





## **iWATERMAP**

## Action Plan for South Moravian Region, Czech Republic

Partner: CREA Hydro&Energy, z.s.











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## Background

The iWATERMAP project focuses on supporting the innovation policies in water technology sector, helping to increase the critical mass of innovation ecosystems in partner regions in this sector. The critical mass in innovation ecosystem approach means that all the necessary elements for innovation ecosystem are identified and put in place stage by stage, such as academia and business cooperation, cross-cluster fertilization, interregional networks and cooperation, science and education, thus ensuring stable and sustainable development of the system.

The Project has selected the **water technology** sector as a **focus area**. The importance of the sector lies in its ability to help to address societal challenges related to water resource management - water scarcity, efficiency, use in other industrial sectors, resource recovery from wastewater and wastewater treatment etc. The sector has a large potential for generating innovative products and services which can be exported, thus also contributing to the creation of growth and jobs in the region.

**Overall Project objective** is to improve innovation policies for enhancing the critical mass development of innovation ecosystems in the water technology sector. Reaching the critical mass in innovation will allow partner regions in future to rise above their own weight in innovation development, creating the conditions for raising competitiveness, growth and jobs in the regions.

Project addresses 7 policy instruments by assessments, learning sessions, roadmaps, action plan development, good practice identification and sharing and involvement of regional stakeholder groups. One of its main outputs is preparation of roadmaps (3) for reaching the critical mass in ecosystem innovation in the sector.

## General information

iWATERMAP – Water Technology Innovation Roadmaps  IE PGI05062 iWATERMAP
CREA Hydro&Energy, z.s.







Other partner organizations involved (if relevant):	N/A
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NUTS 2 region:	Southeast
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## Policy context

The Actualization of Strategy Vision - Strategy of development for South Moravia (SM) region 2020 is NUTS 3 level of the policy instrument. The update of the Strategic Vision of the Development Strategy for the SM Region 2020 follows the strategic documents of the EU, the Regional Development Strategy for Czech Republic and the Development Strategy of the SM Region 2006-2016. It creates a general framework for Regional Development Program and other regional concepts and strategic documents. It's a strategic document outlining priorities and future interventions for SM with 4 main priority axes:

- 1. Competitive regional economy on European/global scale
- 2. Adequate and high-quality public service offer
- 3. The development of core infrastructure and transport links
- 4. Long term viability of the disadvantaged parts of the region

The focus will be on priorities 1 and 3. Under point 3, water management issues are covered. Although general issues regarding water management are outlined in the instrument, such as the importance for sustainable water supply, concrete and effective action proposals are missing. It is the innovation chain – good cooperation between research and industry – that needs to be better addressed to provide efficient solutions. This in turn is an important focus







of point 1. Water technology has good potential to contribute to regional development, but for this innovation chain needs to be improved. This means that the relevant stakeholders need to be better involved in the development of the strategy and the decision-making process to ensure a functioning innovation chain. Update of the Development Strategy for the SM region 2021+ is in progress.

#### Overview of the current situation

The tradition of water management has been strongly rooted in the South Moravian Region since the 19th century. The region has the advantage that there are prestigious Czech universities on its territory, such as Masaryk University, Mendel University or the Technical University, which have water management issues included in their study programs. These universities, together with research centers, mean great capacity potential for the South Moravian Region in the field of research in water industry.

As in several post-Soviet countries, large national firms collapsed in 1989, and the market had opened to foreign investment. In the 90s of the 20th century there is a decline in interest in water management issues. RIS 3 strategies of individual regions were influenced by the lobbying of large companies, which had considerable financial resources. Competition took place only for small companies at the lowest level. Recently, we can see an increase in interest in the issues of the water management sector, especially in the field of water management, drought and water retention in the landscape. One of the weaknesses of the region is the low or no cooperation and coordination between individual sectors (public, private, educational and research). For this reason, the CREA Hydro & Energy cluster was established, which aims to improve cooperation and communication between individual sectors within the region.

During the existence of the cluster, several successes in the field of water management have been achieved within the South Moravian Region. The CREA cluster received support from the OP EIC operational fund (ERDF) for development, internationalization, infrastructure and research. The cluster established interregional cooperation with Austria, the Danube region and partners from the iWATERMAP and NATUREEF projects. More effective cooperation has been achieved in the fields of environment, education and regional development. Currently, there is horizontal cooperation between universities and scientific bodies (e.g. the Czech Academy of Sciences, the Czech Hydrometeorological Institute, the T. G. Masaryk Research Institute of Water Management, etc.) in the field of research and education focused on water







management. At the same time, the resumption of cooperation is underway between universities and secondary schools focused on maintenance and drainage management. In connection with this, the preparation of an out-of-school education system focused on water was also started. Within the CREA cluster, universities also cooperate with private companies on research projects. As part of the region's self-assessment, which is one of the outcomes of the iWATERMAP project, a so-called triple helix was created between participants from universities, research organizations, regional governments and the private sector in the field of water management. The aim is effective cooperation, communication and exchange of knowledge between individual participants.

As part of the self-assessment of the region, the following weaknesses of the South Moravian Region in the field of water management were also identified.

#### These weaknesses are:

- lack of experts in the field of water management especially the lack of youth,
- low prestige of the field of water management and its high difficulty,
- lack of students in study programs related to water technologies,
- low political support in this area not in RIS 3,
- distrust, great rivalry in business low level of systematic cooperation,
- low or no ability of private companies to fund research and innovation projects,
- inability of private companies to co-finance supported projects of state agencies,
- insufficient ability of researchers to transfer results from the theoretical area of research into practice. The fact that science is evaluated by the level of scientific articles rather than by practical outputs.

## Priority areas

## Priority area 1: Human capital development

The South Moravian Region of the Czech Republic aims to establish an inter-regional hub in specific water technologies (software and IT HydroPower Equipment, Water Civil Constructions, Water Resources – Protection, Dom Safety, Draught and Flood protection)







which operates in country level and as well as in neighboring countries. Thus, the region would like to define close and clear ties of the branch priorities to RIS3. In human capital development, the region aims to increase the number of students and young experts in water technologies, and special attention to pay in the establishment of Vocational Centre of Excellence. This will be reached by a broad and suitable mix of financial resources for R&D in the water technologies. As a result, will be an increased number of research and innovation results (patents, new products, smart products, methodologies, etc.). With the marketing and communication, the South Moravian Region aims to increase the prestige of the water technologies and social responsibility of companies in the sector. This planned to achieve with the development of the strong communication platform of triple helix representatives.

#### **Goal Definition**

In the SMR, where is education standardly developed the goal definitions are more oriented on extra-universities issues as are the following:

- stabile age structure of professionals and adequate base of students in each of the educational level,
- acceptable social status of professionals in water management,
- a functioning system of extracurricular education from basic schools to lifelong education.

#### **Approach**

- including the water management and water care to the regional strategies of innovations, research and education of South Moravian Region,
- support for secondary education in the field of water management by the regional government,
- developing the tools for systematic connected lifelong and extracurricular education,
- networking of all education authorities focused on the water within the region,
- education of the society outside of the water management field.

## Description of steps to improve the integration of entrepreneurship into the education profiles

 creation of the tools supporting the willingness of companies to participate in the educational process,







- support of the stays of students within the companies with using the different kinds of education (lecturing, mentoring, shadowing etc.),
- creation of tools supporting join research and the quick transfer of the results into the practical usage.

#### Other instruments or support programs in the SMR

- there are, e.g., regional support programs, external educational grants (national and international),
- all the programs could be always more attractive. The attractiveness would be supported for example by using better marketing, higher financial support, more visible applicability of the received skills etc.

#### Missing elements and their solution through OP ERDF

- coherent regional strategy in education in the field of water management,
- including the water management and water care to the regional strategies of innovations, research and education,
- both points mentioned above could be solved as the part of the ERDF project on the level of the region of South Moravia.

## Priority area 2: Critical mass development

The South Moravian Region of the Czech Republic development of Critical Mass understands in several steps:

- 1. Making an analysis of the self-assessment and benchmarking of CMD aspects.
- 2. Making an analysis of applicable funds and finding suitable project ideas.
- 3. Finding 'change agents' and focusing on ties to RIS3.
- 4. Establishing indicators for monitoring of soft aspects (as for soft aspects we indicate skills concerning about education indicate new ways of educational methods and approaches, involvement citizens into discussions which is straight way to sustainable development with the aim to take co-responsibility etc.).
- 5. Development of cooperation for the establishment of the vocational center.
- 6. Focusing on school children with new educational materials and programs.
- 7. Focusing on communication to all triple helix players as well as to the public.







## Steps to improve innovation policies for enhancing the CMD of innovation ecosystems in the water technology sector.

The steps for SMR are the following:

- elaboration of the strategic document "Water for South Moravian Region",
- negotiation of the mentioned document in the assembly and its approval of the final text,
- incorporation of the document in the Policy "Strategie rozvoje Jihomoravskeho kraje",
- lobbying for incorporation of the water technology issues in RIS3.

# Steps to establish an integrated network in the region where research and innovation efforts are commonly shared between knowledge institutions, local stakeholders and policymakers

- working groups for the implementation of measures for each roadmap shall be established and cover all branches of the triple helix,
- new projects of seminars, workshops and internships focused on practical aspects of initiation of entrepreneurship in water technologies.

#### Way of increasing funding synergies and contribution of OP ERDF to the development:

Funding synergy might be increased with:

- financing of the cluster and its projects from regional, national as well as international funds,
- using ERDF funds for financing water projects,
- using funds from different ministries (Trade and Industry, Education, Agriculture...) for financing water projects,
- coordination of Water research project proposals.

## Priority area 3: Internationalization development

#### **Goal Definition**

The region and the member state are focusing on a specific societal challenge in the region, strengthening critical mass and creating attractive conditions for international co-operation. (the interconnectivity of regional elements with other partner-specific elements, mutual understanding of values defining a region through coexistence and development of direct human relationships) .







#### In the SMR, the goals are:

- to be even more active in interregional and cross-border cooperation, attended several projects dealing with water (Interreg V-A Slovakia Czech Republic, Austria Czech Republic and Interreg IIIC) and are also a partner in the project in H2020,
- to implement international projects,
- students and experience exchange, dealing with education in the field water management,
- be more visible in European and World water community and to become an interregional hub in Central Europe.

#### **Approach**

#### SMR wants to develop the:

- knowledge transfer between international regions,
- human resources exchange (students, experts),
- forming consortia for international research projects,
- learning best practices.

#### Identified barriers for student or staff exchanges

In the SMR, the open mind and interest in international cooperation from companies, and some students are missing.

The best way, how to overcome barriers for staff exchanges would be:

- taking their representatives to business missions to partner regions,
- trying to find the best suitable opportunities for them,
- trying to support them in startups and cooperation in and abroad regions,
- cluster cooperation as a specific point.

#### Contribution of internalization to critical mass development within SMR

In the SMR internalization could:

- increase the attractivity of water sector cooperation inside the region,
- help to involve Czech subjects in international research and innovation projects,
- help to define the way and measures to reach water sector goals.
- show the best practices to be followed and attract more investments.







#### **Actions**

# Action 1: Establishment of Center of Vocational Excellence Water in Landscape

#### 1. Background

The necessity to educate young agile pro-active water experts, that will be able to face challenges of "drying out" of the central Europe is being obvious in the society. European generations X and Y, current parents, have not been concerned in the childhood and adolescent age with water scarcity, water seem to be abundant. Children in the former Czechoslovakia in 80s and 90s were taught in the school that the country is a roof of Europe with water streams flowing from the top of the roof to three points of the compass, three different seas. They have learned to believe that water supply will be always sufficient in the country. The concentration in water resources management was purely on river basin regulations and prevention of flood damages. Current situation brings new questions to water resources management and demands completely new approach, which can hardly be achieved without significant change in education from basic to advanced level. Reuse of water in the local institutions, businesses is just one example of the necessary shift in apprehension of the use of water. Brno, where new Centre of Vocational Excellence will be located, is very active modern city aspiring to become "smart city". Support for sustainable use of all resources is not only covered in Brno city strategy, but it belongs also to regional priorities of South Moravian Region. The Brno center will aim to take leading role in the whole central European region to make a cluster of experts and educational institutions to develop together educational strategies for future water experts.







There is a need in the region to "teach the teachers", to educate those that are responsible for education plans in VET schools. The school system is rigid and needs impulses from outside to be at the forefront of technological and scientific development and to be established part of innovative process in the industry.

The regional government asked CREA to provide mapping Water Innovation Ecosystems in the Brno region with Human Capital as one of the pillars of the project. Mendel University, as one of the member organizations of CREA, also participated in this project. When the pilot PoVE Water initiative came into existence, CREA took the first steps to get it off the ground but during the project the focus in the implementation of the activities shifted more to Mendel University. CREA was initially organization aimed at promoting mainly an internationalization and export promotion of their member companies in terms of marketing and acquisition of new orders and customers at foreign markets. Only at a later stage, innovation, research and education activities were added to its portfolio of services, including cooperation with Mendel University.

Mendel University is naturally interested in cooperation with the VET sector, foremost for the acquisition of new students. This pilot PoVE Water was for the whole regional ecosystem in Brno the first introduction to the VET sector.

Companies in the region are looking for new employees with the right skills-sets: there is a great shortage of technicians. This is also one of the conclusions of a large self-study evaluation that was carried out for the Brno region. There are not enough skills and expertise in all kinds of sectors but especially also in the Water sector.







In addition, the Water sector does not currently have a reputation for attracting talented (young) professionals. There is a great need to develop a large-scale PR campaign for the region that, besides universities and the VET sector, will also focus on primary and lower secondary education in the region. The story must be that the Water sector is an interesting sector for professionals, in terms of the current technological developments going on in this sector (e.g. digitalization) but also for historical reasons of the development of Brno region, and the contribution that the Water sector has had to the development of this region. In addition, the relatively low-income level in the Water sector is a problem and professionals prefer to choose more fashionable professions.

The biggest problem is the public perception that Water just comes out of the tap and there is nothing special about it. There is no awareness among the general public that before this Water can come from the tap, a multitude of technical knowledge, technology and skills are required to make it happen. There is a great contrast between the great social challenges in the field of Water in the Brno region (and other regions in and outside Europe) and the available number of professionals interested in tackling these problems together.

The Brno regional ecosystem is located both in an urban context and in a more rural environment. Brno is a large city with a lot of industrial activity and a relatively large number of technology-oriented companies. In addition, it is a student city with relatively many research institutes, universities and VET schools. Both the urban context and the rural environment are relevant for the functioning of the regional ecosystem. The more technologically oriented study programs at the universities and VET schools focus relatively more on the







urban environment, while the research areas at Mendel University, for example, are more focused on this agricultural and forestry context of the Brno regional ecosystem.

The European Commission has identified three key success factors for Vocational Excellence: (i) strong and enduring partnerships between stakeholders — VET providers, higher education institutions, and businesses, engage in reciprocal and mutually beneficial interactions, (ii) being firmly anchored into the frameworks of regional development, innovation and smart specialization and (iii) allowing for integration of activities; Centre of Vocational Excellence achieving much more than sum of their parts when they build reflective relationships between activities and research. The emergence of these three key success factors for Vocational Excellence various considerably by region.

In general terms, the interviewees agree that the regional Water Skills eco-system of Brno region is on the right path to achieving Vocational Excellence. Through participation in the pilot PoVE project the cooperation and connections between the regional stakeholders have become stronger. As a result of the project, the Water VET school has established initial relationships with two educational NGOs that were not involved at the beginning of the project. These two NGOs have specific ways of delivering education that appeal to young people and students. In a next phase of the project, the Water VET school would like to involve these two NGOs in a more structural way. The regional Water Skills ecosystem can learn from the attractive way they manage to reach students and young people with their education model.

Mendel University indicates that it has a large amount of ideas, tools and practices available which it would like to share with the Brno region but also with the other European regions







involved in this PoVE Water project. This has not yet taken place sufficiently amongst others by COVID. They have, for example, the Forest Enterprise project. This is a project in which 20,000 hectares of forest are available for students, teachers and researchers to learn, experiment, research and apply the knowledge they have gained. At present, only students from Mendel University make use of this every semester. Mendel University would like to see that in the second phase of the project, this space is also used by VET students from the VET institutes in the Brno region, but also by more companies from CREA. At present, there are already several landscape design companies actively involved in the development of the regional Water & Landscape eco-system. In fact, the preconditions for Vocational Excellence are already in place. The challenge is to put this into practice during the activities of the Center of Vocational Excellence Water in Landscape.

#### 2. Action description

The idea of the Establishment of Center of Vocational Excellence Water in Landscape in the frame of pilot PoVE is the result of the iWATERMAP project mapping exercise and the road maps development. This concept of the Center of Vocational Excellence aims to transfer the lessons from the following existing good practice "Pilot project Center of Vocational Excellence Water (CoVE Water)" identified during Phase 1 of the iWATERMAP project: CIV WATER (Wetsus – lead partner). The idea of the establishment of the Center of Vocational Excellence Water in Landscape would be shared through transferring lessons from existing good practice CoVE Water. These lessons will be creation of the similar center, that is already existing in Netherlands, which connects the needs of employers with what educational institutions offer. The center in the Netherlands also arranges exchanges for students and lecturers from and abroad. To ensure a proper understanding of the functioning of the entire center, it was







visited by representatives of the CREA Hydro&Energy cluster, where the entire operation was introduced and explained to them so that it could be replicated in the South Moravian Region.

- Establishment and scaling up of CoVE WiL 1) Validated CoVE activities, 2) Sustained Regional CoVE, 3) Scaled-up Regional CoVE, 4) Peer reviewed Regional CoVE, 5) 4 Funding maps, 6) Governance & business model for the PoVE Water, 7) Procedure for new partners, 8) Food for policy reform, 9) Participation in the CoVE Community of Practice.
- International mobility activities: 1) Report on international mobility competences of all stakeholder groups, 2) Strategy plan for development of international mobility competences, 3) Strategy plan for international mobility competences for stakeholders from partners and associated partners, Plan for mobility activities for VET, HEI students and educators (Water Weeks in Leeuwarden, Water Days in Brno, Summer School SW-AT), 4) Plan for Mobility activities for staff from enterprises and other institutions (Thematic lecture visits, Educators visits to companies and other institutions, company representatives visits to VET schools and HEIs, Study trips for policy makers, preparation and participation on Euroskills competition), 5) Strategy plan for internship program abroad, 6) Safety Management Plan for Mobilities, 7) Organization of national round for Junior Water Prize and preparation and participation on Euroskills/Worldskills competition in 2023 or alternatively creating Water skills competition for selected VET students from partner countries
- Development of Water Learning teaching training material: 1) Futureproof VET curricula aligned to job profiles pertaining to the water industry for Regional use, 2)

  Professional International Online platform with learning







content in English, 3) Library of Digital VR learning experiences, 4) EU Workshops on digital learning experiences, gamification and Virtual Reality in educational programs, 5) Digital transformation plan on how to transition from elearning / offline product to digital platform, 6) high-performing digital education ecosystem with Digital VR learning experiences.

- Water sector Recruitment, retainment, reputation: 1) Overview of existing tools and campaigns, 2) Water sector recruitment, retainment, reputation campaign and tools, 3) Awareness campaign aimed to retain workers and involve youngsters in the Water sector.
- **CoVE Wil Impact Evaluation**: 1) Impact evaluation methodology and plan, 2) Baseline measurement, 3) Midterm and Final Impact Stories, 3) Impact measurement questionnaire, 4) Impact analysis and evaluation.
- CoVE Wil Public Relations: Reputation Building of Regional CoVE Wil: 1) General Dissemination and Communication Strategy, 2) Sustainable International Regional CoVE Wil Brand Strategy and Campaign, 3) Engaging and contemporary International PoVE Water branding tools (logo, brochures, socials, infographics, animated video's), 4) External Communication web platform, 5) Effective and Dynamic international marketing campaign.

During the first year of CoVE activities, CREA together with MENDELU will carry out series of dialogs with representatives of VET schools. Representative of Střední průmyslová škola stavební v Brně (High school of Civil Engineering in Brno) are present at most of the events of CREA nowadays and will be among the founders of the prepared Center of Vocational Excellence Water in Landscape — Centre of vocational







excellence in the region. MENDELU and CREA will further spread cooperation with other VET schools in the regions — e.g. forestry VET school (Hranice), chemistry VET school (Pardubice) and others. Next to VET schools local NGOs (Lipka — školské zařízení pro environmentální vzdělávání) were contacted and will be represented among founders of the new center together with representative from the Regional Development Agency South Moravia. Currently prenegotiated at least 5 VET schools from the Czech Republic to signed MoU with cluster CREA and MENDELU.

The legal act of establishment of the Center of Vocational Excellence Water in Landscape will be provided through process of preparation legal steps. It covers mainly a foundation meeting, status approval and registration of the new association at the Regional Court in Brno.

Vision: Establish initial phase of CoVE till the end of this year

The initial phase of the Czech Cove will be founded of individuals from the selected institutions

Founded by natural persons:

Legal personality of the center: registered association

9 persons establishing the new association:

2 representatives from CREA

2 MENDELU

1 VET SCHOOL

1 BUT

1 Regional Development Agency South Moravia

1 representative of the South Moravian Region







	1 non-governmental school facility for environmental education Lipka	
	STATUTES	
	CURRENTLY: first draft of CoVE statutes – will be consulted and commented (final version expected till the November)  Planned: MoU, personal/online meetings with the founding members	
	Expected establishment of the center: until the end of this year 1/2022	
	Constitutive meeting: until 11/2021	
	At the 1st constitutive meeting, membership in the executive bodies of the association will be voted on, as well as the basic goals and main activities of the CoVE in the Czech Republic	
3. Stakeholders involved	Mendel university – leading member of the CoVE WiL	
	CREA Hydro&Energy – co-leading member of the CoVE WiL	
	Ministry of Environment Czechia – consulting body	
	Ministry of Education Czechia – supporting, consulting body	
	Other Secondary Schools – partners of the CoVE WiL	
	South-Moravian region – supporting, consulting, member	
	Lipka – member of the CoVE WiL	
	Regional Development Agency of South Moravia - member	
	Povodí Moravy (Morava River Basin) - member	
	Brno University of Technology - member	
	Masaryk University - partner	
	Czech Hydro-Meteorological Institute, Morava - member	
	Czech Water Alliance - partner	







	Platform for sustainable Water Resources - partner	
	National Cluster Association	
	Brno regional Chamber of Commerce	
	The center brings together people and organizations interested in water management. The aim of the center is to create a functional platform to support education beyond official educational structures with the involvement of the general professional public. The role of stakeholders is to carry out activities of the center, such as arranging foreign exchanges of students, political support of the center, promotion, preparation of educational products, etc. Stakeholders of the CoVE WiL are represented by the key staff of the partners from the project PoVE.	
4. Timeframe	January 2022 – December 2022  • Foundation meetings – with South Moravian Region, CREA members + partners and VET schools	
	<ul> <li>Status approval</li> <li>Registration of the new association at the Regional Court in Brno</li> </ul>	
	<ul> <li>Sign MoU with 5 VET schools</li> </ul>	
	<ul> <li>Carry out series of dialogs with representatives of VET schools and further spread cooperation with other VET schools in the regions</li> </ul>	
	<ul> <li>At the 1st inaugural meeting, the membership in the executive bodies of the association and the basic goals and main activities of CoVE in the Czech Republic will be voted on</li> </ul>	
5. Costs	The costs were estimated approximately at € 16,500 for 2022	
6. Funding (if any)	Regional funding	







 Regional funding is not policy instrument, but the SMR is ready to support activities of the center in the form of an individual earmarked subsidy (10% of the estimated costs, around € 1,630 for 2022)

#### University budget

 The university budget includes money set aside by the university for activities related to the internationalization of the university (15% of the estimated costs, around € 2,450 for 2022)

#### CREA Hydro & Energy, z. s.

 CREA budget will be covered from the Cluster Development (national part) and Internationalization Project budgets that are 50% public and 50% private resources (10% of the estimated costs, around € 1,630 for 2022)

#### Erasmus +

 Funding through the PoVE Water – Phase 2 project, which is the KA2 project of the Erasmus+ program.
 The project is still subject to project approval (60% of the estimated costs, around € 9,800 for 2022)

#### Private funding

 Private funding is the direct financing by the domestic private sector, individuals, or organizations. Sponsorships, donations or, to a limited extent, the purchase of services are possible. At present, the implementation of the inputs of the individual founding members of the professional center is expected, in financial or capital form (5% of the estimated costs, around € 815 for 2022)







#### 7. Expected impact

CoVE WiL ambition is to establish awareness of the scarcity of water resources, teach sustainable use of the water resource to the experts as well as general public and last not least bring more acknowledgement to the current and future water expert. To raise attractivity of the profession among general public and students.

Recognition of importance of well-educated water experts in the society is one of the long-term goals of the project.

The project is based similarly as the pilot project on regional clusters, involving multiple core partners in every participating region + committed complementary triple helix stakeholders. Target groups are:

- VET students in the water sector, both initial training of young people as well as continuous up- and re-skilling of adults/professionals.
- Staff of vocational education organizations, both teachers of educations in the water sector and VET management and boards to ensure commitment of the triple helix cooperation.
- Triple helix stakeholders in the water technology sector within education (Higher Education and Universities, primary and secondary education, informal education), industry (the water industry, research centers, (semi) governmental institutions and water sector representatives) and governmental stakeholders (regional authorities, municipalities, Waterboards, general public etc.)

#### CoVE WiL is aiming to:

 To educate future water sector professionals to have the competences and skills the rapidly changing water sector demands.







- To transform Vocational Education practice and policy.
- Grow reach of the CoVEs Water in size and scope

## Action 2: Organizing an international conference Water in Landscape

#### 1. Background

As it comes from the overview of the current situation in the South Moravian region, the tradition of water management has been strongly rooted. Nevertheless, despite that in SM Region there are some of the most prestigious universities with water study programs, there were recognized some current key issues of the region regarding the water management industry. One of the issues is lack of experts in water management industry, especially lack of youth and young adults. Related to that, there is shortage of students in water study programs. Another issue, not only of the SM region, is low prestige of the field of water management and the discouraging difficulty. The proposed action aims to tackle this challenge, by organizing science fair focused on secondary and graduation students to promote water management industry. This international conference concept aims to transfer the lessons from the following existing good practice identified during Phase 1 of the iWATERMAP project: EXPOBIOTEC (University of Minho – partner 7). The idea of EXPOBIOTEC would be shared through organizing 2-day event, where high school students and undergraduates both would be invited to visit research center and laboratories and afterwards would have a chance to meet private company representatives for possible future cooperation. CREA would draw inspiration from the EXPOBIOTEC know-how (i.e. program, timetable, encountered difficulties, resources needed). CREA would like to test the relevance of this







international conference, the cooperation between students, researchers and private companies, increase of attractiveness and employment in water management industry in the region etc. Students from not only the South Moravian Region but also the Olomouc and Slovakia regions would be invited to the event. If successful, this conference may be expanded in the future to include students and lecturers from Poland, Austria and Hungary. This event results in an increase in interest in studying water management at the universities in Brno, which will lead in the future to an increase in capacity within water management field in this region.

#### 2. Action description

As mentioned above the idea is to organize 2-day international conference (if successful the event would be repeated over the years and ensured by Center of Vocational Excellence Water in Landscape) on which the high school students, undergraduates and private companies would be invited. In the first day, secondary and high school students would be invited to visit the research center and laboratories of Mendel University, where the researchers would do series of pitch presentations of the most important works running in the labs. In the next days, a series of seminars would be prepared. There would be invited business companies in water management industry to present their work and get in touch with students. The main objective of this activity would be to disseminate water issues and research activities in the water management industry by CREA, Mendel University and Centre of Vocational Excellence Water in Landscape. Another objective is to influence the choice of university graduation course by high school students, to raise awareness within water management industry and to increase employment within water management graduate students. Another objective is to stress the importance of WiL (Water in







	Landscape) topic within Strategy of Regional Development and education. A preliminary implementation conference proposal has already been prepared by external organization. The proposal contains instructions on how to organize the conference, risk factors, optimal layout of the lecture program, preparation and production of the conference, evaluation of the event, etc. Detailed costs for the conference are included in the proposal. The outputs of the conference will be included in the update of the strategic document of the Development Strategy SMR 2021+. It is negotiated to include conference in the Action plan of the South Moravian Region for the year 2023.
3. Stakeholders involved	<ul> <li>CREA Hydro &amp; Energy, z. s.</li> <li>Conference organizer</li> <li>Securing financing</li> <li>Conference promotion</li> <li>Mendel university</li> <li>Co-organizer of the conference</li> <li>Rental of research facilities</li> <li>Promotion of the field of water management for students and a demonstration of employment</li> <li>Providing experts in the field</li> <li>Center of Vocational Excellence Water in Landscape and the South Moravian Region are the co-organizers of the conference, who will take over the auspices.</li> </ul>
4. Timeframe	<ul> <li>March 2022 – November 2022 conference preparation</li> <li>Preparation of the agenda</li> <li>Search for experts for individual seminars</li> </ul>







	<ul> <li>2x meeting of the project team, which will oversee organizing the conference</li> <li>Arrangement of date and venue</li> <li>Preparation of promotional strategy</li> <li>Preparation of a questionnaire that would measure the impact of the conference</li> <li>1x meeting with representatives of the South Moravian Region for the purpose of promotion and financing of the conference</li> <li>Lobbying for the inclusion of the conference in the action plan of the South Moravian Region for 2023</li> </ul>
5. Costs	Estimated costs of the EXPO WiL conference (approximately) Conference venue  • Premises for rent 2 days: € 2,450  Technical support  • AV equipment: € 1,060  • Reportage photo: € 325  • Hostesses, registration: € 325  Preparatory work  • Graphic work (program, banner, name tags): € 120  • Prints (program, banner): € 165  • Name tags (material and print): € 40  Catering for 80 + 10 people  • Coffee break 4x: € 1750  • Lunch 2x: € 735  Conference production services  • Production work: € 410  • Event coordination: € 815







	Total without VAT: € 8,212
6. Funding (if any)	Erasmus+ (cca. 75%)
	<ul> <li>The main part of the costs will be funded through the Erasmus+ program if the PoVE scaling up project is approved, if not, then it will be funded by private funding or university budget (approx. € 6,159)</li> </ul>
	Regional funding (cca. 25%)
	<ul> <li>Is not policy instrument, but a one-time individual subsidy for the organization of this conference is promised (approx. € 2,053)</li> </ul>
7. Expected impact	The impact of the dissemination event would be measured via questionnaires, number of participants. In the long-term process, the impact would be measured through increased interest in studying and in employment within water management industry.

## Monitoring of the action plan

The proposed actions within the action plan were discussed and approved by the Department of the Environment of the South Moravian Region and are in accordance with the update of the development strategy of the South Moravian Region 2021+ (see Attachment 1).

Both proposed actions contribute to all three priority areas of the Action Plan.

## Targeted KPIs

Action 1: Establishment of CoVE WiL	KPIs (targeted)
Number of members of CoVE WiL:	7
Number of memoranda with stakeholders:	15







Number of participating secondary schools:	10
Number of media appearances:	6
Action 2: Conference EXPO WiL	KPIs (targeted)
Number of participants with completed feedback:	30
Number of expert contributions:	10
Number of media appearances:	6







## Signature

CREA Hydro&Energy, z.s., Czech Republic agrees to support and promote the implementation (and where appropriate implement) the plan detailed above.

I confirm that I have the required authority of my organization to do so and that the required authorization process of my organization has been duly carried out.

Date:

Name and position:

Břetislav SKÁCEL, cluster manager CREA Hydro&Energy, z.s.

Signature:

Skácel

Ing. Břetislav Digitálně podepsal Ing. Břetislav Skácel DN: c=CZ, 2.5.4.97=NTRCZ-22729674, o=CREA Hydro&Energy, z.s., ou=1, cn=Ing. Břetislav Skácel, sn=Skácel, givenName=Břetislav, serialNumber=P96954 Datum: 2022.01.19 09:29:52 +01'00'







## Attachment 1: Minutes of the meeting



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#### Minutes of the meeting with Department of the Environment (DoE) of the South Moravian Region 13, 10, 2021

Attendees:

CREA Hydro&Energy, z.s.

Ing. Břetislav Skácel, Cluster manager

Kristián Celý, Project manager

South Moravian Region

Lukáš Dubec, 1. Deputy governor Ing. Mojmír Pehal, Head of the DoE Ing. Zuzana Fráňová, EU funds officer DoE

A meeting with representatives of Department of the Environment of the South Moravian Region was convened in order to consult the draft action plan in the field of water management. During the meeting, the representatives of the South Moravian Region presented the current situation in which the South Moravian Region finds itself and the Update of Development strategy of the South Moravian Region 2021+ was discussed. Subsequently, the proposed actions were presented, which are part of the action plan of the partner CREA Hydro & Energy, z.s. within the iWATERMAP project. The individual actions are establishment of the Center of Vocational Excellence Water in Landscape and its activities. The second proposed event is to organize a conference "Water in the Landscape", which aims to promote the field of water management and help increase the attractiveness and employment of the field. The third proposed event is the participation on the Water4All platform. All three proposed actions were promised support from the South Moravian Region and these proposed actions are in line with the Update of the South Moravian Region Development Strategy 2021+.

Lukáš Dubec, I. Deputy governor

Zpracoval: Kristián Celý

Schválil: Ing. Břetislav Skácel CREA

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