

BAUHAUS OF THE SEASAILS

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**The
Impact
of Blue Seniors, Regenerative Menus
and Future Tidal Architectures in Venice**



Cover page: Venetian Lagoon, 14th January 2006. (Source: Comune di Venezia, 2006.) CC BY-NC-ND 4.0.

Back page: Venetian lagoon, 12th December 2006. (Source: Comune di Venezia, 2006.) CC BY-NC-ND 4.0.

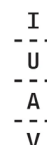
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The views stated in this report are those of the authors and not necessarily those of the entities they represent.



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Fig. 1: Venetian lagoon, Venice, 1st January 2014. (Source: Alessandro Tretti Gastaldello, 2014.) CC BY-NC-ND 4.0

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¹ See this page created by students for the project: <https://metabauhaus.altervista.org/home-page/about-us/>



Fig. 2: Saòr a San Sebastiano, March 2025. (Source: Alessandro Tretti Gastaldello, 2025.) CC BY-NC-ND 4.0

Introduction

This report discusses the impact of a pilot project implemented in Venice as part of the Horizon Europe project Bauhaus of the Seas Sails (2022–2025).² Bauhaus of the Seas Sails (BoS) is a New European Bauhaus (NEB) project that tests solutions for more beautiful, sustainable and inclusive cities and neighborhoods in Europe, with a focus on seven coastal and waterfront cities (Hamburg, Venice, Malmö, Rotterdam, Lisbon, Oeiras, Genoa) and a nature park straddling the Dutch-Belgian border (Grenspark Groot Saefinghe). Each pilot has tested innovative solutions (“drops”) that aim to create ripple effects (“ripples”) and ultimately generate long-term impact (“waves”) (fig. 3).

The Venice pilot was led by Ca’ Foscari University of Venice, IUAV University, the North Adriatic Sea Port Authority and the Venice Municipality. It tested three solutions according to the BoS typology: Blue Seniors, Regenerative Menus and Future Tidal Architectures (table 1). All pilots including Venice also applied the Zoöp drop (‘BoS-Zoöp’) as a method to adopt regenerative perspectives and guide regenerative action locally.

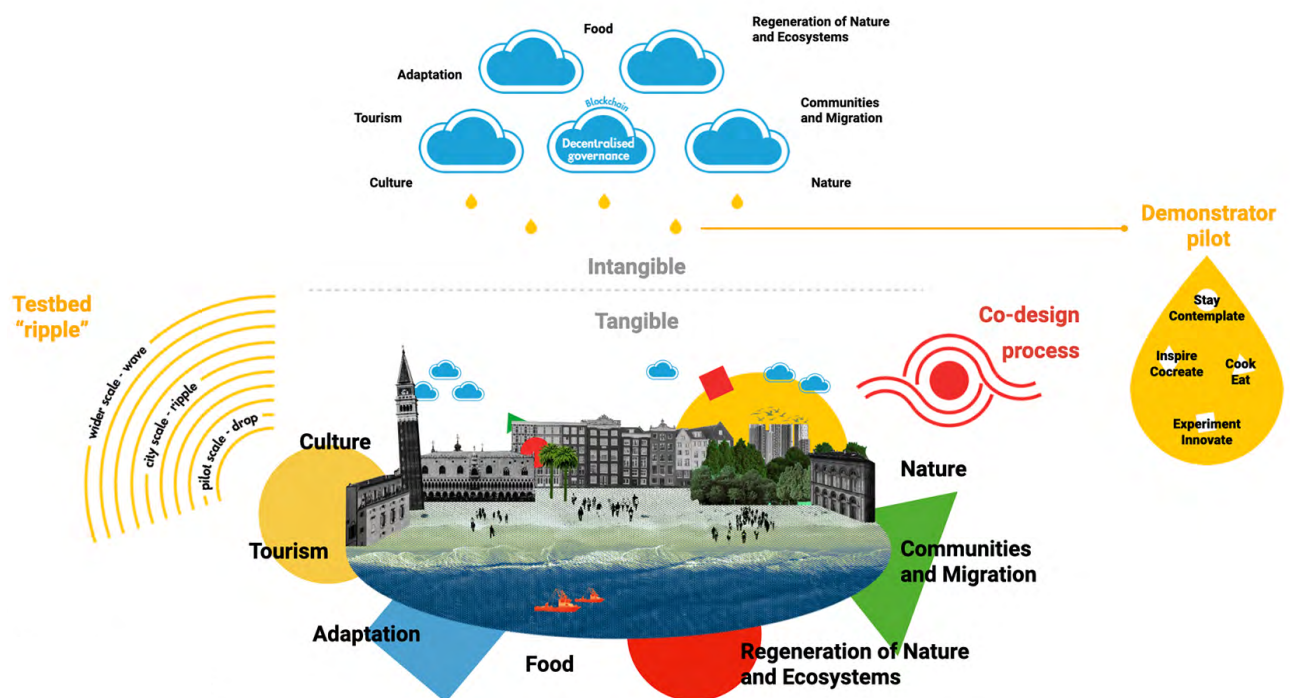


Fig. 3: Visualization of the Bauhaus of the Sea Sails approach. (Source: European Commission, 2024³; Visual identity ©José Albergaria)

² More information can be found on the project website: <https://bauhaus-seas.eu>

³ <https://cordis.europa.eu/project/id/101079995/reporting>

The drop typologies Blue Seniors, Regenerative Menus, Future Tidal Architectures and Zoöp

The drop typologies were defined in the initial stages of the BoS project. In the Description of the Action, they were described as follows:



The **Blue Seniors drop** “explores interactive design as a support for inhabiting a place, starting from examining seniors’ peculiar needs and involving them in the design and evaluation of platforms and/or tools elaborated and prototyped in workshops.” The drop aimed to address seniors’ needs, recognize them as holders of knowledge and traditions, and promote intergenerational approaches that support spatial and cultural justice.



The **Regenerative Menus drop** “argues for shifting food landscapes to follow the new seasonalities behind human-made climates. Developed from the Climavore concept (created and practiced by Cooking Sections via TBA21),⁴ it researches seasons of food production and consumption that react to human-induced climatic events and landscape alterations through co-design with local partners and communities. (...) Unlike carnivore, omnivore, locavore, vegetarian or vegan, Climavore is about the origin of ingredients and the agency that those ingredients have in providing spatial and infrastructural responses to human-induced climatic events for a certain period. At the core is the idea of embracing a flexible form of eating, shifting, for instance, to drought-resistant crops in a period of water scarcity or filter feeders during times of polluted or acidified waters.”



The **Future Tidal Architectures drop** aimed to engage young architects and spatial designers in co-designing scenarios and adaptive strategies for coastal areas, deltas and wetlands impacted by climate change. The drop focused on coastal and port cities and their neighboring rural areas and wetlands, and aimed to reconcile different groups and interests by building dialogue and collaborations with citizens and stakeholders of different scales and power.

4 See <https://www.visibleproject.org/fellowship/climavore/> and <https://www.climavore.org/becoming-climavore>



The **Zoöp drop** ('BoS-Zoöp'), created by Het Nieuwe Instituut and practiced by other consortium members, was initially defined in the project as 'multispecies assemblies'. It was inspired by the 'zoöp' concept⁵ and organizational model which supports collaboration between human and other-than human life to safeguards the interests of all life. The model appoints an independent Speaker for the Living as a human spokesperson with ecological knowledge and the ability to empathize with the experiences of other-than-human life. This Speaker for the Living ensures that the interests of other-than-human life are included, and supports organizations or projects through a learning process with the aim to become increasingly life-supporting (regenerative) within the ecosystems they participate in. All BoS pilot teams adopted key elements of the Zoöp model.

Box 1: *The drop typologies Blue Seniors, Regenerative Menus, Future Tidal Architectures and Zoöp*

⁵ Zoöp is short for Zoöperation and refers to a 'coöperation with zoë', the Greek word for life. See <https://zoop.earth/nl/>

The drop typologies were adapted to the context of Venice (see box. 2 below for more context information).

- **The Blue Seniors drop in Venice** collaborated with seniors' associations and students in designing digital prototypes to address seniors' needs and foster a reconnection with the lagoon environment. The initiative also explored how seniors can play an active role in the city.
- **The Regenerative Menus drop in Venice** aimed to rebuild a collective memory of place, fishing practices and culinary traditions among seniors, while also sharing it with the rest of the Venetian community, students, and tourists. It carried out activities to reduce the gap between the city, the citizens and the lagoon environment, including boat trips, a tasting and a food festival.
- **The Future Tidal Architectures drop in Venice** involved students in a workshop to explore possibilities for innovation in the functional and spatial aspects of the San Basilio area and to redesign the waterfront. It aimed to reimagine the S. Basilio area in relation to both the built environment and the lagoon ecosystem, by promoting local visions, cultural heritage and an increased focus on water in urban planning.
- **The Zoöp drop in Venice** introduced the Zoöp model and method which worked with three elements: the Zoöp baseline workshop; installing and working with a Speaker for the Living⁶ within the pilot; and embedding a focus on the regeneration of (human-inclusive) ecosystems. This process helped the Venice pilot team and Speaker for the Living to identify regenerative objectives across drops and change perspective on humans' abilities to support the restoration of the lagoon ecosystem.

The body of the report provides an in-depth assessment of the pilot's key results, lessons and impact. We addressed the Blue Seniors, Regenerative Menus and Future Tidal Architectures drops distinctly, while integrating mentions of the Zoöp method throughout. The report is structured along three main parts. First, it analyzes the process of the Venice pilot from drops, to ripples, toward potential waves (long-term impact). Second, it assesses the impact of the pilot on the four BoS themes: Aesthetics, Sustainability, Inclusion, and Local grounding. The third and final section about 'Takeaways' highlights key factors (context, stakeholders, resources) that influenced the pilot's implementation and impact, and provides areas for improvement and future development.

6 <https://zoop.earth/en/page/576/speakers-for-the-living>

Key facts about Venice

- Venice is located in a **lagoon**, as a transitional water between the rivers coming from the Alps and the Adriatic Sea, connected by three portsmouths (Lido, Malamocco, Chioggia). The waterways to the sea were modified over time also by **human interventions** like digging and damming, especially between the late 19th and early 20th centuries.
- Venice is a regional capital city in Italy and 10th metropolitan city by land surface, but it is world wide renowned for being a **former maritime republic** also known as Serenissima or 'mistress of the sea'.
- Venice and its lagoon are a **UNESCO World Heritage property**. This is due to its unique urban landscape floating on the water, its architecture and monumental arts, its historical testimony straddling east and west in the Mediterranean, but also to its lagoon semi-lacustral habitat and delicate ecosystem, and the humans' constant work with the natural elements to find a balance for coexistence.
- Being one of the most renowned tourist destinations both from land and water, Venice faces a **huge touristic pressure** leading to problems like housing shortage, gentrification, lack of public services for residents, and increasing social inequality.



Fig. 4: The Porto di Lido-San Nicolò and the Lagoon of Venice, 6th May 2019. (Source: Didier Descouens, Wikimedia Commons, 2019.) CC BY-SA 4.0. < <https://creativecommons.org/licenses/by-sa/4.0/> >

- The **Port of Venice**, located on the island and the mainland, is seventh in Italy by volume of commercial traffic. The multipurpose seaport is a relevant asset for the regional economy as a logistic centre and for Agribusiness, Project Cargo, Steel, petrochemical and Fishery sectors. The industrial port area of Marghera (one of the largest coastal industrial zones in Europe, covering a total area of over 2,000 hectares) is also one of the major drivers of land, air and water pollution within the territory.
- The historical city and port face important challenges. The number of **high tides above +110 cm and the sea-level rise risk** are increasing due to climate change and aggressive human interventions altering the lagoon hydraulic balance, like the dredging of canals as waterways. The MoSE – Experimental Electromechanical Module – mobile flood gates has been activated since 2020, as a first but not resolute measure.
- Urbanization, industrialization and port development within the lagoon led to major **biodiversity losses**. To address this, protected areas within the Natura 2000 European Ecological Network have been established, and several university-led and independent NGOs research projects promote sustainable practices. However, strategic planning and cross-sector governance are lacking to protect and restore the lagoon, address tourism pressures and protect traditional practices.

Box 2: Context of Venice

Methodology

The impact assessment of all Bauhaus of the Seas Sails pilots was conducted by a team at Delft University of Technology as part of the project consortium. We developed a unique analytical framework to assess the impact of the project. This impact framework helped translate high-level EU ambitions, rooted in the New European Bauhaus (NEB) Compass (2022) and its core values of Aesthetics, Sustainability and Inclusion, into locally aligned impact tools and indicators (in line with the project-wide Bauhaus of the Seas Sails approach; fig. 6). It provided a strategy and mixed-methods approach to guide evaluation, learning and comparative analysis within the project.

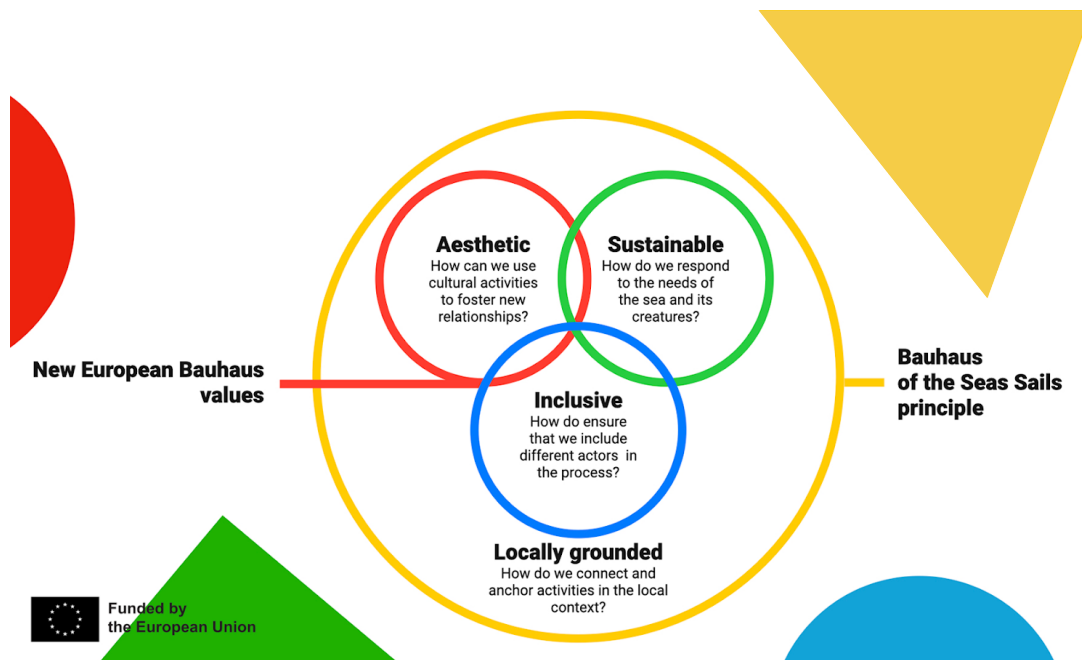


Fig. 6: Visualization of the Bauhaus of the Sea Sails approach to NEB principles. (European Commission, 2024; Visual identity ©José Albergaria)

The strategy and methodology considered current knowledge about impact assessment and monitoring, evaluation and learning (MEL) and the challenges involved in putting them into practice. Fig. 7 shows the five key elements (in capital letters) that shape our analytical framework to impact assessment and the related concepts, approaches and tools (in blue) as well as challenges (in red) the team has reflected on and sought to address. The authors and references for the concepts, knowledge and tools mentioned in fig. 7 are listed in annex 2.

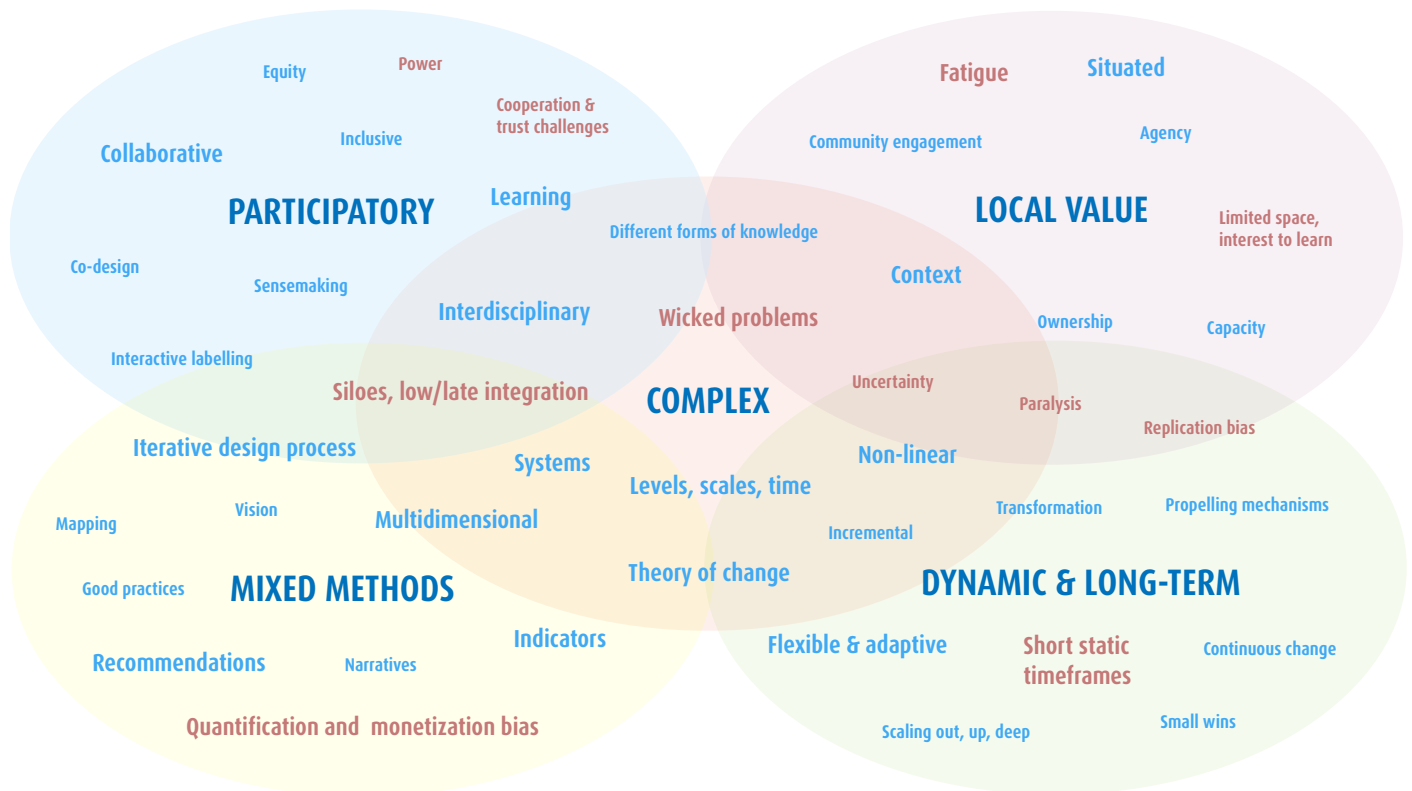


Fig. 7: Overview of core considerations underpinning the Bauhaus of the Seas Sails Impact Framework, CC-BY-4.0.

Complex

The team developed an impact framework that accounted for complex, cross-sector, interconnected challenges impacting coastal and waterfront cities (e.g., climate change, biodiversity loss, socioeconomic inequality, threats to cultural heritage). The impact framework included various dimensions, levels, scales and timescales of impact in its selection of indicators and in its data collection strategy. The team developed a **Library of Indicators**, which provides a common structure to make sense of complexity and compare the different pilots and drops.

Mixed methods

Our approach to impact assessment used **different methods and tools** (context analysis, Theory of Change, indicators) to capture the range of impacts generated by pilots and drops and their evolution over time. These methods enabled data collection and fostered dialogue, reflection, and a deep exploration of impact through different lenses (thematic, process-oriented, long-term thinking). Methods were refined over time based on partners' feedback and learning from other WPs.

Participatory

Our approach prioritized collaboration in the impact framework development, context analysis, data collection and comparative analysis. The team developed **participatory sessions with pilot teams and local partners** (online and in-person) that informed the development of context-sensitive impact tools and enabled collective learning and sensemaking.

Local value

Our approach sought to generate value for pilot teams and local actors involved in the impact assessment process. The team organized **learning and cross-exchange** moments for pilots, identified good practices and made recommendations for the projects' future development.

Dynamic and long term

Our approach was rooted in the understanding that impact is a non-linear, long-term process toward transformation. The team organized **Theory of Change sessions** with pilot teams to reflect on their impact pathways and scaling strategies to turn drops into ripples and waves. Considering the need for adaptive and context-sensitive approaches, the Library of Indicators provided a structured catalogue that pilot teams could use in a flexible and dynamic way to assess their impact over time.

Additionally, our work considered and connected with other concepts used in the project such as the **'Ocean Ambassadors' and 'Sea Forums'** as actors who took part in co-designing, implementing and evaluating the work of the pilots (Seravalli, Light & Emilson 2022; Zumbrink et al. 2024). We considered the perspectives of these actors to be essential to assess the impact of the pilots.

- Ocean Ambassadors focused mainly on building bottom-up engagement for the ocean among citizens and grassroots actors, which helped disseminate the work of pilot teams.
- Sea Forums provided a collaborative platform for planning, evaluating and sustaining activities by building institutional commitment and mobilizing resources and knowledge across disciplines and organizations.

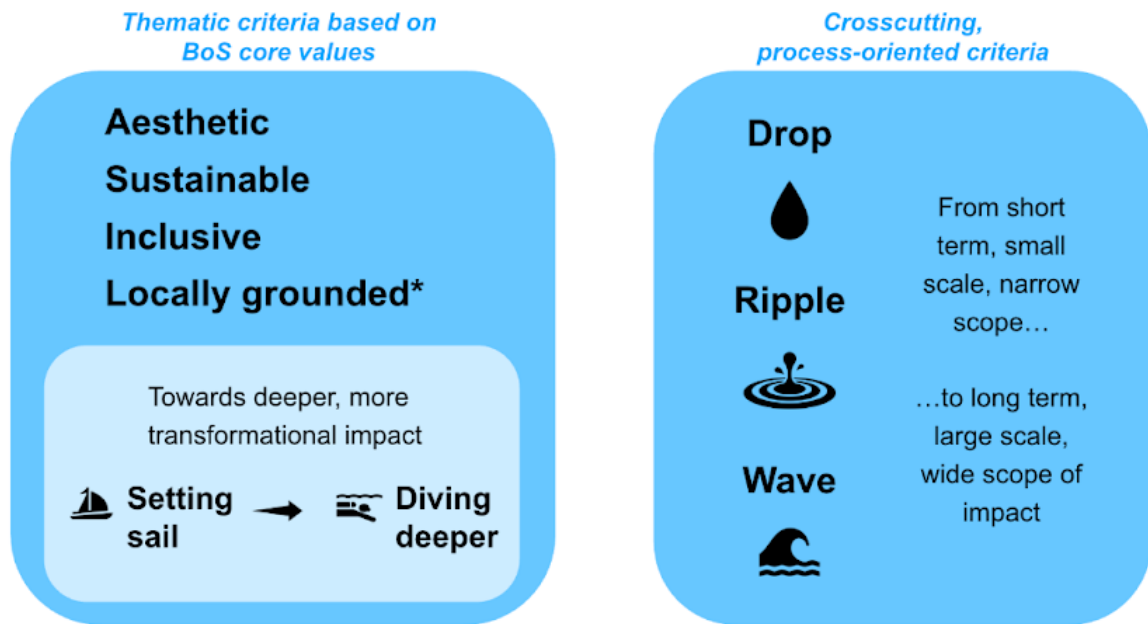


Fig. 8: Snapshot of the Library of Indicators' structure.⁷ CC-BY-4.0

Fig. 9 (opposite): Theory of Change mapping for the Venice pilot, as of 14 March 2025.⁸ CC-BY-4.0

The following impact analysis follows the structure of the Library of Indicators (fig. 8) and focuses on criteria and indicators that were co-selected by the impact assessment team and the Venice pilot team. The analysis uses data collected by the pilot team and BoS work packages, which organized participatory sessions with pilots (detailed in annex 1) and shared research results in project reports and academic publications.⁹ We collected and triangulated useful information during the sessions on **context analysis, theory of change** (fig. 9), **deep-dives** into aesthetics, sustainability, inclusion and local grounding; as well as an **in-person evaluation** on 31 March 2025 in Venice, during which 11 participants (project partners, Ocean Ambassadors, local associations, students) shared valuable insights.

The impact analysis also discusses the potential of the Venice pilot to generate long-term impact in the section "Toward waves? Hypotheses". Considering the three-year duration of the BoS project, we focused on pilots' ability to develop **'seeds' for long-term impact** (waves). We understand seeds as elements that constitute a strong foundation for waves to unfold. Bennett et al. 2016 defined "seeds of a good Anthropocene" as ways of doing and thinking that are materialized in initiatives or prototypes, are not currently dominant or prominent, and that begin to have transformative impacts as they spread. We were also guided by the concept of **'small wins'** that captures how relatively small changes, in the sense that they initially arise at the micro- or local level, can generate "deep" effects that alter routines, values, frames and logics (Argyris and Schon 1996, in Termeer and Dewulf 2019). Termeer and Dewulf (2019) stress the importance of using dedicated propelling mechanisms to ensure that small wins (or seeds) turn into transformative change (or waves). Our analytical framework and methodology for impact assessment are further detailed in upcoming publications.

⁷ Local grounding or 'Locally grounded' was added as a fourth core value by the Bauhaus of the Sea Sails (BoS) project. It is a crosscutting value, meaning that it applies across the three themes of Aesthetics, Sustainability and Inclusion.

⁸ This infographic was co-developed with the pilot team, using Mural. The information was collected on 14 March 2025. The pilot activities and long-term plans have evolved since. This figure should be seen as a step in the reflection and evaluation process, rather than a definite Theory of Change of the Venice pilot.

⁹ See <https://cordis.europa.eu/project/id/101079995/results>.

Part 1

Process toward impact: drop, ripple, wave

This section discusses the process toward impact of the Venice pilot and its three drops. It summarizes the **key outcomes** of the drops, assesses their **ripple effects** and formulates **hypotheses about their long-term impact** based on available evidence. The impact categories (Drop, Ripple, Wave), criteria and indicators used for this analysis come from the Bauhaus of the Seas Sails Library of Indicators. The text below is a summary of the more detailed analysis that was conducted per criterion and indicator by the impact assessment team in collaboration with the Venice pilot team.



Fig. 10. Field trips to the north lagoon, July-September 2023. (Source: Alessandro Tretti/Gasta dello, 2025.) CC-BY-NC-ND 4.0

1.1 Drops



The criteria we analyzed focused on the extent to which the pilot:

- **considered and used existing processes;**
- **engaged relevant actors;**
- **imagined, developed and tested solutions.**

For each criteria, we used detailed indicators to guide the analysis.

Key insights from developing and testing the drops:

Blue Seniors

The following outcomes were generated from developing and testing the Blue Seniors drop:

- **A new educational format** was developed for university students to learn about co-design, social value creation and their local context, via a course on digital design involving about 100 students. Students learned to use human stories and seniors' feedback (from interviews, focus group discussions, lagoon boat trips, evaluation of digital prototypes) as valuable local knowledge to guide future sustainable solutions.
- **Connections** were built between the university (teachers & students) and local institutions and organizations, especially the municipal social services and seniors' associations.
- **Information about the needs and challenges of blue seniors** in Venice was collected (over 100 interviews) and structured around 9 key themes. Students, university professors and social services learned about these needs which created opportunities for dialogue and fed the students' design process.
- **12 boat trips**, organized by the Regenerative Menus drop in collaboration with the Blue Seniors drop, gathered some 360 participants and facilitated physical access to the lagoon for seniors, revived memories and sensations of the lagoon (emotional impact), created opportunities for social connection and increased awareness of the lagoon ecosystem among participants. Boat trips are an activity with potential to be replicated and expanded in the future (more in Ripples).
- **27 prototypes of digital platforms** were developed to address challenges faced by seniors in Venice, with a focus on social inclusion, mobility, water heritage and sustainability, and were evaluated by some 200 seniors. Students' designs suggest an improved understanding of seniors' needs and of the importance of intergenerational solidarity.

Regenerative Menus

Lagoon boat trips **initiated an effort to rebuild the (historical) relationship** of proximity between Venetians and the lagoon ecosystem. They were identified and developed as an activity with potential for replication and impact, in partnership with local boat company Sestante.

The 12 boat trips, which gathered some 360 participants, **raised the awareness** of seniors and students about the ecology of the lagoon and its importance for the city. The last two field trips promoted sustainably and locally-sourced fish from the lagoon environment to some 80 participants, with a fish tasting. 90% of them reported an increased awareness of the importance of making sustainable and conscious food choices.

The Saòr a San Sebastiano event was organized in March 2025 by the municipality, with Ca' Foscari University of Venice and Ocean Space, in the continuity of the 2019 festival Saòr – Sapori e saperi veneziani in festa. The event was attended by about 200 participants including some 60 children, local food and seniors' associations and citizens. It demonstrated the possibility of developing **sustainable food options that align with local culinary traditions and appeal to different generations.**

The Saòr event also gave a new energy to a local space, the Bocciofila, by organizing engaging and creative activities for children and by giving local food producers and chefs visibility. This fostered a community feeling and **revealed the potential of the Bocciofila as a space for community-building and intergenerational activities.** The event's participatory and creative approach was inspiring for the municipality which expressed an intention to replicate this in the future.

Future Tidal Architectures

The drop generated **educational benefits and sensitization, dialogue about sustainable futures, and a method** to engage students in a valuable learning process. A one-week extra-curricular workshop was organized to test this method, with a focus on the waterfront regeneration plans in the San Basilio and Santa Marta area of Venice.

- From the workshop, **16 students gained new knowledge** about Venice's historical and contemporary relationship with water, including the challenges of climate change and threats to the lagoon's ecology.
- They learned about **new tools and methods** to analyse an area, understand local stakeholders' (conflicting) values and interests, rethink the interaction between land and water, and develop a value-based approach.

- Through the workshop, students also gained a deeper understanding of community engagement and the needs of residents in the workshop area. Students (5 out of 8 respondents in the feedback sheets) report feeling **inspired to take action** following the workshop, to support local social and environmental initiatives, policies and advocacy.

The workshop delivered a final 'exhibition of ideas' for the regeneration of the area that **gave visibility to students' creative ideas and perspectives** – while young people are not normally involved in these plans led by the municipality and Port Authority. The students' ideas challenged the priorities of the Port Authority for the area, highlighting the need for further **dialogue and negotiation**.



Fig. 11: Santa Marta and San Basilio quarters, Venice, 18th April 2023. (Source: Fabio Pittarello, 2023.) CC BY-NC-ND 4.0.



Fig. 12: Venetian Lagoon, 18th December 2005. (Source: Comune di Venezia, 2005.) CC BY-NC-ND 4.0

1.2 Ripples



The criteria we analyzed considered whether:

- **relevant actors took part;**
- **the pilot monitored and replicated solutions to aid learning.**

Main ripples generated by the pilot:

Blue Seniors and Regenerative Menus

The Blue Seniors and Regenerative Menus drops reinforced collaboration and synergies which **enhanced their visibility** and created ripples. In particular, the Saòr event on regenerative food involved seniors' associations, in intergenerational activities with some 60 children (e.g. Bocce, demonstration of volunteers diving to clean the canals) and in discussions with local producers and the municipality. It helped the Blue Seniors drop to connect with the community living in San Basilio. It also gave more visibility to the digital design process for blue seniors and students' digital prototypes by exhibiting posters at the Bocciofila (explanatory text and QR code of selected prototypes).

The strengthened collaboration between the Blue Seniors and Regenerative Menus drops helped improve awareness of how seniors' daily challenges (especially mobility and access to natural spaces) intersect with environmental challenges (reduced access to the lagoon environment, threats to Venice's water culture). As such, Ca' Foscari University of Venice's professors and students gained an **improved understanding of interconnected social and environmental challenges, and how they manifest locally**. This also uncovers shared root causes such as the prioritization by city decisionmakers of tourism and trade.

This more integrated understanding revealed solutions to address social and environmental challenges jointly. Based on the 360 surveys of the lagoon boat trip, this was identified as a promising educational and sharing experience to be expanded as a ripple. The Blue Senior and Regenerative Menus drops organized another round of boat trips (summer 2025) in which immersive technological tools were used to record the lagoon environment. This is expected to provide an **immersive, sensory experience of the lagoon to fragile persons** (e.g. seniors with severe mobility challenges) who are not able to participate in the boat trips.

The Regenerative Menus and Blue Seniors drops have also developed a set of geolocalized stories that could be integrated in the geospatial platform of the BoS project in the future. These stories aim to preserve and disseminate seniors' traditional knowledge of the lagoon, contributing to an increased, and more grassroots knowledge of Venice's water culture (its "culture of the tides").

The Blue Seniors and Regenerative Menus drops decided to implement one of the themes proposed to the computer science students' digital designs in the previous co-design phase. They developed a **digital platform focused on traditional Venetian recipes** <<https://regenerativelagoon.unive.it>> and their relationship with the lagoon ecosystem (fish, vegetable species) and human practices. The digital platform was evaluated by some seniors in a pilot study and aims to amplify seniors' knowledge of traditional recipes while providing a tool for communication and community engagement to seniors' associations. The pilot team sees this digital platform as a replicable tool that could be implemented in other cities to create long-term impact (waves).

Learnings from the digital design process with seniors informed the **next computer science course at Ca' Foscari University of Venice**, starting in February 2025. The course included 3 additional themes and involved a new group of students and seniors. Insights from the digital design process and BoS engagement will also be disseminated through academic publications and could be used in other cities with an aging population and rich water heritage.

This pilot has **reinforced the municipality's will to use food, participatory and creative activities** as ways to engage with the local community and promote sustainability, based on feedback by municipality representatives. In particular, they reused a similar approach, focused on food and Bauhaus of the Seas core values (sustainability, inclusion, aesthetics, locally grounded) at the following edition of the Saòr event in October 2025¹⁰. They also plan to reuse this approach in upcoming European projects (e.g., TESTEAT – Interreg Italy-Croatia fund). The Saòr event is part of a broader municipal effort and is likely to have future iterations that could embed learnings from the Regenerative Menus drop.

10 <https://events.veneziaunica.it/it/cosa-fare-a-venezia/eventi/saor-2025>

Future Tidal Architectures

The IUAV exhibition of ideas enabled dialogue around the Port Authority's waterfront regeneration plans in San Basilio and Santa Marta (Port Authority next triennial Plan Piano Operative Triennale). Following the exhibition, the Port Authority set up a **small public space with benches and a table-tennis table** in the Santa Marta area, in front of Canale della Giudecca. This space, set up in February 2025, is expected to be used by the local community of port users and residents.

The pilot team identified that **Venice's unique water culture** ("culture of the tide") is a guiding theme across the three drops including the Future Tidal Architecture workshop. The workshop included a presentation that focused on Venice's water culture and seniors' memories shared during the lagoon boat trips. Students' feedback on the workshop indicates their increased understanding of Venice's cultural and historical ties to water, and of the importance of personal testimonies to guide the design process.

IUAV collaborated closely with Delft University of Technology and the Future Tidal Architectures drop of the Delta pilot in the organization of the workshop in Venice. This collaboration allowed both universities to **exchange knowledge and educational tools** and learn from the workshop to refine the Future Tidal Architectures drop. The workshop involved researchers with ties to both universities, including two PhD researchers who played an active role and whose research is connected to the workshop theme. They will use learnings from the workshop to feed research, publications and future educational activities with students.



Fig. 13: Santa Marta and San Basilio quarters, Venice 18 April 2023. (Source: Fabio Pittarello, 2023.) CC BY-NC-ND 4.0

1.3 Toward waves? Hypotheses



The criteria we analyzed considered whether solutions were disseminated widely.

Hypotheses about potential waves from the pilot in the coming years:

Blue Seniors

In the long-term, the team aims to develop and disseminate digital tools that support socialization, improved access to social services and raise awareness of the lagoon's ecosystem in Venice. These tools could be used by elderly people and expand to other communities, with potential to be replicated in other cities with an aging population and challenges around mobility, overtourism and cultural heritage. **The long-term plan is contextually relevant and coherent.**

Several elements developed by the pilot support this long-term goal, such as the partnership with local associations and municipal social services, the digital design process with students, the students' 27 digital prototypes and the two digital platforms developed as ripples (lagoon memory atlas, platform of recipes). Together this represents a **strong model to raise future funds and expand the work**, within and beyond Venice.

To achieve the desired impact locally, **some elements within this model should be reinforced**, notably:

- A deeper co-design process from an early stage with local associations and municipal social services, aligned with municipal plans
- Formal commitment of the municipal social services, co-funding the process
- Additional resources to support local associations (financial, equipment, visibility, etc.)
- More attention to the lagoon ecology and regenerative perspectives, using surveys or other methods to measure progress in ecological awareness

In its two-year transformation plan, the team leading the Blue Seniors work shows a solid awareness of areas for improvement and future development, such as the need for more support and engagement with local associations, and for trained personnel and devices to enable seniors to use digital solutions in daily life. If the follow-up work is strongly rooted in these learnings, and succeeds in mobilizing funding and municipal commitment, then there is a strong probability of achieving the desired long-term impact (wave).

Regenerative Menus

In the long-term, the team aims to develop more lagoon experiences that support a reconnection between people and their environment, by expanding the boat trips with local operators and by developing immersive digital tools for people with reduced mobility to experience the lagoon. The team also aims to create models for urban renewal that support increased public access to green spaces and socialization, via urban gardens, departing from the Bocciofila San Sebastiano where the Saòr event was organized. Both objectives are contextually relevant and have potential to bring positive impacts for community-building, resident wellbeing, ecological awareness and potentially nature restoration. The name “regenerative menu” may not be a good fit for these long-term plans.

Both objectives could **increase their mutual coherence through a stronger focus on food**, using the digital platform of recipes developed as a ripple to connect food producers and consumers seeking to make a positive ecological impact on the land and water ecosystems in Venice. As such, the digital platform could expand in the future, to include more recipes but also production techniques (planting, fishing) that respect and restore the local ecosystem.

Considering that urban gardens are an already existing model of urban renewal, the team could further demonstrate the specificity of the San Basilio model, for instance by highlighting the Bocciofila’s potential for **intergenerational exchange and artistic participatory experiences** led by local art collectives.

Some elements are in place and support long-term objectives, especially the **lagoon boat trip model** (tested with 360 participants, surveys enabled learning) and **established partnerships** with a local boat company, the Bocciofila, and the municipality. Formal commitment of the municipality remains to be secured for the plan, as well as evidence of commitment from the Bocciofila and additional boat operators in Venice. The development of the Bocciofila urban garden should be done through a co-design process with San Basilio residents of different ages, students, local associations and the municipality, based on learnings from the co-design process with blue seniors. An evaluation of the immersive lagoon recordings with persons with reduced mobility should provide further information on how the digital solutions address needs and have a potential for scaling.

Future Tidal Architectures

In the long-term, the team aims to transform the port area into a functional and socially engaging waterfront that strengthens the connection between citizens, port users, and the sea in the Santa Marta area. Tactical urbanism is seen as a first step to test interventions such as urban furniture and rest spaces. Some elements support this long-term goal, such as the partnership between the North Adriatic Sea Port Authority and the university (IUAV), the **increased sense of agency of architecture students** regarding the waterfront redesign, and tactical urbanism as an approach to test innovative solutions.

Challenges remain in ensuring students' perspectives are considered in the waterfront redevelopment. **More dialogue, collaboration, and design effort are needed** between the port authority, municipality, university and students to build mutual understanding, negotiate values and interests, and agree on a shared path forward. Tactical urbanism should be seen as an avenue to test creative ideas but also embed shared values for the future of the waterfront (e.g. community, ecology, water culture), a discussion that was initiated in the workshop.

As such, tactical urbanism within the Future Tidal Architectures model should be seen by the team not just as an output but also as a process that fosters **democratic debate and youth participation** in local regeneration plans. This would support students, as new residents of Venice, to become locally integrated citizens that aspire to remain on the island as contributors to the local economy, intergenerational solidarity and sustainable initiatives. This would also improve local perceptions of the Port Authority, allowing for more dialogue and collaboration in the future.

Part 2

The Impact on the Four Themes of Bauhaus of the Seas Sails

This section discusses the impact of the Venice pilot and its three drops on four key dimensions: Aesthetics, Sustainability, Inclusion and Local grounding. These dimensions are based on the New European Bauhaus and were recognized by BoS consortium partners as the **core values** driving the project's design, implementation and evaluation (Zumbrink, Seravalli, Emilsson and Light, 2024). As in the previous section, the impact categories, criteria and indicators used for the analysis come from the BoS Library of Indicators. The text below is a summary of the more detailed analysis that was conducted per criterion and indicator by the impact assessment team in collaboration with the Venice pilot team.

2.1 Aesthetics



The criteria we analyzed considered whether the pilot had:

- sparked pleasure, wonder or connection;
 - widened, challenged, disrupted, or transformed perspectives.
- For each criteria, we used detailed indicators to guide the analysis.

Key achievements of the pilot:

Blue Seniors

The drop developed a design process, via a one-semester computer science course, that helped **revive Venice's water culture among participants** – especially groups of students, seniors and pilot partners. The focus on storytelling moments with seniors through interviews between students and their grandparents and sensory experiences of the lagoon through the boat trips (organized with the Regenerative Menus drop) enabled past stories and memories of the lagoon to reemerge. This allowed seniors, to share practical challenges of living in a water city as well as personal stories and emotions. Sharing memories and stories helped revive a cultural heritage of living with water for elderly participants (putting water at the center) and gave participants **temporary access to different parts of the lagoon**.

Many students experienced the lagoon for the first time through the lens of local history, culture and ecology, gaining an **increased awareness of Venice's close ties with the lagoon, seniors' experiences and environmental issues**. This increased awareness is reflected in the 27 digital prototype solutions that the students developed to address seniors' everyday challenges (e.g. mobility, social exclusion, lack of access to blue and green spaces and cultural activities) in ways that integrate inter-generational cooperation, quality of experience and sustainability.

The drop created opportunities for social connection and **intergenerational dialogue** through activities and events such as the interviews and focus groups, boat trips, exhibition of ideas, and evaluation of student prototypes with seniors. During a final evaluation of the digital prototypes, more than half of seniors who participated (out of some 200) reported feeling closer to younger generations after the activity, and some 88% of students reported having become more aware of the needs of seniors.

Regenerative Menus

The lagoon boat trips, organized by the Regenerative Menus and Blue Seniors drops, was an essential element in the design process with seniors. The focus on sensory experiences of the lagoon (being in the lagoon, seeing new parts of the lagoon, listening to its sounds enabled by a low-noise hybrid boat) and storytelling moments with seniors enabled past stories and memories of the lagoon to reemerge, as mentioned above. The Saòr event also gave a (temporary) new energy to a local space, the Bocciofila, by organizing engaging and creative activities for some 60 children and by giving local food producers and chefs visibility. This fostered a community feeling and revealed the potential of the Bocciofila as a **space for community-building and intergenerational activities**. The event's participatory and creative approach was inspiring for the municipality which expressed an intention to replicate this in the future.



Fig. 15: Boat trips, July- September 2024. (Source: © Michele Tagliavini, 2024.) CC BY-NC-ND 4.0.

Future Tidal Architectures

The drop, through the organization of a one-week workshop for architecture students, provided a new educational and creative opportunity for 16 students living in Venice to engage with local inhabitants and their lived experiences, Venice's water culture and the lagoon ecology. The students developed four **design scenarios to improve the land-water interaction** of the San-Basilio and Santa Marta waterfront area, using Artificial Intelligence to create visualizations of possible futures.

These new experiences shifted students' perspective of living with water in Venice. According to the positive feedback provided by participating students, they have gained a **deeper understanding of Venice's historical and cultural ties to water** which has shifted their perspective from seeing water as a threat to seeing it as an opportunity for Venice's future. The students report significant learnings on water challenges in Venice (complexity, uncertainty, ecological and human impact), the importance of community engagement, interdisciplinarity and long-term solutions, and the role that design can play. 5 out of 8 students who provided feedback on the workshop reported being **inspired to take action**, through design, advocacy and policy support.

Students also gained knowledge of the value-based approach, through the collaboration with the Delta pilots' Future Tidal Architectures team which co-organized the workshop. This sensitized students to a new way of addressing complex design projects involving multiple stakeholders with different interests.



Fig. 16: Saòr a San Sebastiano, March 2025. (Source: Alessandro Tretti Gastaldello, 2025.) CC BY-NC-ND 4.0

2.2 Sustainability



The criteria we analyzed considered the extent to which the pilot:

- **raised awareness and enabled learning;**
- **promoted sustainable and climate-adaptive approaches.**

Key achievements of the pilot:

Blue Seniors

Climate change will have a disproportionate impact on vulnerable groups such as seniors. In this drop, some 100 students from digital science and humanities were involved in a design process that increased their awareness of seniors' challenges living in Venice (mainly through interviews with their grandparents and seniors' stories shared during lagoon trips), with an emphasis on social inclusion, and water- and climate change-related challenges (e.g. access to blue and green spaces, flood risks, mobility challenges on and off land). Students also participated in the lagoon boat trips (organized with the Regenerative Menus drop) which raised their awareness of the lagoon's ecology as well as the ties between water, Venetian culture and past experiences of seniors.

For seniors, these moments of dialogue were an opportunity to share their knowledge and lived experiences of Venice and its lagoon with younger generations and Venetian institutions, especially the university. Through these reflections they revived a sense of connection to the lagoon while being **sensitized to its ecological value and the negative impact of human activities.**

From these learning experiences, students developed 27 digital prototypes to address seniors' daily challenges (e.g., mobility, health, social exclusion, access to water and greenery) via **solutions that promote more beautiful, sustainable and climate-adaptive pathways** as well as a strong intergenerational approach. Many student projects emphasized increased support for seniors (via support networks and cooperation with students, volunteers, different age groups) to access Venice's cultural and artistic offers but also provide support networks in case of floods or heat waves. The prototypes demonstrate a solid understanding of seniors' challenges and how these can be connected to culture and sustainability in the Venetian context.

The activities of the blue seniors and regenerative menu drops, especially the storytelling interviews with seniors and the lagoon boat trips, **initiated an effort to rebuild a connection with water that is different from the currently dominant visions of the lagoon** (especially among institutions and large economic actors), as a space to be exploited for tourism and trade. Through past stories and physical experiences of the lagoon, as well as education moments about the lagoon's ecology, the pilot reactivated the memory of different a relationship with the lagoon and its **potential for the health and quality of experience (i.e. aesthetic dimension) of humans and more-than humans** (more in the regenerative menu drop assessment).



Fig. 17: Saòr a San Sebastiano, March 2025. (Source: City of Venice, 2025.) CC BY-NC-ND 4.0

Regenerative Menus

The activities of the Regenerative Menus and Blue Seniors drops, especially the lagoon boat trips and the storytelling interviews with seniors, initiated an effort to rebuild a connection with water that is different from the currently dominant visions of the lagoon (especially among institutions and large economic actors), as a space to be exploited for tourism and trade. Through past stories and physical experiences of the lagoon, as well as education moments about the lagoon's ecology, the pilot reactivated the memory of a different relationship with the lagoon and its **potential for the health and quality of experience (i.e. aesthetic dimension) of humans and other-than humans**. According to pilot team data, 84% of boat trip participants (out of 360 surveys) reported having become more aware of the links between Venice and its environment ("extremely" (5) or "very" (4) on a 5-point scale).

One example was the strong appreciation for the low-noise option of the hybrid-engine boat used for the lagoon trip, provided from the local boat company Sestante. This offered respite from sound pollution to the marine species of the lagoon and used renewable energy. It also gave a new, pleasing experience of listening to the natural sounds of the lagoon to the seniors and students on board. According to pilot team data, 92% of boat trip participants (out of 200 surveys) saw the use of **low-noise impact solutions** as an important way of reconnecting with the lagoon (“extremely” or “very”).

The drop **raised the awareness of seniors, students and community members** in San Basilio of the lagoon ecology, its species and sustainable food choices through the last lagoon boat trip and the event Saòr a San Sebastiano. The last boat trip delved into food consumption choices based on seasons and natural cycles, for instance related to fish, accompanied by food tasting. 90% of the 80 participants who gave feedback reported a significant increase in awareness of the relationship between the lagoon ecosystem and food.

Pilot surveys also suggest that **a change in values may have taken place** among some participants in the lagoon boat trips. Some survey respondents reported a shift from an anthropocentric to an ecosystemic view of the lagoon, as well as an intention to make more sustainable choices. There is limited evidence of increased pro-environmental behaviour so far.

The free Saòr event offered a “regenerative menu” to some 200 participants (around 60 children, local food and seniors’ associations, citizens including students), prepared by the local food collective TOCIA!, which are reinventing traditional venetian recipes with a sustainable approach. The event gave **visibility to local food producers**, providing an opportunity to showcase their produce to residents and present their work in a roundtable with pilot team members and representatives of seniors’ associations.

The Saòr event also **sensitized children** to the different species living in the lagoon and water pollution in the canals through two engaging activities – organized respectively by the local artistic collective Barena Bianca, and by volunteer divers who gave a well-attended demonstration of diving to clean the Venice canals.



Fig. 18: Saòr a San Sebastiano, March 2025. (Source: Alessandro Tretti Gastaldello, 2025.) CC BY-NC-ND 4.0

Future Tidal Architectures

The Future Tidal Architectures drop **sensitized a group of 16 architecture students to the complex water challenges facing Venice**, via a one-week workshop focused on the San Basilio and Santa Marta waterfront regeneration and the land-water interaction in the area. Students accessed new information about the lagoon's hydrology and ecology as well as the deep cultural and social ties that Venetians have developed with the lagoon over time. This informed the development of four design scenarios.

Students report feeling inspired by the positive approach of the workshop (presenting the proximity of water as an opportunity) to sustainable urban development, that goes beyond mitigation risks like floods. Students' feedback suggests **a shift to a more integrated and ecosystemic perspective** linking Venice's inhabitants, the land of the island and the water of the lagoon. The feedback also suggests an increased understanding of the need for long-term solutions to address Venice's water challenges and residents' needs. 5 out of 8 students who provided feedback on the workshop reported being inspired to take action, through design, advocacy and policy support.



Fig. 19: Venetian Lagoon, 12th December 2006. (Source: Comune di Venezia, 2006.) CC BY-NC-ND 4.0

2.3 Inclusion



The criteria we analyzed considered the extent to which the pilot:

- **promoted accessibility and inclusion;**
- **addressed social needs and promoted equity and justice.**

Key achievements of the pilot:

Blue Seniors

- **A new educational format** was developed for university students to learn about the co-design of digital tools, social value creation and their local context. About 100 students were involved via a one-semester computer science course focused on digital design. As reported by a student and Ocean Ambassador of the project, this process gave him an improved knowledge of his living environment.
- **Connections** were built between the university (teachers & students) and local institutions and organizations, especially the municipal social services and seniors' associations. Through these ties, the university initiated an effort to play a more active role in the local community and the creation of social value for residents.
- Information about the **everyday needs and challenges of seniors** in Venice was collected (over 100 interviews) and structured around 9 key themes. Seniors are a vulnerable group in Venice facing dire challenges and who do not feel heard by institutions. As students conducted interviews with their grandparents, family ties provided a trusted environment for seniors to discuss their experience. The pilot team underscores building trust as a crucial part of their process.
- The information collected includes practical needs but also personal stories and memories that highlight **the value of seniors' local and traditional knowledge** for reviving Venice's water culture. The lagoon memory atlas, developed as a ripple of the pilot with the Regenerative Menus drop, aims to increase the visibility of seniors' knowledge and experiences beyond the duration of the project, using digitalization as a tool for preservation and dissemination.
- Informed by seniors' inputs, students developed **27 prototypes of digital platforms aimed at addressing the social challenges of seniors** in Venice, especially with regards to mobility, health, loneliness and access to cultural activities. Seniors' associations and the municipal social services were involved in the design and evaluation of the digital prototypes, with some 200 seniors taking part in evaluating the prototypes.

The digital prototypes demonstrate **students' increased understanding of senior needs** and of the important role of intergenerational solidarity. Indeed, students imagined support networks and communication tools that connect students, volunteers, seniors and municipal services, and help seniors use technology.

One of the digital prototypes, focused on food recipes linking traditions and sustainability, is being developed as a ripple of the project and is aimed to be an **interactive tool for seniors' associations and their members**, for instance to share their knowledge of recipes and communicate about upcoming social events.

Regenerative Menus

The 12 lagoon boat trips and the Saòr event **reached a large group of community members** – 360 participants in the boat trips, some 200 at Saòr – from different age groups. 21% of participants in the boat trips were between 18 and 29 and another 29% were 70 and over. Some 60 schoolchildren took part in the Saòr event. Specific measures were taken to make activities open and inclusive, by making them free of charge, in Italian and the local dialect, and by choosing a location that evokes a community feel in San Basilio for the Saòr event.

The lagoon boat trips, organized with the Blue Seniors drop, facilitated **physical access** to the lagoon for seniors who report feeling dispossessed of space – in the lagoon and on the island – mainly due to the pressures of overtourism. As such, allowing temporary access to the lagoon revived past memories and sensations of the lagoon (emotional impact) and created opportunities for social connection and dialogue among participants.

The Regenerative Menus and Blue Seniors drops identify **the lagoon trips as a turning point** that sensitized them to the dire lack of access of seniors to the lagoon. Based on this, pilot plans to create ripples and waves include the lagoon field trips as a key tool to foster a revived relationship with the lagoon. In the ripple phase, the Regenerative Menus and Blue Seniors drops conducted another round of lagoon boat trips (summer 2025) and made recordings of the lagoon environment. The recordings will be used to offer an **immersive, sensory experience of the lagoon for persons with restricted mobility** who cannot attend the boat trips.

The Saòr event demonstrated the possibility of developing **sustainable food options that appeal to different generations**. It also gave a new energy to a local space, the Bocciofila, by organizing engaging and creative activities for some 60 children and by giving local food producers and chefs visibility. This fostered a sense of community and revealed the potential of the Bocciofila as a space for community-building and intergenerational activities.

The Saòr event's participatory and creative approach was inspiring for the municipal-



Fig. 20: Saòr a San Sebastiano. (Source: Comune di Venezia.) CC BY-NC-ND 4.0

ity as several representatives expressed an intention to replicate it in the future. Their feedback suggests that the pilot's core values (inclusion, sustainability, aesthetics, locally grounded) and its connection to food are seen as an effective and inspiring way to guide future community-oriented activities. Indeed, the next Saòr event organized by the municipality in October 2025 will also have a focus on food, inclusion and sustainability.¹¹ Moreover, artistic activities are seen as an element to integrate in ongoing and future European projects (e.g. INTERREG) to enhance citizen engagement.

Future Tidal Architectures

The one-week architecture workshop involving 16 students delivered a final 'exhibition of ideas' for the regeneration of the San Basilio and Santa Marta waterfront. The process and final exhibition gave visibility to students' creative ideas and perspectives – while young people are not normally involved in these plans led by the Port Authority and the municipality. The students' ideas were based on certain values (sustainability, liveability, community, water culture) that challenged the priorities of the Port Authority for the area (economy and safety). Students also learned about the importance of engaging local communities and understanding residents' needs, as highlighted in the 'Local grounding' section below.



Fig. 21: Santa Marta and San Basilio quarters, Venice, 18th April 2023. (Source: Fabio Pittarello, 2023.) CC BY-NC-ND 4.0

¹¹ <https://events.veneziaunica.it/it/cosa-fare-a-venezia/eventi/saor-2025>

2.4 Local grounding (crosscutting value)



The criteria we analyzed considered the extent to which the pilot:

- aligned with local needs and priorities;
- valued and integrated local knowledge.

Key achievements of the pilot:

Blue Seniors

One third of the population of Venice is above 65 and half of them live alone. The drop took a clear focus on addressing the challenges of a vulnerable local group, seniors, and **deepened its understanding of the local context through dialogue** with this group. Indeed, the pilot made new connections with local seniors' associations and municipal social services to understand the needs of seniors and existing initiatives. The pilot team placed importance on these relationships and stressed the importance of building trust and using locally adapted communication tools (e.g. local dialect). Local residents' associations played a key mediator role between seniors, the university and the municipality with a focus on keeping seniors' needs central.

The first round of interviews with seniors, conducted by students, asked them "What are the main difficulties of living in a city like Venice, built on water?" and consulted them on the positive aspects of living in Venice. The answers (beauty, history and culture, proximity to the lagoon) recognized existing strengths and helped identify opportunities for the following activities and the digital prototypes.

The digital design process and the lagoon boat trips (organized with the Regenerative Menus drop) **amplified seniors' local knowledge** of the history, culture and daily life, expressed through their memories and personal stories of Venice and the lagoon. Understanding these stories as valuable knowledge to shape future sustainable solutions is an important takeaway of the pilot. The computer science course and events involving local stakeholders (port authority, municipality, members of the community, children and youths), such as the exhibition of ideas and the Saòr event, made seniors' local knowledge more accessible to students, residents and decision-makers. This helped students – some of whom live on the mainland – to better understand their city and its cultural and natural heritage. As reported by a student and Ocean Ambassador of the project, this process provided him an improved knowledge of his living environment and highlighted the importance of being connected to the local community.

The 27 digital prototypes show that students have gained an **increased understanding of their local context and lived experiences of Venice**. Some prototypes embed local solidarity networks that include students and volunteers. This suggests that students have gained an increased awareness of their potential contributions to

local initiatives. During the final evaluation of digital prototypes, 51% of seniors (out of some 200 respondents) assessed the digital prototypes to have a strong potential to alleviate practical difficulties or emergency situations related to living with water in Venice. 43% of seniors saw a strong potential of the digital tools in improving the relationship between the city and the lagoon.

Two digital platforms, the digital lagoon atlas of memories and the platform on traditional recipes – developed with the Regenerative Menu drop as a ripple of the pilot and meant to outlast the project – will further amplify seniors' local knowledge and stories.

Regenerative Menu

This drop is centered on the local context of Venice, its lagoon environment, water culture and food traditions. The lagoon boat trips organized for some 360 participants, including seniors, students and other community members, were facilitated by a local guide who shared information on the lagoon together with the pilot team.

The lagoon boat trips expanded participants' knowledge of the lagoon by enabling them to experience the lagoon in new ways (travel to new parts of the lagoon, experience natural sounds with the low-noise engine option) and learning more about the relationship between the lagoon and life in Venice for different generations. According to pilot team data, 84% of boat trip participants (out of 360 surveys) reported having become more aware of the links between Venice and its environment ("extremely" (5) or "very" (4) on a 5-point scale).

The lagoon boat trips enabled **dialogue and an exchange of knowledge about the lagoon environment and lived experiences**, while raising the visibility of seniors' local knowledge, memories and personal stories. Understanding these stories as valuable knowledge to shape future sustainable solutions is an important takeaway of the pilot. The last boat trip focused more explicitly on food, offering a locally produced menu tasting inspired by traditional recipes.

The Saòr event, organized by the municipality and the drop, demonstrated the possibility of developing **sustainable food options that align with local culinary traditions**. As already mentioned, it also gave visibility to local food practitioners already working with this approach, by offering a "regenerative menu" to some 200 participants prepared by the local food collective TOCIA! and providing an opportunity for local food producers to showcase their produce to residents. Local producers also presented their work in a roundtable with pilot team members and representatives of seniors' associations.



Fig. 22: Saòr a San Sebastiano, March 2025. (Source: Alessandro Tretti Gastaldello, 2025.) CC BY-NC-ND 4.0

Future Tidal Architectures

Feedback from the students who took part in the architecture workshop indicates an increased understanding of Venice's historical and cultural ties with water and of residents' lived experiences in the workshop area.

- The workshop program included dedicated time for students to interview San Basilio and Santa Marta residents. Interview results, including quotes highlighting residents' experiences of the area, were included in the students' written output and linked to their proposed design idea. Students' design ideas are locally grounded and reflect resident needs such as more greenery and spaces for community and sociability.
- Students' feedback on the workshop shows an improved understanding of the importance of engaging local stakeholders and community members for sustainable urban development. Indeed 5 out of 8 students who provided feedback stressed the involvement of stakeholders and interdisciplinary collaborations and 4 students underscored community engagement.
- Their contextual understanding seems to have deepened, considering different aspects of community experiences – such as **daily life, quality of life, cultural identity and local history** – and how involving local stakeholders contributes to making a lasting impact.

- Students also report being inspired to take action (5 out of 8 respondents in the feedback sheets), for example by supporting local initiatives or policies that seek to protect the environment and enhance residents' quality of life. This suggests that students feel an increased agency to contribute to local projects in Venice, which could turn into increased student local integration and participation in the future



Fig. 23: Santa Marta and San Basilio quarters, Venice, 18th April 2023. (Source: Fabio Pittarello, 2023.) CC BY-NC-ND 4.0



Fig. 24: Saòr a San Sebastiano, March 2025. (Source: Comune di Venezia, 2025.) CC BY-NC-ND 4.0

Part 3

Takeaways

This section summarizes the key factors – including context, stakeholder situation and resources – that shaped, enabled or hindered the pilot’s ability to create impact. These factors played a role in the co-design and implementation of the pilot and its drops, but also have implications for its sustainability and long-term impact. Such factors should be considered when examining possibilities to replicate, or draw inspiration from, the work of the pilot for other contexts. We identified two main types of factors, related to people and the setup of the project (box 3) and to the context of Venice for citizens and institutions (box 4).



Fig. 25: Venetian lagoon, 12th December 2006. (Source: Commune di Venezia, 2006.) CC BY-NC-ND 4.0

3.1 Key factors that influenced pilot impact

People and project setup



- The driving role of computer scientists (Ca' Foscari University of Venice) and **digital technologies** in the Blue Seniors drop, Venice pilot and the wider BoS consortium stimulated the use of digital tools to generate joint ripples between drops, including a digital platform, geolocalized stories and immersive recordings of the lagoon.
- The pilot was largely driven by **institutions**, namely Venice universities, the municipality and the North Adriatic Sea Port Authority. Ca' Foscari University of Venice led the Regenerative Menus drop and started from its expertise on the lagoon's ecology, while connections with food practitioners were developed in later stages.
- The **Port Authority** contributed to shaping the Future Tidal Architectures drop and the focus area for the architecture workshop. Located on Venice island in the neighborhoods of San Basilio and Santa Marta, this area is part of the Port Authority's waterfront regeneration plans and host to IUAV buildings and students. This area is separated from the lagoon with a fence, offering limited possibilities for physical reconnection with the sea. This was an inherent limitation that the IUAV students had to contend with in a one-week workshop. These regeneration plans have raised concerns among Venice citizens and have implications for the IUAV students living in the area, highlighting the need for multi-stakeholder dialogue.
- Existing relationships between **IUAV and TU Delft**, which both applied the Future Tidal Architectures drop in their respective contexts, facilitated the exchange of educational and knowledge on drop themes such as sea-level rise, land-sea interaction and port-city relationships.
- The Municipality had prior experience with the organization of community **food festivals**, with the previous Saòr event in 2019. It plans to continue holding the festival in the coming years which provides an opportunity to embed NEB principles and lessons from the Regenerative Menus drop in future editions.
- The active participation of the pilot team, especially from the Blue Seniors drop, in Bauhaus of the Seas Sails-wide learning and reflection activities showed a **commitment to learning** from other pilots and improving impact strategies.

Context for citizens and institutions in Venice



- The dynamic **local associations and student population** present in Venice played a key role in informing and implementing pilot activities. Although, there are spatial, social and cultural divides between the mainland and the islands of Venice that influence relationships and initiatives within the city. Students who took part in the course, most of whom live on the mainland of Venice, have gained a better understanding of seniors' challenges on the island and the need for intergenerational solidarity.
- Venice has a **rich culinary heritage** and traditional recipes which highlight the significance of fish species living in the lagoon and the knowledge of seniors, a group whose perspectives are rarely included in Venice despite the aging of the island's population. Therefore, traditional recipes with ingredients from the lagoon were the main inspiration for the Regenerative Menu drop and its 'ripple', the digital platform to revive and share recipes.
- Senior representatives noted that there is an overall strong sense of cultural, social and spatial loss among island residents, linked to **overtourism**, which would require structural solutions and political commitments that go beyond what a three-year drop could achieve. Addressing these challenges would require a longer and deeper co-design with seniors, social services, and students as future inhabitants in the context of an aging and diminishing island population.

- Co-designing and implementing activities that aligned with **multiple local actors and interests** posed certain challenges. Ca' Foscari University of Venice collaborated with seniors' associations and municipal services to develop digital design activities, however municipal services lacked the personnel to support the durable implementation of digital tools for seniors. In the Future Tidal Architectures workshop, differences in perspective between students and the Port Authority were visible, and the small public space developed by the Port Authority in Santa Marta did not fully reflect students' scenarios and BoS values. The pilot team also reported facing **bureaucratic constraints** that made it difficult to shift financing to local associations.

Box 4: *Context for citizens and institutions in Venice*



Fig. 26: Activity organized by the Venetian artist collective Barena Bianca, Venice pilot kick-off, 8th June 2024. (Source: Michele Tagliavini 2024.) CC BY-NC-ND 4.0

3.2 Areas for improvement and future development

This section identifies potential avenues to improve and further develop the work of the Venice pilot. These suggestions and ideas are based on the in-depth analysis presented above, and combine reflections from the impact assessment team, and from the pilot team and their partners. Overall, the suggestions point to a variety of ways the pilot team could reinforce co-creation and local ownership (box 5), increase coherence between methods, goals and BoS values (box 6) and deepen and expand its impact (box 7).¹²

Co-creating and building local ownership



- **Early and continuous co-creation** of the overall pilot process with local associations and policymakers can ensure that partners' priorities are addressed and that they inform long-term social initiatives and policy change. This would help reinforce universities' local contribution and positioning. An expert facilitator, familiar with the local context and attuned to its power dynamics, could help create the conditions for each partner to participate and voice expectations openly.
- **More active engagement of the Port Authority and municipality** in co-creating the drops and their follow-up plans would help ensure that outcomes are embedded in ongoing and upcoming plans related to waterfront regeneration, social services, tourism and navigation in the lagoon.
- **The digital divide** affecting Venice's elderly population constrains possibilities to develop digital solutions that address seniors' needs. Addressing this requires municipal policies, commitments and adequate budgets.
- The Future Tidal Architectures workshop revealed the need for **deeper dialogue and negotiation around waterfront regeneration priorities** between young people, residents, the municipality and the Port Authority. A longer workshop or design studio could equip students with methods and tools to navigate differing local values and interests within conflictual contexts. It would also allow for more dialogue with residents.

¹² The authors used AI-assisted tools to shorten the analysis presented in this section. The summary was carefully reviewed to ensure accuracy.

- **A more consistent spatial/neighborhood focus** on the San Basilio and Santa Marta areas throughout the pilot could have fostered stronger synergies between drops, continuity of dialogue with residents and local associations, and a deeper place-based understanding, with potential for later expansion to other parts of the city.
- While the Saòr event increased visibility for local food producers and traditional recipes, future editions could move beyond an event-based approach by initiating or **strengthening long-term initiatives** and policies around regenerative food practices. Local associations of seniors, too, are well placed to lead durable social initiatives. Future projects could allocate funding to locally-embedded actors, exploring solutions to build on ongoing efforts and address administrative constraints

Box 5: Co-creating and building local ownership

Clarifying and aligning drop methods, goals and BoS values



- Greater clarity on the goals of the Regenerative Menus drop and on the logic linking different activities (e.g. boat trips, Saòr event) would strengthen **coherence and future plans**, by identifying elements and methods that could be reused or expanded.
- In the Future Tidal Architectures drop, decisions about **planning and resources** led to the organization of a one-week workshop with 16 students, which did not allow for the delivery of concrete architectural outputs and for reaching different student cohorts. This highlighted a tension between the experimental process and partners' expectations for actionable results.
- Students' proposals could have benefitted from **more time**, technical inputs and practical references (e.g. adaptive designs in other water cities), as well as a stronger focus on water uses, reuse of existing buildings, and dialogue about the future role of the port in the area.
- The physical intervention implemented by the Port Authority in Santa Marta following the workshop should be reviewed against clear criteria aligned with the project's values, such as **accessibility and meaningful connections to water**.

Box 6: Clarifying and aligning drop methods, goals and BoS values

Deepening and expanding impact in the future



- The Regenerative Menus and Future Tidal Architectures drop teams engaged only marginally with BoS-wide learning and reflection activities. A more distributed participation of the pilot team in project activities would have increased opportunities for **cross-context learning** and refining impact strategies.
- The Blue Seniors drop team collected extensive **feedback from seniors and students**. This data could have been used more systematically to adapt activities over time and to better capture social, cultural and behavioral impacts (e.g., by including more open and semi-open questions in surveys).
- **Intergenerational approaches** could be strengthened by more explicitly addressing students' housing and employment challenges alongside seniors' needs, to generate reciprocal value and solidarity.
- The lagoon boat trips emerged as a promising activity and could be expanded, using **creative and artistic methods** to deepen emotional connections to the lagoon and dialogue between generations. Future expansions could involve a wider range of local artists and cultural actors and offer adapted experiences for different audiences (e.g., seniors, visitors, children, other vulnerable groups).
- Future pilot actions could adopt a more explicitly **regenerative approach** that goes beyond reducing harm to the lagoon and actively restores its ecosystems. Pilot plans to develop urban gardens on Venice's main island could evolve to support the health of the soil, insects, vegetables and water alongside citizens and seniors. This would support the shifts in mindsets, knowledge and skills needed to face the ecological crisis.
- The Venice municipality's department responsible for European projects has stressed its interest in the participatory and creative approaches applied in BoS. This could be leveraged further by **integrating these practices in other departments** to support durable term changes in bureaucratic processes and policies.

Box 7: Deepening and expanding impact in the future

Annex



Fig. 27: Venetian lagoon, Venice, 12th December 2006. (Source: Comune di Venezia, 2006.) CC BY-NC-ND 4.0

Main data collection activities

This impact assessment used data collected via various activities in collaboration with, or led by, the Venice pilot team. These include activities organized by the impact assessment work package (WP5) led by TU Delft as well as other work packages focusing on co-design (WP2 led by Malmö University), implementation (WP3 led by TBA21 Thyssen-Bornemisza Art Contemporary), and replication (WP4 led by Ca' Foscari University of Venice) within the BoS consortium. TU Delft took part in the activities organized by other work packages, as co-organizer or attendee.

Data collection led by the Venice pilot team:

- Regenerative Menus and Blue Seniors drops: 359 surveys were collected during 12 field trips in the Venice Lagoon. Survey respondents include seniors from local associations (Gruppo Anziani Autogestito Giudecca, Red Carpet for All, La Gondola, Circolo Ricreativo Culturale Muranese (Murano island), Gruppo Anziani Autogestito Castello Ovest), Ca' Foscari University of Venice students and other community members from different age groups and parts of Venice (mainland, Venice island, other islands). June-September 2024.
- Blue Seniors drop: Some 100 interviews were conducted with seniors. Ca' Foscari Computer science students interviewed their grandparents. February 2024.
- Regenerative Menus drop: One event involving seniors from La Gondola (about stories of fishing and fishermen). April 2024.
- Blue Seniors drop: One focus group discussion was conducted with seniors, invited through the association Red Carpet for All. April 2024.
- Blue Seniors drop: Some 200 seniors took part in the evaluation of Ca' Foscari University of Venice students' digital prototypes. June 2024
- Future Tidal Architectures drop: 8 IUAV students provided feedback on the architecture workshop through feedback sheets. September 2024.

Activities used to gather data and analytical insights led by WP5 and other project partners:

- Benchmarking session 'Regenerative Menus,' online, 09/09/2024 (led by WP4)
- Benchmarking session 'Building with water,' online, 28/01/2025 (led by WP4)
- Benchmarking session 'Living on water,' online, 30/01/2025 (led by WP4)
- Session on pilot Sea Forums, online 17/01/2025 (led by WP2)
- Benchmarking session on context, in-person, 13/02/2025 (led by WP4 and WP5)
- WP5 Theory of Change (ToC) session, online, 14/03/2025 (led by WP5)
- Impact evaluation in Venice, in person, 31/03/2025 (led by WP5), including 11 participants: Franca Pullia; Valentina Paulon; Fabio Pittarello; Agnese Martini; Francesco Calzolaio; Zaccaria Tona; Michele Andrea Tagliavini; Bogdan Iustin Birnbaum (credits and others).
- Session to update the Venice implementation report, online, 04/2025 (led by WP4)
- Matrix activity, online, 09/05/2025 (led by WP4)
- Reflection session on aesthetics and impact, online, 26/05/2025 (led by WP5)
- Reflection session on sustainability and impact, online, 06/06/2025 (led by WP5)
- Zoöp discussion with WP5 and WP2, in-person, 23/06/2025
- Reflection session on inclusion and impact, online, 04/07/2025 (led by WP5 and WP2)
- Ocean Ambassadors meeting in Rotterdam, in-person, 23-24 June 2025 (led by WP2)
- Reflection session on local grounding and impact, online, 05/09/2025 (led by WP5 and WP2)
- WP4 seminar on replication proposals, online, 08/10/2025 (led by WP4)

Bibliography

References used in box 2

Atlante della laguna. 2015. Conterminazione lagunare. <https://www.silvenezia.it/?q=node/97>

d'Alpaos, Luigi. 2010. L'evoluzione morfologica della Laguna di Venezia attraverso la lettura di alcune mappe storiche e delle sue carte idrografiche. City of Venice. https://www.comune.venezia.it/sites/default/files/publicCPSM2/pubblicazioni/D_Alpaos_ICPSM_L_evoluzione_morfologica_della_laguna_di_Venezia_2010.pdf

Anzidei, Marco, Tommaso Alberti, Antonio Vecchio, Xenia Loizidou, Demetra Orthodoxou, Enrico Serpelloni, Antonio Falciano and Claudia Ferrari. 2024. "Sea level rise and extreme events along the Mediterranean coasts: the case of Venice and the awareness of local population, stakeholders and policy makers." *Rend. Fis. Acc. Lincei* 35: 359–370. <https://doi.org/10.1007/s12210-024-01236-x>

Bettiol, Tania and Elena Marini. 2023. Yearbook of Tourism data. City of Venice. https://www.comune.venezia.it/sites/comune.venezia.it/files/documenti/Turismo/Yearbook_of_tourism_data_2023.pdf

City of Venice. 2021. Osservatorio Porto Marghera. Indagine conoscitiva sulle attività economiche presenti al 31 dicembre 2020. https://www.comune.venezia.it/sites/comune.venezia.it/files/immagini/progetti_strategici/report_indagine_conoscitiva_PM_2021.pdf

Cessi, Roberto, Foot, John, Cosgrove, Denis E. 2024. Zenith of power. *Britannica*. <https://www.britannica.com/place/Venice/Zenith-of-power>

DFS. 2024. La nostra storia. <https://www.dfs.com/it/venice/about-store/history>

Institute of Radical Imagination. 2024. Protect the Venice Lagoon. Action in Venice against cruise ships. From the city to the lagoon... Sit-in and water parade. <https://instituteofradicalimagination.org/2024/02/15/comitato-no-grandi-navi-action-on-waters/>

IPCC. 2022. "Venice sea level rise (SLR) and coastal flooding (Figure Box 13.1.1)." IPCC Sixth Assessment Report Impacts, Adaptation and Vulnerability. <https://www.ipcc.ch/report/ar6/wg2/figures/chapter-13/figure-13-box-13-1-1>

Marchini, Agnese, Jasmine Ferrario, Adriano Sfriso and Anna Occhipinti-Ambrogi. 2015. "Current status and trends of biological invasions in the Lagoon of Venice, a hotspot of marine NIS introductions in the Mediterranean Sea." *Biological Invasions* 17 (10): 2943–2962. <http://dx.doi.org/10.1007/s10530-015-0922-3>

Natural History Museum of Venice Giancarlo Ligabue. 2024. The headquarters and history. Fondazione Musei Civici Venezia. <https://msn.visitmuve.it/it/il-museo/la-sede-e-la-storia/cenni-architettonici/>

Ports of Venice and Chioggia. 2024. Open Port: le relazioni con il territorio. Retrieved October, 2024, from <https://www.port.venice.it/progetti-e-sostenibilita/progetti-sociali/open-port-relazioni-con-il-territorio/>

Sfriso, Adriano, Marion Adelheid Wolf, Alessandro Buosi, Katia Sciuto and Andrea Augusto Sfriso. 2023. "Alien Macroalgal Rearrangement in the Soft Substrata of the Venice Lagoon (Italy): Impacts, Threats, Time and Future Trends." Sustainability, 15 (10): 8256. <https://doi.org/10.3390/su15108256>

Somers-Cocks, Anna. 2021. "The damnation of Venice: locals are being systematically driven out by officials who are selling off sites for tourism." The Art Newspaper. <https://www.theartnewspaper.com/2021/06/22/the-damnation-of-venice-locals-are-being-systematically-driven-out-by-officials-who-are-selling-off-sites-for-tourism>

Tagliapietra, Davide. 2011. "The Ecological implications of climate change on the lagoon of Venice." The Future of Venice and its Lagoon in the Context of Global Change: workshop report, 2. UNESCO. <https://unesdoc.unesco.org/ark:/48223/pf0000219219>

UNESCO. 2024. Venice and its Lagoon. <https://whc.unesco.org/en/list/394/>

We are here Venice. 2024. <https://www.weareherevenice.org/>

References used in fig. 7

Bice, Sara, and Thomas B. Fischer. 2020. "Impact Assessment for the 21st Century – What Future?" *Impact Assessment and Project Appraisal* 38 (2): 89–93. <https://doi.org/10.1080/14615517.2020.1731202>.

Bond, Alan, Angus Morrison-Saunders and Jenny Pope. 2012. "Sustainability Assessment: The State of the Art." *Impact Assessment and Project Appraisal* 30 (1): 53–62. <https://doi.org/10.1080/14615517.2012.661974>.

Bond, Alan, and Jenny Pope. 2012. "The State of the Art of Impact Assessment in 2012." *Impact Assessment and Project Appraisal* 30 (1): 1–4. <https://doi.org/10.1080/14615517.2012.669140>.

Coger, Tamara, Sarah Corry and Robbie Gregorowski. 2021. "Reshaping Monitoring, Evaluation and Learning for Locally Led Adaptation." World Resources Institute Working Paper. <https://doi.org/10.46830/wriwp.20.00060>.

Esteves, Ana Maria, Daniel Franks and Frank Vanclay. 2012. "Social Impact Assessment: The State of the Art." *Impact Assessment and Project Appraisal* 30 (1): 34–42. <https://doi.org/10.1080/14615517.2012.660356>.

Goodwin, Sean, and Marta Olazabal. 2025. "Revisiting the Challenges to Monitoring, Evaluation, Reporting, and Learning for Climate Adaptation." *Environmental Science & Policy* 172: 104199. <https://doi.org/10.1016/j.envsci.2025.104199>.

Mackay, Michael, Nicholas Taylor, John Saunders, Paul Rutherford and Caroline Saunders. 2024. "Integrated Impact Assessment for Land and Water Management." *Environmental Impact Assessment Review* 105: 107397. <https://doi.org/10.1016/j.eiar.2023.107397>.

Moore, Michele-Lee, Darcy Riddell and Dana Vocisano. 2015. "Scaling Out, Scaling Up, Scaling Deep: Strategies of Non-Profits in Advancing Systemic Social Innovation." *Journal of Corporate Citizenship* 58: 67–84. <http://www.jstor.org/stable/jcorp-citi.58.67>.

Torres, Aurora, Charla Patterson and Jochen A. G. Jaeger. 2022. "Advancing the Consideration of Ecological Connectivity in Environmental Assessment: Synthesis and Next Steps Forward." *Impact Assessment and Project Appraisal* 40 (6): 451–59. <https://doi.org/10.1080/14615517.2022.2134619>.

Termeer, Catrien J. A. M., and Art Dewulf. 2019. "A Small Wins Framework to Overcome the Evaluation Paradox of Governing Wicked Problems." *Policy and Society* 38 (2): 298–314. <https://doi.org/10.1080/14494035.2018.1497933>.

Wilson-Grau, Ricardo, Heather Britt, Yulianto Dewata, Patricia Rogers and Kaye Stevens. 2024. "Outcome Harvesting." BetterEvaluation website, Global Evaluation Initiative. <https://www.betterevaluation.org/methods-approaches/approaches/outcome-harvesting>.



Fig. 28: Venetian lagoon, Venice. (Source: Alessandro Tretti Gastaldello.) CC BY-NC-ND 4.0

Other references

European Commission. 2022. The New European Bauhaus Compass. https://new-european-bauhaus.europa.eu/tools-and-resources/use-compass_en.

European Commission. 2024. "Principles." Bauhaus of the Seas Sails Reporting (Reporting period: 2023-01-01 to 2024-06-30). CORDIS. <https://doi.org/10.3030/101079995>.

European Commission. 2024. "Approach." Bauhaus of the Seas Sails Reporting (Reporting period: 2023-01-01 to 2024-06-30). CORDIS. <https://doi.org/10.3030/101079995>.

Seravalli, Anna, Ann Light, and Anders Emilson. 2022. "The Co-design Template." Bauhaus of the Seas Sails. CORDIS – EU Research Results. <https://ec.europa.eu/research/participants/documents/downloadPublic?documentIds=080166e5f9f07936&appId=PPGMS>.

Zumbrink, Seravalli, Anders Emilsson and Ann Light. 2024. Ocean Ambassadors Compass. <https://bauhaus-seas.eu/ocean-ambassadors-compass/>.



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