation Alpha) (Duarte, 2019; Laliberte & Varcoe, 2021; K. Parker et al., n.d.; L. Parker et al., 2022; Turner, 2015; Twenge et al., 2019).

The climate movement has been a particularly striking example of youth mobilisation that has reversed long-running received wisdom that suggested that young people, particularly teenagers today, are politically apathetic and unwilling to work for change (Han & Ahn, 2020). Young people have had other recent key moments of political mobilization that have been more locally confined, such as in democratic alliance-building in Serbia, Georgia and Ukraine, and over road safety in Bangladesh (Kuzio, 2006). Despite an alienation from the power to enact the changes they demand, there is a growing awareness that young



people are willing to work for change, and NGOs that work to facilitate youth empowerment are growing in number (Shehata, 2010). For example, a German study found that in comparison to other age groups, 14-29 year olds have a strong attitude toward climate protection and willingness to change, but lack the financial means to do so (Umweltbundesamt (UBA), 2020). The international School Strike 4 Climate is an example of an international mobilisation of young people for climate change. Tattersall and colleagues (2022) studied the movement's strategies to influence political decisions and found the importance of different forms of learning within the movement and learning through "heads, hands and heart".

2.2 Human – Nature Relationship

Humans have a deeply complex relationship with the natural world, and this human-nature relationship is increasingly the object of scientific study across multiple disciplines. Indigenous authors have argued that the human-nature relationship is much more profound for indigenous populations, and conservation approaches should be taken with respect to the centrality of nature to indigenous ways of life (Salmón, 2000). Images of relationship are worldviews people hold about the appropriate relation between humans and nature (van den Born, 2008). Van den Born (2008) distinguishes four different images of relationship between humans and nature:

- Master over nature. "The Master over nature stands above nature. In his interactions with nature, he is not restricted by moral constraints or knowledge about nature's fragility. Economic growth and technology are expected to provide answers to his problems." (van den Born, 2008, p. 88). The master over nature is the image of human-nature relationships that is generally adhered to least (van den Born et al., *forthcoming*).
- Steward of nature. "The Steward of nature also stands above nature but manages nature. Nature is not owned by the Steward but entrusted to him. The steward owes responsibility to God or future generations" (van den Born, 2008, p. 88). The steward of nature is the image of human-nature relationships that is generally adhered to most (van den Born et al., *forthcoming*), although in a more eco-centric variant.
- Partner with nature. "The Partner with nature stands side by side with nature. Humans and nature are of equal value. Humans should work together with nature with the aim that this interaction will benefit both." (van den Born, 2008, p. 88).
- Participant in nature. "The Participant in nature is part of nature, not just biologically, but also on the spiritual level. Although humans are a (small) part of nature, they are active participants. For the Participant, the bond between self and nature is very important; it co-constitutes the self." (van den Born, 2008, p. 88).

Over time, both within and between generations, human relationships with water or nature changes. Moreover, also the water and nature humans relate to changes, which influences the relationship as well. Also, between cultures, there are different perspectives on the Human-Nature Relationship. Outside of the in Western societies nature-culture divide, there are other, non-dualistic perspectives such as animism and naturalism (Fourrier et al., 2021). Recent research has moved beyond these divides and find ways to build on an increasing societal belief that humans are not a separate entity standing above nature, but are part of nature (Plumwood, 2006; Zylstra et al., 2014).

2.2.1 Human – Water Relationship

The human-water relationship has been defined Simmons et al., (2007) as the point of intersection between the human economy and the hydrological system (groundwater, glaciers, seas, rivers, etc.). "Although water is vital for human survival and growth, the point where human endeavour intersects is the most variable and uncertain in the hydrological system" (p.276). The inherent uncertainty of the hydrological system – accelerated by human economic activity – has, Simmons, Woog & Dimitrov argue, lead to responses of humans attempting to reduce the uncertainty through the creation of systems of

regulating water such as dams, dykes, and irrigation, but with the long-term consequence of shortening water availability. Human economies have reached a critical point of running out of the long-term option of exploiting water, and instead adaptation to the hydrological system is required: “the concept of living with water as a complex entity rather than as a commodity may be the only way open to us” (p.283). The need to understand and live in harmony with water has in particular inspired much Chinese scholarship that studies the historical experiences of Chinese interactions with the hydrological systems of large river basins, and the proposal of new indicators for assessing the sustainability of human-water relationships in regions – indicators such as the Human-Water Harmony Index (Ding et al., 2014). As humans can have a relationship with nature and a connectedness with nature, humans can have a relationship and connectedness with water as well.

2.2.2 Relational values

Values of Nature are studied from a range of fields. Values of nature encompass the reasons why nature is perceived to be important and are studied to understand and predict why people act for nature (van den Born, 2008). These values are actualised in human relationships with nature (Rolston, 1981). Values of nature are often categorised as instrumental values, moral or intrinsic values, and – increasingly – relational values (Mattijssen et al., 2020; van den Born et al., 2018)

According to Mattijssen et al. (2020, p. 403): “Relational values can be distinguished from instrumental and intrinsic values in several ways. The value of the relationship between a person and a tree (or for instance an animal or place) is not found in either the person or tree, but in the connection between the two. With the concept of relational values, humans and nature are therefore not seen as separate entities: humans are part of nature and value their relationship with it (Knippenberg et al., 2018). This does not imply that nature’s instrumental and intrinsic values are not important, but recognising relational values shifts our focus to also acknowledging the qualities of the relationships themselves (Chan et al., 2016). A second distinguishable aspect of relational values compared to instrumental values is that they are non-substitutable (Himes & Muraca, 2018). In the same way that cherished friends or loved ones cannot be replaced by an equivalent other with similar characteristics, so too are the landscapes and species with which we bond not easily replaced by something “just like it”. Relational values thus raise fundamental concerns regarding practices such as biodiversity offsetting: while instrumental values of nature (e.g., timber supply) can be effectively offset, relational values cannot. People bond with a specific forest landscape, not with “forests” as a general abstraction. Third, whereas intrinsic values of nature are inherent to a natural entity, and instrumental value is a one-way street (nature has value for a human valuer), relational values concern relationships that are reciprocal. With this, it is recognised that humans and nature also shape and influence each other and how we as humans fundamentally depend on nature. This reciprocity is emphasised by activists, scientists and indigenous communities to express how nature provides for us, but we should also provide for and take care of nature (Diver et al., 2019; Gould et al., 2019).”

Relational values can serve as a “guiding principle in the life of a person” (Schwartz, 1992, p. 37). Riechers et al. (2020, p. 2602) highlight how relational values are expressed at an individual level (such as personal identification with nature), but also at a more collective level (for instance social bonds mediated by nature or cultural identity tied to natural landscapes). The authors also note the importance of responsibility, as both an individual feeling of responsibility for taking care of nature, as well as a collective sense of responsibility experienced within groups. Kleespies and Dierkes (2020) measured relational values among high school and university students survey items by Klain et al. (2017). The strongest agreed with relational values were both related to responsibility: responsibility for our impact on nature and responsibility in how land is managed for plants, animals and future generations (Kleespies & Dierkes, 2020).

2.2.2.1 Care

“Caring is not only an attitude of concern for the well-being of another, but also and foremost a practice” (Jax et al., 2018, p. 23). In this practice, people seek to meet the needs of another human or non-human entity regardless of the benefits this has for oneself. Caring for something or someone means paying attention (attentiveness, noticing), so as to learn about, act on, and monitor the satisfaction of the needs of the one being cared for (Krzywoszynska, 2019). Care, moreover, relates to concern (caring about) and action (caring for) (Jax et al., 2018). As care emerges in the relationship between humans and nature, care is also a relational value (West et al., 2018). Puig de la Bellacasa proposes to think of care as tasks that make living better in interdependence, maintaining and repairing the world so that humans and non-humans can live in it in a complex life-sustaining web (Krzywoszynska, 2019; Puig de la Bellacasa, 2017).

2.2.2.2 Learning

Many studies on action for nature, for instance on green volunteers or biodiversity monitors, show that learning is an important motivation for them to engage in such actions. Moreover, as learning is also an important outcome of this kind of action for nature, it has a reinforcing effect as that what drives someone is also fulfilled by his own actions. For instance in a European study on action for nature both via life history interviews (van den Born et al., 2018) interviewees were driven by learning and curiosity often already present in childhood and during their teenage years. “Objects of curiosity could be anything: insects, mammals, birds, plants, forests, moors, right up to the working of ecosystems. Guiney and Oberhauser (2009) also found an important role for learning and connectedness, but for many of our interviewees, they were interrelated: knowledge acts as a vehicle to connect them with nature” (van den Born et al., 2018, p. 848). This finding is confirmed by a quantitative card sorting exercise (Admiraal et al., 2017) in the same project. This card sorting showed that the top-ranking motivations for nature action aggregated into two groups: (1) living a meaningful life (consisting of the cards living a worthwhile life and curiosity and learning) and (2) moral values (consisting of the cards future generations and value in itself). This confirms that eudemonic values, such as learning, play a crucial role in motivating nature conservation action, whether these motivations are elicited through qualitative or quantitative methods. Also in another European project, studying birders and their care for nature, learning is found as one of the main drivers (Van den Born et al., 2022). Previous studies have also highlighted learning as a key motivation for citizen science participation (e.g. Bell et al., 2008; Johnson et al., 2018).

Learning as a relational value can also have transformative qualities. As Ganzevoort (2021) notes: “Transformative learning in nature-related projects may include shifting one’s view on the values of nature, human-nature relationships or the relationship between science and society, and draws parallels with literature on single-, double- and triple-loop learning (Tschakert & Dietrich, 2010), in which triple-loop learning includes deep reflection on one’s worldviews and core assumptions.” (p.203).

2.2.2.3 Connectedness

Connectedness with nature is an example of a relational value that drives action for nature (Schultz, 2001, 2002) and is considered crucial in nature conservation (Restall & Conrad, 2015; Zylstra et al., 2014). It is associated with a multitude of terminologies, definitions, and conceptualisations as it is studied from multiple disciplines (T. Braun & Dierkes, 2016). This diversity may be challenging in studying and discussing connectedness with nature (Restall & Conrad, 2015) and the plurality of and continuum within the concept should be acknowledged (van Heel et al., 2023a).

Types of connectedness with nature

Van Heel et al. (2023a) distinguish three different types of understandings of connectedness with nature in scientific literature.

- Humans and nature are considered as separate entities that are somehow related and intertwined;
- Humans and nature are considered as being part of each other, or as for example, nature including humans, or humans including nature. This understanding is often rooted in the work of Schultz (2001);
- Humans and nature as one, indistinguishable, entity.

Connectedness with nature may reflect individual or collective beliefs (Bruni et al., 2018; Tam, 2013). In addition to different types of understandings of connectedness with nature, the meaning of connectedness with nature varies with different types and scales of “nature” humans connect (Klaniecki et al., 2018).

Dimensions of connectedness with nature

Connectedness with nature encompasses different dimensions (Ives et al., 2018). Ives and colleagues distinguish five such dimensions or types of connections:

- Material (e.g., consumption of materials from nature);
- Experiential (e.g., direct interactions with nature);
- Cognitive (e.g., knowledge about nature);
- Emotional (e.g., positive and negative feelings about nature);
- Philosophical (e.g., reflecting on values of nature and on how humans should interact with nature).

These dimensions are not strictly separated and range from external (material) to internal (philosophical) connections, where the internal connections are considered to have most leverage in sustainable transformation (Ives et al., 2018).

More specifically than connectedness with nature in general, people connect to water, seas, or other specific aquatic ecosystems. Despite its relevance, there are only few studies where connectedness with nature is specified to connectedness to water (Ehl, 2023). In studying for example ocean connectedness, specifications of scales on nature connectedness have been used (Nuojua et al., 2022).

Connectedness with nature may drive action for nature in young people (see paragraph 2.1.1). This connectedness with nature can be considered as part of the relatedness, which is one of the basic psychological needs from Ryan and Deci’s Self-Determination Theory (Deci & Ryan, 1985; Ryan & Deci, 2000).

2.2.3 Emotions

Emotions about water, seas and oceans can be considered part of water literacy (see paragraph 2.2.2.2, McKinley et al., 2023). Also, connectedness with (aquatic) nature knows an emotional dimension (see paragraph 2.2.2.1; Ives et al., 2018). These emotions can be perceived as positive (e.g. love or joy) and as negative (e.g. fear or sadness).

In a time of environmental and biodiversity loss, Environmental or Ecological Grief describes grief over these lost species and landscapes. Scholars are increasingly questioning how to grieve for environmental losses and what practices and language is needed to do so (Albrecht, 2019; Van Dooren, 2014). This goes together with feelings of guilt, anger, anxiety, but also love and hope. Environmental grief is highly relational and often specific to certain species and landscapes. What one grieves for tells much about what one feels connected to (Cunsolo & Landman, 2017). Much of this grief is anticipatory, already

grieving for that what is still around, but will likely disappear in the near future. Grief can also be transformative, thereby having the potential to make those in grief reflect and take action to live together better with the more-than-human species still around (Barnett, 2022).

How do people cope with these sometimes-difficult emotions? Through emotion-focused coping, for example, people seek to escape painful feelings and by denying the problem they conclude that taking action is pointless (Ojala & Bengtsson, 2019). In problem-focused coping people address the problems that cause these feelings and people act for the environment. However, actions there are mostly on an individual level in the private sphere, and by realising the problem is bigger than they themselves can solve, they often experience low subjective well-being. A third coping strategy is called meaning-focused coping. In this way people find positive value in confronting problems and meaning in the struggle to address it. As they also have trust in actions of others and focus on collective action, they believe these actions can make a difference and find meaning in action. Therefore, this third form of coping with emotions such environmental grief or climate anxiety, is called ‘constructive hope’ (Chawla, 2020; Ojala & Bengtsson, 2019; Ojala, 2012; Sass et al., 2018). In that way caring about nature can also be transformative (Barnett, 2022).

Emotional connection to water, ocean, coastal systems has received limited attention but is increasingly recognised to play a fundamental role in driving behavioural change (Jacobs et al., 2012; McKinley et al., 2023). The lack of emotions being taken into account in decision-making and behaviour can be considered as limiting the potential for initiatives to meaningfully change behaviour (Bearzi, 2020; McKinley et al., 2023). As especially young people may be impacted by ‘eco-anxiety’ (Coffey et al., 2021), McKinley and colleagues (2023) suggest to balance ‘constructive hope’ and ‘constructive doubt’ in order to engage people in action for oceans and aquatic systems.

2.3 More-than-human perspectives

More-Than-Human Perspectives refers to the worlds of the “different beings co-dwelling on Earth, including and surpassing human societies” (de Souza Júnior, 2021, p. 1). Within a system that tends to focus on human experiences and benefits, taking a more-than-human perspective makes other species and systems than humans more visible and allows for (better) acknowledgement and representation of their perspectives. Such perspectives can for example be useful in guiding nature conservation practices (Lorimer, 2012). In including more-than-human perspectives, different methodological approaches are applied that focus on noticing and listening to more-than-humans and their worlds (Dowling et al., 2016).

2.3.1 Multi-Species Justice

Multi-Species Justice (MSJ) seeks to understand the types of relationships humans ought to cultivate with more-than-human beings so as to produce just outcomes (Celermajer et al., 2020, 2021; van Dooren et al., 2016). At the core of MSJ is a justice theory that recognizes rights of non-human nature (“more than humans”). Beyond rejecting the belief that humans alone merit ethical or political consideration, multispecies justice rejects three related ideas central to human exceptionalism:

- a) that humans are physically separate or separable from other species and non-human nature (=relational ontology),
- b) that humans are unique from all other species because they possess minds (or consciousness) and agency and
- c) that humans are therefore more important than other species.

MSJ rests on several background theories and roots in particular animal rights, political ecology, posthumanist (feminist) theories, actor network theory (ANT), new materialism and indigenous philosophies. It is however unique in its focus on justice theory and aims to resolve tensions between

individual rights and ecosystem perspective which are problematic e.g., in animal rights through concepts like sympathetic imagining and shared vulnerabilities.

2.4 Experiences in nature/with water

Experiences with (aquatic) nature may be manifold. Clayton and colleagues (2017, p. 647) distinguish different dimensions of nature experiences: (1) observing vs. interacting; (2) consumptive vs. appreciative; (3) self-directed vs. other-directed; (4) separate vs. integrated; (5) solitary vs. shared and (6) positive vs. negative. They also write that experiences in nature may have multiple outcomes: (1) improved individual well-being, (2) transformed personal identities that recognize the inclusion of nature in self, (3) greater social cohesion, (4) increased individual and collective behaviours that support conservation, and (5) fundamental societal changes (Clayton et al., 2017, p. 650). Related to oceans and water, barriers such as costs of travel or lack of access may limit individual and collective experiences with this type of nature.

Not only millions of species go extinct, our experiences in nature risk extinction too (Pyle, 1993). There are fewer opportunities to interact with nature, especially for children, as nature is further away and lives are increasingly overscheduled (Soga & Gaston, 2016). This is problematic, as a lack of direct contact with nature has consequences for health, well-being, emotions, attitudes towards nature and behaviour (J. R. Miller, 2005; Soga & Gaston, 2016). In short: the extinction of experiences is detrimental to both humans and nature (Colléony et al., 2020). General accessibility to nature, particularly in urban environments wherein greenery can be treated by planners as a luxury rather than a necessity, is crucial to prevent a negative feedback loop of increasing alienation from nature, with the process of nature exposure particularly important for children (Colléony et al., 2020; J. R. Miller, 2005; Soga & Gaston, 2016). The Extinction of Nature is thus a problem that requires deeper collaboration between environmental scientists, conservationists, and urban planners and designers, to ensure wider access to nature near where people live and work, and where children study (Colléony et al., 2020; J. R. Miller, 2005; Soga & Gaston, 2016).

2.5 Futures

The pluralisation of the word future aims to reify important tenets of the field of futures studies: a) that “the future” does not exist as such, b) that multiple, often contending, images of the future do exist and influence behaviour and decision-making in the present, and c) articulating a “preferred future” is the socio-political act of using alternative futures to better direct action (Dator, 2019).

2.5.1 Foresight

Foresight is a forward-looking approach that aspires to help people explore and anticipate futures and change processes. Rather than merely predicting the future (forecasting), foresight typically involves systematic, participatory, future-intelligence-gathering. The practice of foresight evolves around “structured dialogues” for co-creating imaginaries of possible or desirable futures (Da Costa et al., 2008). Foresight methods, such as scenario development or horizon scanning or experiential futures, structure and inform these dialogues in order to mobilise collective intelligence out of a diversity of perspectives and to support people in questioning linear anticipatory assumptions and go beyond the extrapolation of today (Rosa et al., 2021).

Existing foresight studies exploring human-waters relations have used different frameworks to elaborate on different values of nature in group settings (e.g. NFF; Rana et al., 2020). Other foresight studies combined scientific evidence with worldbuilding approaches to create science fiction stories. These stories were given to stakeholders to trigger discursive meaning-making and emotional responses (Lübker et al., 2023; Merrie et al., 2018; Pereira et al., 2022; Pereira et al., 2023).

3 Methodological approach

The pioneering initiatives served as case studies (Flyvbjerg, 2011) to study different approaches and perspectives. The cases provided demarcated systems and a clear context that allow for in-depth exploration of the initiatives' ways of engaging young people in connecting with and acting for water (Flyvbjerg, 2011). For each initiative, the initiative itself was studied through document analysis (see section 3.2.1) and interviews with initiators or board members (see section 3.2.2), interviews with the participating young people (see section 3.3) and focus groups (see section 3.3.1).

3.1 Ethics and data management

For FLOW, ethical guidelines (D7.2) and a data management plan were constructed and approved (D7.1; D7.5). Based on these guidelines, we specifically acquired ethical approval for WP3. This ethical approval was requested for each of the partners working in this work package. Approval for the RU was granted by their faculty's research ethics committee; for UiT by Sikt, the Norwegian Agency for Shared Services in Education and Research and for ISI by the Fraunhofer ethics committee. All interviewees and focus group participants received an explanation and signed an informed consent form for participating in the research and their anonymized data being used, as well as for audio recordings being made and transcribed.

3.2 Studying pioneering initiative

The first part of the WP was dedicated to gaining more insight in the pioneering initiatives, their characteristics, mission, and strategy. This was done through document analysis and interviews with one or two board members/initiators allowing for triangulation (Denzin, 2017). Based on these insights, a richer description of the pioneering initiatives was made. These are part of the results (section 4).

Before starting with the document study, we held informal kick-off meetings with each initiative. During these meetings, we finetuned whether we would study the whole initiative or a specific subproject, the timeline, availability and relevance of documents and potential interviewees.

3.2.1 Document study

To gain insight in the characteristics, mission and strategy of the pioneering initiative a document analysis (Bowen, 2009) was conducted.

Data collection

The documents collected were either publicly available or obtained via the contact persons at the pioneering initiatives. Each project partner analysed the available (printed and electronic) documents. The number and type of documents will depend on type and size of the initiative, included:

- mission documents;
- communication / engagement strategies;
- websites;
- flyers;
- social media;
- annual reports.

Following Bowen (2009), the document analysis was used to:

- understand the case context; insight in the mission, strategy, and practice of youth mobilisation of the pioneering initiative.
- suggest questions that need to be part of the research; this provided opportunities to finetune the interview guides and focus group depending on findings from the document analysis.
- supplement data from the interviews to get a better understanding of the pioneering initiatives' characteristics.

- tracking change and development over time; our interviews primarily focussed on the current practice of the initiatives, the document analysis (in addition to the interviews with the board members) allowed us to better understand the developments the initiative had in the past and to see what changes were made and how this relates to youth engagement and changing human-water relations.
- reflect on findings in interviews with board members and young people (Bowen, 2009).

Method of analysis

The analysis was a combination of content and thematic analyses (Bowen, 2009). The documents were coded descriptively through content analysis and categorised in major themes and categories (Bowen, 2009; Labuschagne, 2003). These codes were developed in collaboration with the FLOW researchers in each of the initiatives (see Appendix 8.1). The document analysis resulted in a more detailed description of the pioneering initiatives, a finetuning of the interview guides, and triangulation with the other applied methodologies in WP3.

3.2.2 Interviews board members/initiators

To gain more in-depth understanding of the pioneering initiatives, and to gain more insight into the origins and developments of the pioneering initiatives, semi-structured interviews were conducted with one or two board members or initiators per initiative. Semi-structured interviews allowed pursuing leads relevant to the interviewees' situation and story, while still facilitate comparison of these stories and identification of common themes (Adams, 2015).

Data collection

The contact persons at the initiatives were asked to recommend interviewees based on their experience and involvement in the initiative. Key selection criteria were that the interviewees have a strategic profile, knowledge on mission and vision of the initiative and are involved with young people. Interviews were recorded and transcribed verbatim. The interview guide is added in Appendix 0, and was based on the work in WP1 and WP2, and the conceptual background for WP3 (see section 0). The interviews consisted of five parts:

- About the interviewee
- The organisation
- The pioneering initiative/project
- The future of human/water relations
- Other

Method of analysis

The transcripts were descriptively coded (Punch, 2014) and thematically analysed (Braun & Clarke, 2014) in an iterative process. The code list was developed collaboratively by the FLOW research team (Appendix 8.1).

The interviews with initiators/board members of the pioneering initiatives resulted in a more detailed description of the pioneering initiatives, a finetuning of the interview guides for young people, and triangulation with the other applied methodologies in WP3. Moreover, it allowed for the possibility to study the different characteristics of these initiatives.

3.3 Interviews with involved young people

The involved and active young members' relations to and emotions about oceans and waters, their concerns, and motivations to act for nature and water specifically, were studied via qualitative interviews in an ethnographic analysis. Moreover, this allowed for analysing how the organisation's mission relates to the youth's engagement and motivates action.

These interviews were semi-structured, allowing room for more in-depth understanding and pursuing leads relevant to the individual's story (Adams, 2015). The young people were not compared directly between the different countries, but young people's engagement was analysed in relation to the characteristics of the different initiatives.

Data collection

We interviewed three to six young people per initiative. Through the contact persons at the initiatives and snowballing, we approached potential participants. We aimed for diversity in duration and role in the initiative or particular project in the initiative, age, gender, background and other attributes. Interviews were recorded and transcribed verbatim. The interview guide is added in Appendix 0, and is made based on the work in WP1 and WP2, and the conceptual background for WP3 (see section 0). The interviews consisted of five parts:

- About the interviewee
- Emotions towards nature/water
- Role in project
- Visions of the future
- Other

The interviews lasted between 44-74 minutes were held either in person or via Microsoft Teams, depending on the preference of the interviewee. Some double interviews were conducted:

- Design contest by Embassy of the North Sea (R2.6 and R2.7) which lasted 90 minutes;
- For Parlement de Loire, two group interviews were conducted: R3.2a, R3.2b and R3.2c (54 minutes) and R3.3a and R3.3b (49 minutes)

Method of analysis

For the Dutch, German and French case studies, the interviews were held in the interviewees' native language. One interview for the Design Contest was held in English as the participant was not fluent in Dutch and the interviewer not in the interviewee's native language. For the Portuguese initiative, the interviews were held in English. Like all interviews with the board members/initiators, the transcripts were summarised, and descriptively coded (Punch, 2014) and thematically analysed (Braun & Clarke, 2014) in an iterative process. For coding, in the Dutch, German and French case studies Atlas.ti was used, for the Portuguese initiative such coding software was not used. This allowed for an iterative analysis of inductive and deductive analysis of the transcripts. The same method of analysis is implemented as described in paragraph 3.2.2.

This ethnographic analysis resulted in transcripts from 24 interviewees and revealed patterns and differences among young people involved in water-related initiatives. Furthermore, the analysis showed how their concerns and motivations connect with their actions for nature within the initiatives. Preliminary findings from this analysis have been used to design focus groups.

3.3.1 Focus groups

To validate and deepen the insights from T3.2, focus groups were held. As in all initiatives it proved difficult to organize a focus group with enough young people's adjustments had to be made. In the focus groups, pioneering initiatives were combined and the people who participated in the focus groups were also interviewed. Three online focus groups were organised: one for the two Dutch pioneering initiatives, one for the French and German initiative, and one for the Portuguese initiative.

Data collection & method of analysis

Consequently, the template (D3.2) also had to be adjusted to reach the aims of the focus group. The results of the interviews were deepened and contextualized in a group discussion: What patterns appear broader as well? Do some findings need clarification or raise questions? What can be done with the findings by pioneering initiatives, young people, and other stakeholders? The focus groups were recorded and thematically summarised. These themes were:

- Relationship with water
- Strategies and approaches, including engagement + motivations
- Hopes, Fears & Future Expectations
- Social interaction for stewardship assemblages



4 Results

In this summary report, we present the results from all tasks in this work package. For each pioneering initiative, we present a detailed description of the initiative based on the document analysis and interviews with the board member (T3.1). Next, we present findings from the interviews with the young people (T3.2). After providing background information about the interviewees, we thematically present the findings on 1) young people's relationship with water, 2) strategies and approaches, 3) hopes, fears and future expectations and 4) social interaction or stewardship assemblages. At the end of the results section, the findings from each of the three focus groups are presented (see section 4.6).

4.1 IVN Clean Rivers, The Netherlands

4.1.1 Document analysis & interviews with the board members

The document analysis and interviews with the board members resulted in a description of the pioneering initiative and are thematically presented below. The document analysis included amongst other materials, annual reports and strategic plans of the Clean Rivers project. The interviews were held with two project coordinators (R1.1; R1.2) and lasted 85 and 46 minutes.

Description of the pioneering initiative

In collaboration with the North Sea Foundation and Plastic Soup Foundation, IVN Nature Education launched the Clean Rivers (Schone Rivieren) project. They started with the Clean Meuse in 2013 but covered all other large rivers in the Netherlands as well from 2017 onwards. The objective is to stop plastic pollution in Dutch rivers by 2030. Working with 1,100 citizen scientists, Clean Rivers systematically documents litter pollution in the Dutch river delta. Moreover, on an annual basis, 5,000 volunteers engage in riverbank clean-up efforts, simultaneously providing them with the opportunity to enjoy the natural beauty of the Dutch rivers. The biannual river waste research contributes to 1) public awareness of the waste problem, 2) influencing political decision-making, and 3) stimulating companies to act against spillage. They provide a foundation to adopt preventive measures within the (current) legal framework and start a societal change from single-use to reuse. These three levels of action are in short, the ambition of Clean Rivers. The voluntary clean-up only puts a sticking plaster on a wooden leg; to achieve clean rivers by 2030 the problem should be solved at its base. Therefore, all stakeholders (provinces, municipalities, water authorities, Rijkswaterstaat and society) have to be connected to do their part in preventing river pollution. Clean Rivers wants to help connect and support the stakeholders and with that realise their goal of clean rivers by 2030.

Short history & Organizational context

There is not an exact moment in time where volunteers started to clean up the rivers, but in 2003 Rijkswaterstaat started a waste clean-up activity for citizens and terrain managers. Rijkswaterstaat noticed that participation was relatively low and that volunteers became discouraged. Several governments, water- and terrain managers and volunteers approached IVN Nature Education to come up with a clean-up strategy. In 2012 the pilot Clean Meuse started, which was a collaboration between IVN Nature Education, five municipalities, the province of Limburg, the (at that time) two water authorities in the region, Rijkswaterstaat South-Netherlands, and terrain managers. The goal was to create societal support for the complex problem of plastic pollution and to show that collaboration is the key to solution. Between 2014 and 2016 all the 'Meuse municipalities' in Limburg joined the pilot and the programme gained national recognition. The citizen science approach of the programme was developed by IVN Nature Education in 2015 in Limburg too. In 2017, two partners joined the project, which were Plastic Soup Foundation and the North Sea Foundation. From this moment onwards, it became a joint project called Clean Rivers. In the next years, the project was implemented along all the major Dutch rivers.



The strategy of Clean Rivers focusses on five elements, called the five “O’s”. These elements are *Opruimen* [clean], *Onderzoeken* [research], *Ontdekken* [discover], *Oplossen* [solve] and *Organiseren* [organize]. The initiative is considered pioneering because of the citizen science approach and the research part of the project. The choice for citizen science is partially rooted in practical grounds, but also resonates with the organisation’s philosophy (R1.2). Within the organisation they don’t have the capacity to monitor each river segment themselves, because of the geographic dispersion throughout the country, and because they don’t want to keep all knowledge internally. They considered citizen science a valuable way to “connect more people” and engage them as ambassadors for the cause. Moreover, providing people with the skills and tools to contribute to a solution strongly resonates with the organisation’s mission.

Engaging young people within Clean Rivers proves difficult (R1.1 & R1.2). The average age of the citizen scientists in the project is 55 years old (R1.1). There has been some improvement in engaging young participants over the years as the Clean Rivers project gained more (local) visibility and as they actively try to reach a younger target group, also via other projects (R1.1).

Future images & impact

Care for water and ecosystems such as rivers is important for the organisation, as well as for example climate adaptation and climate resilient cities (R1.1). Also, for young people these developments are crucial as young people have “concerns about the future. The planet becomes uninhabitable. So that is a substantial part of their world, their life, it is so fundamental” (R1.2). These climate related developments are entangled with societal developments, such as increased polarization (R1.2).

Through their collaborations and large research data base, the project has impact. Besides contact with local companies and authorities, the organisation also lobby on the national level for changes in policy and legislation. As the project is a couple of years old now, they can also increasingly focus on the “solution” part of the project (R1.1). In this phase, they increasingly collaborate with companies in how they can decrease the spillage of their companies. These companies contact Clean Rivers, or Clean Rivers reach out to the companies based on the citizen science results. With more collected data, they can also better advocate the cause on national and international level.

Moreover, the project contributes to young people’s engagement, not only through citizen science, but also through the other aspects of Clean Rivers, such as the clean-ups and excursions, in which young people are made more aware of for example garbage in rivers (R1.1).

4.1.2 Interviews young people

For the interviews with young people who participate in the Clean Rivers project, we provide an overview of interviewees (see also appendix 8.4) and afterwards we thematically present the findings from the interviews.

Summary per interviewee

Interviewee R1.3

Interviewee R1.3 works as a project assistant for a sustainability team at a municipality. The focus of the current team is on energy, but R1.3 rather wants to work on climate adaptation or waste related problems in the future. The interviewee has a clear attachment to one of the Wadden islands, where grandma had a cottage. R1.3 has very fond memories of the islands nature and water. Interviewee R1.3 grew up in a Dutch city, which was close to a forest and fields of heather. During childhood, R1.3 enjoyed sliding of the dunes of the Wadden island, but also climbing trees in the forest. R1.3 thinks that the role of nature during youth is important for engagement with nature later in life.

The beauty of the sea is important to R1.3. However, the power of the sea is also frightening. R1.3 feels happy when looking at the sea and mentioned that water is fascinating to look at. The continuous process

of the water cycle and every organism that lives in the entire water system are amongst the things that make it fascinating.

Interviewee R1.4

Interviewee R1.4 grew up in Germany in a free-standing mansion. Came to the Netherlands for study. R1.4 works at a research institute and does a PhD on the effects of vegetation growth at offshore wind farms and oil platforms. R1.4 is also a guide at the *Waddenvereniging*. The interviewee is interested in the role of humans in nature conservation, in changing ecosystems, and the debates about these topics. Nature was very important to R1.4 during childhood. Nature was all around the hometown and R1.4 went hiking in national parks and other protected reserves almost every weekend. R1.4 also loved to swim in lakes, sometimes right after school. The parents influenced R1.4 too, as they had field guides, which R1.4 also used. The interviewee thought this connection with nature was self-evident back then but doesn't realise the value of this as a child.

When R1.4 is in or around water, it gives a feeling of peace and serenity. A feeling that everything falls into place. R1.4 mentions the smell of natural waters, which can create tranquillity, and that this is a remainder from youth: a time without worries.

Interviewee R1.5

Interviewee R1.5 grew up along a river. Went to study Water Management and works at a research organisation, where R1.5 works on dynamic riverine nature. During the studies, R1.5 joined an organisation which deals with increasing awareness on water related problems amongst youth. Friends of R1.5 call him a 'nature person'. The interviewee joined multiple nature camps during his youth. R1.5 also feels at home with rivers and considers riverine nature as "my sort of nature".

In childhood, R1.5 played a lot in the floodplains close to home. Thinks that the passion for rivers came into existence during that time. R1.5 loves rivers and considers the wider watershed to be magnificent. The interviewee was a member of a Dutch youth nature association for a long period in youth. R1.5 thinks that the best way to experience nature is to be 'in' it, to stimulate your senses with it. Also liked to discuss experiences in nature with friends and to read nature-related books.

Interviewee R1.6

Interviewee R1.6 lived in the countryside, a city and now in a town. Works as product developer in the plant-based sector. Is very aware of the consequences of own behaviour and fanatically attempts to reduce the (climate) footprint, has a clear goal of becoming as environmentally friendly as possible. R1.6 grew up in countryside nature and enjoyed the vast open areas and the freedom it offers. However, R1.6 also had to work often in this kind of nature, therefore relaxation in nature is hard to achieve for the interviewee.

During youth, R1.6 played in the ditches and puddles and loved recreation at the water, mostly in wintertime when there was less work to do. R1.6 stills enjoys being at water and loves both doing water related activities, such as swimming and ice-skating, as just sitting at the waterside. Looking at the water brings a calming sensation for R1.6. The interviewee mentioned a preference for lakes above rivers, as lakes are calmer. Also associated negative things, such as dirty, chaotic and roughness to rivers. However, during vacations rivers are less negative and even goes on hikes along rivers.

Interviewee R1.7

Interviewee R1.7 moved to Nijmegen from Zeeland for a study. Going from a right-wing, farmer orientated environment to a more left-wing, climate orientated environment was a big change. R1.7 mentions Zeeland and the bad water quality in the Ooster- and Westerschelde throughout the interview. R1.7 is interested in sustainability and climate, is besides Clean Rivers also active at Extinction Rebellion and did

a training organized by Greenpeace. Also goes to conferences of left-wing, progressive parties. According to the interviewee, these actions are not part of the identity, but more a way to show norms and values.

R1.7 has a clear attachment to the sea, but not to rivers. In the view of R1.7 it has to do with 'cleanness' and thinks that the sea is cleaner. This has to do with the stories about the water quality of the Scheldt that were already told during the youth. R1.7 also mentions that this divide between sea and river can be traced back to growing up close to the sea. R1.7 is worried about greenwashing and misinformation about water quality. The interviewee mentioned that moving back to Zeeland is not an option, due to the flood risk. Living close to water is important, also because of the wind.

Interviewee R1.8

Interviewee R1.8 studied Marine Ecology, has a diving license, and works as a project leader in nature friendly energy at a Dutch foundation. R1.8 prefers salt water and gets a lot of satisfaction from diving in it, the interviewee really loves being in the water. She wanted to be a merman/mermaid when younger and mentions this throughout the interview.

R1.8 grew up in a big city in the Netherlands, but had a pond behind the house, where the family spent a lot of time. More ponds and puddles were rather close to the parental home, where R1.8 went to. The interviewee also had a subscription on the Zoo and often went to the Mediterranean Sea on family holidays. R1.8 adores the sea and feels that protection is really needed. The interviewee tries to be as environmentally aware as possible.

Thematic analysis

Relationship with water

For all interviewees nature and water was already present and important in childhood. They either grew up close to nature (R1.3; R1.4; R1.6) or specifically water (R1.5; R1.7; R1.8). Some express strong feelings of place attachment. For instance, R1.3 mentioned that her grandma had a cottage at one of the Dutch Wadden islands, where R1.3 spends a lot of time. Most of them show a clear lifeline in which nature and water is very important in childhood, choosing a water-related study in adolescence and still being engaged with and active for water now (R1.4; R1.5; R1.8).

The interviewee with the strong bond with one of the Wadden islands, also had a very formative peak experience on that island. R1.3 was at the beach after a container disaster took place and the beach was littered with rubbish. At first, she just walked back, but then a man said: 'don't you take anything with you?' R1.3 felt shame and guilt about watching without doing anything. From that moment the awareness that everything we buy must be moved and shipped was raised. "For me, that's when the ball started rolling and I thought: I want to do something with it but I don't really know how. And since then, I have actually started to look more and more, yes more at the world, the society we live in." Also, R1.7 who grew up in the province of Zeeland remembers situations with pollution. R1.7 talks about poor water quality that made it impossible to swim and blue-green algae that made it impossible to walk the dog there.

Both interviewees, however, also have very positive experiences and feelings related to water. They talk about enjoyment, the beauty of the seas, beautiful memories, the wind, and purity. Others mention "feelings of freedom; clarity in my life; when I swim in the water or am by the water, everything falls very much into place. It also gives a lot of peace, that also comes from the smell, comes from childhood; not having to worry yet, and the peace also comes from the space in the landscape that the river occupies." (R1.4). Another interviewee, who grew up by the river, experienced "a sense of coming home with rivers: river nature is really my kind of nature, I feel connected to that. It brings peace, also functionally to clear my head. Being by the river makes my heart jump." (R1.5)

The strong link to childhood is very visible for R1.8 who as a kid wanted to be a mermaid. R1.8 wanted to be in the water, be able to talk to animals and ended up studying marine ecology in Wageningen because that was closest to that wish to become a mermaid. R1.8 now works at the North Sea Foundation and has a particular love for salt water. Love and beauty are strong driving forces for R1.8: "I love the sea very much and just find that really beautiful. And we must protect that because it is under pressure on several levels. We must take care of life in the water. We have to protect it."

Overall, we see a pattern that nature and water is already present in the childhoods of Clean Rivers participants, growing into an engagement and connectedness with nature and water when they are getting older. This connectedness is often leading to a water related study and job and fuels their action for water, such as their participation in the Clean Rivers initiative.

Strategies and approaches

There are several ways through which the interviewees encountered Clean Rivers. Though the interviewees in general responded slightly hesitant as it has been a while since they first encountered and joined the initiative, a combination social media and people in their social circle emerged as important. Posts or advertisements on social media (Instagram and LinkedIn) were ways in which they got introduced to clean rivers (R1.4; R1.5; R1.6; R1.8), and people in their social circle engaged with them to sign up together (R1.3; R1.4; R1.6; R1.7). Encountering posts on social media might not be accidental, as the interviewees already had affinity with topics such as nature conservation or pollution.

The initiative appealed to the interviewees for multiple reasons. One of the reasons that emerged were participating together with a friend or family member (R1.3; R1.4; R1.6; R1.7). One interviewee even signed up together with their friend to have a reason to regularly see each other in their busy lives. The interviewees also liked the activity of clean-ups (R1.3; R1.5; R1.6; R1.7) and valued that it was something to do outdoors (R1.4; R1.6). The pioneering element of the approach, the citizen science component, was a reason for two participants to participate as they were interested in contributing to the research (R1.4; R1.5). Finally, interviewees who already acted for nature wanted to actually make impact through cleaning the beaches (R1.3; R1.4; R1.5; R1.6; 1.8) or felt engaged with the topic and wanted to start taking action (R1.7).

The reasons why participants enjoyed this particular initiative was that they could actually see the impact they make whilst cleaning the beaches (R1.3; R1.5; R1.6; R1.7; R1.8). Secondly, participants explicitly mentioned that they liked that the threshold was low, and the volunteering does not require a lot of time (as it is only twice a year), close to home, and easy to start doing (R1.3; R1.7; R1.8). Also, the research component was enjoyed (R1.5; R1.6). One interviewee especially mentioned the playfulness of the activity – as it felt almost like treasure hunting – (R1.4), someone liked that they learned a lot (R1.4), someone mentioned the social aspect (R1.6) and someone mentioned that they liked to be outdoors (R1.5).

The participants had few calls for improvement. This was partially because of they were very positive about the initiatives' low threshold as they mentioned that the work was straightforward. Especially details were mentioned like small adaptations to the tracking list (making the list online as well), or some other pictures (R1.3; R1.6; R1.7). Two interviewees (R1.5; R1.8) however would like to see a stronger sense of community with other volunteers, for example in their region. One of them explicitly mentioned the wish to connect with the younger community within clean rivers. One interviewee mentioned that they would prefer more pro-active feedback of the research from Clean Rivers.

Hopes, Fears & Future Expectations

Emotions we encountered when talking about problems related to water, nature, climate, or the world in general, varied from sadness and feelings of depression to shame, despondency, and helplessness. A lot



of participants have a hard time dealing with these emotions and the majority try to avoid the news, avoid thinking about it and deliberately decide to look away. This appears to be part of their coping strategy.

Clean River participants hope that there is still hope for nature and water, that it is not too late. Their hopes focus on two levels. First, the level of awareness. Interviewees express the hope that people will become more aware of the situation and urgency (R1.5; R1.8) Interviewee R1.8 gets sad about what is going wrong with the sea and climate change and says: “I hope that people are more aware that the sea also needs to be protected.” Interviewee 1.5 thinks that being in nature and enjoying nature is a prerequisite for awareness: “people should go into nature much more often, that would solve many problems, especially for the youth. I believe that nature works for everyone and very much hope that awareness lands.” Others are afraid that people won’t change on an individual level and that these problems can only be solved when people collaborate (R1.7) or on the political level (R1.4).

When talking about fears, the flipside becomes visible; our interviewees are worried that it will not get better with nature and that there is not enough attention for nature and nature restoration. Two main causes that are mentioned are 1) that economic profit takes precedence over the general societal interests, i.e. that policy is determined solely by money and quick profits and won’t choose the sustainable solution (R1.5; R1.6; 1.R7) and 2) world leaders and big companies denying climate change. In line with this second thought, interviewee R1.7 mentions greenwashing.

Social interaction & fostering engagement

In terms of social interaction, we have asked the interviewees how their social circle responds to their engagement with water and their participation in the design contest of Clean Rivers. Almost all participants mentioned that the people around them are in a similar ‘bubble’ and engage with similar topics (R1.4; R1.5; R1.6; R1.7; R1.8). They do however often mention that they are more active or ‘extreme’ than the people around them (R1.3; R1.4; R1.6; R1.7). For example, R1.7 mentions that their social surrounding is positive about what R1.7 does for water and that they also feel engaged with the topic, but that they take only the ‘bare minimum’ action like separating waste because they are too busy. R1.4 tells a similar story. R1.5 mentions that he has two sets of friends, and that in one of the social circles people are engaged with water and nature but in the other they completely aren’t. One of the interviewees specifically tried to find other new like-minded peers via social media and has been successful in this (R1.3).

When the participants are asked what would be needed to engage more young people with water, informing and education is most frequently mentioned (R1.4; R1.5; R1.6; R1.8), more specifically about the problems that are arising (R1.4) and the potential vulnerability of the Netherlands (R1.5), and also by informing people about the (hidden) impact of their own behaviour (R1.5) and about low threshold actions that can be taken (R1.8). As one interviewee says: “there are just so many people that don’t know [this] I genuinely think that”. Other interviewees mention the importance of the social aspect (R1.3 and R1.7) in engaging young people with water, for example through addressing young people in already existing networks (e.g. student associations; R1.7).

4.2 Embassy of the North Sea Design Contest, The Netherlands

4.2.1 Document analysis & interviews with the board members

The document analysis and interviews with the board members resulted in a description of the pioneering initiative and are thematically presented below. The document analysis included amongst other materials, submitted ideas and a report of the project. The interviews were held with one project member from the Embassy (R2.1; 55 minutes), and one external project member (R2.2; 49 minutes).



Description of the pioneering initiative

The Embassy of the North Sea (Ambassade van de Noordzee) actively listens to and engages with the perspectives of plants, animals, microbes, and individuals in the North Sea region. It was founded in 2018 in The Hague, building on the experiences of the 2015 Parliament of Things program, where representation of non-human entities had been a focal point. Building on the belief that the sea possesses an intrinsic value, the Embassy of the North Sea aims to create a political arena for sea emancipation by fostering connection, imagination, and representation. A route to 2030 was sketched with the goal to be able to represent the North Sea democratically. In charting a course towards 2030, their initial focus is on learning to attentively listen to the sea before progressing to articulate a meaningful dialogue with it. The start-up phase, focused on two questions: “How can the North Sea be best represented?” and “How can our relationship with the North Sea be enhanced, for the benefit of human and non-human life, and the well-being of future generations?”. After this ‘listening to’ phase, they are currently starting the phase where they learn to speak for the North Sea and increase its representation in politics and society. Ultimately, the Embassy aspires to negotiate on behalf of the North Sea and the myriad forms of life it encompasses.

Short history & organizational structure

The Embassy of the North Sea is a relatively young organisation, founded in 2018. The founders had participated in the Parliament of Things, which in itself is speculative research into the emancipation of animals, plants and things. The Parliament of Things started in 1991 building on the work of philosopher Bruno Latour, known for his vision that nature and other non-human entities should have her own voice in democracy and politics. Bruno Latour emphasises that the world is made up out of connections between human and non-humans.

The organisation of the Embassy of the North Sea consists out of a three-person board and multiple advisors, researchers, artists and working groups. Currently, the Embassy works on seven cases: Eels and the underwater world in Amsterdam, A new future for obsolete oil drilling rigs, Future of the Delta, Legal protection against fishing on the Doggersbank, Climate justice and wind farms, Underwater noise in the North Sea & Eating from the North Sea). For the design contest the Embassy of the North Sea worked closely together with the Spinozalens, which is a foundation stimulating critical and constructive thinking. Every two years the Spinozalens organises a contest where two philosophers are lauded.

Strategy in approaching young people

The design contest hosted by the Embassy was a collaboration with the Spinozalens foundation. Each year, they organize activities in collaboration with another organisation that has affinity with the work of the laureate. In 2020, the plan was to award the price to Bruno Latour and as the Embassy of the North Sea was already working on bringing Latour’s work in practice, they partnered up to organize the educational programme (R2.2). For young people, a design contest was organised. In line with the three main themes of the Embassy, three topics were chosen for the design contest: “Voice of the Eel”, “Underwater Noise” and “Future of the Delta”. Participants worked in interdisciplinary groups on an innovative design (R2.1).

Young people were approached through a network of teachers in universities, art academies etc. The design contest by the Embassy is considered pioneering in its theme: the notion that nature (in this case the North Sea) has a voice of its own that needs to be heard and taken seriously and needs a place at negotiation tables (R2.1). This is also in line with the current scientific and societal attention for the more-than-human approach, which is also a theme within the FLOW research project.

Future images & Impact

The Embassy has now “learned” how to listen to the voice of the North Sea and is now developing plans to speak with the North Sea and later negotiate on behalf of the North Sea (R2.1). R2.1 mentioned how at first the Embassy was considered more of a joke, but that over the years their idea of giving a voice or legal rights to the North Sea has been taken increasingly seriously. Also, in other places in the (Western) world, there is a development of water bodies or natural areas getting a legal status or rights. This is also linked to the voices of future generations and marginalized groups of people whose voices are not heard enough, and to climate (in)justice.

Both interviewees are critical of the anthropocentric worldview in the dominant discourse but see changes in this, for example as extinction rebellion gains traction (R2.1) and as we learn that we must adapt our way of living as water poses increased threats (R2.2).

4.2.2 Interviews young people

The winners of each of the three subprojects were approached by an employee of the Embassy with an email composed by the researchers to invite them to participate in an interview. Only the winning groups of each of the subprojects were selected since these contestants participated in the entire programme of the design contest. One of the interviewees mentioned they were over the age of 30 at the time, but that still a student. This interviewee was still included for an interview since they were the only participant we could interview from that subproject.

For the interviews with the young people who participated in the design contest of the Embassy of the North Sea, we provide an overview of interviewees (see also appendix 8.4) and afterwards we thematically present the findings from the interviews.

Summary per interviewee

Interviewee R2.3

Interviewee R2.3 works at a Dutch applied university, a research centre working on the energy transition, does a PhD at a Dutch university and works at a designer studio (since participating in the design contest of the Embassy of the North Sea. R2.3 grew up in the province of Drenthe and feels connected with it, because of the family history and the identity.

As a child, R2.3 wanted to become a biologist and had a fascination for insects, also collected them. There was a real passion for these bugs, which translated into an emotional bond. During the studies of International Relations, R2.3 felt a bit disorientated up until the discovery of the field’s environment and climate within the studies. The interviewee felt like a world had opened up and it felt like a return of ‘me in childhood’.

R2.3 does not have a personal bond with water and does not have a connection with water out of childhood. However, R2.3 is interested in the human-water relationship on an intellectual level. The interviewee thinks humans have lost their innate relationship with water, as humans want to control it too much. R2.3 was not engaged with water; the pioneer initiative did however broaden the horizon.

Interviewee R2.4

Interviewee R2.4’s origins are in Spain but is currently living in the Netherlands. R2.4 did a study involving communication and the media and got involved in community art projects. The interviewee works in the media now and does audio visual productions for a medical NGO.

During youth, nature was relatively absent. R2.4 never had a particular interest in nature but did go on hikes with the parents. The interviewee felt a stronger connection to sociology, anthropology, and politics. R2.4 did, however, grew up along a river and is therefore more connected to rivers than seas and thinks rivers are less threatening than seas. Rivers provide a ‘feeling of home’ to R2.4. The parents of R2.4 did

not like animals or only saw them as pack animals, therefore R2.4 did not have empathy for animals during the youth.

The involvement with nature did, however, change for R2.4 by reading books about climate change. R2.4 emphasises that the connection with nature did not come from being in it, but really by reading books. R2.4 thought talking about water in this interview was quite hard, but because of the work R2.4 does and by living in the Netherlands, that changed for the better.

Interviewee R2.5

Interviewee R2.5 is a teacher of social work at a Dutch applied university. However, the interviewee also reads and writes about indigenous people. R2.5 is trying to get a stipend to be able to write about the indigenous people and their territory. R2.5 did study philosophy and during these studies, R2.5 did discover Bruno Latour. R2.5 prefers to talk about ecology rather than nature.

R2.5 grew up in a town close to the sea and moved to a city during the studies. The family of R2.5 did not do a lot with nature and saw the sea as 'where you go when it is hot'. The grandfather of R2.5 did have a cottage on one of the Wadden Islands, where the family would go to. The interviewee was not aware of a connection to nature during the youth, but parents told R2.5 as a child had a fascination for crabs and shrimps.

The realisation of a connection to the Wadden Sea came later for R2.5. Now, R2.5 thinks the sea is part of oneself. R2.5 was scared of water when young but lost the fear when growing up. However, a deep sea still provokes scary thoughts and R2.5 thinks this still is part of one's relationship with water.

Interviewees R2.6 & R2.7

R2.6 and R2.7 have their own design studio and both studied architecture. R2.6 also studied philosophy and got inspired by a course called eco-philosophy. For both interviewees Bruno Latour is an important source of inspiration. R2.6 is active within the academic community at a Dutch university and writes papers too. Before the current job, both R2.6 and R2.7 feel a certain urgency to change the current situation of nature. Because of this feeling, R2.6 quit a job at an agency where decisions were made based on money or time, which is not the system that they both support.

Because of the design battle of the Embassy of the North Sea, the engagement with water has increased for both interviewees. This happened because of an increase in knowledge and understanding about water systems. The increased connection and knowledge incite a discussion among the interviewees, whether more knowledge increases the feeling of fear or suppresses fearful feelings. Both interviewees feel the urgency to reduce water use and find a house well above sea level.

Interviewee R2.8

Interviewee R2.8 grew up in Drenthe, ended up studying Water Management and works as an advisor for water safety at a Dutch consultancy company. The work includes designing dikes and modelling safety scenarios. R2.8 lives in the city centre now and tries to regreen the own space by placing a rainwater-tank and removing paving stones amongst others.

The family of R2.8 originally comes from places close to water and have experienced evacuations due to river floodings and the 1953 North Sea Flood. Stories from the grandmother made a big impression on R2.8, which also created awareness about water. As a child, R2.8 was a member of the WWF and was of opinion that nature was very important and therefore chose to study biology initially.

The work R2.8 is doing now also affects one personally, because of the safety aspect. Although the stories of grandma made an impression, R2.8 first thought these were solved by the big waterworks. Eventually

switched from biology to water management to work on these big societal questions. R2.8 also emphasized the importance of or rain and the lack of recognition for it in the Netherlands.

Thematic analysis

Relationship with water

For Interviewee R2.8 nature and water were present in childhood. R2.8 was active for WWF as a kid and already engaged with the big questions of what happens with the earth, melting ice, sea level rise etc. Their relationship with water was imprinted via stories about flood disaster from grandmother. And also, their choice of study was also based on their interest in big societal issues: water management. However, this participant is an exception. All other participants were mainly involved via their intellectual, philosophical interest in the human-nature relationship. The prominence of Latour's work was their main driver to get involved in the initiative. However, almost all interviewees are much more interested in, involved in and engaged with water related issues after their participation. Some also express that they are more strongly connected with water (R2.6 & R2.7).

This connection can again also be more intellectual, inspired by reading, as is the case for R2.4: He feels at ease and at home in the proximity of water. However, nature was not very important in childhood but more in the background. He is more interested in humans, politics and anthropology. But this changed over the life course. R2.4 read interesting books about nature and climate and this reading led to a desire to experience nature and this "changed my way of looking at nature, my way of feeling about nature. I think I found a way to connect with nature. I'm more aware of the interconnectivity of things, of nature, human beings, animals." R2.4 sees participation in this initiative as "a part of a new path where I was trying to engage more with nature. Trying to get out of my human point of view, be closer to non-human perspectives".

This intellectual 'world opening up moment' was also present for R2.5 when diving into the work of Latour: "Suddenly I thought 'Oh but this is serious, this is beyond me learning all interesting things here at school. This is about where we are now in the world. That light really went on.'" And although R2.5 did not feel very connected to nature or water in childhood, the realization of the sea being part of themselves is very recent. Another example is interviewee R2.3 who also does not have a personal connectedness with water, it was not present in childhood. But R2.3 is intellectually interested in human-water relationship: "In the Netherlands, we have a relationship with water that is characterized as a battle and taking control. We should change our way. Is of the opinion that humans somehow lost their deeper connectedness with water; they should embrace it and learn to embed in in their lives."

For almost all participants in the Embassy of the North Sea initiative, we see how their engagement and connectedness with water grew out of their participation. The interest in human water or broader the human-nature relationship was mainly intellectual, inspired by Bruno Latour, which fueled their involvement in the design contest of the Embassy. Their participation broadens and strengthens their connectedness with water, leading to a variety of new water related projects.

Strategies and approaches

Interviewees encountered the design contest by the Embassy of the North Sea primarily through higher education they took, either via a teacher in their studies (R2.3; R2.4; R2.5) or a student (R2.8). These people invited the interviewees to participate in the contest because they knew they were interested in or familiar with the work of Bruno Latour (R2.3; R2.5) or because they needed a fellow contestant with knowledge about water (R2.8). Two people who collaborated in the contest (R2.6; R2.7) don't remember exactly how they encountered the challenge, but they believe that they saw the contest on Instagram: "I always get stuff like that sponsored", said R2.7, indicating that they saw these advertisements because of their pre-existing interest.

Interviewees primarily participated because they were interested in the work by Bruno Latour (R2.3; R2.5; R2.6) or more specifically an interest in non-human perspectives (R2.4). Moreover, as the contest happened during covid times, they saw it as a good opportunity to get to know new people to work with in an interdisciplinary setting and become inspired (R2.3; R2.5; R2.8). The idea of the contest appealed not only in terms of the theoretical foundation, but especially because this theoretical or philosophical foundation was combined with art (R2.4; R2.8) and a spatial (water) component (R2.7; R2.8) and that it entailed creating something tangible (R2.3; R2.4; R2.7).

The interviewees especially liked that they learned so much through participating in the design contest. They learned about new topics (R2.6; R2.7; R2.8) from highly esteemed teachers, they learned using new tools and methods (R2.3; R2.7) and about new ways of collaborating (R2.5). Moreover, they liked the creative component and that they worked towards something tangible (R2.3; R2.5). Working on these topics in an interdisciplinary group moreover allowed R2.8 to recognize parts of themselves in other people they met. The intersect between the different disciplines allowed for a “revival of my inner philosopher” and for seeing how different spatial aspects fit together conceptually (R2.7; R2.8).

Underlying almost all the downsides mentioned of the contest were the restrictions due to the covid pandemic. These had a lot of impact on the process (R2.7; R2.8), but also on the potential impact and visibility of the exhibition (R2.4; R2.5; R2.7) and on activities such as the meet and greet with Bruno Latour (R2.7) or opportunities to build the design (R2.7). There was some criticism on the exhibition (R2.4; R2.5; R2.6) and the space and attention that was given to the contestants in this phase of the project (R2.4). There is a worry that because of the short exhibition and the limited attention, the designs stayed too much within the domain of art and could not evoke any real change or impact (R2.3; R2.5).

Hopes, Fears & Future Expectations

The participants of the design competition of the Embassy of the North Sea express love for the planet (R2.3) and love and care for water specifically (R2.4). “When aiming to involve young people with water, love for water is important. It is always easier to care for someone, for something that you already love and gives you pleasure.” (R2.4). Another interviewee mentions gratitude. This person is of the opinion that we should be more thankful for rain “Let’s welcome rain.” (R2.8) At the same time we encounter a lot of anger and frustration. Anger about your environmental being treated this way and the prospect of a worse future (R2.4) and anger and pity that everything (in terms of positive development, solutions) goes so slow, and your own actions feel like a drop in the ocean (R2.6), this makes people despondent. However, one interviewee thinks that for some people anger could also be a strong motivator (R2.4).

The Embassy of the North Sea participants share with the Clean Rivers participants that there is still hope for nature and water, that it is not too late. Some explicitly link this hope to their own actions, for instance interviewee R2.3 says, “you also do it with a kind of hope, the hope that it can still work out somewhere”. This person calls the energy transition a hopeful world: “A more sustainable future is being hammered out there with kind of haste.” And several interviewees find hope in terms of relatedness, for instance seeing peers share these feelings of urgency (R2.6) or through the actions of others: “that you see how much resonance these concerns have, that it can bring people together.” (R2.3). Interviewee R2.5 does not have that much hope, but the hope that is present, relates to what he sees that others are doing: “oh I don't know if I can put that into words properly now. I don't have that much hope. But the hope that is there, I get very much from what I see happening.” Interviewee R2.7 finds hope in the emergence of collectives. “These are hopeful movements through collaboration, exchange, and knowledge sharing. That you don't just do your own thing and that together you have a bigger impact because it spreads.” Finally, R2.6 finds it hopeful that the EU is funding such a project as FLOW because the Netherlands is not exactly at the forefront on the national level, and then it gives hope that there is a larger body above that does feel that urgency.

The interviewees from the Embassy have some water-related fears on the personal level; some have a fear for water already as a kid, some fear swimming, drowning or just deep waters. One person mention fear for big water tanks in zoos. Another type of fear expressed in this group of interviewees is the fear that big parts of the Netherlands will be flooded in the near future and that they have to move (R2.3-R2.5; R2.6; R2.7). One interviewee mentions the fear that there will no longer coming water out of the tap (R2.5). Others also mention water shortage (R2.3; R2.4; R2.5).

Just as for the Clean River participants, this group fears the power of the industry and the precedence of money. One interviewee (R2.3) says: “the monster is not really being looked in the eye; they think we can continue on the same footing with a little bit of technological adjustment” and “the males of the industry need a big shake-up; do they even realize what kind of world we are heading for”.

Social interaction & fostering engagement

In terms of social interaction, we have asked the interviewees how their social circle responds to their engagement with water and their participation in the design contest of the Embassy of the North Sea. Some interviewees mention that their friends were dealing with similar issues as the interviewees themselves in the light of a changing environment. Their peers were at the point in their life that they started looking for meaningful, impactful work (R2.3) or that they are interested in or working on similar topics (R2.5). For a few interviewees these peers were lacking; they were actively looking for these peers through participating in the contest (R2.8) or they did not really talk about the design contest to a lot of people because of covid and because they have difficulties talking about the climate crisis to their friends and family at all (R2.4). Two interviewees mentioned caution in discussing the topic of the design contest with peers as well because they doubt whether everyone would take it seriously as they feared that giving a voice to a non-human could also come across as childish (R2.6; R2.7). In the end, interviewees R2.6 and R2.7 do believe that they managed to come up with a design that did have a serious tone of voice.

The interviewees were also asked about what they think is necessary for young people to engage with water. Half of the interviewees also mention how a sense of urgency is needed to protect water. This sense of urgency not only relates to protect water for its intrinsic value (R2.3), but also through a consciousness of the threat of floods and droughts not only across the world but also in the Netherlands (R2.7, R2.8). In the words of R2.7, people need to be aware of the “untenability of certain [water]systems” we have (R2.7). Being aware that these problems do not just threaten the environment but also your own future can be a strong motivation as “outrage can also be a motor, can be a strong source of motivation” (R2.4). The interviewees also mentioned how young people need to find a love for water through pleasure and enjoyment (R2.4) but also for its beauty and intrinsic values (R2.3) also as through being engaged as a child (R2.5; R2.6). Engagement with nature/water should be a “more fundamental part of life” (R2.5). A focus on finding meaning in action for water (R2.3) was mentioned.

4.3 Parlement de Loire, France

4.3.1 Document analysis & interviews with the board members

The document analysis and interviews with the board members resulted in a description of the pioneering initiative and are thematically presented below. The document analysis included amongst others a published book (De Toledo, 2021) and one internal document. The interviews were held with board members of involved organisations (R3.4 and R3.5; each 40 minutes, not recorded).

Description of the pioneering initiative

Parlement de Loire is a fluid collective of public and private organizations and people, working and living around France's longest river, many of them from the young generations. Their objective is to raise awareness of the issues surrounding the river and the different ways in which humans and rivers can



dialogue, experiment, and build community. From 2019 onwards, the network has experimented with new approaches to landscape planning, urban development and human-nature stewardship through political, scientific and artistic interventions. The intellectual inspiration of the network's activity stems from the works of Bruno Latour and Phillippe Descola who have been directly engaged in many of the network's activities. Not that in the collective's language it is "Loire" and not "the Loire", leaving out the adjective to personify the river, value it differently, more equally. A detailed summary of the philosophical foundation, objectives and motivations of the collective are described in a book by Camille de Toledo that was published because of the auditions of the Parlement de Loire (De Toledo, 2021).



Figure 2 Impressions from field work during two events organized during "La Grande Remontée de Loire". Copyrights by Max Priebe.

Short history & organizational structure

In 2019 and 2020, the auditions of the Parlement de Loire brought together over thousands of people from the arts, sciences, public administrations and civil society to discuss how the Loire River could be established as a legal entity that expresses itself and defends its interests through a system of interspecies representation. In 2021, the "Assemblées de Loire" and the "Grand Retournement" followed and resulted in the development of a manifest for the Loire that describes the common set of values and commitments of Parlement de Loire. With "La Grande Remontée de Loire" in 2023, Parlement de Loire organized a journey on the Loire. Thirty-two boats made their way from Nantes to Orléans and organized scientific and artistic events in 20 places along their way, finishing at the "Loire Festival". Subsequently, the collective developed a declaration for the river, which can be signed online.

Parlement de Loire is a broad and fluid collective based on a number of private and public organizations, amongst others POLAU-Pôle Arts et Urbanisme, La Rabouilleuse-École de Loire, Voiles de Loire, Mission Val de Loire, Loire Sentinelle, Université Populaire pour la Terre and Maison des Sciences de l'Homme. The collaboration is loosely structured at the time of the interviews.

Strategy in approaching young people

Parlement de Loire directly engages young people in the planning and implementation of their activities, notably through project work, internships and volunteering. Furthermore, the large public outreach attracts the attention of many young people living by the Loire.

Future images & Impact

The manifest of Parlement de Loire (Parlement de Loire, 2023) articulates a vision for engaging with the Loire that emphasizes the interdependence between Loire and its inhabitants (human and non-human). Thereby, it draws from eco-centric, multi-species justice, rights for nature and more-than-human perspectives.

Given the high visibility of Parlement de Loire, its books, exhibitions and events, the initiative has arguably shaped not only intellectual approaches to understanding human-water relations but has also impacted the concrete enactment of eco-centric human-water relations of many people living by the Loire.

4.3.2 Interviews young people

For the interviews with the young people who participated in Parlement de Loire, we provide an overview of interviewees (see also appendix 8.4) and afterwards we thematically present the findings from the interviews.

Summary per interviewee

Interviewee R3.1

The young woman grew up in different mid-sized and large cities in France. During weekends, she would often go out for walks by the Loire with her family. She remembers that besides feeling connected to the river through these walks, she never set a foot in it as everyone repeatedly warned of the dangerous waters. The first time the interviewee took the risk and went swimming in the Loire she was at the age of 24. Besides little experiential connectedness, her studies connected her to nature and especially rivers in a cognitive and professional way. She explains that she studied landscape design and that now working for different agencies, she is constantly "...in the field, surveying spaces where there's life". Interestingly, the interviewee restricts herself from using the word "nature", instead referring to "life" and "species". Asked about this, she responds that in many groups she is involved in this word has become a taboo.

The interviewee explains that it was an "adventure" that brought her to Parlement de Loire. In 2019, together with three friends on a small self-made raft on the Loire they started "reconnect to Loire and its territory". During weeks, she reports, they would float 300 km down the river, document its life and produce a research diary as well as a short movie (*Les êtres Loire*, 2020). After this trip, she got to know Parlement de Loire and started working for Polau, an art, urbanism and landscaping agency that is a central institution in the Parlement de Loire collective. Most notably, she organized the assemblies in Tours, which were cultural events open to the larger public. She describes that she organized fictional restorative justice workshop on the Loire with the participation of very different locals. Also, she contributed to an exhibition on rights for nature approaches around the world and worked on writing and illustrating a book that summarized the approach of Parlement de Loire. Asked about her co-workers, she reports that there are many young people working for Parlement de Loire or being attracted by their activities, especially students. However, she does not think that this kind of ecological engagement is specific to her generation. She mentions that her work is inspired and supported by people from older generations hinting at intergenerational solidarity rather than a generational gap.

What fascinates her with Parlement de Loire is that they are locally embedded and though trying to address global problems, manage to generate very concrete and situated action instead of discussing abstractly and distanced. The interviewee has the impression that besides a hierarchical structure in Parlement de Loire she was free to decide, that she had relative autonomy to learn what she is interested in, and she felt that her contributions were appreciated. However, after some time the fascination made way for disappointment. According to her, it is a failure to only stage discussions and performances without connecting them to activist action and join their "fight". These doubts made her leave Parlement de Loire. While she is grateful that Parlement de Loire provided her with meaningful work for some time, she asks "what does it concretely change?"

The interviewee notes that while she did not feel connected to the river in her childhood, that after her trip and the work with Parlement de Loire she now has a strong emotional attachment to its islands, birds, and streams. Reflecting upon future challenges, she goes on to describe that she is afraid of continuous urbanization that would negatively affect the life in and around the river, but foremost lead to water scarcity endangering human life.

Interviewees R3.2a; R3.2b; R3.2c

The young woman remembers often swimming in the river Congo when she was a child and her mother saying that she was a "mermaid, never not enough water". She goes on to describe, "Nature is marvelous". The two men to the contrary explain that they did not have a connection to an aquatic ecosystem in their childhood. During his studies, one of the men, was introduced the important ecological functions water bodies fulfill and while "loving nature a lot", he kept a distance to aquatic ecosystem. He suggests that his experience almost drowning as a young boy explains why he keeps distance.

All three young people applied to civil service after their studies (business, engineering, and biology) because they wanted to work on ecological topics. While it was not everyone's first choice, they started to work for the local public administration to sensitize people in Tours to the challenges the Loire faces and to raise awareness of sustainable practices and to "change habits". They walk along the river and docks and start conversations with people passing by. The day of the interview, they are on their way for public awareness raising on an island in the city center, where Parlement de Loire has organized a range of events during the whole weekend. Their tutor, they reckon, is the link with Parlement de Loire. Asked whether the public sensitization is effective, they react with doubts and discuss that there should be firmer actions like this. One suggests "eco guards" who can intervene whenever people throw their trash in the river. Another interviewee goes even further and demands that there should be "punishment" or "sanctioning" of such behavior, because the third interviewee adds, if not people just engage in lip service without changing. However, they emphasize that they do not stand for an "ecological dictatorship" either. The three agree that there is a "banalization" of certain actions, like throwing your cigarette on the ground, "While it is consensual to not do this, many still do". They feel that most people they approach along the river understand the importance of sustainable behavior, some are a bit indifferent and in few occasions, they even feel aggressed by people who do not respect their mission.

The interviewees describe their tutor as an inspiring person who knows and does a lot for the river. However, one argues, they do not always agree on politics and what needs to be done to protect the Loire. They believe that their tutor is 40 or more years old. They highlight that for a good working atmosphere it is important for them to be in a group of people from the same generation, which allegedly helps them to understand each other better.

Because of the work they do, approaching people and engaging them in discussions, one interviewee explains, they gained self-confidence. However, quite often, their work can be frustrating; all three agree, "People do not give you attention". They question if there might not be better ways to engage with people and agree that the events of Parlement de Loire are most probably more effective: "Being here makes sense... the people are more attentive." They subsume that it is mainly locals of the older generation who have an ecological conscious and are interested in the Loire. The family and friends of the three interviewees are also rather curious about their engagement. Sometimes they also make jokes about them: "When I explain that I am an ambassador of the Loire, my flat mates laugh and say I should be given a proper office", one of the young people explains. They are not sure if their volunteering shapes their future career paths, or whether they will want to engage with river protection in the future.

Interviewees R3.3a; R3.3b

One of the two interviewees has negative emotions when thinking about her connection to water in her childhood. She recalls being afraid of the risk of flooding living close by the river Oise. More generally speaking about nature, she admits to not having had much of a connection because she grew up in a bigger city. The other interviewee grew up in a mountainous area in Lebanon. She was a member of a scouting group for years, but she was barely fully "at ease" in nature. She remembers that at school they would often talk about the pollution of rivers. When she thinks of connections to water in her childhood, she has the image of dried out rivers and sand banks. This image makes her sad.

They explain that as a part of their study program (art and design) at the university in Orléans they go on an excursion for one month. They were interested in joining a professor who is engaged in the activities of Parlement de Loire. Reflecting on the past days, which they spend on boats, bikes and in tents by the Loire, the two interviewees agree that one should not be afraid of nature even if it can be uncomfortable at times. They both enjoy documenting what they see, observing, writing, drawing and interviewing people along their journey. The interviewees feel that by doing so they can contribute to their excursions and activities surrounding Parlement de Loire. They explain that their professor helped them to perceive nature differently, e.g. focusing on the winds and how the trees react to it. Being by the Loire they feel connected to the river, as if "we would flow together with it". They also enjoy the fact that the landscape is "wild" and "calm" at the same time. In addition, both interviewees are interested in learning more about the scientific approaches to understand the river, that are presented by Parlement de Loire, such as measuring water quality or collecting DNA samples.

Both interviewees like that they are from different generations meeting through Parlement de Loire. They emphasize that this heterogeneity is important "because we have so much to teach to each other". Asked whether the relationship to nature differs by generation, they complain that their generation has a "superficial" way of connecting to nature, e.g. taking pictures for Instagram. However, one of the young people adds, there is most probably more or less connected people in every generation. She finds it paradoxical that her grandmother for instance "...had quite frequent contact with nature, but she didn't necessarily have the knowledge or awareness to know that it needed to be preserved [like many in the young generations]". The other interviewee agrees and adds that people have now become more aware of the urgency to change how we treat nature. Both interviewees think that the human-water relations by the Loire are special, because it is still relatively "clean and full of life and beautiful", and thus people identify with it. They themselves, however, do not identify with the idea of being "ligérienne" (an inhabitant of the Loire).

Asked about how the last days affect their future, they both think that establishing such a strong connection "woke them up" and that it will have a long-lasting effect on their relationship with nature in the future. As for the future of the Loire, the interviewees hope that more people engage with the river and protect it. They think that programs like their excursion or initiatives like Parlement de Loire can be the foundation for a larger structure that may mobilize people. They conclude that community approaches are much needed.

Thematic analysis

Relationship with water

All interviewees express (dis-)connectedness in the form of experience and cognition. Some additionally articulate philosophical and emotional connectedness (e.g. they report to feel like flowing with the river). Most interviewees hint towards material connectedness by emphasizing that human life depends on access to freshwater. However, this dimension is only vaguely expressed by the interviewees.

All interviewees think that their connection to water was strengthened by engaging with the Parlement de Loire. Only a few reported to have had a particular connection to water before.

Strategies and approaches

The motivations to join an initiative clearly differ from case to case. In the case of Parlement de Loire, motivations to engage are very diverse. Some of these interviewees frame their engagement as work, some as activism, some as research, yet others as travel.

A recurring, positively connoted theme throughout different interviews is community. Young people find meaning in practices such as mutual learning, protecting, raising awareness, or more openly engaging with aquatic ecosystems. Still, working with other (like-minded) people in a group is articulated as the

main driver for the continuous engagement. The young people interviewed also enjoy autonomy. While the overarching rationale of working in the initiative is set, they can develop and implement their own ideas. Some of the interviewees would like it if the initiatives would dare to support more transformative or radical changes.

Parlement de Loire appears to attract people that can be considered as coming from a creative, educated, eco-aware social milieu. They constitute a nexus between universities, museums, theatres, universities, landscape planning agencies, local public institutions and to some degree communal politics. The young people interviewed in the context of Parlement de Loire engaged with Loire because of their interest in these fields and not because they were (at the first place) interested in topics such as water management. While the initiative does not start by emphasizing ecological protection or conservation, the experiences young people have with them shape human-water relations that are supportive for future ecological engagement and professional engagement with waters.

Hopes, Fears & Future Expectations

Fears articulated in the interviews centre around floods, droughts, unjust access, and distribution of water (between industry, agriculture, nature, etc.) and fears concerning biodiversity loss due to urbanization. In terms of hopes, many of the interviewed young people imagine that education and awareness raising can potentially bring about change and lead to a decline of unsustainable practices as well as foster connections to water. The young people interviewed in the context of Parlement de Loire did, however, not directly see a link between their future lives and their present engagement.

Many interviewees stress that they receive support from other generations, intergenerational solidarity. Interviewees emphasize that it is important for them to work in a setting where different age groups join and learn from each other. Through these interactions, they do not recognize any significant difference in how they or other generations perceive their relationship with water. However, they are aware that there are stark differences across different socio-cultural milieus.

Social interaction & fostering engagement

The analysis of the interviews shows that within the close social circle of family and friends, engagement for the initiatives is viewed as something desirable. People may even be proud and supportive. In the case of Parlement de Loire interviewees mentioned that despite being favourable about their engagement, many do not fully understand what they do and why they do it.

In connection with their hopes, many interviewees believe that education may be an effective lever for having young people engage with water. Building on the interviews, we can furthermore conclude that community aspects and the possibility of direct experience with water are viewed to be important. Various framings seem to attract young people to engage with water or water stakeholders. It is important to note that the interviewees do not construct a steady framing for their engagement. Rather, they frame and reframe what they do, why they do it and how others could potentially relate to it as they speak (e.g. activism, fight, work, studies, research, and travel).

4.4 Klassenzimmer unter Segeln (Classroom under Sails), Germany

4.4.1 Document analysis & interviews the board members

The document analysis and interviews with the board members resulted in a description of the pioneering initiative and are thematically presented below. The document analysis included amongst other three articles and one unpublished internal evaluation. One interview was held with the project manager (R4.4; 69 minutes).



Description of the pioneering initiative

Classroom under Sails is an educational project on a sailing ship that embraces and experiments with experiential learning concepts. Onboard, around 30 pupils of the 10th grade (around the age of 16) together with a small group of educators join a professional sailing crew and embark on a six month long journey. The sailing ship *Thor Heyerdahl*, on which Classroom under Sails takes place, is operated by a non-profit association. Activities connected to the project include experiential school classes, nautical lessons, ship watches, shore leaves, clean-ups, scientific experiments, and ship handovers.

The project meets educational requirements and is recognized as a school visit abroad. The lessons onboard include various subjects, internships, and scientific work. The project aims to strengthen pupils' independence, initiative, and sense of responsibility. The Friedrich-Alexander-Universität Erlangen-Nürnberg studies the project to gain evidence-based findings for the improvement of teaching and learning processes.



Figure 3 Pictures from an article about Classroom under Sails. Courtesy of Classroom under Sails.

Short history & organizational structure

The project started in 2008. The conceptual design of Classroom under Sails originates from a doctoral dissertation on experiential learning conducted at the Faculty of Education of Friedrich-Alexander-Universität Erlangen-Nürnberg (PhD thesis; Merk, 2006). Classroom under Sails is a cooperation of the Friedrich-Alexander-Universität Erlangen-Nürnberg and two non-profit associations (Segelschiff Thor Heyerdahl gemeinnützige Fördergesellschaft mbH and Segelschiff "THOR HEYERDAHL" e. V) connected to the Thor Heyerdahl. The management board of the project consists of two persons:

- Overall and scientific management of the project and
- Educational management.

By linking pedagogical practice and scientific research in the project, the objectives and effectiveness of the project is continuously reviewed and improved. In addition, as a six-month long-term intervention, the Classroom under Sails project offers researchers an opportunity to empirically investigate school and experiential educational teaching/learning arrangements and their impact and thus gain scientific insights into the development and promotion of motivation, skills, and personality in adolescence.

Strategy in approaching young people

School teachers throughout Germany are encouraged to present the project in 10th grade and before. Classroom under Sails reaches out to them via a network of schools and a structured application process. Classroom under Sails has appeared in newspaper articles and documentations.

Future images & Impact

Despite of working towards developing experiential learning, Classroom under Sails has no clear future-oriented vision of its initiative. Whilst focusing on allowing young people to travel the ocean, the initiative

frames its engagement neither in terms of environmental education nor in the sense of connecting to the ocean. Its scope is on fostering personal development and innovation in learning. However, given the unique setting in which the project takes place, marine protection is an everyday concern of the pupils onboard and their relationships towards the ocean is long-lastingly impacted.

4.4.2 Interviews young people

For the interviews with the young people who participated Classroom under Sails, we provide an overview of interviewees (see also appendix 8.4) and afterwards we thematically present the findings from the interviews.

Summary per interviewee

Interviewee R4.1

The interviewee grew up in a peri-urban area in Bavaria where despite engaging with water sports (swimming, kayaking, water-skiing) she had no particularly strong connection to water. However, she has memories of connecting to the forests and mountains in her region at least partly due to activities with her parents. She first heard about Classroom under Sails at school and was motivated to apply because she was fascinated by the idea of traveling to "faraway places" and "to get to know different cultures". In addition, she reports that she enjoyed the idea of a strong community of people that found together on a "traditional and majestic" sailing ship.

Reflecting on her duties on board the Thor Heyerdahl, such as setting the sails, watch duty, machine maintenance and school as well as nautical lessons, the interviewee describes that the pupils did not only learn how to sail a ship, but were given a lot of autonomy and responsibility in taking over tasks. She highlights that teamwork was crucial to managing the ship and that especially in moments of hardship, for instance when people got seasick (which happened often and to all) the crew supported one another and thereby grew together. Despite doubts concerning the communal life on board, i.e. living with almost 50 people on very limited space without room for privacy, she experienced this closeness as something very positive.

The interviewee described that also the night watch could be challenging, but that experiencing the ocean, night sky and sunsets compensated for all feelings of unease. Asked about the hierarchies on board, the interviewee emphasizes that besides the necessary formal hierarchies on board (crew/teachers/pupils) she felt that "everyone was on an equal footing" and details that this was also given in terms of gender: "...also girls set the sails, which is physically challenging... and boys also have to clean the dishes". She especially enjoyed standing "behind the steering wheel", which she says was "nice" not only because of the responsibility, but also because of the view.

After having returned from 6 months onboard, she reports, her associations and connection to water fundamentally had changed. She is considering studying oceanography. She continuously thinks about the ocean, endangered biodiversity and the challenges between humans and water (she mentions water scarcity, which they experienced on board) and would like to engage more in marine protection. According to her experience talking to people about her journey, she believes that people are willing to change their behavior towards more sustainable ways of consumption, but that raising awareness is central. She clarifies that not more "boring" information is needed but experiential ways of learning and connecting.

Interviewee R4.2

The interviewee grew up in an urban area in Bavaria. She has always had a strong connection to water through visiting her aunt by the Baltic coast, staying by the lake, sailing, rescue swimming, and more recently freediving and clean-ups. Given these interests, she concludes that since her childhood she has had a strong connection to water and always had an interest in aquatic ecosystems. She goes on to describe, "...aquatic ecosystems are fascinating because we know so little about them". Asked about what

she likes in diving, she responds that she enjoys the "calmness" under water and that nothing else matters down there. She refers to her mother as a "sea person" whose attitude shaped her relation to water.

When her mother got know about Classroom under Sails and told her about it they were sceptical because of the long duration of the trip and the expected financial burden, the interviewee remembers. Therefore, she participated only in a shorter program by Classroom under Sails, a summer school for two weeks by the German coast. She explains that after successful completion and negative feelings towards her school class, she just wanted to leave, at the best with Classroom under Sails, and "did somehow manage to convince" her parents while also working to raise some funds. She was very happy when her application for Classroom under Sails was successful.

In resonance with statements by other interviewees, she highlights that despite a lot of hard work on board (see above) the feeling of community and the handing over of responsibility was a main source of her motivation onboard. She also mentions the recurring seasickness, or how she likes to put it "feeding fishes", as an event where solidarity and empathy were mutually performed, and the group found together. She describes positive memories regarding night watches and being behind the steering wheel as the ship's captain, "...just observing the sky and the ocean". Despite considerations whether she was ready for it, she was proud to have learnt so much and to have been entrusted with captainship.

After the trip with Classroom under Sails, she reports that she had experienced a "culture shock" and had problems to find her way back to ordinary school life. She feels lonely at times. According to the interviewee, her classmates throw away plastics in the streets and talk mainly about fashion with little consideration for the problems caused by pollution and overconsumption. She would like to show people what she has seen on the ocean, "the massive algae blooms" and "plastic junk islands", maybe then, she subsumes, people would take care how to handle waste. Her hope is that a community like the one she experienced onboard could be also created at school and that this would change how people think and consume. Therefore, they would, according to her, need to experience nature directly and not only live their lives in cities, which is something school should support.

Interviewee R4.3

The interviewee grew up in a peri-urban area in Bavaria. She lived close by forests and lakes, which she frequented often in her childhood. She remembers to always have had a strong connection to nature, but not to the sea, that was shaped especially by many hikes with her family and in the context of an Alpine mountaineering association. The interviewee was training for rescue swimming, but she recalls not liking the chlorine water of the pool. She much prefers the lakes with their nature, like the swimming ducks and the surrounding trees. She was always sad when her favorite lake attracted parties and when people would leave their trash, so she and the school organized occasional clean-ups.

Her motivation to apply for Classroom under Sails came from a friend who took part and highly recommended her to go on the ship. The interviewee describes that she was fascinated by the idea to "experience a real adventure" and to explore places that were completely unknown to her such as the Caribbean.

After a successful application, she departed with Thor Heyerdahl. She suffered a lot from seasickness, which made it difficult for her to acquire nautical knowledge. She did not have previous experience or knowledge of sailing. However, she explains that she was happy to take over the responsibility of provision master, a duty in which, according to her, she had a lot of responsibility and freedom. She remembers enjoying "the culinary journey" such as when shopping for food in foreign supermarkets that she found to be very different from what she had known before. The interviewee emphasises that cooking, sailing and making music were always practiced together. She enjoyed the community onboard. Only when she was seasick it was difficult to share a small cabin with five other people. In addition, she highlights that

she enjoyed the marine biology classes, i.e. taking water probes, analyzing algae and fish. She adds that she considers to study marine biology now.

After having returned from 6 months onboard, she reportedly feels connected to the sea now. She went on a sailing trip in the Baltic and convinced her father to also start sailing. In the near future, the interviewee would like to do another Atlantic crossing with a sailing ship. She hopes that when she has children that she will spread her connectedness to her future family by going on a houseboat trip for some months. Asked about her ecological engagement after the trip, she emphasizes that it is important to her to talk with people about the negative impacts of accelerated, fossil fuel-driven travels through nature, such as cruise ships on the ocean or gondolas on mountains. She concludes that her "...dislike [towards these modes of traveling] has gone over to anger". She adds that she often feels very depressed amidst the ecological and climate crisis and the wars. The interviewee likes dolphins and is worried about the destructive effects of industrial fisheries. She believes that only experiencing slow, sustainable modes of travel or engaging people in clean-ups can help to connect people to nature

Thematic analysis

Relationship with water

All interviewees express (dis-)connectedness in the form of experience and cognition. Most interviewees hint towards material connectedness by emphasizing that human life depends on access to freshwater. However, this dimension is only vaguely expressed by the interviewees. All interviewees think that their connection to water was strengthened by engaging with Classroom under Sails. Only few reported to have had a particular connection to water before.

Strategies and approaches

The motivations to join an initiative clearly differ from case to case. For the interviewed Classroom under Sails alumnus motivation developed in the context of school exchanges and the idea of a great sailing adventure to faraway places and cultures. Consequently, the interviewees frame their engagement as travel and discovery.

A recurring, positively connoted theme throughout different interviews is community. Young people find meaning in practices such as mutual learning, protecting, raising awareness or more openly engaging with aquatic ecosystems. Still, working with others (like-minded) people in a group is articulated as the main driver for the continuous engagement. Certainly, protecting aquatic ecosystems or sailing the ocean are all welcomed frames for portraying the interviewees engagement, but at the end, it is the human-human relations that motivates most. The young people interviewed also enjoy autonomy. However, while many emphasize that they can decide freely, it seems from the point of the researcher as if this freedom is well structured by the initiatives and that it has its limits.

Classroom under Sails interviewees are not directly motivated by the idea of marine protection, but by the idea of traveling on sailing ship. Classroom under Sails has a clear target group (10th grade pupils). While the initiative does not start by emphasizing ecological protection or conservation, the experiences young people make with them shape human-water relations that are supportive for future ecological engagement and professional engagement with waters.

Hopes, Fears & Future Expectations

Fears articulated in the interviews centre around possible drinking water shortages, unjust access and distribution of water (between industry, agriculture, nature, etc.) and fears concerning biodiversity loss and accelerated climate change. In terms of hopes, many of the interviewed young people imagine that education and awareness raising can potentially bring about change and lead to a decline of unsustainable

practices as well as foster connections to water. The Classroom under Sails interviewees noted that they expect to engage more with the ocean in the future.

Many interviewees stress that they receive support from other generations, intergenerational solidarity. Furthermore, they do not accentuate any sort of difference how they or other generations would relate to water. However, they are aware that there are stark differences across different socio-cultural milieus. That would mean that we neither have a specifically eco-aware young generation here neither a generations that is specifically well connected to waters, but a continuum of human-water relations.

Social interaction & fostering engagement

The analysis of the interviews shows that within the close social circle of family and friends engagement for the initiative is viewed as something desirable. People may even be proud and supportive, as indicated by the interviewees.

In connection with their hopes, many interviewees believe that education may be an effective lever for having young people engage with water. Building on the interviews, we can furthermore conclude that community aspects and the possibility of direct experience with water are viewed to be important.

4.5 Centre for Coastal Culture, Portugal

4.5.1 Document analysis & interviews with the board members

The document analysis and interviews with the board members resulted in a description of the pioneering initiative and are thematically presented below. The document analysis included an information brochure (2022) and the Facebook account of the Sesimbra Maritime Museum. The interview was held with a senior employee from the Sesimbra Maritime Museum (R5.4; 120 minutes).

Description of the pioneering initiative

The Centre for Coastal Culture project (CCC) is a collaboration between the Sesimbra Municipality, through the Sesimbra Maritime Museum (SMM), the Norwegian Maritime Museum, the Tromsø University Museum in Norway (which is part of UiT The Arctic University of Norway), and two local Portuguese artisanal fishers associations (The Artisanal Fishers Association of the Center and South and the artisanal fish production cooperative ArtesanalPesca). The Centre for Coastal Culture is funded through the EEA Grants program for the period 2021-2024. In the Centre for Coastal Culture project, a program of shared activities is designed with the community around the maritime cultural heritage. The initiative is designed to involve the entire local community, regardless the age. However, the young generation is specifically targeted when designing the various activities related to cultural heritage, especially an exhibition. This exhibition, which will be displayed in Portugal (April 2024), Norway (June 2024), and online, is called “Living with the Ocean”. More than 6600 young people are involved in this initiative.

The main objective of the Centre for Coastal Culture project is “to boost the local economy, to promote sustainable fishing and the identity of fishing activity, to safeguard the traditional crafts such as wooden shipbuilding, to value the maritime cultural heritage, to implement new technologies for fish processing and to encourage the production of knowledge regarding the sea, through the creation of partnerships with Norwegian and local entities” (CCC Information brochure, 2022).

This project is based on eight main components:

- i. To rehabilitate the centenary building, where the Maritime Knowledge and Culture Center will be installed, with a museological value, integrating conservation laboratories, research offices, a visitable reserve and an area for educational activities (Figure 4);

- ii. To create a new digital incentive management system for objects and multimedia, optimizing the endurance of memories and testimonies, but also of objects, enjoying the connection between them and as memories of each donor;
- iii. To create a shop to promote and sell recovered traditional products, such as canned preserves, made from artisanal fishing, an asset for local entrepreneurship;
- iv. To promote the exchange of knowledge in shipbuilding, museum conservation and restoration, fishing techniques and fish processing areas, enhancing new technologies and sharing experiences.
- v. To implement a dissemination and communication campaign to affirm the sense of local identity, through the partnerships established and the election of the active benefits of sustainable fishing;
- vi. To design a program of shared activities with the community around the maritime cultural heritage, involving new local players and at the same time diversifying as potential audiences;
- vii. To hold an exhibition event, “Living with the Ocean”, in Portugal and Norway, focused on young people starting their professional future on the relevance of maritime activities and sustainable fishing (Figure 5);
- viii. To organize scientific seminars resulting from common partnerships, with the presence of researchers, students, and community members, for dissemination of the achieved results.



Figure 4 Model of the rehabilitated building (left) and building during rehabilitation, in March 2024 (right). Source: CCC information brochure, 2022 (left), SMM Facebook (right).



Figure 5 The “Living with the Ocean” exhibition on the Sesimbra beach promenade , April 2024. Source: private image.

Short history & organizational structure

The Sesimbra Maritime Museum (SMM) opened in 2014, in the renovated building of an old fort (Figure 6). The first exhibition was launched in 2016. The interviewee (R5.4) has been working with the Sesimbra Maritime Museum since 2018. The interviewee is the driving force of the Centre for Coastal Culture. She is supported by a dedicated team of young people, mainly employed at the Sesimbra Maritime Museum. Her main approach to developing the museum is in line with that of “community museums”. A community museum is a type of museum that is established and operated by members of a local community to preserve, interpret, and celebrate the cultural heritage and history of that specific community. Unlike larger institutions like national or regional museums, community museums typically focus on the history, traditions, and stories of a particular locality or group of people. From the perspective of the interviewee, the Sesimbra Maritime Museum has an important role in the community, through highlighting the local history, culture, and traditions (especially of the fishers, Figure 7), community involvement, inclusivity, a participatory approach, and education and engagement with children and youth (Figure 8). The interviewee puts emphasis on working *with* the community, not *for* the community. In 2019, the interviewee found out about the EEA Grants for culture-related actions. She started building the necessary network and applied for the grant in 2020. The project started in July 2021 and will end in April 2024. She sees the Centre for Coastal Culture as an extension of the Sesimbra Maritime Museum.



Figure 6 Reconstruction of a local fishing dinghy, an aiola, is in permanent display at the Santiago fort, where the Sesimbra Maritime Museum is placed. Source: CCC information brochure, 2022.



Figure 7 Carnival activities organized by CCC/SMM, February 2024. Source: SMM Facebook.



Figure 8 Discussing with children about issues of marine litter and the importance of recycling, January 2024. Source: SMM Facebook.

Strategy in approaching young people

The Centre for Coastal Culture directly engages with children and young people in Sesimbra through a variety of activities, mainly coordinated by the education department of the Sesimbra Maritime Museum: school visits; public lectures, workshops, and seminars at the Sesimbra Maritime Museum; street theatre; classes at the Sesimbra Maritime Museum (e.g. wooden boat building – in cooperation with the Norwegian Maritime Museum, cooking, recycling); guided tours (in the city and in the museum); concerts (Figure 9); book releases; activities with youth/people with disabilities; mural paintings; celebrations (e.g. saint protectors of the sea); sport activities; informal arrangements (e.g. with young fishers); photo exhibitions; the cubes exhibition “Living with the Ocean” on the beach promenade (in cooperation with UiT The Arctic University of Norway). The Sesimbra Maritime Museum is looking now into creating more digital content, in order to attract more young people to their activities.



Figure 9 New Year's Eve concert 2024, at the museum, with the chamber music sextet from the Academia de Música de Almada - Escola do Ensino Especializado da Música. Source: SMM Facebook.

Future images & Impact

The funding of the Centre for Coastal Culture project will end in April 2024. However, the Sesimbra Maritime Museum will continue its work as a community museum. The interviewee thinks that the Sesimbra community will continue being connected to the sea, drawing on all the five types of human-water connectedness, with the Sesimbra Maritime Museum being a main actor in this relation. The Sesimbra Maritime Museum acts as a mediator, bringing the past and future into the present of the community, as well as connecting the community to present trends in the wider society (e.g. migration, Artificial Intelligence). The Sesimbra Maritime Museum will not change the community but will change with it.

The Centre for Coastal Culture project is a strong actor in the community, connecting the past of the region, with its present and future, with a visible impact on the enactment of human-water connectedness.

4.5.2 Interviews young people

For the interviews with the young people who participated in the Centre for Coastal Culture, we provide an overview of interviewees (see also appendix 8.4) and afterwards we thematically present the findings from the interviews.

Summary per interviewee

Interviewee R5.1

R5.1 is a young man who grew up near Lisbon, in a town by the Tagus River. From his youth he had a connection to water through the geography and culture around the river, and then became interested in coastal history through visits to coastal castles with his family. This developed into studying archaeology and building toward a career in the field, with a special interest in the history of the castle in Sesimbra. In Sesimbra he has become deeply involved with the work of the Centre for Coastal Culture and the Museum, finding enormous value in studying the past for the sake of maintaining the heritage of Sesimbra's community, as well as for the knowledge of how challenges were addressed in history to inspire solutions in the future.

The Centre for Coastal Culture's work is important to R5.1 for grounding people's connection to the water that they live beside in Sesimbra through showing the heritage of their community, and he feels connected

to Sesimbra's past despite having grown up outside it. He is politically and environmentally engaged, arguing that young people are interested in studying and learning from history but are structurally discouraged from doing so due to a lack of opportunities to make a career in such fields. Similarly, he says young people are unable to effect the political change necessary to address the environmental concerns they have, whereas older generations are less inclined to use their political power toward environmental policy. R5.1 is concerned that historical cycles where people learned and adapted to disasters and environmental challenges are being ignored, and that there is a structural disincentive to learn from and then implement the lessons of history. He believes that despite these intergenerational differences in power and interest when it comes to the environment, older people can be convinced to work toward environmental policy and knowledge by showing them the beauty of the natural world that will be lost unless we act.

The Centre for Coastal Culture's work is crucial, in R5.1's eyes, for giving young people the opportunity to learn from history and to maintain the continuity of coastal heritage. The Centre for Coastal Culture represents collaborative networks of knowledge that send the message that despite the lack of structural incentives to study heritage and history, it is still possible to do so if there is the will. Initiatives such as the Centre for Coastal Culture build young people's capacity to think critically about the present through learning history. Moreover, the Centre for Coastal Culture's work reconnects people and industries toward older methods of working that were better adapted to the local environment. Lastly, there is a strong sentiment in R5.1's responses that building an attachment to places, their history and their beauty, is essential for taking care of them – and this applies not just to Sesimbra's culture and history, but the marine environment that shapes it.

Interviewee R5.2

R5.2 is a young man who grew up in the greater Sesimbra region and had a close relationship with water from his childhood. His family would frequently spend vacations in Sesimbra itself, and then finish the vacation in his father's hometown on the northern coast – a practice they maintain to this day. He related stories of how sailing in small, single-person boats was very important to his friend circle growing up and spoke of the good feelings he gets being in the water such as how he feels when there is water on his skin. Water gives him aesthetic joy and emotional peace. As time went on and his friend circle grew up, school and work took R5.2 away from a life on the water, which he misses. Nevertheless, he stays connect to nature through hiking.

The natural world and its future are a source of deep anxiety for R5.2. He fears what will happen to the natural world, particularly water, for his generation and future generations. It is because of this generational anxiety that he finds the work of the Centre for Coastal Culture and the museum remarkable. He identifies a great deal of youth interest in initiatives to uncover and showcase the heritage of Sesimbra and its coastal community. With a background in archaeology, he notes how special it is that the work of the museum motivates teenagers, normally a shy demographic, to engage and learn the history of Sesimbra. While most of the work of the Centre for Coastal Culture engages older generations who like to see their past and that of their grandparents highlighted, it is also notable for its high degree of intergenerational learning and solidarity with young people able to directly learn from and interact with older generations participating in events.

The high degree of environmental awareness in Portugal gives R5.2 hope that there is a steady possibility of progress in solutions for environmental degradation. Meanwhile, he believes that initiatives such as the Centre for Coastal Culture will see coastal communities revitalize their fishing economies slowly and bring people back into connection with water – which he believes his generation lacks.

Interviewee R5.3

R5.3 is a young woman who grew up in a coastal town away from Sesimbra. There she developed a relationship with nature through the mountains near her home. Though they lived close to the beach, her family did not go to the water very often due to her mother's fear of the sea. Instead, R5.3 spent a lot of time in the family pool.

Having moved to Sesimbra to work at the Museum, R5.3 is now a confirmed beach-lover, spending as much time there as she can in the summer. She attributes her love for the beach as an adult to her separation from it as a child. She appreciates being able to see the beach from her place of work.

R5.3 balances her appreciation of the need to study and maintain heritage, with a practical understanding of the realities of development. She notes that her place of childhood is now much more developed and thus there is less nature, but that such development enables round-the-year living instead of the vacation homes of the past. Working with the Centre for Coastal Culture and for the museum, she has had many powerful experiences of seeing people engage emotionally with heritage, and she feels apprehensive about the future of Sesimbra as a coastal community reliant on the fishing industry. At the same time, she acknowledges that fishing is a dangerous industry and does not see it as a bad thing that young people would rather go into other industries. She worries about the impact on Sesimbra of people moving away from a life revolving around the production and consumption of seafood. She notices that younger people are generally less interested in the work of the Centre for Coastal Culture and the museum than other group ages and that younger people are not having the knowledge of coastal culture passed on to them. She wishes that there were more initiatives that preserved the history of Sesimbra, which she appreciates as one who came to the community for this work rather than a native-born resident.

Thematic analysis

Relationship with water

The interviewees for the Centre for Coastal Culture reported a strong relationship with the water that ties to their childhood memories. One interviewee spent his youth sailing in the water with his friends, and another interviewee was unable to spend much time on the beach as a child and thus compensates by spending her free time on the beach of Sesimbra. Being in Sesimbra, with the beach close at hand, and working with coastal heritage gives them strong emotional, experiential, cognitive and reflective connections to water and the material culture of Sesimbra's coastal economy (boat-making, seafood, etc.).

Strategies and approaches

The interviewees came across the initiative through their work with the Sesimbra Maritime Museum, and thus the Centre for Coastal Culture intersects with their working lives. Their interest in the Centre for Coastal Culture is also thus inextricable from the work they do with the Sesimbra Maritime Museum more broadly. They each reported feeling a sense of attachment to Sesimbra, spoke of the intrinsic value of its coastal heritage, and their desire to foster the continued awareness of coastal history. Their motivation for doing so varies, outside a shared interest in history's intrinsic value. They reported finding it meaningful to connect older Sesimbrans to their memories of childhood and those of their parents and grandparents, but also reflected that it is important to connect young people to heritage so that the heritage is not forgotten, and so that history can be learned from. They reported the limitations of the Centre for Coastal Culture's activities, namely that limitations of money and state support prevent the activities from going as far as they should.

Hopes, Fears & Future Expectations

The interviewees are concerned about the ecological future of young people with water, and that young people are unable to access the power to affect change while the older generations that have such power do not sufficiently see themselves as stakeholders in the future. They worry that younger generations are

losing their connection to water and coastal culture due to a lack of interest and investment in the fishing industry, which could in the long run see the loss of Sesimbra's heritage. In this regard, they see the work of the Centre for Coastal Culture as crucial for maintaining Sesimbra's heritage and bringing young and old together in learning from the past.

Social interaction & fostering engagement

The interviewees stated that young people are broadly interested in learning more about water, engaging with questions of heritage and becoming environmentally active. Unfortunately, they lack the infrastructure and support to do so, with few initiatives such as the Centre for Coastal Culture, but also little funding and support for such initiatives as exist. More political will is necessary to effect change: interviewees spoke about the lack of funding for fields such as archaeology that help people connect to the past, and the lack of interest in political circles given to environmental issues.

4.6 Focus Groups

In total, three focus groups were held. The findings of each of the focus groups are presented below.

4.6.1 Clean Rivers and Design Contest

The focus group was held on February 23 with three participants from the design contest. The Clean Rivers' participant(s) cancelled last minute. The preliminary findings were presented and reflected upon with the group and one participant from Clean Rivers was called after the focus group to further reflect on the findings and add to the focus group.

Relationship with water

To make the relationship with water tangible, the participants made a mind map around the central question in this first round was: "What are your expectations of future engagement/relationships with water of young people?" (Figure 10). The participants indicate at several moments during the discussion that they thought the initial question was difficult to answer as it is different for different people at different places in different contexts. The mind map shows that the participants mainly address this question on the practical level mentioning issues related to water shortage and floods, and not so much on the emotional level of connectedness.

The first theme that was discussed, was the awareness of (possible) water shortages in the future. The participants mentioned that these shortages can have a big impact on agriculture, but the water shortages are not yet on the political agenda that much and are only mentioned a little in the news. One of the participants mentioned placing a rain-water tank was a sign of responsibility. As farmers are the first to encounter the impact of water shortages, reverting to small-scale farming with involvement in water, might be a solution.

Ideas around youth involvement in water did not come to mind immediately for the participants, but young people are concerned about climate change, which includes water. More young people are also driven towards activism, as hope diminishes. An example of this is the slow pace of change in the Netherlands, as it takes a long time before these issues are included in the political agenda. However, this slow pace also makes young people want to become more active in terms of contributing and thinking along with possible solutions.

The impact of increased flood risk on the housing market was another point. One of the participants did look at the Amsterdam Ordnance Datum (NL: Normaal Amsterdams Peil or NAP) of the house before buying it. The participant also checked the proximity of dikes, because of flood risk and the multiple-yearly maintenance. The other participants recognised this. The jump to the lack of permeability of cities is made, which increases the chance of a pluvial flood. Also, older buildings are less resistant to excess water. All these points can have a negative effect on the housing market. However, in the Netherlands a lot of cities

are close to dikes and below sea level. The places that are not, are often not appealing to youth. Drenthe is mentioned by a participant as an example. The interviewee from Clean Rivers that was asked to reflect on the findings as well recognized this dilemma on buying houses among people their age, but also mentioned that these conversations were also held with people from an older generation.

The willingness of young people to ‘move along’ with water or adapt to water was discussed too. Young people are more idealistic and want to try alternatives to dikes. Some participants mention that this has to do with the study they had followed, where sustainability and nature-based solutions were increasingly illustrated. However, a large group of young people want to continue the current flood protection path, with large man-made protection measures too. The interviewee from Clean Rivers who reflected on the focus group mentioned that in terms of moving along with water and adapting that it is two fold: if it is within their power this interviewee notices that young people are willing to take action and fight, but if there is no concrete action that can be taken that they are more willing to move along with water.

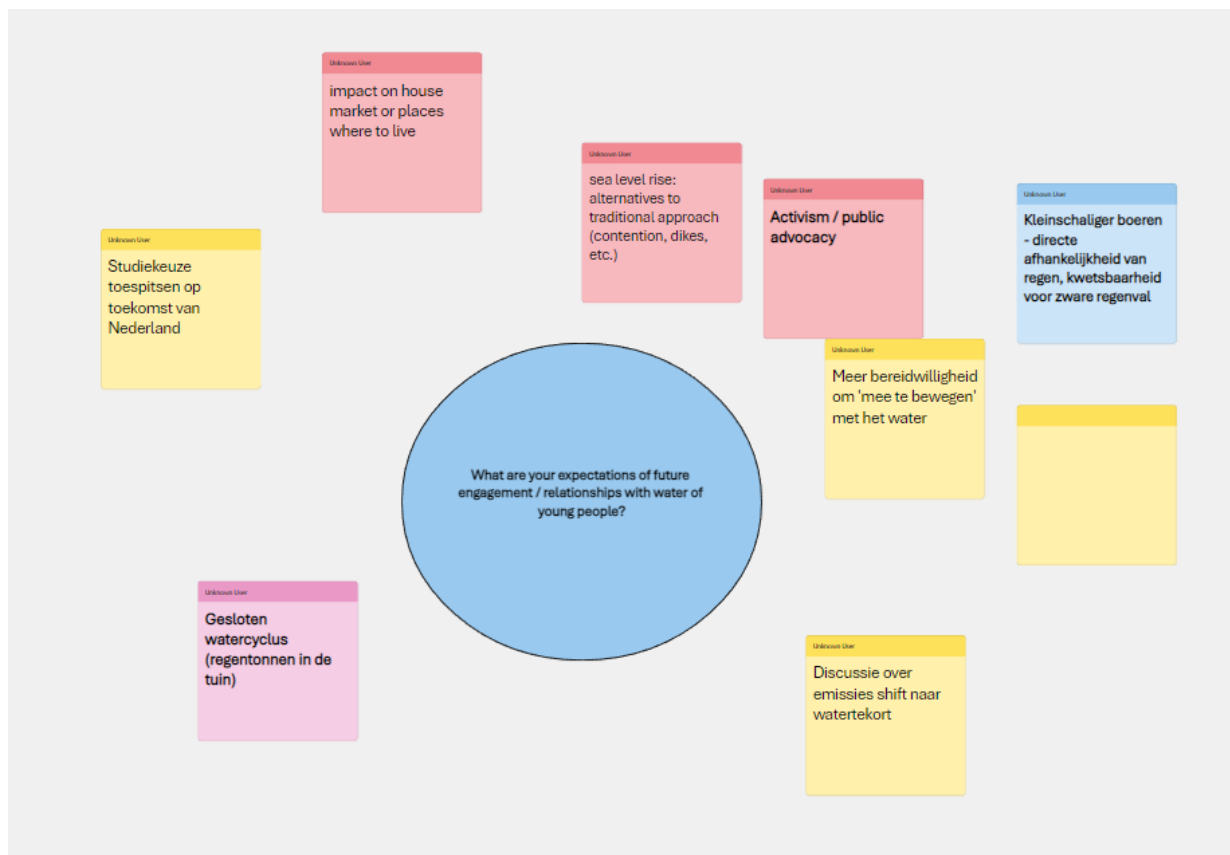


Figure 10 Mind map from focus group

Strategies and Approaches

First, the outcomes of the interviews and pioneer initiative background research was discussed. The differences between the practical-oriented method of Classroom under Sails & Clean Rivers and the more theory-oriented method of Embassy of the North Sea and Parlement de Loire were presented.

Some participants confirmed their interest in the theoretical and creative side of the Embassy’s project. They also did not have a strong connection with water before participating. However, one of the participants also thinks that the citizen science part of Clean Rivers can have a positive impact on politics and incite change, as it provides tangible data. Another participant had a more practical-orientated background and used citizen science for a thesis. The practical side of Clean Rivers really suits this participant, but one also likes to grab every chance of using one’s philosophical background and join a more theory-orientated initiative/project. One of the participants mentioned that the idea of Clean Rivers

is good but also twisted in some way as people must clean up the waste of other generations. The output of citizen science is considered positive. The participant viewed the cleaning up for others as negative, because of the possibility that those people may become demoralised if the situation does not change soon. The interviewee from Clean Rivers mentioned that she would not participate in for example the design contest as she considered it too vague but would participate in the other practice-oriented initiative, Classroom under Sails. she found the idea of giving a voice to the North Sea too symbolic and consequently it is not practical enough and the impact of what you achieve is therefor not visible.

All participants confirm the analysis of the distinction between practical- and theory-orientation of the initiatives. All participants also share the opinion that the theoretical, creative, and philosophical part of the Embassy of the North Sea is what attracted them in the first place. A question about the diversity within the Embassy of the North Sea was asked. One participant remarked that many others did not join the initiative because of a connection with water, but because of the philosophical and artsy side. Almost every participant of the design contest had followed a higher education and had a philosophical and artistic background. A conclusion was made that the design contest was more of a art project.

One of the participants also had a question for us as facilitators of the focus group: “What is meant with involvement/engagement with water?”. The participant was of opinion that everybody was involved in some level, for example going to the beach, using water as a farmer, being a fisherman on the ocean, etc. However, this could be different if involvement meant that water would really concern one personally. The participant thought that his own involvement was more passive and was of opinion that dependency of water was what could initiate involvement.

Hopes, Fears & Future Expectations

Coping

The results on coping resonate with the participants of the focus group. One participant mentions that collective action provides hope because it is demotivating to see that others don't if you make sacrifices. Another participant mentioned collective learning. Instead of focussing on individual processes and hoping that the government will act, he mentions that in collective action you learn from each other, share skills and knowledge and that it is this collective learning that provides hope. It allows for creating a richer image of the problem as well as a clearer idea of the steps that can be taken. This was also recognized by the interviewee from Clean Rivers who reflected on the focus group.

The participants also discussed the tension between intrinsic motivation on the one hand and acting out of a sense of collectivity on the other hand. The social interactions can stimulate action for water, but on the other hand when the social interactions are lost the action could stop if there is no intrinsic motivation.

Finally, in terms of hope and coping, the participants of both the Design Contest and Clean Rivers discussed that there is no dichotomy but a spectrum in the coping strategies. There are no pure examples of people who cope in an emotion-focussed strategy or meaning-focussed strategy. It is a spectrum on which people shift depending on the moment, topic, phase in life or social circle. And elements of strategies could be combined, for instance, people with a meaning focussed strategy could just as show news avoiding behaviour as people with an emotion focussed strategy.

Intergenerational

In addition to generational solidarity or conflict, the focus group resulted in an alternative view of young people feeling ashamed for their generation. One participant mentioned how young generation consume a lot while older generations lived more sparingly. This makes it difficult to put blame on older generations. The interviewee from Clean Rivers who reflected on the focus group mentioned that in general the blaming other generations is problematic and useless.

One person mentioned that she does not necessarily like blaming older generations – although there might be some reason to do so. She also mentioned that she does not like it when older generations bagitalise the problems of young generations by focussing on how “everything is going well” and by emphasizing the progress that was made. This stings as the older generations make these comments from a comfortable position. Moreover, in the focus group the feelings are more nuanced. The approach in dealing with these issues may have changed. It does irritate this participant when older generations amusingly look down on innovative, “highly conceptual” developments such as rewilding and rights for more-than-humans. Older generations may be more focussed on direct hands-on interventions.

Finally, one of the participants came up with the idea of intergenerational learning, and that this was missing nowadays. In the climate movement there are especially young people and people above the age of 60, which is also seen in other grassroots social movements. One participant mentions how in this regard he sees little interest in intergenerational learning, even though these older generations were active in, for example, protests against nuclear energy. There is value in learning from their past actions. There might be a cultural difference in terms of how young people look at this intergenerational aspect.

Social interaction & fostering engagement

We introduced micro/meso/macro levels and the topic of fostering engagement. The participants were all stressing the importance of making use of existing relationships, motivations, structures, and organisations instead of finding new ones. For example, by looking at farmers and fishers who already have a strong relationship and interest in water. Only by politicising these relations and taking this interest seriously, changes can be made according to one of the participants.

The participants agreed upon the idea to build on issues that are at heart to people, for example a sense of responsibility rooted in religion, grassroots approaches, intersectionality with issues such as poverty. In short, bottom-up, participatory approaches rooted in people’s relationships with water and motivations and building on pre-existing communities. In new communities’ space for young people should be created, according to the Clean Rivers interviewee. Moreover, the importance of relational values as a driving force and source of empowerment emerged from the conversation.

4.6.2 Parlement de Loire and Klassenzimmer unter Segeln

The focus group was held on February 20 with two participants from Classroom under Sails. Twenty invitations were sent, there were six responses and after three times of rescheduling only two participants joined.

Relationship with water



Figure 11 Drawings of relationship with water

Asked about their relationship with water, both participants (independently from each other) drew a sailing ship (Figure 11). They explicated that the ship is the ultimate symbol of human-water relations for

them. The drawings included depictions of marine life and ecosystems and clouds hinting at the hydrological cycle. Furthermore, one participant highlighted that she draws not only fish swarms but also waste floating in the water.

Strategies and approaches

The participants agree with the preliminary findings of the interviews in that they frame their engagement as studies and travels. The motivation is, thus, based on curiosity. The participants distance themselves (and Classroom under Sails as a whole) from the framing of activism. Rather Classroom under Sails is about "Doing good in a small context, not changing the whole world", one of them explains.

The participants also agree with the preliminary finding that community plays a pivotal role for motivation. As one participant puts it "... community enables to stabilize and uphold engagement". The other participants point to the drawings above and notes that she draw a whole crew onboard the ship, all of them collaborating.

Hopes, Fears & Future Expectations

One of the participants states that she can relate to the fears identified in the analysis and that especially the potential of increasingly unequal access to water is a fear that brings her sad and worries her in her everyday life. The issue of drinking water shortages has been an integral experience for participants of Classroom under Sails. Both participants agree that since Classroom under Sails they have an increased awareness of the problems surrounding the ocean and that this can be at times a psychological burden.

The participants agree with the identified hopes. They rephrase and mirror the hypothesis of constructive hope by saying that their engagement brings them hope. Again, community is emphasized as a source of hope. One participant supports the hypothesis that raising public awareness is a source for hope by saying: "You can only protect what you know. That's why education and awareness are key."

Social Interaction for Stewardship Assemblages

Both participants suggest an exchange programme for young people to get to know the challenges aquatic ecosystems face. It should be embedded in a broader educational curriculum. They think that it should not be framed mainly in terms of marine protection or connecting to water. According to them it should target young people that are not usually attracted by these topics and thus should ostensibly focus on a broader framing, such as learning or adventure. Asked whether they could imagine such a programme to also link young people to perspectives from the blue economy, such as the fisheries industry, they say that this would be dissuasive.

4.6.3 Centre for Coastal Culture

This online focus group with the Centre for Coastal Culture was held on 20 February 2024. Four invitations were sent, and we received four responses. After having to reschedule once, we had three participants in the end. These were the three people who participated in the individual interviews. Due to connection issues, one of these three dropped in and out of the call.

Relationship with water

The participants focused on the relationship between coastal communities and the ocean (Figure 12), specifically in Sesimbra. The economic relationship between the ocean and Sesimbra was the most highlighted aspect, as recurred in the individual interviews. This economic relationship in turn informs their relationship to Sesimbra's heritage (identity), and the conversation revisited many of the themes from the individual interviews. Of note were reflections on the interpellations of Christianity through the Portuguese coastal culture.

A new reflection was that tourism is increasingly becoming the basis for coastal communities' relation to water, and that this has the potential to create a loss of identity and cultural practices of maritime economies.

Another important topic of discussion was that in Sesimbra's past children were connected to water out of necessity, since their families made their living from the sea, and there is a growing generational disconnect between water and people. The discussants reflected that growing environmental concerns are also distancing people from marine environments in that people are viewing the sea as a space that should be free from human interference.

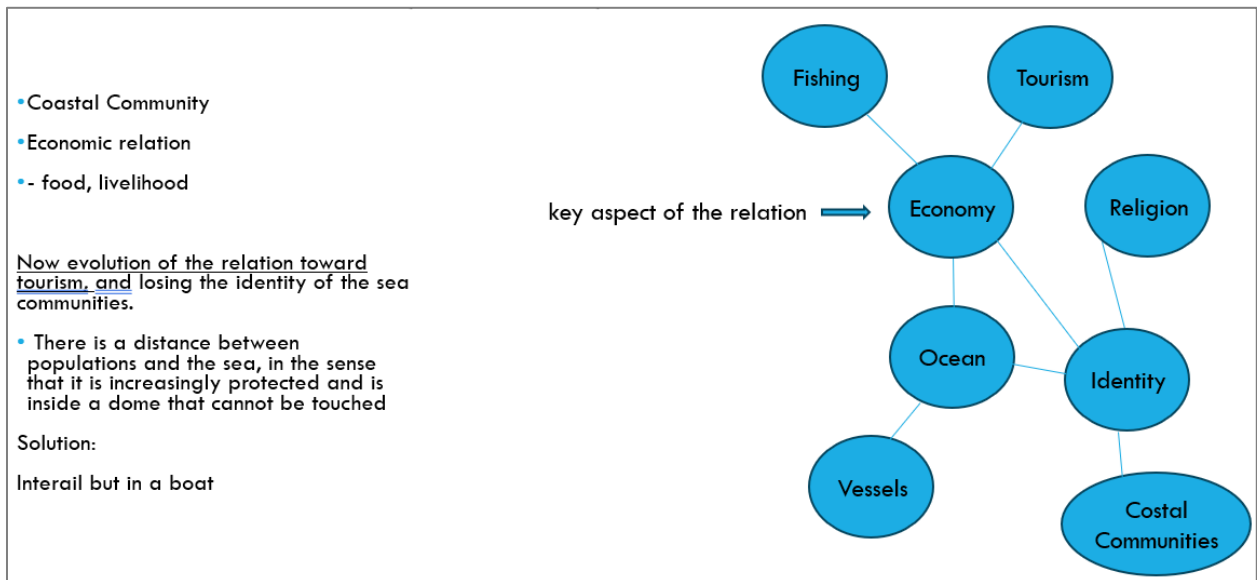


Figure 12 Mind map created during the focus group

Strategies and approaches

Echoing their interviews, participants observed that the Centre for Coastal Culture and the Sesimbra Maritime Museum are doing good work in connecting to older generations of Sesimbrans, especially through photo exhibitions of Sesimbra's past. To attract more young people in the activities of the Centre for Coastal Culture, experiential methods of connection such as taking young people fishing were suggested as ways of bringing them into direct contact with water.

The importance of the past was highlighted by the participants, as something that can be replicated across initiatives across Europe. They argued that it is very possible for initiatives across Europe to take inspiration from the Centre for Coastal Culture and create exhibitions to draw local communities to their history and to renovate heritage buildings and use them for public knowledge sharing.

	Themes	Approach
Strength	Reach older generations	Use old photographs and items to bring joyful memories to older generations
Opportunity	Reach younger generations	Take them fishing or involve them in activities to understand how important they were in the past

Figure 13 Strengths and opportunities for themes and approaches in the Centre for Coastal Culture as discussed in the focus group

Hopes, Fears & Future Expectations

At this stage the two participants were presented with the key takeaways from the interviews conducted vis-à-vis hopes, fears and future expectation, and they reiterated their worries about losing connection with the coastal past in conjunction with a degradation of the maritime environment in the future.

The importance of engaging responsibly with nature was stressed, before encouraging more engagement with water. The participants were worried about adverse side effects of people spending more time on beaches and around rivers, without knowing more about how to minimize the damage the human presence could cause to the environment.

- Connection to Sesimbra's past
- Fear of the future
 - Environmental degradation
 - Worries about contrast between coastal past and future
- Desire to bring young people into connection with coastal past

Figure 14 Hopes and fears discussed during the focus group

Social Interaction for Stewardship Assemblages

One participant stated their idea for an initiative to take young people around the coasts of Europe to expose them to coastal lives and cultures and maritime ecosystems. They also stressed the importance of cross-disciplinary activities and knowledge-sharing to bring the coasts to life in people's imaginations. Campaigns to make environmental messages about water more appealing to lay-people were proposed such as encouraging people to study the stars and learning about coastal navigation that way. The participants felt that intellectual engagement with water and the history of humanity's relationship with it would inherently strengthen people's connection to water.

5 Discussion and Conclusion

In the previous section, we described the findings of the pioneering initiatives and the focus groups. In this discussion, we compare the pioneering initiatives and reflect on these findings from a theoretical perspective.

Strategies and approaches

The five pioneering initiatives are all very different but have in common their innovative character, either in theme or approach. Two of the initiatives, Embassy of the North Sea and Parlement de Loire, are primarily innovative in terms of themes. They both focus on giving a legal voice to water bodies. These initiatives have a rather explorative and envisioning character, which results in art-based and philosophical approaches. The other initiatives are innovative in their approach: which entails citizen science (Clean Rivers), an experiential learning experience on board of a sailing vessel (Classroom under Sails) and a multigenerational community focus (Centre for Coastal Culture). Where the citizen science project Clean Rivers has a clear demarcated theme (i.e. garbage and litter along rivers), Classroom under Sails and Centre for Coastal Culture reflect broader themes.

In their different approaches, the pioneering initiatives resonate with different dimensions of human-water or human-nature connections (Ives et al., 2018). In Clean Rivers and Classroom under Sails, especially the experiential dimension of connectedness is centred through being outdoors, respectively on the riverside or on the water. Both also reflect a cognitive dimension, either through learning about polluted rivers and contributing to science on the matter or through out-of-the-classroom learning. The Centre for Coastal Culture focusses on traditional material connections with the coast and sea (shipbuilding, fishing activities) but also on cognitive (e.g. learning) and emotional dimensions (e.g. focus on place attachment and identity). Parlement de Loire and Embassy of the North Sea especially centred the philosophical or reflective dimension, inviting people to contemplate how humans and the Loire / North Sea (should) relate to each other.

The different strategies of the organizations are reflected in the reasons people give for participating in these initiatives. Participants in the Clean River project primarily want to contribute to science, want to contribute to clean beaches and river sides and want to be outdoors. In the Classroom under Sails, young people seek adventure and want to travel and encounter new places and cultures. In the Centre for Coastal Culture, young people are motivated by their attachment to the Sesimbra community and the Sesimbra coast. In Parlement de Loire, motivations are diverse ranging from contributing to conservation of the river Loire, to an interest in political change or art. The latter motivations are similar to the main motivations of participants in the design contest by Embassy of the North Sea: they want to learn something about the work of Bruno Latour and create a design on the nexus of philosophy, science and art. In motivating to participate in Classroom under Sails and Embassy of the North Sea, doing something with or for water is secondary to other motivations, as well as for some of the participants in Parlement de Loire.

We also saw that the basic psychological needs of the young people are met in their participation in these initiatives. As the Self Determination Theory (Deci & Ryan, 1985; Ryan & Deci, 2000) arguably states, the need for competence, relatedness and autonomy have to be met for self-determined action. These needs are fulfilled in each of the pioneering initiatives, although not all to the same extent. Competence relates to the extent to which people feel they have the right skills and knowledge to do what they want to do, and in how far they are able to use these skills and knowledge in the chosen activity. In Clean Rivers, the activity is relatively easy and structured, making it possible for all participants to participate though they do not necessarily develop new competences through participating. This could lead to dissatisfaction as it lacks challenge and is below their competences. In the Centre for Coastal Culture participants learn from the community and have the opportunities and competences to organize activities together with the



community. In Classroom under Sails, educational activities and learning is a central feature, both in design and according to the experiences of young participants. As Parlement de Loire and Embassy of the North Sea are more exploratory and artistic, young people who participate in these initiatives can use their own skillsets and knowledge to contribute to the initiatives and expand their competences. Autonomy takes on different shapes in how it is voiced by young people. In Clean Rivers a standardized procedure for the citizen science project leaves little room for young people to make their own choices, however, they do express a sense of autonomy in being able to see their own impact in the clean riversides. In Classroom under Sails, young people express autonomy as being given a responsibility to contribute to the community on the sailing ship. Again, being exploratory in nature and diverse in activities, Parlement de Loire and Embassy of the North Sea leave plenty room for own ideas, input and decisions. The young people in the Centre for Coastal Culture can use the competences they developed in their work for the Sesimbra Maritime Museum. Finally, in terms of relatedness, in each of the initiatives young people form a community of young peers; either in contributing to community-oriented museal activities (Centre for Coastal Culture), through collaborating on a journey (Classroom under Sails) or to creating art and ideas (Parlement de Loire and Embassy of the North Sea). The exception is Clean Rivers, where they only collaborate with one other person. This can be a new person assigned as buddy but is more often a family member or friend. In addition to feeling a need to relate to other (young) people, there is also a need to relate to nature in driving action for nature (van Heel et al. 2023b). In these pioneering initiatives, the young people relate to water or specific waterbodies, described in more detail in the next section.

Relationship with water

For all interviewees of Clean Rivers nature and water was already present and important in childhood. They either grew up close to nature or specifically water. Some express strong feelings of place attachment. For some, positive experiences with water in childhood goes hand in hand with awareness of pollution. The positive memories entail a broad variety of experiences; enjoyment, the beauty of the seas, beautiful memories, the wind and purity, feelings of freedom; brings clarity in their heads and lives, peace, a sense of coming home with rivers, connectedness. As one interviewee expresses it: “Being by the river makes my heart jump.” (R1.5).

Overall, we see a pattern that nature and water is already present in the childhoods of Clean Rivers participants, growing into an engagement and connectedness with nature and water when they are getting older. This connectedness is often leading to the choice for a water related study and job and fuels their action for water, such as their participation in the Clean Rivers initiative.

The interviewees of the Centre for Coastal Culture mostly connected with nature and water already in childhood, apart from one person whose mother fears water very much which prevented her to go to the beach. For another person, this connection was tied in with interest in history, geography, and culture around the river. Those who had this connection already in childhood, perceived their work for the Centre for Coastal Culture as a way of giving expression to their connectedness and the importance of water. By “grounding people’s connection to the water that they live beside” (R5.1). The person who could not enjoy the beach and sea in childhood, spends a lot of time there since being involved in the museum, attributing her love for the beach as an adult to her separation from it as a child. All feel very engaged and fearful about future developments for nature and water, which leads to worries as well as hope, and fuels their engagement.

Looking at the types of connectedness (Ives et al., 2018) that these interviewees from Clean Rivers and Centre for Coastal Culture mention, we mostly see experiential connectedness, built upon childhood experiences such as swimming and hiking. This is in line with the approach of the initiative (see section Strategies and approaches). These experiences are also described in very sensorial terms, the



interviewees refer to the feeling of the wind, the smell, the feeling of water on their skin etcetera. Moreover, we see more reflective forms of connectedness, as interviewees speak about how being in nature brings them feelings of peace, freedom, and clarity about their lives, making them realise how much nature and water gives them and form a solid base for their identity.

Especially for those interviewees that told us about their childhood experiences with water and nature, the role of parents became clear. The young people talked about how their parents took them on nature hikes, walks and visits and they talked about their vacations in nature. In these examples parents mainly provided the direct and experiential nature experiences (Asah et al. 2018; van den Born et al. 2018). Sometimes, the role of family and parents was different, for instance when the fear of water of a mother prevented our interviewee from experiences with water and beaches or when stories about floods made our interviewee aware of the danger of water and the importance of the human-water relations from the past. In both cases however, this led to either an even stronger love for water and beaches at later age or a fascination for water management and a subsequent study-choice.

This strong link to nature and water in childhood is not present for most of the interviewees of Embassy of the North Sea. Except for one person, all other participants were mainly involved via their intellectual, philosophical interest in the human-nature relationship. The prominence of Latour's work in these initiatives, was their main driver to get involved in the initiative. They all are fascinated by his thinking about human-nature relationships and want to engage in the challenge to change their perspective, as expressed by one interviewee: "Trying to get out of my human point of view, be closer to non-human perspectives" (R2.4). Almost all interviewees are much more interested in, involved in and engaged with water related issues after their participation. Some also express that they are more strongly connected with water. Their participation broadens and strengthens their connectedness with water, leading to a variety of new water related projects.

The interviewees in the Parlement de Loire also initially did not participate because of their connectedness to water, but for most of them this engagement drastically changed after participating. Only two of them felt connected with water in childhood, two spoke about fear of water, related to flooding or the danger of water (preventing them to swim). Despite this lack of connectedness, a strong connection is established through their participation. They speak of 'waking up' and a long-lasting effect on their relationship with nature in the future.

Most of the interviewed Classroom under Sails participants also did not participate because of a prevalent connectedness to water or nature. However, there are exceptions. One person did have a strong water connectedness already as a child which motivated her to participate. The others were drawn to traveling and learning about other cultures. At the end, the interviewees report to have gained a high connectedness with water and seas after the journey. They became very aware of pollution and wanted to spread this awareness to other people in the hope that they would change their behavior, such as overconsumption and fossil-fuel driven travel. A young person participating in this initiative who did not have a particularly strong connection with water before, even considers studying oceanography after the Classroom under Sails journey.

With regards to the types of connectedness expressed by interviewees of Parlement de Loire and Embassy of the North Sea, we see much more cognitive and reflective connectedness (Ives et al., 2018). This also matches the approach and focus chosen by the initiatives. Especially the interviewees of Embassy of the North Sea are very much interested in human-nature relationships and how these could be changed on a personal and societal level.

Where the Clean Rivers and the Centre for Coastal Culture interviewees participated in the initiative *because* of their engagement with nature and water (and for Centre for Coastal Culture linked to history



and culture), the participants of the Embassy of the North Sea, Parlement de Loire and Classroom under Sails became more engaged with nature and water *through* their participation in the initiative.

Hopes, Fears & Future Expectations

Emotions we encountered when talking about problems related to water, nature, climate, or the world in general, varied from anger, frustration, sadness, and feelings of depression to despondency and helplessness. Many participants have a hard time dealing with these emotions, cultivating practices of news avoidance and avoidance of thinking about it and deliberately deciding to look away. This appears to be part of their coping strategy.

These emotions stem from how participants interpret and make meaning of the perceived state of among others biodiversity, water, pollution, and climate change. Some also mention war, which increases these feelings of sadness and depression. These emotions are also rooted in their connectedness with water and nature. Just because they love nature and feel connected to it, they care for it.

Among the interviewees, we encountered many forms of water-related fears on the personal level; some have a fear for water already as a kid, some fear swimming, drowning or just deep waters. On a societal level, they mention fear for floods, droughts, access to drinking water and pollution. Especially in the Netherlands, interviewees express the fear that big parts of the Netherlands will be flooded in the near future and that they have to move.

Moreover, beside these fears and feelings of sadness, most participants still have hope that things can change for the better. Peers play an important role in having hope. The young people draw hope from collaborating with other young people on the same cause. The shared feelings (of urgency for instance) and the resonance of their concerns in others are important ingredients for sustaining hope and motivation for action, mostly at the local level. Although some of the interviewees express that they are aware of being in their 'own bubble', it is still very important for them to be able to act on perceived issues. This relates to two processes on a broader scale; first, young people have hope that awareness about the urgency of the climate and water crisis and the willingness to take action will also grow beyond their own bubble and beyond their peer group, and second, the emergence of movements and collaborations beyond the local level is seen as very hopeful. Collaboration at the national and international level is perceived necessary when individual awareness and action are lacking.

Coping Strategies

As Chawla (2020) acknowledges, sadness and frustration about the environment are difficult emotions to carry. Looking at ways of coping with difficult emotions, three coping strategies are distinguished in the literature (Ojala, 2012, Chawla 2020, see section 2.2.3). All strategies were found in our interviews with young people from the pioneering Initiatives. In an emotion-focused coping strategy, it is often seen that young people focus on feelings of hopelessness and helplessness, resulting in the conclusion that action is pointless, which can be considered a form of avoidance. Most often, people following this strategy try to manage these emotions through distraction. They deliberately think about something else and avoid disturbing information. This form of coping is negatively associated with environmental action and leads to low subjective well-being. Among our interviewees, we clearly see coping by avoiding the news and trying to ignore their emotions by not thinking about environmental issues and the related emotions. The second coping strategy is problem-focused which does lead to environmental action. However, mainly on an individual level in the private sphere. Among our interviewees, we saw this form of coping reflected in ambitious lists of individual environmental actions, such as eating less or no meat, not using plastics, not flying, all kind of household energy saving actions, less laundry etc. The young people abstain from a lot of these things, however, in the end this does not lead to personal well-being because they realize that individual strategies do not solve the complex problems, and that action on the collective level is needed to make real impact, leading to feelings of futility. Those young people who found their peers and worked

together with a group of like-minded people in (mostly local) projects, found meaning in their action and believed they can make a difference together with others. While some FLOW interviewees were aware of what they called ‘being in their own bubble’ this really helped to keep motivated for their actions and moreover, to have trust that other people and also governments and companies will in the end do the right thing. Ojala calls this ‘constructive hope’ (Ojala 2016, p.14), which is the ‘ability to face environmental risks and uncertainty, believe one’s own actions and the actions of others can make a difference and find positive meaning in action’ (Chawla 2020, p631).

Inter)generational relations

Interviewees from Parlement de Loire and Clean Rivers stress the importance of being able to be in and work with people from the same generation, they feel they can share more with each other and understand each other better, which had mostly to do with being in the same life stage. At the same time, heterogeneity is considered important, especially related to learning. Younger generations feel that they can learn so much from older generations. This is also mentioned in a focus group, where the interviewees refer to learning about how to organize activism, for instance around nuclear energy. This intergenerational learning is something that the young people also miss on a societal level.

Many interviewees (especially in Classroom under Sails and Parlement de Loire) stress that they receive support from older generations (intergenerational solidarity). Interviewees emphasize that it is important for them to work in a setting where different age groups join and learn from each other. In these interactions, they do not recognize any significant difference in how they or other generations perceive their relationship with nature and water. However, they are aware that there are stark differences across different socio-cultural milieus. This intergenerational learning was also visible in the Portuguese initiative through stories of the past. According to the young people involved, the historical focus of the initiative is, via the ability to directly learn from and interact with older generations in events, a venue for intergenerational learning and solidarity.

To sum up, no evidence for intergenerational conflict were found in the interview and focus group material. Some young people mention that they don’t like when older generations downplay the problems of young generations by focussing on how “everything is going well” and by emphasizing the progress that has been made. Such statements can be disappointing for young people who believe that the older generations make these comments from a rather comfortable position. This difference in position is also expressed by a participant who is politically and environmentally engaged, arguing that young people are interested in studying and learning from history but are structurally discouraged from doing so due to a lack of opportunities to make a career in such fields. Similarly, he thinks that young people are unable to influence policy and decision making necessary to address the environmental concerns, whereas older generations are less inclined to use their political power toward environmental policy.

In addition to debating the spectrum of intergenerational solidarity to conflict, the Dutch focus group resulted in an alternative view of young people feeling ashamed for their own generation. One participant mentioned how people from the younger generations consume a lot while older generations had more sober lifestyles. Related to this are complaints from the Portuguese and French participants that their generation has a "superficial" way of connecting to nature, e.g. taking pictures for Instagram. However, they also nuance this by assuming that connectedness varies within each generation. This all, according to the young people we spoke with, makes it difficult to put blame on older generations. It is mentioned that in general blaming other generations is problematic and useless.

Stimulate involvement of young people

The five initiatives reflect pioneering ways of involving young people in action for water, either through an innovative approach or theme. In the first part of the discussion and conclusions, we described the different strategies and approaches applied by the pioneering initiatives to stimulate involvement of



young people for their causes. These approaches showed to actively relate to the needs and interests of young people. Therefore, some of the initiatives also specifically focus on young people as a target group (e.g. Classroom under Sails and Design contest by Embassy of the North Sea).

The young people involved in the pioneering initiatives also provided ideas to engage young people and future generations with water. In both the interviews and focus groups, they mentioned specific ways to stimulate involvement of young people. One such recommendation mentioned explicitly by interviewees from multiple pioneering initiatives is to stimulate engagement and interaction with nature in childhood. They reason that to be able to be engaged in action for water, a childhood connection with nature/water is needed. This conviction may be rooted in their own experiences since many interviewees experienced this in their own childhood.

Another recommendation, partially stemming from their own experiences, is to focus on communities and community building. This also reflects the basic psychological need of relatedness (Deci & Ryan, 1985; Ryan & Deci, 2000). As the interviewees motivations demonstrate, community is important for young people. This is in line with previous research on young people and action for climate and nature (Dewey 2021; van Heel et al. 2023b). Moreover, in the focus groups it was suggested to root social interaction in pre-existing communities. Making use of communities that already exist can be effective, in addition to creating new communities for young people to find peers.

Finally, in order to stimulate involvement of young people, politics also play a role. In the interviews, it was mentioned how a lack of finances for initiatives to engage young people with water and a lack of political interest for nature conservation in general creates barriers to engage young people with water. To overcome this lack of (political) interest, the recommendation for a broader framing of the issues at stake emerged from the focus groups. Including for example economy, health, and energy production, might involve more young people than focussing only on marine protection for example as these other domains may be closer or more visible in young people's life.

Methodological discussion

We studied the pioneering initiatives from different angles: from the organisations' perspectives through interviews and document analyses, and from the young people' perspectives through interviews and focus groups. Through this combination of methods and triangulation of the obtained empirical material, we were able to contribute to a deeper understanding of what makes the initiatives we studied pioneering, and why young people are motivated to engage in these initiatives for European waters. The five pioneering initiatives are very different and have been studied by multiple researchers. By using semi-structured interview guides and similar code books, we ensured comparability between the five initiatives while allowing room for adaptation to the specifics of the cases.

In each of the initiatives, we ran into the problem of finding enough young people to participate, especially in the focus group. For the interviews, some potential interviewees reported that it was difficult to find appropriate time for the interview and synchronize timeslots with the researchers, when they were already committed to activities in their respective initiative. Opportunities to schedule online interviews did help in addressing this issue. For the focus groups, we initially wanted to schedule one focus group per initiative, with a combination of people who we had and had not been interviewed. However, given the problems we ran into with finding interviewees, the focus groups were held with people we had already spoken. Finding a time where a group of people could join proved difficult, even when we adapted to an online focus group. Consequently, the focus groups were combined. Nevertheless, the focus groups provided an opportunity to reflect on the interview findings and allowed for careful interpretation of the results also from the other pioneering initiatives.





Funded by the
European Union

FLOW has received funding from the European Union's Horizon Europe
research and innovation programme under grant agreement No 101093928.



6 Implications for Stewardship Assemblages

In the next phase of the FLOW project, we will co-create blueprints for stewardship assemblages with marine and freshwater research and innovation stakeholders and networks or initiatives. The findings from studying the pioneering initiatives feed into these blueprints by formulating implications for these stewardship assemblages.

Before moving to specific implications for stewardship assemblages in the next paragraphs, a more fundamental implication appears from the interviews with young participants of the pioneering initiatives. As is already substantiated by many studies, this study too shows that connectedness with nature and water is vital for action for nature (Zylstra et al., 2014). Moreover, it shows the importance of nature experiences in childhood for this connectedness (van den Born et al., 2018). Both positive (swimming, playing) and negative (floods, near-drowning) experiences can trigger deep connectedness with water and nature. Although it is important that children can have these autonomous nature experiences in childhood, it is also good to realize that in many cases they are facilitated by the older generation of parents and grandparents. Theories such as the extinction of experience (Soga & Gaston, 2016) and the shifting baseline syndrome (Soga & Gaston, 2018), as well as growing empirical evidence (Louv, 2008; van Heel et al., 2023c) show that autonomous childhood experiences in nature are in danger because of urbanization, social media, inaccessibility of nature etc., which is consequently endangering connectedness with nature and action for nature in later life. Therefore, it is of utmost importance that children now and in the future have access and the possibilities to play in and with water and nature on their own and with friends, building place attachment and connectedness.

More specifically for the stewardship assemblages, the pioneering initiatives demonstrated that a broad framing (e.g. art, more-than-human perspectives, travel, tradition etc.) is important to attract the attention and ensure the collaboration of people from different socio-economic and cultural backgrounds. Our research on the approaches of the initiatives and the motivations of the participating young people shows that there are indeed multiple pathways to connectedness to water and to action for water. Besides framing, different approaches based on different dimensions of connectedness (Ives et al., 2018) speak to different people, for instance focussing on experiences (experiential connectedness) or on intellectual interests (cognitive and reflective connectedness). Therefore, it is important to promote a broad variety of framings and approaches for the initiatives instead of one-size-fits-all kind of initiatives. Moreover, within these different approaches (as in education and (future) careers), attention should be paid to fulfil the basic psychological needs, autonomy, relatedness and competence, in order for young people to be motivated in their action for water.

Our study also highlights the importance of keeping hope and the role of peers therein. Finding peers is crucial for motivation to (locally) act for nature and water. Despite being aware of being in their own bubble, it helps to gain trust that other people and governments are also willing to act. In order to not only cope with the world's problems in an emotion- and problem-focussed way, leading to low subjective well-being and in-action, but also having the chance to find your way towards a meaning focussed coping strategy (Ojala, 2012, Chawla 2020) leading to trust, collaboration and meaningful action, we should create the most beneficial conditions to keep this constructive hope in reach for young people. More insight is needed in these strategies and how it relates to the news avoidance we found. Research is needed on what exactly contributes to keeping hope, however, one thing we know from our study is the importance of finding peers. Initiatives such as studied in our FLOW project can play this role and are therefore of vital importance. Also to be visible and to be found for those young people who are already connected to water and nature as well as for those who are interested in other domains (e.g. art, philosophy) and became connected to water via their participation in the initiatives.

Besides the crucial role of peers and young people's need for interaction with people from their own age, we also promote inter-generational communities. Our study show a broad variety of how young people relate to the older generations, and only speaking in terms of intergeneration conflicts would not do justice to these rich perceptions. Belonging to an inter-generational community, provides the opportunity to meaningful interactions and mutual learning, creating intergenerational perspectives and a broader horizon.



7 References

- Adams, W. C. (2015). Conducting Semi-Structured Interviews. *Handbook of Practical Program Evaluation: Fourth Edition*, 492–505. <https://doi.org/10.1002/9781119171386.CH19>
- Admiraal, J. F., Van Den Born, R. J. G., Beringer, A., Bonaiuto, F., Cicero, L., Hiedanpää, J., Knights, P., Knippenberg, L. W. J., Molinario, E., Musters, C. J. M., Naukkarinen, O., Polajnar, K., Popa, F., Smrekar, A., Soininen, T., Porras-Gomez, C., Soethe, N., Vivero-Pol, J. L., & De Groot, W. T. (2017). Motivations for committed nature conservation action in Europe. *Environmental Conservation*, 44(2), 148–157. <https://doi.org/10.1017/S037689291700008X>
- Albrecht, G. A. (2019). *Earth Emotions: New Words for a New World*. Cornell University Press.
- Arnstein, S. R. (1969). A Ladder Of Citizen Participation. *Journal of the American Planning Association*, 35(4), 216–224. <https://doi.org/10.1080/01944366908977225>
- Asah, S. T., Bengston, D. N., Westphal, L. M., & Gowan, C. H. (2018). Mechanisms of children’s exposure to nature: Predicting adulthood environmental citizenship and commitment to nature-based activities. *Environment and Behavior*, 50(7), 807–836.
- Barnett, J. (2022). *Mourning in the Anthropocene : ecological grief and earthly coexistence*. Michigan State University Press.
- Bearzi, G. (2020). Marine biology on a violated planet: from science to conscience. *Ethics in Science and Environmental Politics*, 20, 1–13. <https://doi.org/10.3354/ESEP00189>
- Bell, S., Marzano, M., Cent, J., Kobierska, H., Podjed, D., Vandzinskaite, D., Reinert, H., Armaitiene, A., Grodzinska-Jurczak, M., & Muršič, R. (2008). What counts? Volunteers and their organisations in the recording and monitoring of biodiversity. *Biodiversity and Conservation*, 17, 3443–3454. <https://doi.org/10.1007/s10531-008-9357-9>
- Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal*, 9(2), 27–40. <https://doi.org/10.3316/QRJ0902027/FULL/XML>
- Braun, T., & Dierkes, P. (2016). Connecting students to nature – how intensity of nature experience and student age influence the success of outdoor education programs. <http://Dx.Doi.Org/10.1080/13504622.2016.1214866>, 23(7), 937–949. <https://doi.org/10.1080/13504622.2016.1214866>
- Braun, V., & Clarke, V. (2014). What can “thematic analysis” offer health and wellbeing researchers? <https://doi.org/10.3402/Qhw.v9.26152>, 9. <https://doi.org/10.3402/QHW.V9.26152>
- Bruni, C. M., Ballew, M. T., Winter, P. L., & Omoto, A. M. (2018). Natural History Museums May Enhance Youth’s Implicit Connectedness with Nature. *Ecopsychology*, 10(4), 280–288. <https://doi.org/10.1089/ECO.2018.0025/ASSET/IMAGES/LARGE/FIGURE1.JPEG>
- Buijs, A., Elands, B. H. ., & van Koppen, C. S. A. (2017). *Twenty-five years of public engagement in nature policy. An analysis of policy discourses and public support*.
- Candy, S. (2010). The Futures of Everyday Life: Politics and the Design of Experiential Scenarios [University of Hawai’i]. In *The Futures of Everyday Life: Politics and the Design of Experiential Scenarios* (Issue July). <https://doi.org/10.13140/RG.2.1.1840.0248>
- Candy, S. (2014). Experiential Futures: Stepping into OCADU’s Time Machine. *The Futurist*, 48(5), 34–37. https://www.researchgate.net/publication/298461640_Experiential_Futures_Stepping_into_OCADU's_Time_Machine
- Candy, S., & Dunagan, J. (2016, December 30). *The Experiential Turn*. The Sceptical Futuryst.
- Candy, S., & Dunagan, J. (2017). Designing an experiential scenario: The People Who Vanished. *Futures*, 86, 136–153. <https://doi.org/10.1016/j.futures.2016.05.006>
- Candy, S., & Kornet, K. (2019). Turning foresight inside out: An introduction to ethnographic experiential futures. *Journal of Futures Studies*, 23(3), 3–22. [https://doi.org/10.6531/JFS.201903_23\(3\).0002](https://doi.org/10.6531/JFS.201903_23(3).0002)
- CCC Information Brochure (2022). Direção-Geral do Património Cultural (DGPC). Celermajer, D., Chatterjee, S., Cochrane, A., Fishel, S., Neimanis, A., O’Brien, A., Reid, S., Srinivasan, K., Schlosberg, D., & Waldow, A. (2020). Justice Through a Multispecies Lens. *Contemporary Political Theory*, 19(3), 475–512. <https://doi.org/10.1057/s41296-020-00386-5>
- Celermajer, D., Schlosberg, D., Rickards, L., Stewart-Harawira, M., Thaler, M., Tschakert, P., Verlie, B., & Winter, C. (2021). Multispecies justice: theories, challenges, and a research agenda for environmental politics. *Environmental Politics*, 30(1–2), 119–140. <https://doi.org/10.1080/09644016.2020.1827608>
- Chan, K. M. A., Balvanera, P., Benessaiah, K., Chapman, M., Díaz, S., Gómez-Baggethun, E., Gould, R., Hannahs, N., Jax, K., Klain, S., Luck, G. W., Martín-López, B., Muraca, B., Norton, B., Ott, K., Pascual, U., Satterfield, T., Tadaki, M., Taggart, J., & Turner, N. (2016). Why protect nature? Rethinking values and the environment. *Proceedings of the National Academy of Sciences of the United States of America*, 113(6), 1462–1465. <https://doi.org/10.1073/PNAS.1525002113>
- Chawla, L. (2020). Childhood nature connection and constructive hope: A review of research on connecting with



- nature and coping with environmental loss. *People and Nature*, 2(3), 619–642. <https://doi.org/10.1002/PAN3.10128/SUPPINFO>
- Clayton, S., Colléony, A., Conversy, P., Maclouf, E., Martin, L., Torres, A. C., Truong, M. X., & Prévot, A. C. (2017). Transformation of Experience: Toward a New Relationship with Nature. *Conservation Letters*, 10(5), 645–651. <https://doi.org/10.1111/CONL.12337>
- Coffey, Y., Bhullar, N., Durkin, J., Islam, M. S., & Usher, K. (2021). Understanding Eco-anxiety: A Systematic Scoping Review of Current Literature and Identified Knowledge Gaps. *The Journal of Climate Change and Health*, 3, 100047. <https://doi.org/10.1016/J.JOCLIM.2021.100047>
- Colléony, A., Cohen-Seffer, R., & Shwartz, A. (2020). Unpacking the causes and consequences of the extinction of experience. *Biological Conservation*, 251. <https://doi.org/10.1016/J.BIOCON.2020.108788>
- Cunsolo, A., & Landman, K. (Eds.). (2017). *Mourning nature: hope at the heart of ecological loss and grief*. McGill-Queen's University Press.
- Da Costa, O., Warnke, P., Cagnin, C., & Scapolo, F. (2008). The impact of foresight on policy-making: insights from the FORLEARN mutual learning process. *Technology Analysis & Strategic Management*, 20(3), 369–387. <https://doi.org/10.1080/09537320802000146>
- Dator, J. (2019). What Futures Studies Is, and Is Not. In *Jim Dator: A Noticer in Time* (pp. 3–5). https://doi.org/10.1007/978-3-030-17387-6_1
- Dator, J., Sweeney, J. A., Yee, A., & Rosa, A. (2013). Communicating Power: Technological Innovation and Social Change in the Past, Present, and Futures. *Journal of Futures Studies*, 17(4), 117–134.
- de Souza Júnior, R. B. (2021). More-than-Human Cultural Geographies Towards Co-dwelling on Earth. *Mercator - Revista de Geografia Da UFC*, 20(1). <https://www.redalyc.org/articulo.oa?id=273665153007>
- Dean, J. (2015). Class diversity and youth volunteering in the UK : applying Bourdieu's habitus and cultural capital. *Nonprofit and Voluntary Sector Quarterly*, 45, 95S-113S. <https://doi.org/10.1177/0899764015597781>
- Deci, E. L., & Ryan, R. M. (1985). Conceptualizations of Intrinsic Motivation and Self-Determination. In *Intrinsic Motivation and Self-Determination in Human Behavior* (pp. 11–40). Springer, Boston, MA. https://doi.org/10.1007/978-1-4899-2271-7_2
- Denzin, N. K. (2017). The Research Act: A Theoretical Introduction to Sociological Methods. *The Research Act: A Theoretical Introduction to Sociological Methods*, 1–368. <https://doi.org/10.4324/9781315134543/RESEARCH-ACT-NORMAN-DENZIN>
- De Toledo, C. (2021). Le fleuve qui voulait écrire: Les auditions du parlement de Loire. LLL.
- Dewey, A. M. (2021). Shaping the environmental self: The role of childhood experiences in shaping identity standards of environmental behavior in adulthood. *Sociological Perspectives*, 64(4), 657-675.
- Ding, Y., Tang, D., Dai, H., & Wei, Y. (2014). Human-Water Harmony Index: A New Approach to Assess the Human Water Relationship. *Water Resources Management*, 28(4), 1061–1077. <https://doi.org/10.1007/s11269-014-0534-1>
- Diver, S., Vaughan, M., Baker-Médard, M., & Lukacs, H. (2019). Recognizing “reciprocal relations” to restore community access to land and water. *International Journal of the Commons*, 13(1), 400–429. <https://doi.org/10.18352/ijc.881>
- Dowling, R., Lloyd, K., & Suchet-Pearson, S. (2016). Qualitative methods II. *Progress in Human Geography*, 41(6), 823–831. <https://doi.org/10.1177/0309132516664439>
- Duarte, F. (2019, April 8). Why the world now has more grandparents than grandchildren. *BBC*. <https://www.bbc.com/worklife/article/20190405-why-the-world-now-has-more-grandparents-than-grandchildren>
- Dunne, A., & Raby, F. (2013). *Speculative Everything: Design, Fiction, and Social Dreaming*. The MIT Press.
- Edmunds, J., & Turner, B. S. (Eds.). (2002). *Generational Consciousness, Narrative, and Politics*. Rowman & Littlefield Publishers. <https://rowman.com/ISBN/9780742581456/Generational-Consciousness-Narrative-and-Politics>
- Ehl, T. (2023). Water Stories: An exploration of human-water connectedness in Ontario and the implications for water sustainability [Wilfried Laurier University]. In *Theses and Dissertations (Comprehensive)*. <https://scholars.wlu.ca/etd/2546>
- Flyvbjerg, B. (2011). Case Study. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage Handbook of Qualitative Research* (4th ed., pp. 301–316). SAGE Publications.
- Fourrier, V., Tonnaer, A. A. C., & van den Born, R. J. G. (2021). *Towards dialogue and diversity of human-nature relationships*.
- Furlong, A. (2012). Youth Studies: An introduction. In *Youth Studies: An Introduction*. Taylor and Francis. <https://doi.org/10.4324/9780203862094/YOUTH-STUDIES-ANDY-FURLONG>
- Ganzevoort, W. (2021). *Green Volunteers in the Spotlight: Understanding action for nature through studying citizen scientists and other nature volunteers*. <https://repository.ubn.ru.nl/handle/2066/230849>



- Ganzevoort, W., & van den Born, R. J. G. (2023). The everyday reality of nature volunteering: an empirical exploration of reasons to stay and reasons to quit. *Journal of Environmental Planning and Management*. <https://doi.org/10.1080/09640568.2023.2240953>
- Ganzevoort, W., & van den Born, R. J. G. (2020). Understanding citizens' action for nature: The profile, motivations and experiences of Dutch nature volunteers. *Journal for Nature Conservation*, 55. <https://doi.org/10.1016/j.jnc.2020.125824>
- Gaventa, J. (2006). Finding the Spaces for Change: A Power Analysis. *IDS Bulletin*, 37(6), 23–33. <https://doi.org/10.1111/J.1759-5436.2006.TB00320.X>
- Gould, R. K., Pai, M., Muraca, B., & Chan, K. M. A. (2019). He 'ike 'ana ia i ka pono (it is a recognizing of the right thing): how one indigenous worldview informs relational values and social values. *Sustainability Science*, 14(5), 1213–1232. <https://doi.org/10.1007/S11625-019-00721-9/TABLES/1>
- Grilli, G., & Curtis, J. (2021). Encouraging pro-environmental behaviours: A review of methods and approaches. *Renewable and Sustainable Energy Reviews*, 135. <https://doi.org/10.1016/J.RSER.2020.110039>
- Guiney, M. S., & Oberhauser, K. S. (2009). Conservation volunteers' connection to nature. *Ecopsychology*, 1(4), 187–197. <https://doi.org/10.1089/ECO.2009.0030/FORMAT/EPUB>
- Han, H., & Ahn, S. W. (2020). Youth mobilization to stop global climate change: Narratives and impact. *Sustainability (Switzerland)*, 12(10). <https://doi.org/10.3390/su12104127>
- Himes, A., & Muraca, B. (2018). Relational values: the key to pluralistic valuation of ecosystem services. *Current Opinion in Environmental Sustainability*, 35, 1–7. <https://doi.org/10.1016/J.COSUST.2018.09.005>
- Ives, C. D., Abson, D. J., von Wehrden, H., Dorninger, C., Klaniecki, K., & Fischer, J. (2018). Reconnecting with nature for sustainability. *Sustainability Science*, 13(5), 1389–1397. <https://doi.org/10.1007/S11625-018-0542-9/FIGURES/2>
- Jacobs, M. H., Vaske, J. J., & Roemer, J. M. (2012). Toward a Mental Systems Approach to Human Relationships with Wildlife: The Role of Emotional Dispositions. <https://doi.org/10.1080/10871209.2012.645123>, 17(1), 4–15. <https://doi.org/10.1080/10871209.2012.645123>
- Jax, K., Calestani, M., Chan, K. M., Eser, U., Keune, H., Muraca, B., O'Brien, L., Potthast, T., Voget-Kleschin, L., & Wittmer, H. (2018). Caring for nature matters: a relational approach for understanding nature's contributions to human well-being. *Current Opinion in Environmental Sustainability*, 35, 22–29. <https://doi.org/10.1016/J.COSUST.2018.10.009>
- Johnson, M. L., Campbell, L. K., Svendsen, E. S., & Silva, P. (2018). Why Count Trees? Volunteer Motivations and Experiences with Tree Monitoring in New York City. *Arboriculture & Urban Forestry*, 44(2).
- Kashima, Y., Paladino, A., & Margetts, E. A. (2014). Environmentalist identity and environmental striving. *Journal of Environmental Psychology*, 38, 64–75. <https://doi.org/10.1016/j.jenvp.2013.12.014>
- Keith F Punch. (2014). Introduction to Social Research: Quantitative & Qualitative Approaches. 3rd Punch, K. *Sage Publications*.
- Kirby, D. (2010). The Future is Now: Diegetic Prototypes and the Role of Popular Films in Generating Real-world Technological Development. *Social Studies of Science*, 40(1), 41–70. <https://doi.org/10.1177/0306312709338325>
- Klain, S. C., Olmsted, P., Chan, K. M. A., & Satterfield, T. (2017). Relational values resonate broadly and differently than intrinsic or instrumental values, or the New Ecological Paradigm. *PLOS ONE*, 12(8), e0183962. <https://doi.org/10.1371/JOURNAL.PONE.0183962>
- Klaniecki, K., Leventon, J., & Abson, D. J. (2018). Human–nature connectedness as a 'treatment' for pro-environmental behavior: making the case for spatial considerations. *Sustainability Science 2018 13:5*, 13(5), 1375–1388. <https://doi.org/10.1007/S11625-018-0578-X>
- Kleespies, M. W., & Dierkes, P. W. (2020). Exploring the Construct of Relational Values: An Empirical Approach. *Frontiers in Psychology*, 11, 510915. <https://doi.org/10.3389/FPSYG.2020.00209/BIBTEX>
- Knippenberg, L., de Groot, W. T., van den Born, R. J., Knights, P., & Muraca, B. (2018). Relational value, partnership, eudaimonia: a review. *Current Opinion in Environmental Sustainability*, 35, 39–45. <https://doi.org/10.1016/j.cosust.2018.10.022>
- Krzywoszynska, A. (2019). Caring for soil life in the Anthropocene: The role of attentiveness in more-than-human ethics. *Transactions of the Institute of British Geographers*, 44(4), 661–675. <https://doi.org/10.1111/TRAN.12293>
- Kuzio, T. (2006). Civil society, youth and societal mobilization in democratic revolutions. *Communist and Post-Communist Studies*, 39(3).
- Labuschagne, A. (2003). Qualitative Research - Airy Fairy or Fundamental. *The Qualitative Report*, 8, 100–103. <http://www.nova.edu/ssss/QR/QR8-1/labuschagne.pdf>
- Laliberte, S., & Varcoe, C. (2021). The contradictions between Canadian capitalist processes and youth mental health:

- implications for mental health promotion. *Health Promotion International*, 36(1), 250–261. <https://doi.org/10.1093/HEAPRO/DAZ073>
- Les êtres Loire (2020). Paysage à la dérive: De Blois à Paimboeuf, une immersion avec l'Être Loire. *Openfield*. Retrieved April 18, 2024, from <https://www.revue-openfield.net/2020/07/01/paysage-a-la-derive/>.
- Li, Q., Wang, B., Deng, H., & Yu, C. (2018). A quantitative analysis of global environmental protection values based on the world values survey data from 1994 to 2014. *Environmental Monitoring and Assessment*, 190(10). <https://doi.org/10.1007/S10661-018-6949-Z>
- Lorimer, J. (2012). Multinatural geographies for the Anthropocene. *Progress in Human Geography*, 36(5), 593–611. <https://doi.org/10.1177/0309132511435352>
- Louv, R. (2008). Last child in the woods: Saving our children from nature-deficit disorder. Algonquin books.
- Lübker, H. M., Keys, P. W., Merrie, A., Pereira, L. M., Rocha, Juan, C., & Ortuño Crespo, G. (2023). Imagining sustainable futures for the high seas by combining the power of computation and narrative. *Npj Ocean Sustainability*, 2.
- Mashiur, Z., Borit, M., Born, R. J. G. van den, Heel, B. F. van, Jónás, K., Priebe, M., Rosa, A., & Warnke, P. (2023). *FLOW D1.1 Open Access Transdisciplinary Dataset FLOW Encyclopædia*. <https://doi.org/10.5281/ZENODO.8068069>
- Mattijssen, T. J., Ganzevoort, W., van den Born, R. J., Arts, B. J., Breman, B. C., Buijs, A. E., van Dam, R. I., Elands, B. H., de Groot, W. T., Knippenberg, L. W., & Balázs, Á. (2020). Relational values of nature: leverage points for nature policy in Europe. *Ecosystems and People*, 16(1). <https://doi.org/10.1080/26395916.2020.1848926>
- Merk, R. (2006). Klassenzimmer unter Segeln: Ein Erziehungs- und Bildungskonzept für junge Menschen - Entwicklung eines pädagogischen Konzeptes für ein Schulprojekt der Oberstufe zur Erweiterung der staatlichen und reformpädagogischen Schullandschaft in Deutschland (Sportwissenschaft und Sportpraxis, Bd. 147). Hamburg: Feldhaus Edition Czwalina.
- McKinley, E., Burdon, D., & Shellock, R. J. (2023). The evolution of ocean literacy: A new framework for the United Nations Ocean Decade and beyond. *Marine Pollution Bulletin*, 186, 114467. <https://doi.org/10.1016/j.marpolbul.2022.114467>
- Merrie, A., Keys, P., Metian, M., & Österblom, H. (2018). Radical ocean futures-scenario development using science fiction prototyping. *Futures*, 95, 22–32. <https://doi.org/10.1016/j.futures.2017.09.005>
- Milfont, T. L., & Duckitt, J. (2010). The environmental attitudes inventory: A valid and reliable measure to assess the structure of environmental attitudes. *Journal of Environmental Psychology*, 30, 80–94. <https://doi.org/10.1016/j.jenvp.2009.09.001>
- Miller, J. R. (2005). Biodiversity conservation and the extinction of experience. *Trends in Ecology and Evolution*, 20(8), 430–434. <https://doi.org/10.1016/J.TREE.2005.05.013>
- Miller, R. (2007). Futures literacy: A hybrid strategic scenario method. *Futures*, 39(4), 341–362. <https://doi.org/10.1016/j.futures.2006.12.001>
- Miller, R. (Ed.). (2018). *Transforming the Future: Anticipation in the 21st Century*. Routledge. <https://doi.org/10.4324/9781351048002>
- Nuojuua, S., Pahl, S., & Thompson, R. (2022). Ocean connectedness and consumer responses to single-use packaging. *Journal of Environmental Psychology*, 81, 101814. <https://doi.org/10.1016/J.JENVP.2022.101814>
- OECD. (n.d.). *Understanding how economic conditions and natural disasters shape environmental attitudes : A cross-country comparison to inform policy making*. Retrieved April 27, 2023, from https://www.oecd-ilibrary.org/social-issues-migration-health/understanding-how-economic-conditions-and-natural-disasters-shape-environmental-attitudes_8e880ea2-en;jsessionid=kF99fcCnuvUprLwKXSlp7s47i4p4AIUgjXHA0wba.ip-10-240-5-138
- Ojala, M. (2012). Regulating Worry, Promoting Hope: How Do Children, Adolescents, and Young Adults Cope with Climate Change? *International Journal of Environmental and Science Education*.
- Ojala, M., & Bengtsson, H. (2019). Young People's Coping Strategies Concerning Climate Change: Relations to Perceived Communication With Parents and Friends and Proenvironmental Behavior. *Environment and Behavior*, 51(8), 907–935. <https://doi.org/10.1177/0013916518763894>
- Parker, K., Graf, N., & Igielnik, R. (n.d.). *Generation Z Looks a Lot Like Millennials on Key Social and Political Issues | Pew Research Center*. Pew Research Center. Retrieved March 27, 2023, from <https://www.pewresearch.org/social-trends/2019/01/17/generation-z-looks-a-lot-like-millennials-on-key-social-and-political-issues/>
- Parker, L., Mestre, J., Jodoin, S., & Wewerinke-Singh, M. (2022). When the kids put climate change on trial: youth-focused rights-based climate litigation around the world. *Journal of Human Rights and the Environment*, 13(1), 64–89. <https://doi.org/10.4337/JHRE.2022.01.03>
- Parlement de Loire (2023). Manifeste de Loire. Retrieved April 18, 2024, from <https://www.parlementdeloire.org/>.
- Pereira, L. M., Crespo, G. O., Amon, J., Badhe, R., Bandeira, S., Bengtsson, F., Boettcher, M., Carmine, G., Cheung, W. W. L., Chibwe, B., Dunn, D., Gasalla, M. A., Halouani, G., Johnson, D. E., Jouffray, J.-B., Juri, S., Keys, P. W., Lübker, H. M., Merrie, A. S., ... Zhou, W. (2023). The living infinite: Envisioning futures for transformed human-nature

- relationships on the high seas. *Marine Policy*, 153. <https://doi.org/10.1016/j.marpol.2023.105644>
- Pereira, L., Ortuño Crespo, G., Juri, S., Keys, P., Lübker, H., Merrie, A., Superchi, E., Terry, N., Chibwe, B., Palacios-Abrantes, J., Gasalla, M. A., Salazar, E. R., Yasuhara, M., Obaidullah, F., Carmine, G., Bandeira, S., Amon, D. J., Halouani, G., Johnson, D. E., ... Fulton, B. (2022). The Living Infinite. *Vector*.
- Plumwood, V. (2006). *The Concept of a Cultural Landscape: Nature, Culture and Agency in the Land*. 11(2), 115–150. <https://www.jstor.org/stable/40339126?seq=1&cid=pdf->
- Puig de la Bellacasa, M. (2017). *Matters of Care*. University of Minnesota Press.
- Pyle, R. M. (1993). *The thunder tree: lessons from an urban wildland*. Houghton Mifflin.
- Ramos, J. (2006). Consciousness, culture and the communication of foresight. *Futures*, 38(9), 1119–1124. <https://doi.org/10.1016/j.futures.2006.02.015>
- Rana, S., Ávila-García, D., Dib, V., Familia, L., Gerhardinger, L. C., Martin, E., Martins, P. I., Pompeu, J., Selomane, O., Tauli, J. I., Tran, D. H. T., Valle, M., von Below, J., & Pereira, L. M. (2020). The voices of youth in envisioning positive futures for nature and people. *Ecosystems and People*, 16(1), 326–344. <https://doi.org/10.1080/26395916.2020.1821095>
- Restall, B., & Conrad, E. (2015). A literature review of connectedness to nature and its potential for environmental management. *Journal of Environmental Management*, 159, 264–278. <https://doi.org/10.1016/j.jenvman.2015.05.022>
- Riechers, M., Balázsi, Á., Abson, D. J., Fischer, J., Riechers, M., Balázsi, Á., Abson, D. J., & Fischer, J. (2020). The influence of landscape change on multiple dimensions of human–nature connectedness. *Ecology and Society, Published Online: Jul 20, 2020 | Doi:10.5751/ES-11651-250303*, 25(3), 1–12. <https://doi.org/10.5751/ES-11651-250303>
- Rolston III, H. (1981). Values in Nature. *Environmental Ethics*, 3(2), 113–128. <https://doi.org/10.5840/ENVIROETHICS19813245>
- Rosa, A. B., Kimpeler, S., Schirrmeister, E., & Warnke, P. (2021). Participatory foresight and reflexive innovation: setting policy goals and developing strategies in a bottom-up, mission-oriented, sustainable way. *European Journal of Futures Research*, 9(1), 2. <https://doi.org/10.1186/s40309-021-00171-6>
- Running, K. (n.d.). *Examining Environmental Concern in Developed, Transitioning and Developing Countries: A Cross-Country Test of the Objective Problems and the Subjective Values Explanations*. www.worldvaluessurvey.org
- Ryan, R. M., & Deci, E. L. (2000). Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions. *Contemporary Educational Psychology*, 25(1), 54–67. <https://doi.org/10.1006/CEPS.1999.1020>
- Salmón, E. (2000). Kincentric ecology: Indigenous perceptions of the human-nature relationship. *Ecological Applications*, 10(5), 1327–1332. [https://doi.org/10.1890/1051-0761\(2000\)010\[1327:KEIPOT\]2.0.CO;2](https://doi.org/10.1890/1051-0761(2000)010[1327:KEIPOT]2.0.CO;2)
- Sass, W., Pauw, J. B., Donche, V., & Petegem, P. Van. (2018). “Why (Should) I do something for the environment?” profiles of Flemish adolescents’ motivation toward the environment. *Sustainability (Switzerland)*, 10(7). <https://doi.org/10.3390/su10072579>
- Schultz, P. W. (2001). The Structure of Environmental Concern: Concern for Self, Other People and the Biosphere. *Journal of Environmental Psychology*, 21(4), 327–339. <https://doi.org/10.1006/JEVP.2001.0227>
- Schultz, P. W. (2002). Inclusion with Nature: The Psychology Of Human-Nature Relations. In *Psychology of Sustainable Development* (pp. 61–78). Springer, Boston, MA. https://doi.org/10.1007/978-1-4615-0995-0_4
- Schwartz, S. H. (1992). Universals in the Content and Structure of Values: Theoretical Advances and Empirical Tests in 20 Countries. *Advances in Experimental Social Psychology*, 25(C), 1–65. [https://doi.org/10.1016/S0065-2601\(08\)60281-6](https://doi.org/10.1016/S0065-2601(08)60281-6)
- Shehata, D. (2010). *Youth Mobilization in Egypt: New Trends and Opportunities*. www.aub.edu.lb/ifi
- Simmons, B., Woog, R., & Dimitrov, V. (2007). Living on the Edge: A complexity-informed exploration of the human-water relationship. In *World Futures: Journal of General Evolution* (Vol. 63, Issues 3–4, pp. 275–285). <https://doi.org/10.1080/02604020601174927>
- Sloane, G. M. T., & Pröbstl-Haider, U. (2019). Motivation for environmental volunteering - A comparison between Austria and Great Britain. *Journal of Outdoor Recreation and Tourism*, 25, 158–168. <https://doi.org/10.1016/J.JORT.2019.01.002>
- Soga, M., & Gaston, K. J. (2016). Extinction of experience: The loss of human-nature interactions. *Frontiers in Ecology and the Environment*, 14(2), 94–101. <https://doi.org/10.1002/FEE.1225>
- Soga, M., & Gaston, K. J. (2018). Shifting baseline syndrome: causes, consequences, and implications. *Frontiers in Ecology and the Environment*, 16(4), 222–230.
- Steg, L., & Vlek, C. (2009). Encouraging pro-environmental behaviour: An integrative review and research agenda. *Journal of Environmental Psychology*, 29(3), 309–317. <https://doi.org/10.1016/J.JENVP.2008.10.004>
- Sundeen, R. A., & Raskoff, S. A. (2000). Ports of Entry and Obstacles: Teenagers’ Access to Volunteer Activities. *Nonprofit Management and Leadership*, 11(2), 179–197. <https://doi.org/10.1002/NML.11204>
- Tam, K. P. (2013). Concepts and measures related to connection to nature: Similarities and differences. *Journal of*

- Environmental Psychology*, 34, 64–78. <https://doi.org/10.1016/J.JENVP.2013.01.004>
- Tamar, M., Wirawan, H., Arfah, T., & Putri, R. P. S. (2021). Predicting pro-environmental behaviours: the role of environmental values, attitudes and knowledge. *Management of Environmental Quality: An International Journal*, 32(2), 328–343. <https://doi.org/10.1108/MEQ-12-2019-0264/FULL/PDF>
- Tattersall, A., Hinchliffe, J., & Yajman, V. (2022). School strike for climate are leading the way: how their people power strategies are generating distinctive pathways for leadership development. *Australian Journal of Environmental Education*, 38(1), 40–56. <https://doi.org/10.1017/ae.2021.23>
- Tschakert, P., & Dietrich, K. A. (2010). Anticipatory Learning for Climate Change Adaptation and Resilience. *Ecology and Society*, 15(2).
- Turner, A. (2015). Generation Z: Technology and Social Interest. *The Journal of Individual Psychology*, 71(2), 103–113. <https://doi.org/10.1353/JIP.2015.0021>
- Twenge, J. M., Cooper, A. B., Joiner, T. E., Duffy, M. E., & Binau, S. G. (2019). Age, Period, and Cohort Trends in Mood Disorder Indicators and Suicide-Related Outcomes in a Nationally Representative Dataset, 2005-2017. *Journal of Abnormal Psychology*, 128(3), 185–199. <https://doi.org/10.1037/ABN0000410>
- Tzankova, I., Prati, G., Eckstein, K., Noack, P., Amnå, E., Motti-Stefanidi, F., Macek, P., & Cicognani, E. (2021). Adolescents' Patterns of Citizenship Orientations and Correlated Contextual Variables: Results From a Two-Wave Study in Five European Countries. *Youth & Society*, 53(8), 1311–1334. <https://doi.org/10.1177/0044118X20942256>
- Umweltbundesamt (UBA). (2020). *Umweltbewusstsein in Deutschland 2020: Ergebnisse einer repräsentativen Bevölkerungsumfrage*.
- van den Born, R. J. G. (2008). Rethinking Nature: Public Visions in the Netherlands. *Environmental Values*, 17(1), 83–109. <https://doi.org/10.3197/096327108X271969>
- van den Born, R. J. G., Arts, B., Admiraal, J., Beringer, A., Knights, P., Molinaro, E., Horvat, K. P., Porrás-Gómez, C., Smrekar, A., Soethe, N., Vivero-Pol, J. L., Ganzevoort, W., Bonaiuto, M., Knippenberg, L., & De Groot, W. T. (2018). The missing pillar: Eudemonic values in the justification of nature conservation. *Journal of Environmental Planning and Management*, 61(5–6), 841–856. <https://doi.org/10.1080/09640568.2017.1342612>
- van den Born, R. J. G., Calderón Moya-Mendéz, N. E., de Groot, M., Duong, N. T. B., Ganzevoort, W., van Heel, B. F., Hunka, A. D., Lenders, R. H. J., van Riper, C. J., Scopelliti, M., Vergrugge, L. N. H., & de Groot, W. T. (n.d.). *Testing the biophilia hypothesis through HaN scale surveys in four continents*.
- Van den Born, R. J. G., Ganzevoort, W., Talivee, E.-M., Laksfoss Cardozo, A.-E., Ábrán, Á., Villanueva-Romero, D., Contreras Ameduri, A., Van der Wal, R., & Lundquist, E. (2022). *Love, Learning and Care for Birds - Ornithological citizen science as a pathway to environmental citizenship*.
- Van Dooren, T. (2014). FLEDGING ALBATROSSES: Flight Ways and Wasted Generations. In *Flight ways : life and loss at the edge of extinction* (p. 193). Columbia University Press.
- van Dooren, T., Kirksey, E., & Münster, U. (2016). Multispecies Studies. *Environmental Humanities*, 8(1), 1–23. <https://doi.org/10.1215/22011919-3527695>
- van Heel, B. F., Born, R. J. G. van den, & Aarts, N. (2023a). Nature Experiences in Childhood as a Driver of Connectedness with Nature and Action for Nature: A Review. <https://Home.Liebertpub.Com/Eco>. <https://doi.org/10.1089/ECO.2022.0080>
- van Heel, B. F., van den Born, R. J. G., & Aarts, N. (2023b). Heroes for nature: understanding childhood nature experiences in motivating action for nature. *Journal of Environmental Planning and management*. <https://doi.org/10.1080/09640568.2023.2281875>
- Van Heel, B. F., Van den Born, R. J. G., & Aarts, M. N. C. (2023c). Everyday childhood nature experiences in an era of urbanisation: An analysis of Dutch children's drawings of their favourite place to play outdoors. *Children's Geographies*, 21(3), 378-393.
- West, S., Haider, L. J., Masterson, V., Enqvist, J. P., Svedin, U., & Tengö, M. (2018). Stewardship, care and relational values. *Current Opinion in Environmental Sustainability*, 35, 30–38. <https://doi.org/10.1016/J.COSUST.2018.10.008>
- Yu, T. K., Chang, Y. J., Chang, I. C., & Yu, T. Y. (2019). A pro-environmental behavior model for investigating the roles of social norm, risk perception, and place attachment on adaptation strategies of climate change. *Environmental Science and Pollution Research*, 26(24), 25178–25189. <https://doi.org/10.1007/S11356-019-05806-7/FIGURES/6>
- Zylstra, M. J., Knight, A. T., Esler, K. J., & Le Grange, L. L. L. (2014). Connectedness as a Core Conservation Concern: An Interdisciplinary Review of Theory and a Call for Practice. *Springer Science Reviews*, 2, 119–143. <https://doi.org/10.1007/s40362-014-0021-3>



8 Appendices

8.1 Coding Document Analysis

Content related to	Emerging themes	Codes
Pioneering initiative Characteristics Strategy / mission	Practice, member structure Aim, goals, approach vision	
Action for water Motivations Engagement/awareness Youth mobilization	Self-determination theory	Autonomy, relatedness (to humans and non- humans), competence
Human-Nature/Water relationship + values Relational values More-than-human perspective	Connectedness Learning Emotions Other values Instrumental, intrinsic, relational interspecies justice	Type of connectedness, dimensions of connectedness, etc. Hope, anger, despair etc. Water, animals, plants, ecosystems, etc.
Futures Expectations / visions Factors driving changing human- water relationships		

8.2 Interview guide – board members/initiators

<p>Thank you for participating in our research.</p> <p>[introduction]</p> <p>[about interview]</p> <p>[consent/DMP]</p>	
<p>Part 1: about the interviewee</p> <p>[intro]</p>	
Main questions	Follow-up questions/checklist
<ul style="list-style-type: none"> - Could you introduce yourself? - What is your role in [org]? - what is your motivation to work for [org]? 	<p>Follow-up question</p> <ul style="list-style-type: none"> - do you work on other projects or in other organisations?
<p>Part 2: about the organisation</p> <p>[intro]</p>	
Main questions	Follow-up questions/checklist
<ul style="list-style-type: none"> -Can you describe the start of [org] ? - what was the reason for starting this [org]? - what is the main mission of [org] ? -How is [org] trying to reach this mission? - Could you describe the underlying human-nature relation / human-water relation you believe is central for your [org]? - What is main target group? -What are important partners? - how is [org] financed? -Did the mission change significantly over time? - what were the main changes in approach/strategy over time? 	<ul style="list-style-type: none"> - what was the cause? - short history - How long does [org] exist - Or reflect on what we found in the documents - Show them the three forms of connectedness / or four human-nature relationships. See what their org relates best to? - Why? - why? - How? What changed? - What drove/hindered these changes?

<ul style="list-style-type: none"> - do you foresee big changes in mission and approach in the near future? -do you foresee that [org] will change the underlying human-nature / human-water relationship in the future? 	<ul style="list-style-type: none"> - what plays a role in these changes? - what will drive/hinder these changes?
<p>Part 3: about the pioneering initiative/project</p> <p>[intro]</p>	
<p>Main questions</p> <ul style="list-style-type: none"> - can you shortly describe the initiative/project - what is your role in the initiative/project? -what are the main activities? -What is the aim of initiative/project - How did it origin/come to exist? - Did the project develop /change significantly ? -What is the main target group of initiative/project -What are important partners in this project? - how is [initiative/project] financed? -could you describe the underlying human-nature relation / human-water relation you believe is central in this initiative/project <p>Our project focuses on young people (18-30), we would like to ask you some questions about their engagement.</p> <ul style="list-style-type: none"> - Can you say something about their engagement, where do you think it comes from and looks like? - What do you think are the main motivations of this group to be involved in your initiative/project 	<p>Follow-up questions/checklist</p> <ul style="list-style-type: none"> -For clean rivers: some questions focusing on citizen science - how long does it exist? - For instance for clean rivers it changed from research and cleaning up to solutions - How? What changed? - What drove/hindered these changes? - Why? How do you approach them? - how are they involved? - relate to HaN/connectedness again? -Link to other motivations to act for nature studies / SDT - Link to Ives - which? how did that go? What works / doesn't

<p>- Has they undertook specific effort to engage this group?</p> <p>- Do you see that this group is more interested in specific activities in this project (other than other age groups?)</p>	<p>work? what message?</p> <p>- how do you notice that ?</p>
<p>Part 4: the future of human/water relations</p> <p>Our project focuses on young people’s engagement with water.</p>	
<p>Main questions</p> <p>What do you think are the main developments with regard to water related problems (what scale: in Europe or world?)</p> <p>How do you think this effects/influences engagement of youngsters</p> <p>How do you think this effects the course of your org and projects?</p>	<p>Follow-up questions/checklist</p> <p>- what are the driving/hindering factors? - why?</p> <p>- Maybe relate to coping mechanisms? Constructive hope? Powerlessness?</p> <p>- less/more? - other approach?</p>
<p>Part 5: other</p> <p>[intro]</p>	
<p>Main questions</p> <p>Are there topics we didn’t discuss that you think are relevant in this context?</p> <p>Are there any questions you want us to address in the interviews with the involved young people or in the FLOW project?</p>	<p>Follow-up questions/checklist</p>

8.3 Interview guide – young people

<p>Thank you for participating in our research.</p> <p>[introduction]</p> <p>[about interview]</p> <p>[consent/DMP]</p> <p>Ice-breaker:</p> <p>Which book, film or game recently inspired you? What role did nature play in it?</p>	
<p>Part 1: about interviewee</p> <p>[intro]</p>	
<p>Main questions</p> <ul style="list-style-type: none"> - Where did you grow up? - What was the role of nature in your childhood? - Is nature important for you? - You are active for [org or project] could you explain why specifically this org/project? - What is your main motivation to do something for nature/water ? - Other actions for nature besides involvement in [org]? - How do you think of yourself in action for nature/water? 	<p>Follow-up questions/checklist</p> <ul style="list-style-type: none"> - Type of nature/experiences/social context? - Why? <p>Also find out whether their engagement is related to water or also broader to nature in general?</p> <ul style="list-style-type: none"> - Are there people who inspired you in this? - Activist? Important for identity?
<p>Part 2: emotions towards nature and water</p> <p>[intro]</p>	
<p>Main questions</p> <p>Start with relationship water -> dimensions lves -> emotions -> coping</p> <p>What do you feel if you think of [the water the engagement is concerned with]?</p> <p>How would you picture your hopes?</p> <p>How would you picture your fears?</p> <p>What ways of influencing and avoiding this, do you have?</p>	<p>Follow-up questions/checklist</p> <p>Can you recall a specific situation or experience?</p> <p>What do you hope for in the future?</p> <p>What can we do?</p>

Powerlessness/constructive hope/worrying	Why do we have to do something?
Part 3: role in project [intro]	
<p>Main questions</p> <ul style="list-style-type: none"> - what do you do in this project? - How long active in this project? - what motivates you to be active in this project? - Is it important that the project focus on [specific water]? - How did you find out about [project]? - How did you experience your involvement up till now? - What is the character of activities you like? - Who works there with you? - How is the initiative received locally? Who participates? Who listens? Who opposes? - Is the initiative been considered serious? - How would you describe its impact? <p>How important for you is:</p> <p>Autonomy (being able to make your own choices and be independent in doing what you want to do)</p> <p>Skills (do what you are good at)</p> <p>Relatedness (work together with peers, alone, relatedness nature/water)</p>	<p>Follow-up questions/checklist</p> <p>List?</p> <p>Is it important that it is situated locally or would you also do the same for an aquatic ecosystem far away? What brought you there? Who?</p> <p>Are there specific activities you are enthusiastic about? Which ones (link to different phases in project for instance research, action, reflection), specific activities that you didn't like</p> <ul style="list-style-type: none"> - activities - social interactions (peers/organisation) -By whom? By whom not? - Impact: Environmental, Political, Social, Economic, Legal, Technological? <p>Link to 5 dimensions Ives</p> <p>Link to SDT</p> <ul style="list-style-type: none"> - are you able to make choices in this project? - to what extend are you able to impact society/water/organisation with this project? -> how? - learning / developing skills in project?
Part 4: visions of the future [intro]	

Main questions	Follow-up questions/checklist
<p>Question</p> <p>What do you think attracts young people to engage for nature/water?</p> <p>How do your peers at school/work view your action for nature water?</p> <p>What do you think are the main developments with regard to water related problems (what scale: in Europe or world?)</p> <p>How do you think this effects/influences engagement of young people?</p> <p>How do you see your future in relation to nature/water?</p>	<p>Follow-up question</p> <p>-why? - how is that in this project?</p> <p>- are they like minded? What drives them? Do you try to include them or not?</p> <p>-how do you recognize this? -what are the driving/hindering factors? - how do you feel about this?</p> <p>-how do you recognize this? -what are the driving/hindering factors? -what role can young people play in this? How? What is needed for that?</p> <p>- why? Local? More general speaking?</p>
<p>Part 5: Other</p> <p>[intro]</p>	
<p>Main questions</p> <p>Are there topics we didn't discuss that you think are relevant in this context?</p>	<p>Follow-up questions/checklist</p>

8.4 Overview interviewees young people

Code:	Age:	Gender:	Place of growing up:	Place of living:
Clean Rivers				
R1.3	25-30	Female	Urban	Urban
R1.4	25-30	Female	Urban	Urban
R1.5	25-30	Male	Rural near water	Urban
R1.6	25-30	Female	Rural	Rural
R1.7	20-25 or 25-30	Female	Rural near water	Urban
R1.8	25-30	Female	Urban	Urban
Embassy of the North Sea				
R2.3	25-30	Male	Urban	Urban
R2.4	30+	Male	Urban near water	Urban
R2.5	25-30	Male	Rural	Urban
R2.6	25-30	Female	<i>Not available</i>	Urban
R2.7	25-30	Female	<i>Not available</i>	Urban
R2.8	25-30	Female	Rural near water	Urban
Parlement de Loire				
R3.1	25-30	Female	Urban area (Amboise) by the Loire river	Urban area (Tours) by the Loire river
R3.2a (group interview)	20-25	Male	Urban area	Urban area (Tours) by the Loire river
R3.2b (group interview)	20-25	Male	Urban area	Urban area (Tours) by the Loire river
R3.2c (group interview)	20-25	Female	Peri-urban area by the river Congo	Urban area (Tours) by the Loire river
R3.3a (group interview)	20-25	Female	Rural area (in Lebanon) near rivers and lakes	Urban area (Orléans) by the Loire river

R3.3b (group interview)	20-25	Female	Urban area (Paris) near a river	Urban area (Orléans) by the Loire river
Classroom under Sails				
R4.1	16-20	Female	Peri-urban area near Munich close to forest and creeks	same
R4.2	16-20	Female	Urban (Nürnberg), not near to coast, lakes or rivers. However, recurring trips to coast and lakes.	same
R4.3	16-20	Female	Peri-urban area near Munich close to a lake	same
R4.4	16-20	Male	#interview was rescheduled and then cancelled	
Centre for Coastal Culture				
R5.1	20-25	Male	Urban	Rural
R5.2	20-25	Male	Rural	Rural
R5.3	25-30	Female	Rural	Rural