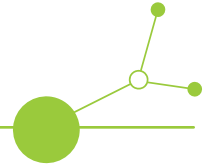




NEWSLETTER





A. Project summary

The aim of the GreenChemForCE project is to help reduce the negative environmental impact of the chemical industry in Central Europe. Chemical production in the region is currently far from sustainable and its significant portion had been relocated to Asia.

In addition, the public image of this sector is extremely poor. This project's objective is to tackle the chemistry issues of local producers, including the generation of excessive waste and greenhouse gas emissions, their dependence on petroleum-derived materials, and the use of toxic chemicals and inefficient energy-intensive processes...

THE OVERALL OBJECTIVE

To address the above-mentioned territorial challenges, a transnational consortium of experts from the academia and industry from four countries, the Czech Republic, Slovenia, Hungary and Austria, will:

- identify the specific problems of chemical producers in the selected regions and search for approaches to solve them,
- minimize the waste production and to valorize the remaining one,
- to recycle critical raw materials,
- to eliminate the use of hazardous solvents, and
- to implement advanced technologies into the processes

Lead Partner

LP Charles University (Česko-CZ)

Project partners

PP2 Association of Chemical Industry of the Czech Republic (Česko-CZ)

PP3 Zentiva k.s. (Česko-CZ)

PP4 The Servier Research Institute of Medicinal Chemistry (Magyarország - HU)

PP5 Eötvös Loránd University (Magyarország - HU)

PP6 TU Wien (Österreich - AT)

PP7 University of Ljubljana (Slovenija - SI)

PP8 Chamber of Commerce and Industry of Štajerska (Slovenija - SI)

PP9 VTL GmbH (Österreich - AT)

The GreenChemForCE project partnership consists of 9 organisations from 4 EU Member States belonging to the eligible Interreg Central Europe programme area.



B. KICK-OFF Meeting



→ During the last two days (13. 5. - 15. 5. 2024) the kick-off meeting of the Interreg CE GreenChemForCE Kick-off Meeting took place at Charles University in Czechia, which is the lead partner of an international consortium of 9 partners from 4 EU countries. During the kick-off meeting the roles of each partner were presented and a common working strategy was defined.

Ever since the industrial revolution, chemistry has predominantly been following a linear make-usedispose path of production, being dependent on large amounts of raw materials and toxic chemicals, and, at the same time, creating significant amounts of waste and emissions. The chemical industry, therefore, carries an enormous environmental

burden, and its reputation among the general public is extremely poor.

The project GreenChemForCE aims to unify the industrial and academic sectors to achieve greener chemical production in Central Europe by developing strategies and solutions for more sustainable processes and resource management, which will result in reduced pollution and minimized environmental damage in the region. Moreover, our intention is to encourage the regional chemical companies to adopt circularity principles in production and to help a better reception of the chemical industry by the general public.

C. Project partners



CHARLES UNIVERSITY

Charles University in Czechia is a leading academic institution in the Czech Republic (one of the top three universities in Central/Eastern Europe, according to the QS rankings), consisting of 17 faculties and 4 institutes. One of its largest faculties, the Faculty of Science now employs nearly 800 research and education staff and provides training for more than 5300 students, out of that more than 1500 are doctoral students. Its research activities include fundamental and applied research in biology, chemistry, geology, geography, and environmental studies. The Chemistry section of the Faculty of Science with its Department of Organic Chemistry has trained experts in organic synthesis and catalysis. They have extensive experience in supervising students, managing research groups, and organizing projects. As a part of a university, it has a background in holding conferences and lectures for chemists and students.



SCHP ČR
ASSOCIATION
OF CHEMICAL INDUSTRY
OF THE CZECH REPUBLIC

The Association of the Chemical Industry of the Czech Republic (SCHP CR) was established in 1992 as a voluntary association of production, trade, design, research, education, and consulting organizations related to the chemical, pharmaceutical, petrochemical industries and plastics and rubber processing. SCHP CR now associates 135 companies and its members represent more than 70% of the total production of the above-mentioned industries in the Czech Republic. SCHP CR has experience with a number of European projects, currently in the field of training the employees of member companies. In the past, SCHP CR was also involved in the international project SpiCE3, focused on energy efficiency and Interreg (3 consecutive projects related to transport issues from the European chemical industry (the last one was the project Chemmultimodal completed in 2019).



Zentiva k.s. is a pharmaceutical company with a specialization in the development, manufacturing, and distribution of generic and over-the-counter (OTC) medications. Its activities reach across many parts of the region, including the Czech Republic, Slovakia, Hungary, Poland, Italy, and Germany. The development and production target various therapeutic areas, including cardiovascular, respiratory, central nervous system, and gastrointestinal disorders.



The Servier Research Institute of Medicinal Chemistry (SRIMC) is a part of the Servier Laboratories. Its activity is focused on the chemical aspects of original drug discovery. In this process the institute's The Institute hosts four divisions working on Drug Discovery, Process Chemistry and Analytical Chemistry. The majority of SRIMC's 60 co-workers are engaged in synthetic chemical activities on a daily basis, which is directly connected with the project's objectives. Around 100 synthetic reactions are initiated every day, each using chemicals on the milligram to hundred gram scale, and solvents on the ten-gram to kilogram scale. More than 98% of the used chemicals (by weight) will end up as waste. The synthetic transformations run in the laboratories are very diverse, and the drug discovery process requires rapid delivery, which makes the individual optimization of these processes impossible. SRIMC collaborators have broad expertise in synthetic chemistry covering diverse areas such as biocatalysis, metal catalysis, working with sensitive materials, natural product chemistry, small molecule organic chemistry.



Eötvös Loránd
University

Eötvös Loránd University (ELU) has a strong track record of successful project management, demonstrated expertise in navigating the complexities of EU funding programs, and possesses the relevant communication competencies and experiences necessary for effective project coordination. ELU, as a leading research-intensive university, has a robust infrastructure and well-established administrative systems that support the management of large-scale projects. The university's experienced project management team possesses the necessary expertise to handle the intricacies of EU-funded projects, ensuring efficient coordination and compliance with relevant regulations and guidelines. ELU has a wealth of experience in managing EU co-financed projects across various funding programs, such as Horizon 2020 and Erasmus+.



The university has successfully coordinated numerous projects involving multiple international partners, demonstrating its ability to establish effective consortiums and lead collaborative efforts towards project goals. In addition to EU-funded projects, ELU has a strong presence in international collaborations beyond the European Union.



Technische Universität Wien (TU Wien) represents the largest Austrian University of Science and Technology conducting research, teaching, and innovation under the motto 'Technology for people' for over 200 years. Over the years TU Wien has evolved into an open academic institution built on strong foundations of basic and applied research as well as research-oriented teaching at the highest level. With its eight faculties (57 institutes and about 2.800 researchers) TU Wien covers the whole value-added chain within the classical engineering and natural science fields - basic as well as applied research projects provide the newest findings and innovations. In addition to basic research for the development of new methods and strategies of synthesis, the focus of the Institute of Applied Synthetic Chemistry is on practice-oriented synthetic chemistry. The cornerstones of its activities are the synthesis and characterization of products that are industrially and technologically exploitable and marketable as well as the development of technical manufacturing processes. The minimization of the input of both energy and material resources is a key feature in many of the institute's projects.

University of Ljubljana



The University of Ljubljana (UL) is the central and largest educational institution in Slovenia. It is also the central and largest research institution in Slovenia with 30 percent of all registered researchers. The Faculty of Chemistry and Chemical Technology (<http://www.fkkt.uni-lj.si/en/>) (FKKT) is committed to basic, applied, and development research, trying to achieve excellence and the highest quality standards in the areas of chemistry, biochemistry, chemical engineering, fire safety, and occupational safety. The Faculty co-operates with companies and promotes its own research and pedagogical achievements and contributes its share to the general social development. The research and education activities of the faculty are very much oriented towards green chemistry and circular economy. Since 2023 the faculty is involved in the "NextGenerationEU" program by implementation of sustainable production in the curriculum.



Chamber of Commerce and Industry of Štajerska (CCIS) represents the business community of Podravje Region, provides support and advice to companies as well as a full range of professional services aimed at strengthening competitiveness of its members. Chamber



has a lot of experiences in providing services for companies, entrepreneurs and employers, among them also providing seminars and training courses, business consultancy, advocacy towards the state, it facilitates collaboration and business networking, organizes business conferences, business delegations in a very various range of topics/contents. It has more than 450 members under non-obligatory membership. The Chamber also developed a wide range of partnerships with local and national institutions, contacts with politicians, municipalities, educational institutions, research institutions and other stakeholders that are important for the economy in the region.

VIENNA TEXTILE LAB

Vienna Textile Lab (VTL GmbH) is a biotech/fashion tech company that focuses on the research, development and production of textile dyes and pigments manufactured from microorganisms. Vienna Textile Lab enables their customers to create more circular products that are less toxic, support biodiversity and zero waste as they shift towards improved production practices. VTL stands for Vienna Textile Lab and its purpose is to develop novel textile dyes and pigments and new dyeing processes. The Vienna Textile Lab has collaborated with designers for several EU funded projects. In 2019, they began collaborations with Industrial clients, such as fashion companies, chemical companies and textile mills to create more circular products in the fashion industry. VTL works on proof-of-concept projects, capsule collections, preindustrial runs in order to build a business for selling dyes and pigments. The first commercial product will be launched in 2025.

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