

Digital solutions for climate adaptation [FA] (DISCO)

A.1 Identification

Call	Call 4C (FA)
A.1.1 Project title	Digital solutions for climate adaptation [FA]
A.1.2 Project acronym	DISCO
A.1.3 Lead Partner	Gemeente Zwolle
A.1.4 Start Date	01/06/2024
A.1.4 End Date	31/05/2028
A.1.4 Project duration	48 months
A.1.5. Priority	Priority 1. Robust and smart economies in the North Sea Region
A.1.6. Priority specific objective	1.1 Developing and enhancing research and innovation capacities and the uptake of advanced technologies

A.2 Summary

A.2 Project Summary	North Sea region authorities urgently need to speed up climate change adaptation (CCA). But they are facing a set of complex challenges when it comes to deciding on and realising the needed adaptation measures. This is due to the combination of dealing with the complexity of data for decision making in CCA with the need to timely and justly involve connected target groups. Digital solutions (e.g. AR, VR, digital twin) have shown to be able to take extensive and varied data sets and turn them into trustworthy calculations and visuals, facilitating a shared image of possibilities otherwise difficult to imagine and achieve. They have proven to be a key enabler in the development of sustainable and climate adaptive cities and regions. But to implement such innovative solutions now and in the future, investments are needed and a good understanding and trust between the digital sector, CCA authorities and targeted stakeholders are essential. Therefore, in DISCO partners develop and implement the needed support for CCA authorities to raise the innovation capacities of organisations and citizens to employ digital solutions to accelerate CCA. In the project a three-step approach is taken to test how to raise innovative capacities to accelerate in CCA and how experiences can lead to a long-lasting impact. First, a method to identify specific needs of a CCA authority is developed. Then, co-creation processes for CCA are started in different locations in the NS region. These lead to: a. increased capacity for innovation at stakeholders present at the pilot areas, b. plans to break down barriers for innovation in CCA organisations in the NS region. c. useful digital solutions for CCA that are fit to be replicated.
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B.1 Partners

B.1.1 Project partners

	Identity / Questions	Address	Budget
 1	Gemeente Zwolle No Abrv.: Zwolle Name (EN): Municipality of Zwolle <i>Lead Partner</i> VAT number: NL001900248B01 Entitled for VAT recovery: Yes Type: Local public authority Legal status: Public State aid: Not State Aid Relevant Letter of intent: Self declaration:	Address: Postbus 10007, 8064ES Zwolle, Netherlands (NUTS: NL211) Website: www.zwolle.nl Department: Department of Economic and Spatial Development Dept. Address: Postbus 10007, 8064ES Zwolle, Netherlands (NUTS: NL211) Contacts: Renate Postma	1.057.350 €
	Which of the organisation's thematic competences and experiences are relevant for the project? The city of Zwolle is situated in the deepest part of the IJssel-Vecht delta. We are very vulnerable to climate change. Climate adaptation is one of our four priority themes. At city scale Zwolle is responsible for urban planning and (ground)water management. To become a climate resilient delta, regional governments and other municipalities collaborate in the RIVUS network. Regional governments (province and water authority) and local governments, entrepreneurs, educational- and research institutes and citizens collaborate in the Climate Campus network. At the same time our Department for digitalisation is a frontrunner. Zwolle already has a Digital Twin and is lead partner in the network SMART Zwolle Alliance, also consisting of governments, entrepreneurs, educational and research institutes. We already have interesting pilots / projects at the interface of digitalisation, climate adaptation and citizen participation, e.g. Senshagen and Garden Battle (CATCH). What is the role (contribution and main activities) of your organisation in the project? Zwolle is lead partner and CCA authority. The pilot of Zwolle is about an EFI for joint design of climate adaptive liveable streets, using (applications for) our digital twin. Work includes: Preparation - make an inventory of • learning questions and requirements of both municipality, citizens, developers • possible utilization of a digital solutions that meet our needs • local and regional partners in our network to involve in de the pilot / dissemination phase • good practises (national and international) Execution - co design climate adaptive liveable streets to test: • the chosen application itself • the innovative collaboration (co designing, collaboration of digital sector and climate adaptation sector) • organizational aspects within the municipality that help or hinder (societal) innovation After the pilot we report the lessons learnt and recommendations and disseminate our finding in the different networks. In all steps we will work and develop together with the consortium partners. If applicable, describe the organisation's experience in participating in and/or managing EU co-financed projects or other international projects. Zwolle has been involved in several international projects, among which EU (e.g. Interreg NSR-CATCH and LIFE IP NASCCELERATE) and international collaboration with South Africa in the former LOGO South Program (capacity building) of Foreign Affairs / VNG-international. What is the benefit of participating in the project for your organisation? Capacity building within our organization form both sides (closing the gap between digitalisation and climate adaptation), learning about the possibilities of using digital solutions in participation for climate adaptation, learning from transnational collaboration to move forward.		
 2	Universiteit Twente No Abrv.: UT	Address: Drienerlolaan 5, 7522NB Enschede, Netherlands (NUTS: NL213)	272.268 €

Name (EN): University of Twente
Project Partner
VAT number: NL002946725B01
Entitled for VAT recovery: No
Type: Higher education and research organisations
Legal status: Public
State aid: Not State Aid Relevant
Letter of intent: _
Self declaration:

Website: <https://www.utwente.nl/>
Department: Section of Governance and Technology for Sustainability (CSTM) of the Department of Technology, Policy and Society
Dept. Address: Hallenweg 17 (Ravelijn building no. 10), 7522NH Enschede, Netherlands (NUTS: NL213)
Contacts: Cesar Casiano Flores

Which of the organisation's thematic competences and experiences are relevant for the project?

The Section of Governance and Technology for Sustainability (CSTM) as part of the Faculty of Behavioural, Management and Social sciences (BMS) of the University of Twente specializes in the governance of climate adaptation with digital co-creation as one of the key research themes. CSTM has an extended portfolio of projects related to climate adaptation including the Horizon Europe project "Governance innovations for a transition to sustainable and equitable water use in Europe" and the Interreg North Sea project "Water sensitive Cities: the Answer To Challenges of extreme weather events". CSTM staff has a very strong experience working with participatory and interdisciplinary research that involves the use of digital solutions to co-create solutions with governmental and non-governmental actors, other research centres, society and enterprises.

What is the role (contribution and main activities) of your organisation in the project?

Based on their expertise, UT staff will lead WP1 Prepare to dance: development of a strategic framework for raising innovative capacities for employing digital solutions in CCA. Here the UT team's scientific, interdisciplinary and practical knowledge on the governance of climate adaptation and use of digital solutions for co-creation will play a key role. In WP2 and WP3 UT staff will contribute with their expertise follow-up the process and provide their expertise to develop and scale-up lessons learned and developed outputs. Some of the specific tasks are the development of the serious game and training in key master programs in the Netherlands and Belgium.

If applicable, describe the organisation's experience in participating in and/or managing EU co-financed projects or other international projects.

The organisation has an extensive experience on co-funding projects. Just to mention some examples:

Interreg Europe Floating Cultures in River Deltas (Delta lady): <https://projects2014-2020.interregeurope.eu/deltalady/>

Interreg North Sea Region Cluster for Cloud to Coast Climate Change Adaptation (C5a): <https://northsearegion.eu/c5a/>

Interreg North Sea Region Water sensitive Cities: the Answer To CHallenges of extreme weather events (Catch): <https://northsearegion.eu/catch/>

Interreg North-West Europe Enter2Transform Transformational Entrepreneurship Hubs for Recognized Refugee Re-starters:

<https://vb.nweurope.eu/projects/project-search/enter-to-transform-transformational-entrepreneurship-hubs-for-recognized-refugee-re-starters/>

What is the benefit of participating in the project for your organisation?

We will be able to conduct innovative governance research on the benefits and challenges of digital tools in climate adaptation at different scales. Based on our research, we will allow to provide examples of first-hand cases to our students in our master program, and to publish academic articles that contribute to new knowledge on the topic.



3

AMACHAN No

Abrv.: AM

Name (EN): AMACHAN

Project Partner

VAT number: NL864928580B01

Entitled for VAT recovery: No

Type: Small or medium-sized enterprise (SME)

Legal status: Private

State aid: GBER

Letter of intent: _

Address: Walstraat 43E, 7511GG Enschede,
Netherlands (NUTS: NL213)
Website: www.amachan.io

Contacts: Sergio Alvarado Vazquez

243.725 €

Self declaration: _

Which of the organisation's thematic competences and experiences are relevant for the project?

As we are a digital solution that can be used to collect data from different stakeholders, AMACHAN can offer to create surveys and collect qualitative and quantitative data, with a focus on a spatial component. This means that it can collect spatial information and create thematic maps or cartography by any subject or field. This sounds like a very interesting and useful platform for various purposes and domains.

What is the role (contribution and main activities) of your organisation in the project?

Offering the use of the AMACHAN platform for participatory data collection, depending on which one of the partners require to use the platform for collecting data regarding CLIMATE CHANGE ADAPATATION. We also offer technical support for the surveys created and for when data collections requires to be conducted on site. AMACHAN will contribute to bridging the gap between ICT and CCA professionals by bringing in their experiences.

If applicable, describe the organisation's experience in participating in and/or managing EU co-financed projects or other international projects.

We have experience participating in projects related to participatory process and data collection in Germany and the Netherlands, in collaboration with universities and public institutions in the development of project proposals related to urban development, urban mobility, and green infrastructure. In other context outside the EU, we have collaborated in the development of a green open spaces evaluation with the local government of Mexico City.

What is the benefit of participating in the project for your organisation?

Get acquainted with different governmental institutions and universities in the North Sea Region, and to promote and show the added value of the use of digital technologies for participatory processes such as for climate change adaptation.

	4 Oldenburgisch-Ostfriesischer Wasserverband No	Address: Georgstraße 4, 26919 Brake, Germany (	382.500 €
	Abrv.: OOWV Name (EN): Waterboard of Oldenburg and East Frisia <i>Project Partner</i> VAT number: 23 632 0000310 Entitled for VAT recovery: Yes Type: Infrastructure and (public) service provider Legal status: Public State aid: Not State Aid Relevant Letter of intent: _ Self declaration:	NUTS: DE94G) Website: www.oowv.de Contacts: Silke Mollenhauer	

Which of the organisation's thematic competences and experiences are relevant for the project?

The OOWV is the largest water provider in Lower Saxony, supplying 1 Mio. people with water. Groundwater is the main source for drinking water in the OOWV provision area. Due to the changing requirements for sustainable water supply as a result of climate change, OOWV has been increasingly focusing on alternative water resources and adaptation to climate change in recent years.

The OOWV can contribute valuable practical knowledge and ensure that the innovations of the project are put into practice. The OOWV provides the expertise on requirements from the water providers perspective, as well as the linkage to the water user's needs, and the data on water management. The OOWV collects a wide range of data and has its own department for water management information. The digitization and digital processing and provision of data has been continuously optimized in recent years.

What is the role (contribution and main activities) of your organisation in the project?

Many small towns and municipalities in our region are lacking the ability and resources to use new digital solutions for their water management. With our pilot we can show best practices that can be transferred overcome innovation barriers such as missing use cases or the lack of knowledge

Together with the University of Oldenburg OOWV would like to investigate solutions for using rainwater retention basins as water reservoirs. In a first step, an EFI will be created that will design and implement a digital twin of a rainwater retention basin in Damme. The digital twin is to be used to simulate how intelligent, precipitation-dependent runoff control of the water level and rainwater utilization could be implemented. In the second step transfer of practices to other municipalities will take place.

OOWV will be the WP 3 leader.

If applicable, describe the organisation's experience in participating in and/or managing EU co-financed projects or other international projects.

The OOWV is experienced in participating and managing EU co-financed projects. In 2000-2007 it participated in the INTERREG B projects Water4all, Nolimp, Farmers for Nature and WaterCost. Further the OOWV was part of the INTERREG C Projects Hanse Passage and ENMaR. In 2007-2013 the INTERREG B projects Cradle to cradle Island, WaterCAP, WaterCap Taskforce and the INTERREG A project Denewa were implemented. In the last INTERREG programme the OOWV participated in the INTERREG B projects WaterCoG, TOPSOI, CATCH, FRAMES and NuReDrain. In the current programme the OOWV is partner in the Blue Transition project.

Additionally, the OOWV is project partner in the HORIZON projects B-WaterSmart and DECISO, both dealing with alternative water resources.

The main basis for the pilot project in Damme is the results of the LEADER project "SWaT - Intelligent Rainwater Storage".

What is the benefit of participating in the project for your organisation?

The international cooperation gives the OOWV the opportunity to exchange experiences in a field that is not yet used as it could be in many areas. Digital solutions still offer great untapped potential for use in public water supply. The most important task of the OOWV is to secure water supply and disposal. As part of EU projects, there is an additional opportunity to test new technologies and processes and to learn together with the project partners. There are a large number of rainwater retention basins in the OOWV area. If the digital solutions tested in this project work well, there is great potential to use these technologies at other locations in the OOWV supply area.



5

Carl von Ossietzky Universität Oldenburg

No

Abrv.: UOL

Name (EN): Carl von Ossietzky University of Oldenburg

Project Partner

VAT number: DE811184499

Entitled for VAT recovery: No

Type: Higher education and research organisations

Legal status: Public

State aid: Not State Aid Relevant

Letter of intent:

Self declaration:

Address: Ammerländer Heerstr. 114-118, 26129

Oldenburg, Germany (NUTS: DE943)

Website: <https://uol.de/>

Department: Department of Computing Science - Business Informatics (VLBA)

Dept. Address: Ammerländer Heerstr. 114-118, 26129

Oldenburg, Germany (NUTS: DE943)

Contacts: Jan Stueven

272.223 €

Which of the organisation's thematic competences and experiences are relevant for the project?

UOL has been working on projects in the water sector for multiple years, especially in cooperation with the OOWV.

It has experience in the fields of data science, simulation design, modelling, and sustainable water management. Furthermore, UOL serves as an experience hub for experienced and new researchers.

In projects UOL often worked together with engineers and other researchers on tasks, which are not only software driven. It has experience in finding and measuring requirements from partners and incorporating them into newly developed software.

What is the role (contribution and main activities) of your organisation in the project?

In this project, the main task of UOL is the development of a digital twin of a rain water basin, in order to water surrounding places (like a sports field) controlled instead of in dependency on rain fall. It shall replicate the behaviour of the basin and in the end be able to control the behaviour.

This task can be viewed as a pilot project. If it succeeds, the technology could be rolled out to municipalities and other stakeholders in the NSR for better control and usage of precipitation, supplementing an Ecosystem for Innovation.

An important aspect of the pilot are safety and security measures. A water basin shall never overflow, so the control mechanism must be fail-proof, to be trusted by local stakeholders. Information generated from the pilot will be publicly available to create learning opportunities from them.

If applicable, describe the organisation's experience in participating in and/or managing EU co-financed projects or other international projects.

UOL has experience in projects co-financed by the EU as well as other international projects. For example, it is working in the field of LiHyp, an Interreg programme aiming at enhancing the cooperation in the hydrogen-energy sector of the North Sea region.

It also has the EU-funded project AI@Smile, which aims at improving mental health among teenagers of the EU.

Furthermore, UOL is working with international partners from the EAC (East African Region) in a project called dSkills@EA, in which partners from African Universities are supported in enhancing digital skills right in the region.

What is the benefit of participating in the project for your organisation?

UOL has a strong sector in the field of (business)informatics. Implementing projects which require the development of software is a big domain, therefore projects are very diverse: Ranging over AI, Data Science, Modelling and Simulating.

The DISCO pilot is combining the knowledge of multiple of those fields, especially Data Science, Modelling and Simulating. Creating a digital model which replicates the behaviour of a physical model is no trivial task, that's why the opportunity to explore this use case is so important for UOL.

Developing the prototype would come with a lot of knowledge generation, e.g. to which degree can a digital twin even be built or how would a control mechanism be implemented to ensure safety security measures?

A last important aspect for UOL is the advancement of digitalization in NS regions through sustainable water management. To do so, UOL needs to develop pilot projects in which the practicality of such digitalization methods has to be investigated.



6

**Jade Hochschule
Wilhelmshaven/Oldenburg/Elsfleth** No
Abbr.: Jade HS
Name (EN): Jade University of Applied
Sciences
Project Partner
VAT number: DE 265902596
Entitled for VAT recovery: No
Type: Higher education and research
organisations
Legal status: Public
State aid: Not State Aid Relevant
Letter of intent:
Self declaration:

Address: Friedrich-Paffrath-Straße 101, 26389
Willemshaven, Germany (NUTS: DE945)
Website: <https://www.jade-hs.de/>

Department: Research and Transfer / Dep. Of
Technology and Health
Dept. Address: Ofener Strasse 16/19, 26121
Oldenburg, Germany (NUTS: DE943)
Contacts: Mike Boege

705.025 €

Which of the organisation's thematic competences and experiences are relevant for the project?

Experiences from former Interreg Vb projects such as FRAMES and CATCH, focusing on climate change adaptation, management of extreme events and multi-layer safety, including a pilot on emergency management in the Wesermarsch region, resulting in deficiencies in current evacuation management.

One of the main research is the field Digital construction and information technology The research focus is on research projects in the areas of Building Information Modeling, construction, optical 3D measurement technology, geodesy, geoinformatics, databases and modeling and communication of spatio-temporal information.

The project "Sustainable Building Technologies – Community of Practise is to be mentioned. This project will combine level top knowledge in central fields of future research and development activities including digitalization.

What is the role (contribution and main activities) of your organisation in the project?

The role of Jade Hochschule in DISCO primarily involves providing technical assistance and requirements engineering support to the partners' pilot projects. This implies providing input in WP 1 in the development of the assessment framework and providing guidance to partners to improve their capacities to detect requirements for certain challenges and offered solutions. Above this for WP 2 Jade Hochschule can provide manufacturer-neutral assistance in selecting solutions for the project partners' pilots in both hardware and software domains Additionally, the university will offer technical equipment such as the stereoscopic multi-user CAVE, AR glasses, and VR glasses for experimental purposes in WP 2 and WP 3. This comprehensive support aims to facilitate the effective development and implementation of digital solutions tailored to climate change adaptation needs. Jade will take ownership of the developed solutions in DISCO to maintain after project lifetime.

If applicable, describe the organisation's experience in participating in and/or managing EU co-financed projects or other international projects.

- Interreg Vb: FRAMES (2016-2020; partner; WP lead);
- CATCH (2017-2022; partner; WP lead);
- InduZero (2018-2022; partner)
- Interreg IVb: NSSEP (2014-2015); ECLIC (2008-2011)
- Interreg A: Vital regions (2017-2021), Bioökonomie im Non-Food-Sektor (2015-2019)
- Co-operation framework amongst universities, companies & experts from three partnering universities: SBTCP (2021 – 2025)

What is the benefit of participating in the project for your organisation?

- Increased Innovative Capacity: Jade-HS can learn about and adopt cutting-edge digital tools such as AR, VR, and digital twins to address CCA challenges.
- Reduced Barriers for Innovation: Jade-HS can benefit from insights into the necessary steps and resources required to effectively implement these solutions.
- Organizational Changes: The project can lead to more efficient collaboration and integration of digital solutions for CCA.
- Ecosystem for Innovation: Jade-HS can access resources, knowledge, and support networks to navigate the complexities of digital innovation in the context of climate adaptation.
- Successful Implementation of Digital Solutions: Jade-HS ensures that the selected solutions are sustainable and effectively accelerate CCA efforts.
- Finally. Jade-HS will have access to inspiring examples and best practices that can help starters and more advanced NS authorities become more innovative in utilizing digital solutions for CCA.

	7 VIA University College No	Address: Hedeager 2, 8200 Aarhus N, Denmark (	560.760 €
	Abrv.: VIA UC Name (EN): VIA University College <i>Project Partner</i> VAT number: 30773047 Entitled for VAT recovery: No Type: Higher education and research organisations Legal status: Public State aid: Not State Aid Relevant Letter of intent: ☐ Self declaration: ☐	NUTS: DK042) Website: www.via.dk Department: R&D Center for Built Environment, Energy, Water Technology & Digitalization Dept. Address: Banegaardsgade 2, 8700 Horsens, Denmark (NUTS: DK042) Contacts: Thomas Bøgevald Bjørnsten	

Which of the organisation's thematic competences and experiences are relevant for the project?

VIA University College is Denmark's second largest university of applied science. In VIA, the Research Centre Built environment, energy, water technology and digitalization conducts applied research in close collaboration with private and public partners, as well as with VIA's other research units. The Centre disseminates, develops, and produces new knowledge that contributes to new technological solutions in the areas of built environment and the future of construction, sustainable consumption of resources within clean drinking water, climate adaptation solutions and 'green' energy, as well as digital enterprise systems.

The R&D Centre for Built Environment, Energy, Water Technology, and Digitalization works in the areas of AR/VR, as well as climate resilience and climate adaptation solutions. We collaborate closely with VIA Animation Workshop. This workshop is recognized as the fourth leading animation school on a global scale.

What is the role (contribution and main activities) of your organisation in the project?

Via will be coordinating lead partner for WP 2 concerning co-creation of local EFIs for CCA through the utilization of innovative digital tools while addressing the barriers and developing supportive methods for EFI creation. VIA will draw on insights and experiences from previous projects involving the use of relevant digital visualization and related XR (Extended Reality)-technologies, which will be further developed and implemented in close collaboration with Vejle Municipality through the CCA-related projects "Ny Rosborg" and "Membranen". VIA's involvement in WP2 and other targeted aspects of WP1 and WP3 will emphasize the importance of establishing EFIs using accessible and technological tools that create actual impact.

If applicable, describe the organisation's experience in participating in and/or managing EU co-financed projects or other international projects.

VIA has extensive experience in participating in EU-projects. We are currently participating in 20+ EU funded projects, coordinating roughly half of these. In addition, VIA has a long tradition of participating in international research and development projects – both as the leading institution and as a partner. VIA provides high-quality, experienced staff at postgraduate level and doctoral level as well as efficient management and support. To support our educational departments and R&D Centres VIA has nine crosscutting units. These units cover a

variety of functions and tasks e.g. project support and development, political and educational analysis, digitalization, internationalization, communication, economy, student life. VIA has an extensive quality assurance program that includes both quantitative and qualitative measures and clear procedures of documentation.

What is the benefit of participating in the project for your organisation?

With respect to the various WPs and WP2 in particular VIA will strengthen its knowledge in creating XR (Extended Reality) and related technological solutions within the field of CCA as well as establishing the foundation and models for sustainable ecosystems for innovation. This includes the development of adequate visualization formats, more efficient exploitation of immersive technologies for enhancing knowledge about CCA, and clearer identification of technological barriers as well as strategies for overcoming these through new EFIs and direct CCA stakeholder involvement. VIA is currently in the process of capacity building within the digital and XR-domain with a strong focus on climate change adaptation and climate resilience strategies, which makes participation in this project highly relevant.

 8	Vejle Kommune No	Address: Kirketorvet 22, 7100 Vejle, Denmark (	214.450 €
	Abrv.: Vejle Name (EN): Vejle Municipality <i>Project Partner</i> VAT number: DK-30023684 Entitled for VAT recovery: No Type: Local public authority Legal status: Public State aid: Not State Aid Relevant Letter of intent: ☐ Self declaration: ☐	NUTS: DK032) Website: www.vejle.dk Department: Technology & Environment Dept. Address: Kirketorvet 22, 7100 Vejle, Denmark (NUTS: DK032) Contacts: Poul-Henrik Oxlund Skrae	

Which of the organisation's thematic competences and experiences are relevant for the project?

Vejle is one of the 10 most vulnerable areas in Denmark at risk from flooding. Though water is a well maintained and monitored asset of Vejle, the city continuously needs to address the serious threats of climate change.

Vejle is a front runner in Europe on climate adaptation and very experienced in the field of urban water management. They are a member of the prestigious international 100 Resilient Cities network and Climate KIC. In Vejle special attention is given to community involvement.

With a high focus on using our digital twin of the city, this project adds an even higher and relevant focus on the social innovation aspect as well as digital communication and solutions for climate projects.

What is the role (contribution and main activities) of your organisation in the project?

Vejle is participating in all the WPs of the DISCO project. With all our knowledge from previous climate adaptation projects and the current state of issues with water problems in the city, we will bring local climate pilots that are relevant and current to the project to develop an ecosystem for innovation to improve and accelerate climate adaptation.

In collaboration with the research institutes, we will focus on delivering digital solution for social innovation as well as inspire other cities of similar size as well as getting inspired by other project partners in the DISCO project ourselves.

If applicable, describe the organisation's experience in participating in and/or managing EU co-financed projects or other international projects.

Vejle is experienced in participating in EU co-financed projects. They participated in the North SEA programme with the projects Sustainable Energy Planning, NSSEP-PLUS and HyTrE as well as the previous CATCH project.

They also participated in projects like Smart Mature Resilience (Horizon 2020), Future Sewage (Regionalfond Denmark), Building and Construction Waste (Regionalfond Denmark),

SMART Natura (LIFE-programme) and DRAGONLIFE (LIFE-programme).

What is the benefit of participating in the project for your organisation?

With recurrent issues with raising water levels within the city and the need for measures for climate adaptation we will benefit from the project in multiple ways.

One of the main benefits is a way of trying out new ways of civic engagement using new digital solutions for communication of complex projects in a way that are easier to understand for everybody, the "Show Don't Tell" approach could be a huge advantage in communication strategies with both politicians and citizen as well, for complex climate projects and hopefully we would benefit in the long term when developing new ways of using digital solutions.

Another benefit is the transnational connection with other partners with similar problems and the knowledge gathered during the project – on the social and the technical innovation side, and how we can improve the solutions even further both during the project as well as afterwards.

 9	Vlaamse Milieumaatschappij No Abrv.: VMM Name (EN): Flanders Environment Agency <i>Project Partner</i> VAT number: BE 0887.290.276 Entitled for VAT recovery: No Type: Regional public authority Legal status: Public State aid: Not State Aid Relevant Letter of intent: Self declaration:	Address: Dokter De Moorstraat 24-26, 9300 Aalst, Belgium (NUTS: BE231) Website: https://en.vmm.be/ Department: International Cooperation Dept. Address: Dokter De Moorstraat 24-26, 9300 Aalst, Belgium (NUTS: BE231) Contacts: Stevie Swenne	592.000 €
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Which of the organisation's thematic competences and experiences are relevant for the project?

Flanders Environment Agency (VMM) is an internally independent government agency with powers of jurisdiction under supervision of the Flemish Minister of Justice and Enforcement, Environment, Energy and Tourism. The mission of VMM is to be a solution-oriented partner for a climate-resilient environment in Flanders.

We play a part in the various stages of the policy-making process (measuring, planning, taking action, evaluating). This represents an added value that allows us to retain an overview and make connections. VMM has knowledge and experience in water management, monitoring and modelling, communication strategies, project leadership, stakeholder involvement, governance, climate adaptation, circular water and drought management.

What is the role (contribution and main activities) of your organisation in the project?

VMM contributes to DISCO by supporting the development of EFIs for accelerating the delivery of climate change solutions in the NS region. The DISCO EFI will be used to foster new connections with innovation stakeholders in Flanders leading to the establishment of an improved digital hub for environmental and climate data. This will help decision makers in Flanders to take better informed decisions based upon a decent assessment on the related impacts and associated costs.

VMM and DISCO project partners will jointly develop activities to: (1) better understand the need for information of decision makers with limited capacities, (2) develop a free service based upon state-of the art environmental & climate data and (3) develop trainings to turn data into actions.

Because of the transnational cooperation, the threshold will be lowered to explore and test the potential for the replication of the Flemish data sets (digital solution) in different locations in the NS region.

If applicable, describe the organisation's experience in participating in and/or managing EU co-financed projects or other international projects.

For over 10 years, Flanders Environment Agency (VMM) has a dedicated team facilitating the setup and management of international cooperation initiatives, with or without funding. The team is embedded in the organization's Service Development Centre and has established an extensive network with international and Flemish stakeholders incl. cities, NGO's and high-level policy makers.

VMM participates in the activities of the European CIS for the WFD and is one of the driving forces of the International Scheldt Commission. VMM was (and is) the lead partner of various Interreg -and LIFE- projects focusing on water management, flooding, water quality, climate adaptation and/or air quality. VMM was also a project partner in the Interreg NSR projects BuildingWithNature, Camino, CATCH, C5a, SulliedSediments and TOPSOIL and is currently (lead) partner of Interreg NSR projects Biodiverse Cities, Blue Transition, Clancy, Connected River.and STORM_SAFE.

What is the benefit of participating in the project for your organisation?

VMM will benefit from the experiences from project partners that have different backgrounds, but work along the same objectives. By focusing on the innovation and digitalisation processes, potential impacts of rather specific local barriers can be minimized and a much bigger exchange of expertise is made possible.

Because of the transnational learning programme it will be easier for VMM to better understand the needs and expectations in general. A better understanding of information needs from local authorities in the entire North Sea region area, may stimulate the development of comparable open data services. The developed data-driven service, as well as the related training exercises can be tested throughout the lifetime of the project on a much

bigger scale, allowing an assessment of the potential to integrate datasets from other North Sea region partners.

 10	Sweden Water Research AB No	Address: Ideon Science Park, Scheelevägen 15,	271.925 €
	Abrv.: SWR Name (EN): Sweden Water Research <i>Project Partner</i> VAT number: SE556945894501 Entitled for VAT recovery: No Type: Infrastructure and (public) service provider Legal status: Public State aid: Not State Aid Relevant Letter of intent: Self declaration:	22370 Lund, Sweden (NUTS: SE224) Website: https://www.swedenwaterresearch.se Contacts: Carina Svensson	

Which of the organisation's thematic competences and experiences are relevant for the project?

Sweden Water Research is actively working with digital solutions for CCA and lessons learned can be shared with project partners. It's close linkages with the city of Malmö, water utilities and relevant research institutions makes Sweden Water Research an important partner to further develop realistic digital solutions for visualisation of data and technical solutions for greater impact on CCA.

Sweden Water Research has been working for several years in the pilot area Sege Park in Malmö implementing new technology and solutions for rainwater harvesting and stormwater, related to Climate Change Adaptation. Sege Park is a pioneering area for sustainability where the aim is to give residents the opportunity to live in a climate-smart and affordable way.

What is the role (contribution and main activities) of your organisation in the project?

SWR will implement a new digital tool to measure the usage of drinking water in apartments households which is needed to better adapt to climate adaptation and promote circularity. The aim is to understand how much water is used for different use functions. The innovative technique that we want to demonstrate is a digital on-site product that uses machine learning to monitor the water consumed. The data generated will be visualised for stakeholders and relevant target groups and accumulated in the project by SWR. This technique will be installed in apartments in Sege Park to evaluate both the percentage of usage in the households but also to evaluate how the real time visualising of water uses increases awareness and affect consumption patterns.

The pilot will benefit the upscaling of digital tools, the resident themselves, but also be a key part in scaling up a sustainable circular water economy and CCA. Knowledge will be shared among the partners and many external stakeholders.

If applicable, describe the organisation's experience in participating in and/or managing EU co-financed projects or other international projects.

Project coordinator:

- FanpLESStic-Sea. Interreg BSR (2019-2021)

Project partner

- Less is More. Interreg South Baltic (2018-2021)
- Cleanwater. BONUS (2017-2020)
- REWAISE. Horizon 2020 (2020-2025)
- Aquacosm Plus: Horizon 2020 (2020-2024)

What is the benefit of participating in the project for your organisation?

Sweden Water Research is aiming to learn from project partners in DISCO and to share lessons learned in contributing to greater regional impact on CCA. Increase our knowledge on different AI technologies and digital solutions available for capturing data and transformation of data into visible knowledge and patterns to be shared to stakeholders.

 11	Malmö stad No	Address: August Palms plats 1, 20580 Malmö,	516.000 €
	Abrv.: CoM Name (EN): City of Malmö <i>Project Partner</i> VAT number: SE2120001124 Entitled for VAT recovery: Yes Type: Local public authority	Sweden (NUTS: SE224) Website: www.malmo.se Department: Environment Department Dept. Address: Bergsgatan 17, 20580 Malmö, Sweden (NUTS: SE224)	

Which of the organisation's thematic competences and experiences are relevant for the project?

The City of Malmö (CoM) has a long experience working with Climate Change Adaptation (CCA), having carried out several projects to adapt the city to more frequent and intense weather events. CoM has adopted a cloudburst-plan and a strategy to adapt to sea level rise and storms. With the Copenhagen, CoM has signed the EU charter for The Mission on Adaptation to Climate Change. Since 2022 CoM is also a Resilience Hub within the UN initiative Making Cities Resilient 2030.

CoM has been working for several years with the pilot area Sege Park, setting high sustainability goals and implementing solutions together with relevant stakeholders to achieve them. Sege Park is a pioneering area for sustainability, where the aim is to give residents the opportunity to live in a climate-smart and affordable way. In Sege Park new solutions related to CCA have been implemented, for example rainwater is being harvested and used for toilet flushing and clothes washing.

What is the role (contribution and main activities) of your organisation in the project?

CoM will be active in all three of the project's WPs. It's important to the CoM to harvest learnings from innovations implemented in Malmö as well as from other DISCO partner organisations, and to find methods to implement the best ones in other areas of the city. CoM is aiming to design and test two digital tools in the Sege Park area in DISCO. The first one is aimed at gathering and sharing information on the CCA solutions in Sege Park, adapted to relevant stakeholder groups. This could for example be an AR or audio walk for visitors using cell phones and/or a digital visual catalogue of implemented CCA solutions for professionals. The second one is to use AI technology to measure water consumption on household level and use the data to influence consumer patterns.

If applicable, describe the organisation's experience in participating in and/or managing EU co-financed projects or other international projects.

CoM and its Environment Department has significant experience with working in and leading numerous EU and nationally funded projects with international cooperation. Currently the Environment Department is involved in projects funded by for example Horizon 2020, Interreg NSR / ÖKS / Europe, Formas, Vinnova and Swedish Energy Agency. The CoM has staff and organisational capacity for managing and administrating EU and international projects, which it will employ in the DISCO project.

What is the benefit of participating in the project for your organisation?

CoM is aiming to strengthen organisational learning and upscale innovative methods by participating in DISCO. It's also important to spread learnings to other relevant stakeholders, and to include relevant stakeholders in the development and testing of digital solutions within DISCO, in order to maximize the learnings and impact.

Total budget 5.088.226 €

C.1 Objective

C.1.1 Project overall objective

Increase the innovative capacities of cities and regions to enable the employment of innovative digital solutions in order to accelerate Climate Change Adaptation (CCA).

C.2 Spotlight themes

C.2.1 Does your project contribute to the Digitalisation spotlight theme?

Yes

C.2.1 Contribution to spotlight theme: Digitalization

Better utilisation of digitalisation is the core of the project. A focal point in the digital transition for the EU is that all people need to benefit from digitalisation. DISCO will serve this in three ways.

- Using digital solutions, partners support better decision making and selection of adaptation measures to better protect all citizens from the impacts of climate change,

also citizens that are in climate vulnerable housing situations or citizens that are not connected to digital solutions.

- By using digital solutions, target groups can be reached in new ways, creating support and the potential to reach out and involve target groups that are not easily reached in regular participation processes.
- Digital solutions for CCA can also be used by citizens themselves. This way they can be activated to start own actions.

C.2.2 Does your project contribute to the Rural-urban linkages spotlight theme?

Yes

C.2.2 Contribution to spotlight theme: Rural-urban linkages

Front-runners in the application of digital solutions are mainly larger cities. These cities have the capacities in knowledge, time and budget to follow and create involvement in new innovative processes, while this lack is in small cities and more rural municipalities, where digital literacy is a key challenge. The CATCH project has proven that situations in small cities and rural locations can be just as challenging. In DISCO, partners are cities and regions covering rural areas, with different experiences in digitalisation. The lessons learned, translated into concrete plans and digital solutions, will provide great direct help for small municipalities and rural areas, as they don't need to 'invent the wheel'. To support starters in advancing their digital transition, events and specific replication workshops will be performed. Rural authorities will be stimulated to join in. Moreover, VMM and OOWV have the responsibility to upscale outputs in the wider (rural) region.

C.2.3 Does your project contribute to the spotlight theme: Strengths and challenges in the North Sea basin

No

C.2.3 Contribution to spotlight theme: Strengths and challenges in the North Sea basin

C.3 Relevance and context

C.3.1 What are the common territorial challenge(s) that will be tackled by the project?

NS region authorities need to speed up in climate change adaptation (CCA). But they are facing complex challenges when it comes to deciding on and realising the needed measures. The need for very specific data input, combined with the complexity of climate data, make it hard to near-impossible for most decision-makers and stakeholders to decide on options. And stakeholders incl. citizens expect and need to be involved in the process of decision making and execution of measures.

In the EU strategy for climate adaptation, digitalisation is considered crucial for successful CCA. Digital solutions (e.g. AR, VR, digital twin) can take extensive and varied data sets and turn them into trustworthy calculations and visuals, facilitating a shared image of possibilities otherwise difficult to imagine and achieve. They facilitate stakeholder interaction and enable a situation where stakeholders can provide new insights and create new solutions for CCA.

To be able to implement innovative digital solutions, investments need to be taken and a good understanding and trust between CCA authorities, the private digital sector and connected stakeholders are essential to create an innovative ecosystem. It is proven that this takes place most successfully when authorities play a facilitating role (Movisie 2017). Therefore, DISCO develops and implements the needed support for CCA authorities to raise the innovation capacities of organisations and citizens to accelerate CCA.

C.3.2 How does the project tackle identified common challenges and/or

DISCO raises the innovative capacities of organisations and citizens to deal with CCA by targeting CCA authorities to stimulate and facilitate this process. Partners focus on breaking down the main barriers for innovation by:

opportunities and what is new about the approach the project takes?

- Developing processes that enable CCA organisations to support deployment of innovative solutions
- Creating better understanding between CCA and ICT professionals that is needed to develop and implement useful digital solutions
- Build trust and raise the knowledge on CCA and digitalisation for target groups such as citizens.

As CCA authorities differ in their needs and ambitions for CCA and in the level in which barriers to facilitate innovation are present, a method to identify the specific needs of a CCA authority to raise the innovative capacities needs to be developed. Then, based on their specific needs, 5 CCA authorities will start co-creation processes for CCA in their regions. To support these processes, innovative digital solutions will be selected and implemented. This leads to necessary joint experiences to break down the identified barriers and develop solutions to create an innovative ecosystem. Moreover, this leads to implemented digital solutions that support innovations and that are fit to be replicated for CCA. To accelerate impact in the region, in WP 3 target groups will be actively involved from the start to provide input for development and to use developed solutions and training materials for replication.

C.3.3 Why is transnational cooperation needed to achieve project objectives and results?

Transnational development provides the options to increase innovative capacities in areas in the best way possible, as:

- Partners experience is currently restricted to their national settings. They are pushed to use easily available digital solutions and stay within the current boundaries. Hence, choices are made based on availability and not tailored to their needs. Transnational cooperation adds to the exploration and development of more options.
- The extent to which the identified barriers are experienced between the partners in the different countries differ. Frontrunners Malmo and Vejle focus more on interaction with the external environment, while starters OOWV and VMM are more internally oriented. The difference in focus and experience provides the best opportunities to transnationally learn and improve practices for all identified barriers.

Furthermore, partners can create impact by working transnationally.

- In the pilots to develop the necessary support to raise innovative capacities, digital solutions for climate change will be developed in open-source format to facilitate its replicability and use in other regions and organisations.
- The action plans for raising innovative capacities, can be used in the whole NS region. Partners will utilise their diverse networks in the whole NSR to improve the action plans, but also to facilitate replications already during project lifetime.
- Jointly, a contribution can be made to the EU policy for the digital transition.

C.3.4 Who will benefit from your project outputs?

Target group / Specification

1 Local public authority

Local CCA authorities can use the WP 1 assessment framework, the WP 3 catalogue for raising capacities but also the WP 2 digital tools that support capacity raising. In WP 3 they are actively approached. Performed pilots will be used as direct sources of inspiration. OOWV will reach out to local authorities to replicate experience considering water basin management. VMM ensures that improved data availability service benefits local governments. SWR will upscale experiences in Sweden.

2 Regional public authority

Authorities like Flemish provinces and Dutch water authorities have responsibilities in CCA and can use the catalogue that will be developed in WP3 for their own needs. They can benefit from developed digital tool that can be replicated. Regional authorities are also targeted, as they can play a facilitating role towards local authorities to raise innovative capacities, e.g. the Swedish County Administrative Boards. In WP 3 actions are performed to reach out to this target group.

3 Education/training centre and school

Education and training centres will be targeted first as a means to reach out to citizens to raise innovative capacities for CCA in WP2. Examples for this are the Økolariet in Vejle and the Dome in Malmo. Furthermore, in WP 3 partners will reach out to e.g. gymnasia by OOWV to adopt developed outputs for further use in courses and training purposes.

4 Higher education and research organisations

In all WPs these will be invited to critically reflect on findings and collect experiences for own use. By the academic partners a variety of institutions will be reached out to (see support partners). CCA partners also reach out to research organisations to share experiences. E.g. to Hogeschool Windesheim (NL) and Vlaio and Vito in Flanders. These are targeted for creating a better understanding in and improvement of the options for replication of solutions in different organisations and areas.

5 Small or medium-sized enterprise (SME)

Many ICT developers are SMEs. AMACHAN as a partner will directly benefit from the project. But in WP 2, CCA authorities will connect to SMEs by procurement to develop appropriate digital solutions. In WP 3 also SMEs will be approached to benefit from the raised innovative capacities for CCA at authorities but also to learn how to improve business opportunities by better connecting to the needs of CCA authorities.

6 Other

Of major importance in DISCO is to connect to citizens in order to inform them better on CCA, to create support, activate action and come to better solutions. Citizens will be involved highly in WP2 in the co-creation processes for CCA to work on CCA by application of digital solutions. In Zwolle, Vejle and Malmo, where a focus is placed in connecting to citizens, also in WP 3 citizens will be targeted to ensure replication of practices.

C.3.5 How does the project contribute to wider strategies and policies?

Strategy / Contribution

1 Shaping Europe's Digital Future

DISCO contributes to the objectives of the EU strategy to shape the digital future. Partners work to develop and take up solutions that work for the CCA authorities. To realise this, effort will be taken to reach out to citizens and other stakeholders to build trust for supportive digital technologies so that CCA solutions can be developed that truly improve living environments.

2 European Green Deal

DISCO contributes to the European Green Deal and its EU strategy on adaptation to climate change especially through the objectives for smarter adaptation, where digital transformation is mentioned to be critical to achieving the Green Deal adaptation objectives. DISCO makes a next step in utilising digital solutions as means to reach climate adaptation.

By developing necessary tools for local CCA authorities, DISCO also contributes to the need for a systemic approach.

3 Territorial Agenda 2030 - A Future for all Places

A Future for all Places promotes an inclusive and sustainable future. This is done by addressing the need to respond to pressures such as climate change and the needs to act, as people suffer from inequities though e.g. digitalisation. DISCO contributes to the agenda by actively engaging with local communities in pilots to address climate change and jointly work on solutions, thereby leveraging digital solutions for all people.

C.3.6 Synergies

Title / Description

1 Interreg NSR CATCH

The CATCH project (2017-2022) aimed to demonstrate and accelerate the redesign of urban water management of midsize cities in the North Sea Region in order to become climate resilient cities. In the project, partners did experience that the complexity of CCA in combination with stakeholder interaction urges for a more innovative approach where digitalisation could be helpful. First inspiration was gained with the digital twin in Vejle. The DISCO partnership consists partly of former CATCH partners. DISCO will build upon the project in addressing the need to create a thorough view of the starting position, needs and ambitions, before going into solutions. Furthermore, good practices with the learning networks in CATCH will be used in DISCO.

2 Interreg NS Data for All

Partners Vejle and the University of Oldenburg are partners in the Data for All project that started in 2023. In the project, partners collaborate to design public services by making use of available data. DISCO can make use of this project, as it addresses aspects as legal and technical challenges that also form barriers in DISCO. Knowledge can be used for solving organisational barriers and the possible choices of digital solutions.

3 Interreg NS Speak UP

Speak Up (2024-2027) aims to develop better ways of working between citizens and governments to successfully tackle great challenges such as the green transition, and to provide an effective voice to citizens and communities. The project will reconnect citizens and governments by developing better ways to engage and to participate. The City of Malmö is engaged in this project and can actively share experiences and learning from the project to DISCO for the development of WP 1 and WP 2.

4 LIFE IP NASCELLARATE (Klimaatadaptatie)

Zwolle is involved in this LIFE project coordinated by the Dutch Ministry of Infrastructure and Watermanagement and the RIVM. Aim is to accelerate climate change adaptation. The project runs from 2021 to 2027. In the project, Zwolle works on the development of an innovative ecosystem of organisations that are now members of the Climate Campus in and around Zwolle. Zwolle can bring in own experiences directly to the partnership. The period 2025-2027 is a dissemination period for this project, that also provides opportunities for learning and exchange of experience.

5 HORIZON EUROPE GOVAQUA

The University of Twente is participating in the GOVAQUA project (2023-2027). GOVAQUA takes a close look at the most innovative water governance solutions to find out how they could help Europe to meet its water challenges. The project identifies the good practices related to legislation and regulation, multi-stakeholder participation, digital solutions for information sharing. UT will take experiences to DISCO especially in the development of the WPs 1 and 2.

6 HORIZON EUROPE Regions 4 Climate

Regions4Climate (2023-2027) is a project to advance European transitions to climate resilience. The project will provide a suite of user-centred tools and frameworks to support socially-just regional climate resilience transitions, while linking new knowledge and detailed understanding of regional ecosystems with innovative technologies and processes. In the project DISCO, partner VIA develops digital XR solutions to engage civic actors/citizens in climate change adaptation projects to support decision making. Good practices in this project can serve as an inspiration for DISCO pilots in WP 2.

7 Horizon 2020 REWAISE

The City of Malmö is engaged in the project REWAISE, Resilient water innovation for smart economy (2020 – 2025). This project will create a new “smart water ecosystem”, integrating an intelligent digital framework for decentralised water services and decision-making, involving all relevant stakeholders to embrace the true value of water. This project will be used as a source of inspiration on how ecosystems can be developed that increase capacities of all connected.

8 Interreg NWE BEGOOD

BE-GOOD (2022-2026) was a pioneering project aiming to unlock, re-use and extract value from Public Sector Information to develop data driven services in the area of infrastructure and environment. One of the barriers considered in this project is the lack of public body experience with the publication of PSI, limiting the availability of data. VMM was a partner in the project and developed a tool for connecting sewage water and surface water system data to improve pollution monitoring. Experiences will be used also for connecting other data sets to create better insights in the impact of CCA.

C.4 Project partnership

C.4 Project partnership

The partnership can be divided into two groups.

CCA Authorities

CCA authorities have responsibilities in CCA and need to speed up with well-founded and supported actions. Vejle and Malmö are frontrunners, Zwolle takes an intermediate

position. VMM and OOWV are more starters, and on top also have regional responsibilities. There is a joint need to test and learn how the necessary knowledge can be raised to successfully reach out to external target groups and how internal organisation barriers can be solved. This is needed to achieve a long-lasting effect and exceed the level of knowledge needed to implement a single innovative solution.

Knowledge providers:

These form a significant part of the partnership.

- Jade, SWR, UO and VIA, are active in the development of digital solutions for CCA. They assist the CCA authorities in identifying the requirements to raise innovative capacities from a developer's perspective. They are essential to identify and bridge the gaps between CCA and ICT. Finally, Jade also deploys a digital 'cave' for (transnational) test events.
- UT provides knowledge into the governance of CCA, citizen science, co-creation and digitalization. It also provides expertise on the institutional barriers for innovation in organisations and how innovative practices can become better embedded in ecosystems and its participating organisations. This input helps in developing the requirements for EFIs and facilitate necessary organisational changes.
- As a private enterprise AMACHAN is a representative of developers of digital solutions for CCA. Moreover, AMACHAN is expert in digital solutions for stakeholder involvement and can assist CCA partners in how to build trust for citizens by making use of digital solutions.

All partners are active in relevant networks and projects (C 3.6) and supply in new knowledge. In WP3, partners utilise their networks to create a wider impact and boost the application of digital solutions for climate adaptation.

C.5 Work plan

C.5 Work Packages

Number/Title		Investments	
1 Prepare to dance: development of an assessment framework to determine the starting point		0	
Work Package Objective	Development and implementation of an assessment framework that enables cities and regions to create insight in their options for raising innovation capacity for CCA. This requires insight in organisations: the vision of an authority on innovation, the needs and ambitions in CCA, available knowledge, options for innovative procurement, policy on data protection etc. And insight in the external environment e.g. the present stakeholders, their needs and perceptions and how to approach them.		
Communication objective(s) and target audience	Create active involvement of: 1- experts on digitalisation, stakeholder engagement, citizen science and governance and organisational change to reflect on the developed assessment framework 2- connected internal and external stakeholders for testing and application of the framework by the projects' CCA authorities.		
Activities			
Activity	Indicator	Target	
1 Inventory of digital solutions	Report	1	
The knowledge providers in the project partnership perform an inventory of possible digital solutions for CCA and their maturity for application			
2 Development of the approach	Report	1	
Based on existing methods UT and Jade HS develop a hands-on assessment to map the current technical, organisational and communication capacities and the needs,			

challenges and expectations of the CCA authorities and their relevant stakeholders.

3 Assessment of situations CCA authorities

Based on the developed approach, all CCA authorities are assessed by the knowledge providers to create a better and joint overview of the CCA authorities' state of play, needs and challenges.

Data collection activity 5

4 Stakeholder involvement

All CCA authorities organise stakeholder and targetgroup meetings to create involvement and inventorise the needs and expectations of connected stakeholders regarding digitalisation and CCA.

Communication Initiative 10

5 Development of capacity building strategies

Based on the assessment results and an overview of innovative digital solutions that match and fit the needs of the authorities, each CCA authority will develop and establish a strategy for raising innovative capacities initiated by their organisation (in 2 feedback cycles). Each strategy contains the steps to take to increase the capacities for employment of digital solutions in their specific situation and forms the basis for the WP 2 pilots.

Report 5

6 Joint evaluation of assessments and strategies

The partnership will jointly evaluate the assessment processes and strategy development to generate lessons learned, distill options for improvement of the assessment and identify mutual learning opportunities for the next phase (WP2).

Internal Event 2

7 Expert meeting

Knowledge providers organise external expert events for digitalisation, citizen science, governance and CCA experts to share results and elaborate on the general approach for the requirements assessment.

External Event 2

8 Communication materials

Development of information materials (e.g. leaflet, video, podcasts, articles) that support the partnership in the creation of active involvement of stakeholders in the development of the approach and to communicate the developed approach to relevant target groups.

Communication Initiative 2

Outputs

Indicator	Output	Target
Strategies and action plans jointly developed	Assessment framework to determine the state of play for innovation Based on the tested assessments, the developed partner strategies, and additional stakeholder and expert input, a general applicable assessment framework will be developed. This assessment framework will support NS cities and regions with the necessary steps to identify state of play and connect this to their specific requirements. This framework provides organisations with the knowledge to select the needed components of the WP 3 action plan to raise innovative capacities to utilise digital solutions for CCA. Aspects that are taken into account are e.g. - digital capacities of CCA professionals, experience in digitalisation processes, connection to ICT providers. - organisational aspects: procurement, GDPR, ICT connectivity,	1

support by management and politics
 -stakeholder engagement: knowledge and experience of
 stakeholder processes, connection to and support from
 stakeholders, etc.

Investments

No contents

Number/Title

Investments

2 Let's dance: raising of innovative capacities of organisations and citizens

0

Work Package Objective Create necessary learning experiences to break down the identified barriers and develop needed solutions to raise innovative capacities for CCA. This takes place in 5 pilots for co-creation of a CCA challenge that include the selection and implementation of an innovative digital solution.

Communication objective(s) and target audience 1- Engage with internal employees, politicians, citizens, private sector stakeholders and developers in the development and implementation of pilot solutions in the partner areas
 2- Share news on practices, approaches, experiences and learnings that are gained in the pilots.

Activities

Activity	Indicator	Target
1 Protocol for monitoring the implementation processes In order to monitor the progress of partners and collect findings while developing innovation capacities in the same manner, a standard monitoring protocol will be developed by knowledge providers.	Report	1
2 Development of co-creation plans for raising innovation capacities CCA authorities develop co-creation plans (in 2 feedback cycles) for raising innovation capacities and breaking down barriers based on the strategies developed from WP1. After the first concept, a joint feedback takes place to further improve the plans.	Report	5
3 Development and implementation of internal and external stakeholder engagement plans for raising innovation capacity As engagement of target groups is always challenging, in all pilot areas an internal and external stakeholder involvement strategy will be developed to engage both internal employees, management, and politicians, as well as targeted citizens and private organisations and developers.	Report	5
4 Implementation of supportive innovative digital solutions Following the plans developed to raise innovation capacities, the stakeholder engagement plans and the results of transnational joint learning sessions (see following actions), in 5 pilot areas innovative capacities are raised in relevant stakeholder groups by selecting, planning and implementing a supportive digital solution for CCA. Lessons will be learned and exchanged with an eye on practices needed for the future.	Report	5
5 Pilot area events	External Event	15

In each Pilot area, 3 stakeholder events are organised (start, mid-term and end) to inform and engage with stakeholders and facilitate interaction.

6 Monitoring	Data collection activity	6
The implementation processes from the plans for raising innovation capacities are monitored twice a year by using the developed protocol.		
7 Joint learning on raising capacities considering organisational barriers	Internal Event	6
Partners meet to share experiences gained in their implementation of solutions, considering internal organisation barriers. They jointly come to lessons learned and recommendations for improvement at the CCA authorities. Sessions take place twice a year.		
8 Joint learning on increasing capacities considering community engagement	Internal Event	6
Partners meet to share experiences gained in their implementation of solutions, considering community engagement. They jointly come to lessons learned and recommendations for improvement at the CCA authorities. Sessions take place twice a year.		
9 Joint learning on increasing capacities considering gaps between developers and users	Internal Event	6
Partners meet to share experiences gained in their pilot areas considering how to close the gap between (private sector) developers and CCA. They jointly come to lessons learned to better engage with the private sector by the CCA authorities. Sessions take place twice a year.		
10 Transnational test events for users	Internal Event	1
In the pilots, developed digital solutions will be tested in a transnational digital event. Where applicable, use will be made of facilities e.g. the 'digital cave' at Jade to provide the option to test solutions from distance. Testing takes place by users of the partner CCA authorities (Climate professionals).		
11 Communication materials	Communication Initiative	10
Development of supporting project level communication material to inform and involve stakeholders on the pilot processes, experiences and ultimately the results considering CCA. This can be done by e.g. leaflets, videos, podcasts, articles.		

Outputs

Indicator	Output	Target
Pilot actions developed jointly and implemented in projects	Jointly developed and tested pilots to raise innovative capacities for utilising digital solutions for CCA In the pilots the innovation capacities of CCA organisations are raised. In cooperation with stakeholders barriers are overcome, working practices in CCA authorities are improved. Pilots also deliver digital solutions that contribute to raising innovation capacity and CCA and are replicable to other organisations and regions. Zwolle: development and application of a digital twin on street level to activate citizens for joint designing of liveable streets OOWV: use of open-source weather data for real time steering regulating water levels in water storage basins to prevent droughts or floods.	5

VMM: optimisation of Flemish decision making tool by adding enhanced visualisation and make it user friendly for Flemish municipalities

Malmo/SWR: development of a visualisation hub to share data and knowledge, visualise and communicate around climate adaptation at neighbourhood level.

Vejle: Development of AR and VR solutions for local citizen engagement and political decision-making.

Investments

No contents

Number/Title

Investments

3 Join the party: creation of innovative cities and regions that accelerate in CCA

0

Work Package Objective Boost the replication of experiences and developed tools to raise the innovative capacities in the North Sea region by creating involvement of target groups from the start of the project, use all gained experience to maintain the developed innovation capacities in the pilots and effectively start up replications.

Communication objective(s) and target audience Contribute to NS region wide promotion of the project, its outputs and approach and enthuse potential interested organisations requiring increased innovative capacities for CCA to replicate and maintain the developed practices by creating involvement directly from the start of the project.

Activities

Activity

Indicator

Target

1 Communication plan to boost the raising of innovative capacities to accelerate CCA

Communication Initiative

1

Development (and implementation) of a communication plan to support the NS region wide development and promotion of tools to raise innovation capacities, including the developed digital solutions to accelerate CCA. A project level plan will be developed including actions that can be taken to involve target groups best in the WP 1 and 2 actions.

2 Communication materials to create active engagement

Communication Initiative

5

Based on the developed communication plan, project communication materials are developed to promote the participation in information and training events and enthuse and support the participants to increase innovation capacities. E.g. video, newsletter, leaflets, podcasts, articles.

3 Reaching out to replication organisations

Communication Initiative

50

Partners are already connected to local, regional, national and EU networks for CCA and/or ICT that can be relevant to the project or take interest in the project from various focal points. From the start of the project, partners reach out to networks to inform on the project, its proceedings and engage partners to join in replication activities that are organised in the project.

4 Sustainable innovation capacities: needs

External Event

12

Workshops are organised to gain input on how innovative practices and digital solutions can become normal practice. Of specific interest are the needs of the external stakeholders. A combination of expert sessions (2) and local workshops (10)

in the pilot areas will be performed. This way the pilots in WP 2 are used as a basis to transition from pilot into a new normal practice for climate change adaptation.

5 Sustainable innovation capacities: recommendations

Report

1

Based on the outcomes of the workshops, of 3.2 and the results of 2.7, 2.8 and 2.9, recommendations will be set up for successfully raising innovation capacities to enable employment of digital tools for CCA.

6 Replication: game development

Other

1

To make it possible for (individuals in) organisations to experience how digital solutions can accelerate in CCA, a serious game will be developed that builds upon the experiences gained in the project. The serious game will be easy to play and to replicate during and after project lifetime and taken up by partners to remain in use after project lifetime. The serious game will be tested in WP2 pilots and be executed during exchange days (action 3.6).

7 Replication: guidance development

Other

4

For organisations that are interested to know more about how to increase innovative capacities to implement digital solutions for CCA, guidance will be developed. This can be a presentation, workshop model, manual. Specific guidance will be developed for assessing the requirements, digitalisation in CCA, community engagement and organisational barriers. The guidance will be tested and updated by experience during the project lifetime and taken up by partners for future use.

8 Replication days

External Event

10

Exchange days will be organised for support partners and highly motivated organisations that want to increase their innovative capacities or can play a dominant role in replication. Use will be made of the game, the developed recommendations, guidance and the stories of the practical experiences of the partners in WP 1 and WP 2.

9 Replication: Transnational digital test events

External Event

2

After internal testing in WP 2, transnational test events are organised for organisations that want to gain more insight and inspiration for innovative digitalisation solutions in CCA.

10 Replication: Transnational field trip

External Event

2

A field trip to visit and experience the pilots that are developed in another area is organised, where external organisations can apply for. This way exchange can take place about the way processes have taken place and the actual results considering CCA can be shown.

Outputs

Indicator	Output	Target
-----------	--------	--------

Strategies and action plans jointly developed

A catalogue containing tools and guidance to create innovative cities and regions that employ digital solutions for CCA

1

A complete catalogue will be developed. The catalogue targets CCA authorities as prominent enablers, but also other organisations in the NSR, to guide them to raise innovative capacities to employ digital solutions to accelerate climate change adaptation. The catalogue contains:

- the WP 1 output, the assessment framework to determine the

state of play for innovation

- recommendations and blue prints on how to deal with the main barriers for creating innovation capacity
 - to establish the needed organisation processes and structures
 - to bridge the gap between CCA and ICT
 - to successfully connect to external target groups
- Inspiration on possible digital tools to utilise

The catalogue is enriched with the practical experiences from the pilot implementations and the upscaling activities.

Investments

No contents

C.6 Results

C.6 Project results

Indicator	Description	Target
1 Solutions taken up or up-scaled by organisations	Developed pilots to raise the innovative capacities of organisations to make use of digital solutions for CCA that are developed and implemented by organisations	5
2 Joint strategies and action plans taken up by organisations	The following action plans will be taken up by organisations: • WP 1: Assessment framework too determine the state of play for innovation. • WP 3: containing tools and guidance to create innovative cities and regions that employ digital solutions for CCA.	2
3 Organisations with increased institutional capacity due to their participation in cooperation activities across borders	All organisations within the partnership, as well as those with a proven increased capacity based on participation in pilot related actions, reflection activities or network activities in WP 1,2,3.	100

C.6.1 Project outputs and result overview

Output indicator	Pilot actions developed jointly and implemented in projects	Target
Outputs	Jointly developed and tested pilots to raise innovative capacities for utilising digital solutions for CCA	5
	<i>Total per programme output indicator</i>	5
Result indicator	Solutions taken up or up-scaled by organisations	5
Output indicator	Strategies and action plans jointly developed	Target
Outputs	Assessment framework to determine the state of play for innovation	1
	A catalogue containing tools and guidance to create innovative cities and regions that employ digital solutions for CCA	1

<i>Total per programme output indicator</i>		2
Result indicator	Joint strategies and action plans taken up by organisations	2
Output indicator	Organisations cooperating across borders	Target
Outputs	Number of partners	11
<i>Total per programme output indicator</i>		11
Result indicator	Organisations with increased institutional capacity due to their participation in cooperation activities across borders	100

C.7 Project management

C.7.1 How will you coordinate your project?

Zwolle will coordinate project and financial management, including the overall quality and risk management. All partners are active in all WPs. For coordination of the WPs, the following partners are appointed:

- WP 1: UT (Lead), Jade HS
- WP 2: VIA (Lead), Vejle
- WP 3: OOWV (Lead), Malmö

LP, WP leaders and a communication manager meet at least four times per year to develop a detailed project planning and division of responsibilities considering all actions and coordinate the progress in all WPs. Moreover, the partnership has jointly decided to procure for high quality overall project and communication support, which is visible in the higher Zwolle budget.

The whole partnership meets twice a year in physical meeting. Meetings will be used for:

- project management
- transnational reflections and discussions on experiences
- development of output
- interactions with external experts
- organisation of communication activities

Besides, the partnership meets monthly in short digital meetings to discuss proceedings in the different WPs. Depending on the need, this can be made more intensive during project lifetime.

A steering group will be formed of representatives of all partners. They will meet in case of disputes between partners. Support partners (annex) are involved in project activities where it suits their role and position:

- as relevant stakeholder in WP 2
- as member of a target group in WP 3
- as a provider of knowledge and experience during partner meetings
- for critical reflection on the outputs to be produced.

Cooperation is further supported with a shared workspace.

Risks:

Risk	Mitigation measure
Pilots not successful	Careful selection of pilots site, plus intensive interactions between partners for learning and upscaling
Intended impact not reached	Close monitoring on impact and needs of target groups for upscaling of outputs
The state of play and risks of individual partners will be assessed every reporting period with a dedicated risk assessment.	

C.7.2 Which measures will you take to ensure quality

To ensure quality partners form a professional project organisation as a basis:

in your project?

- All project partners have an internal team to ensure the needed knowledge and capacity for content, finance and communication of the project.
- A transparent management structure as indicated in C7.1
- A meeting structure with frequent meetings for discussion with all participating partners
- Risk management to identify upcoming risks and weaknesses that impact the quality of the project.
- Commitment of all partners to behave respectfully and with integrity in all forms of communication.

We will assure the quality of developed products by:

- The use of the transnational meeting structure for open discussions on subjects
- Seeking active cooperation with target groups on all relevant levels (local, regional, national and EU) for the development of all deliverables and critical reflection on the developed outputs.
- Key products will be presented for final reflection to relevant supporting organisations.

Moreover, all products will be reviewed for quality assurance by the project management before they will be published. This review will focus on quality but also on the use of correct language for the targeted groups.

The basis for cooperation is set in the Partnership Agreement and further elaborated in a Project Manual to be developed at the start of the project.

C.7.3 What will be the general approach you will follow to communicate about your project?

In DISCO communication will target the following groups to reach the maximum needed impact:

1. CCA authorities in the NS that want raise innovative capacities.
2. Stakeholders including citizens, that are involved in and directly affected by CCA.
3. (Private) organisations that develop and offer digital solutions.
4. Organisations that are in the position to promote replication of project outputs e.g. regional authorities, training centres, universities, professional networks.

Partners actively engage with stakeholders with several meetings and materials. But to reach out to these target groups effectively, an experienced project level communication manager will be procured that will develop and execute a communication plan that covers the following:

Support for partner activities.

During WP and partner meetings, communication is addressed regularly. Communication advisors of the partner organisations are invited to join in these meetings to be supported in their communication planning and activities. Besides, relevant news and communication opportunities will be shared to stimulate and facilitate ongoing project communication action.

Facilitation of project level communication

Outputs delivered in the work packages jointly provide a complete picture on how to raise innovative capacities. This complete picture will be promoted for further upscaling by relevant authorities in the NSR, including supporting organisations. This will be achieved by actively working on sustainable adoption and transfer of practices during WP3 and C9.

Development of project level communication materials

On project level (digital) flyers, articles, videos, and external workshops are foreseen. Use will be made of partners communication channels and networks for large scale communications. Moreover, a content calendar will be set up and templates for e.g. newsletters, invitations, articles, and social media will be provided for all partners.

C.7.4 Financial management and reporting procedures

Lead partner Zwolle is responsible for financial management and coordinating the reporting procedures. Zwolle is acquainted with Interreg NS reporting and financial requirements. Interreg NS rules on reporting will be followed, which will be explained at the kick off meeting. To ensure a smooth process for compiling reports on project level and a timely submitting to the JS, a reporting schedule will be provided. The Zwolle Lead partner team will be available for questions from the partners and special attention will be given to sub- or less experienced partners.

The first progress report, planned 1 year after the project start, will include a financial claim of all partners. In the 2nd year and ongoing, partners are encouraged to only submit a claim once a year to limit the administrative burden. Partners are requested to indicate the expenditure and forecast every 6 months. In this way Zwolle monitors the project expenditure. Zwolle may agree with partners on certain focus points in their reporting, to limit the administrative burden.

In the 2-yearly partner meetings Zwolle will provide information on the project progress and expenditure. Before full reporting, Zwolle will have bilateral meetings with each partner to discuss progress. In case of significant reporting issues or critical deviations in the spending plan, Zwolle will inform and consult the JS.

C.8 Horizontal principles

C.8.1 Sustainable development

Positive effects

C.8.2 Equal opportunities and non-discrimination

Neutral

C.8.3 Equality between men and women

Neutral

C.9 Long-term plans

C.9.1 Ownership

Ownership of WP 1 outputs

In WP 1 an assessment framework to determine the state of play for innovation will be developed.

- UT and Jade remain owners of the developed assessment framework.
- The CCA authorities that have used the assessment in the project, will ensure the institutional support of the performed assessments and the strategic plans that are developed based on the assessment results. These form the basis for the organisations' innovation ambitions.

Ownership of WP 2 outputs

In WP 2 pilots are performed to raise innovative capacities in practice situations.

- The CAA authorities are the owners of the digital solutions for acceleration of CCA that they develop in the pilots and ensure institutional support for the continuous utilisation of the digital solutions.
- Moreover, CCA authorities ensure the institutional support for the organisational changes resulting from the WP2 pilot actions and thus ensure the facilitating role of these CCA organisations to establish ecosystems for innovation in their environment. These are changes for better cooperation with external target groups, i.e. citizens, working practices to bridge the gaps between ICT and CCA and changes to better support innovation practices in the organisations.

Ownership of WP 3 outputs

In WP 3 a catalogue containing tools and guidance to create innovative cities and regions that employ digital solutions for CCA is developed. While all partners are committed to ensure institutional support of some of the tools and guidance, Jade-HS, in cooperation with Zwolle is committed to secure the complete catalogue to be maintained and available during and after the project, so that also other organisations can use outputs and connections can be made to the developers and users in this partnership.

C.9.2 Durability

Durability of WP 2 pilot outputs

The co-creation process that is followed in WP2, is a means itself to ensure durability of the developed innovative ecosystem. By starting and facilitating a fruitful cooperation, the basis is laid for continuation. In WP 3 durability is further ensured by performing actions to strengthen the cooperation and addressing future needs of attached stakeholders. This

way the original pilot can in future be adapted and used for other and new CCA challenges in the same location, connected policy fields, such as climate mitigation or circularity in the same location, a similar CCA challenge in a new location.

The digital solutions that are developed and implemented to accelerate CCA will be upscaled for wider use in the partner organisations, but also on a larger scale. E.g. SWR, and OOWV will upscale the developed solutions in their whole territories. The digital solutions will also be available (open source) for replication by interested organisations.

Durability of WP 1 and 3 action plans

An assessment framework to determine the state of play for innovation and a catalogue containing action plans to create innovative cities and regions that employ digital solutions for CCA are developed. These outputs, however, are developed to serve the large target group of CCA authorities and other organisations that feel the need to raise their innovative capacities. The outputs will be shared as independent products but to support further use, the WP 1 output is integrated in the WP 3 output to compose a complete catalogue with materials to support organisations to raise innovation capacities. In the catalogue, contact details will be published of partners that are best to be contacted for support or inspiration for the use different support materials.

Partners will remain using the catalogue after the project ends to support internal and external stakeholders in raising innovative capacities. OOWV and VMM continue to support municipalities in their own regions to raise innovation capacities and the options to use the developed digital tools to support in this process. The knowledge institutes will adopt components e.g. the serious game in their curricula. Malmö, Zwolle and Vejle will use components of the catalogue in their communities for regional CCA and innovation approaches.

During project lifetime, organisations, amongst others the support partners, already receive trainings and make close connections to the project and its development. These organisations are selected based on their interest and willingness to use developed outputs also after project lifetime.

C.9.3 Transferability

Transferability as core element of the project

Transferability is a core element of the project and is elaborated thoroughly in WP 3. In this work package the partnership will from the start of the project mobilise a variety of networks, from local to international level and with a focus on both digitalisation and climate adaptation, creating a large potential of different organisations to become involved in the project, the pilots that will be performed or (any of) the replication events.

Partner networks will be reached out to via written communications but also by providing presentations and information during network meetings. A dedicated communication plan is developed for this purpose.

Communication channels

Partners will actively use their specific communication channels to present the (concept) outputs but also the gains of the project. This will ensure that a large proportion of the targeted stakeholders is aware of and participates in dedicated replication events that are organised by the partnership.

All deliverables and outputs will be shared actively and published on the Interreg NS project website, partner websites and other relevant platforms e.g. LinkedIn. Underlying data will be stored by the partners that have created the data and will be available upon request, following EU regulations on data security and privacy. Ensured will be that platforms remain available and in use also after project end.

Training and education

The catalogue of WP 3 will be adopted by the universities, for use in curricula to educate new professionals. The guidance and the game will also provide other interested target groups with the necessary information on how to raise innovation capacities for CCA.

Support partners

DISCO has a variety of support partners that connect to the project in several ways (C7.1). They are requested to fulfil an ambassador's function for DISCO. To do this, they will be facilitated with communication materials and/or partner support.

D.1 Budget

D.1 Project budget – overview per partner / per budget line

Partner	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infra-structure and works	Preparation costs	TOTAL ELIGIBLE BUDGET
 1 Gemeente Zwolle	356.000 €	53.400 €	13.950 €	564.000 €	70.000 €	0 €	- €	1.057.350 €
 2 Universiteit Twente	211.581 €	31.737 €	13.950 €	15.000 €	0 €	0 €	- €	272.268 €
 3 AMAC HAN	177.500 €	26.625 €	17.600 €	18.000 €	4.000 €	0 €	- €	243.725 €
 4 Oldenburgischer Wasserverband	200.000 €	30.000 €	12.000 €	140.500 €	0 €	0 €	- €	382.500 €
 5 Carl von Ossietzky Universität Oldenburg	217.585 €	32.638 €	12.000 €	10.000 €	0 €	0 €	- €	272.223 €
 6 Jade Hochschule Wilhelmshaven/Oldenburg/Elsfleth	577.500 €	86.625 €	24.900 €	16.000 €	0 €	0 €	- €	705.025 €
 7 VIA University College	442.400 €	66.360 €	15.000 €	28.500 €	8.500 €	0 €	- €	560.760 €

 8 Vejle Kommune	110.000 €	16.500 €	13.950 €	54.000 €	20.000 €	0 €	- €	214.450 €
 9 Vlaamse Milieumaatschappij	310.000 €	46.500 €	15.500 €	220.000 €	0 €	0 €	- €	592.000 €
 10 Swedish Water Research AB	110.000 €	16.500 €	15.425 €	50.000 €	80.000 €	0 €	- €	271.925 €
 11 Malmö stad	305.000 €	45.750 €	13.950 €	151.300 €	0 €	0 €	- €	516.000 €
Total	3.017.566 €	452.635 €	168.225 €	1.267.300 €	182.500 €	0 €	0 €	5.088.226 €
% of Total budget	59 %	9 %	3 %	25 %	4 %	0 %	0 %	100 %
ERDF	1.810.540 €	271.581 €	100.935 €	760.380 €	109.500 €	0 €	0 €	3.052.936 €
Norwegian funding	- €	- €	- €	- €	- €	- €	- €	- €

The budget for the Lead Partner includes a lump sum of 40.000€ as the preparation costs option has been selected.

Request for reimbursement of preparation costs

Yes

D.1.1 Staff Costs

Partner	Description	Budget
Gemeente Zwolle	Project leader	112.000 €
Gemeente Zwolle	Project assistant	58.000 €
Gemeente Zwolle	Financial assistant	28.000 €
Gemeente Zwolle	Advisor climate adaptation	58.000 €
Gemeente Zwolle	Advisor public space	58.000 €
Gemeente Zwolle	Advisor digital twin	32.000 €
Gemeente Zwolle	Advisor procurement	5.000 €
Gemeente Zwolle	FLC	5.000 €

AMACHAN	Full stack developer	60.000 €
AMACHAN	Stakeholder participation and participatory data collection supporter	67.500 €
AMACHAN	Specialist	50.000 €
Jade Hochschule Wilhelmshaven/Oldenburg /Elsfleth	Permanent staff	281.500 €
Jade Hochschule Wilhelmshaven/Oldenburg /Elsfleth	Temporary staff	296.000 €
Vlaamse Milieumaatschappij	Project coordinator	60.000 €
Vlaamse Milieumaatschappij	Expert local climate adaptation policies	130.000 €
Vlaamse Milieumaatschappij	Process and administrative assistant	84.000 €
Vlaamse Milieumaatschappij	Communication assistant	36.000 €
Malmö stad	Project manager	80.000 €
Malmö stad	Communication officer	25.000 €
Malmö stad	Strategist 1	65.000 €
Malmö stad	Strategist 2	65.000 €
Malmö stad	Strategist 3	65.000 €
Malmö stad	Financial officer	5.000 €
Carl von Ossietzky Universität Oldenburg	Scientific assistant	217.585 €
Sweden Water Research AB	Project manager	25.000 €
Sweden Water Research AB	Communication officer	15.000 €
Sweden Water Research AB	Strategist 1	45.000 €
Sweden Water Research AB	Strategist 2	25.000 €
VIA University College	Project coordinator	11.500 €
VIA University College	Researcher	11.500 €
VIA University College	Communication officer	11.500 €
VIA University College	Researcher	11.900 €
VIA University College	Researcher	132.000 €

VIA University College	Researcher	132.000 €
VIA University College	Researcher	132.000 €
Vejle Kommune	Project coordinator	30.000 €
Vejle Kommune	Financial administrator	20.000 €
Vejle Kommune	Project officer 1	20.000 €
Vejle Kommune	Project officer 2	20.000 €
Vejle Kommune	Project officer 3	20.000 €
Universiteit Twente	Assistant Professor in Water & Climate Change	75.070 €
Universiteit Twente	Associate professor in governance and technology for sustainability	24.173 €
Universiteit Twente	Associate professor in policy science	51.940 €
Universiteit Twente	Assistant Professor in Digitalisation and Sustainability	60.398 €
Oldenburgisch-Ostfriesischer Wasserverband	Project leader	75.000 €
Oldenburgisch-Ostfriesischer Wasserverband	Project staff	125.000 €

Total: 3.017.566 €

D.1.2 External expertise and services

Partner	Description	Investment	Award Procedure	Amount
Gemeente Zwolle	Communication community building expert		Open procedure	60.000 €
Gemeente Zwolle	Digital twin expert		Framework contract	40.000 €
Gemeente Zwolle	T&A external experts for 9 partner meetings		N/A	7.000 €
Gemeente Zwolle	Hosting partner meeting (start + end)		N/A	5.000 €
Gemeente Zwolle	Hosting regional meeting (4)		N/A	2.000 €
AMACHAN	Finance advisor		Restricted procedure	10.000 €
AMACHAN	Legal service		Restricted procedure	3.000 €
AMACHAN	Data scientist		Restricted procedure	2.000 €
AMACHAN	3D developer		Restricted procedure	3.000 €

Jade Hochschule Wilhelmshaven/Oldenbur g/Elsfleth	FLC	Three-offer rule	10.000 €
Jade Hochschule Wilhelmshaven/Oldenbur g/Elsfleth	Publication video	Other	6.000 €
Vlaamse Milieumaatschappij	Benchmark, feasibility study & development of digital climate support offer for local authorities in Flanders	Open procedure	195.000 €
Vlaamse Milieumaatschappij	Organisation of DISCO partner meeting in Flanders	Three-offer rule	5.000 €
Vlaamse Milieumaatschappij	Communication tools supporting the interaction with stakeholder groups incl. local authorities	Three-offer rule	10.000 €
Vlaamse Milieumaatschappij	Audit costs	Other	10.000 €
Malmö stad	Digital solution - development and testing	Three-offer rule	70.000 €
Malmö stad	Process Ecosystem of Innovation	Three-offer rule	50.000 €
Malmö stad	Hosting meetings and conferences	Three-offer rule	20.000 €
Malmö stad	Communications and spreading results	Three-offer rule	11.300 €
Carl von Ossietzky Universität Oldenburg	FLC	Framework contract	10.000 €
VIA University College	External assistance with XR modelling	Open procedure	17.000 €
VIA University College	External revision	Restricted procedure	3.000 €
VIA University College	FLC	Three-offer rule	8.500 €
Vejle Kommune	FLC	Three-offer rule	10.000 €
Vejle Kommune	Hosting 1 partner meeting	N/A	2.500 €
Vejle Kommune	Hosting 3 regional meetings	N/A	1.500 €
Vejle Kommune	External assistance - modelling	Three-offer rule	20.000 €
Vejle Kommune	External assistance - communication/mediation	Three-offer rule	20.000 €
Sweden Water Research AB	Visualisation/communication experts	Three-offer rule	50.000 €
Universiteit Twente	External audit for financial report (5 years)	Three-offer rule	15.000 €
Gemeente Zwolle	Project management	Open procedure	300.000 €
Gemeente Zwolle	Project communication	Three-offer rule	150.000 €

Oldenburgisch-Ostfriesischer Wasserverband	Communication, videos	Three-offer rule	49.000 €
Oldenburgisch-Ostfriesischer Wasserverband	Hosting partner meeting	Other	2.500 €
Oldenburgisch-Ostfriesischer Wasserverband	FLC costs	Framework contract	10.000 €
Oldenburgisch-Ostfriesischer Wasserverband	Regional meetings	Other	1.500 €
Oldenburgisch-Ostfriesischer Wasserverband	External Support for IT solution	Three-offer rule	77.500 €
			Total: 1.267.300 €

D.1.3 Equipment

Partner	Description	Investment	Award Procedure	Amount
Gemeente Zwolle	Digital twin application		Three-offer rule	70.000 €
AMACHAN	Data collection and server		Restricted procedure	4.000 €
VIA University College	XR equipment		Open procedure	8.500 €
Vejle Kommune	XR equipment		Three-offer rule	10.000 €
Vejle Kommune	Upgrade VR cave		Three-offer rule	10.000 €
Sweden Water Research AB	Visualisation equipment		Three-offer rule	80.000 €
				Total: 182.500 €

D.1.4 Infrastructure and works

No contents

Total: 0 €

D.2 Funding

D.2 Project budget per co-financing source (fund) - breakdown per partner

EU Partners - ERDF

Partner	Funding	Co-financing rate (%)	% of total Funding	Public contribution	Private contribution	Total contribution	TOTAL ELIGIBLE BUDGET
 1 Gemeente Zwolle	634.410 €	60%	21%	422.940 €	0 €	422.940 €	1.057.350 €

 2 Universiteit Twente	163.361 €	60%	5%	108.907 €	0 €	108.907 €	272.268 €
 3 AMACHAN	146.235 €	60%	5%	0 €	97.490 €	97.490 €	243.725 €
 4 Oldenburgisch-Ostfriesischer Wasserverband	229.500 €	60%	8%	153.000 €	0 €	153.000 €	382.500 €
 5 Carl von Ossietzky Universität Oldenburg	163.334 €	60%	5%	108.889 €	0 €	108.889 €	272.223 €
 6 Jade Hochschule Wilhelmshaven/Oldenburg/Elsfleth	423.015 €	60%	14%	282.010 €	0 €	282.010 €	705.025 €
 7 VIA University College	336.456 €	60%	11%	224.304 €	0 €	224.304 €	560.760 €
 8 Vejle Kommune	128.670 €	60%	4%	85.780 €	0 €	85.780 €	214.450 €
 9 Vlaamse Milieumaatschappij	355.200 €	60%	12%	236.800 €	0 €	236.800 €	592.000 €
 10 Sweden Water Research AB	163.155 €	60%	5%	108.770 €	0 €	108.770 €	271.925 €
 11 Malmö stad	309.600 €	60%	10%	206.400 €	0 €	206.400 €	516.000 €
Sub-total for beneficiaries outside (the Union part of) the programme area	- €	60%	%	- €	- €	- €	- €
EU Partners Total	3.052.936 €	60%	100%	1.937.800 €	97.490 €	2.035.290 €	5.088.226 €

Norwegian beneficiaries – ERDF-equivalent

Partner	Funding	Co-financing rate (%)	% of total Funding	Public contribution	Private contribution	Total contribution	TOTAL ELIGIBLE BUDGET
Norway Total	- €	50%	0%	- €	- €	- €	- €

D.3 Spending plan

D.3 Project budget – overview per partner / per period

Partner	Preparation	Year #1 (06/2024-12/2024)	Year #2 (01/2025-12/2025)	Year #3 (01/2026-12/2026)	Year #4 (01/2027-12/2027)	Year #5 (01/2028-05/2028)	TOTAL ELIGIBLE BUDGET
 1 Gemeente Zwolle	40.000 €	101.799 €	202.762 €	312.262 €	312.262 €	88.265 €	1.057.350 €
 2 Universiteit Twente	0 €	35.000 €	67.300 €	67.300 €	67.300 €	35.368 €	272.268 €
 3 AMACHAN	0 €	81.000 €	50.000 €	50.000 €	32.456 €	30.269 €	243.725 €

 4 Oldenburgisch-Ostfriesischer Wasserverband	0 €	65.500 €	84.000 €	84.000 €	84.000 €	65.000 €	382.500 €
 5 Carl von Ossietzky Universität Oldenburg	0 €	39.699 €	68.056 €	68.056 €	68.056 €	28.356 €	272.223 €
 6 Jade Hochschule Wilhelmshaven/Oldenburg/Elsfleth	0 €	102.816 €	176.256 €	176.256 €	176.256 €	73.441 €	705.025 €
 7 VIA University College	0 €	100.902 €	122.152 €	122.152 €	122.152 €	93.402 €	560.760 €
 8 Vejle Kommune	- €	17.863 €	47.725 €	59.725 €	57.725 €	31.412 €	214.450 €
 9 Vlaamse Milieumaatschappij	0 €	59.200 €	118.400 €	118.400 €	236.800 €	59.200 €	592.000 €
 10 Sweden Water Research AB	0 €	44.000 €	65.000 €	65.000 €	65.000 €	32.925 €	271.925 €
 11 Malmö stad	0 €	50.000 €	80.000 €	200.000 €	130.000 €	56.000 €	516.000 €
Total	40.000 €	697.779 €	1.081.651 €	1.323.151 €	1.352.007 €	593.638 €	5.088.226 €
% of Total budget	1 %	14 %	21 %	26 %	27 %	12 %	100 %
ERDF	24.000 €	418.667 €	648.991 €	793.891 €	811.204 €	356.183 €	3.052.936 €
Norwegian funding	- €	- €	- €	- €	- €	- €	- €

The planning of the Lead Partner includes a lump sum of 40.000€ as the preparation costs option has been selected.

E. Submission

Annex

Title	File
Annex Full Application Interreg NS project DISCO	20240305203...COfinal.pdf

Project Owner Renate Postma @ Zwolle municipality

Date of submission 06/03/2024 10:34:05