



Division of Chemistry and the Environment



## **IMPORTANT DATES**

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October 1, 2024	Abstract Submission Opens
November 20, 2024	Application for Grants and Awards Opens
November 27, 2024	Early Registration Opens
October 1, 2024	Abstract Submission Opens
November 20, 2024	Application for Grants and Awards Opens
March 7, 2025	Abstract submission & Grant Application deadline
March 15, 2025	Notification of Abstract Acceptance
March 15, 2025	Notification of Grant Winners
April 15, 2025	Early Registration Deadline
May 15, 2025	Registration Deadline for Presenting Authors
May 15, 2025	Award Application Deadline

## The European Chemical industry and the Environment

Chemical industry plays an important role in the economic development. The data for 2023 concerning the contribution of this industry in the different world regions was published recently (January 2025) by the European Chemical Industry Council (CEFIC) (see Reference). According to these data Europe Chemical Industry occupies the second place in the global chemical production (655 billion EURO).



The chemical products for the European area are presented below:



Over half of EU chemicals are supplied to the industry, the state of art for 2017 being as presented:



Chemicals have a high contribution to European trade surplus (a). Chemical industry contributes also at the social aspects as shown by the number of people working in this field (b).



The efforts for greening this industry are reflected in the decrease of energy consumption. Also, the use of renewable energy increased significantly.



#### The gas emissions also decreased since 1990:



All these data are a proof of the environmental concern shown by the chemical industry. **Reference** 

The European Chemical Industry Council, *The European Chemical industry Facts and Figures*, https://cefic.org/a-pillar-of-the-european-economy/facts-and-figures-of-the-european-chemical-industry/ *Prof. PhD. M.D. Stanescu* 



**Full name of the project:** Supporting the identification of policy priorities and recommendations for designing a sustainable track towards circular bio-based systems

Start date: 01.11.2022

End date: 31.10.2025 Funded under: Horizon Europe |HORIZON-CL6-2022-CIRCBIO-01-03|

Coordination and Support Actions (CSA)

Abstract: The transition from linear fossilbased systems to circular and bio-based systems holds opportunities for reconciling sustainable long-term growth with protection. However, environmental а critical assessment of the environmental, social, and economic impacts of the linear economy, as well as of the improvement potential associated with circular systems, is needed to underpin the identification of policy priorities. Accordingly, SUSTRACK aims at supporting policy makers in their efforts to develop sustainable pathways to replace fossil and carbon-intensive systems with sustainable circular and biobased systems, contributing to achieving the European Green Deal's objectives. The highly carbon intensive Sectors studied are:

### **Chemical Sector**



Methanol
from waste;
Biomaterials
from wood

#### **Textile Sector**



- Lyocell;
- Wool valorization

#### **Plastic Sector**



PLA;
Polyprop.
from used
cooking oil.

### **Construction Sector**



- Cross laminated timers;
- Biochar additive;
- Hemp insulation.

#### Website: https://sustrack.eu/

Scientific events 2025



## Survey on representation of environmental chemistry in programmes of higher education

Chemistry is one of the fundamental disciplines of the environmental sciences and, consequently, it is usually included in related programmes of higher education, such as Environmental Science. Environmental Environmental Engineering, Assessment, Sustainability, Biotechnology, and many other programme titles including also Chemistry and Environmental Chemistry. Environmental Chemistry creates knowledge important for human health and ecosystem integrity and, in broader terms, for achievement of good quality Regardless of various societies' of life. perspectives, education is one of the keys for sustainable development and it has to include environmental chemistry. Generally, for all disciplines, curricula reforms (Bologna reforms, since the 2000s) lead to a notable diversification of existing programmes of higher education in Europe, a process still on-going.

The science of chemistry in environmental media (compartments air, water and soil) and the total (multicompartment) environment has its roots in the geosciences (biogeochemistry, hydrology, oceanography, meteorology and soil science) on one hand and traditional chemical disciplines (physical, analytical, inorganic and organic chemistry besides others) on the other hand. The development and application of environmental technologies for mitigation and remediation purposes has, furthermore, been founded in the engineering sciences. Environmental chemistry has been emerging since the 1970s, stimulated by the investigation of pollution of air and water and its impact, and is reflected in today's scientific numerous dedicated iournals. textbooks and curricula. Progress in environmental chemistry is picked up by ecotoxicology and environmental and human health risk assessment.

The EuChemS Division of Chemistry and the Environment (<u>https://www.</u> euchems.eu/divisions/chemistry-and-the-

<u>environment-2/</u>) is comitted to support and promote the establishment and incorporation of Environmental Chemistry in higher education. With the aim to identify the programmes in environmental sciences in higher education in Europe and their contents and related trends in those programmes, DCE conducts a Europewide survey, the second after 2012 (Lammel et al., 2014). The information and data on the programmes are going to be collected via a questionnaire published on the EuChemS website (<u>https://www.euchems.eu/dce-survey-on-ec-in-higher-education/</u>).

#### Reference

Lammel G., Jover Comas E., Ivančev-Tumbas I. (2014) Higher education in environmental sciences with chemistry emphasis: Bachelor and master programmes in Europe. Environ. Sci. Pollut. Res. 21, 7211-7218, doi:10.1007/s11356-014-2737-7

DCE Members: Gerhard Lammel, Ivana Ivančev-Tumbas, Ester Heath

# **Publication ethics**

#### Ensuring integrity at Environmental Science and Pollution Research (ESPR)—our commitment to a stronger future

Following a year in which the journal has been targeted by paper mills and citation cartels, we have strengthened ourprocesses and narrowed our scope to ensure a robust and successful future.

Environmental Science and Pollution Research (ESPR) is a multidisciplinary journal that encompasses Environmental Sciences and Engineering in a wide sense. The journal has always developed a pro-active strategy by integrating new/emerging research fields and getting suitable editors for handling such new topics for the journal.

In 2018, as most journals in environmental sciences did, ESPR opened a section of the journal to green economy (i.e., green financing, environmental costs, CO<sub>2</sub> emissions, supply chains, ecological industry), recruiting six new editors and welcoming relevant submissions. In 2023, 12% of the published papers in ESPR were related to green economy. In 2023, after concerns were raised around by editorial staff and whistleblowers, a comprehensive investigation of suspicious papers was undertaken by the editorial staff of the journal ESPR and the Research Integrity Group (RIG) of Springer Nature. Cases of papers with issues including inappropriate or irrelevant references, nonstandard phrases, not

being within the scope of the journal, and peer review manipulation were identified. The final result of these investigations was the publication of editorial expressions of concern or retractions on a number of published papers. By the end of December 2024, we had retracted 243 papers, with nearly 90% of these papers dealing with green economy and the remaining 10% dealing with image manipulations (mostly histology images, material characterization spectra). The editorial staff of the journal, and Springer Nature have taken strong decisions and we have made drastic changes to the board of editors. We have concluded that the topic "green economy" has proven to be a highly risky topic and an area of focus for paper mills and citation cartels. As a result, green economy will no longer be covered by the journal ESPR starting January 2025.

All these events have driven the implementation of robust control procedures. The editorial staff and editors of the journal are carefully checking the submitted papers and the credentials of the authors. From the submission step, through review process, handling of revised version, and finally the production stages, the control procedures on all the parts of paper (*title, list of the co-authors, text, ethics and conflict of interest, figures, cited references in the text, bibliography*) have been strictly strengthened.

Al tools and technologies developed by Springer Nature as well as other ongoing technologies are now in use to assist in detecting potential problematic papers and patterns and to identify any suspicious authors' and reviewers' activity.

Such investments in improved procedures and organizational changes will support the current high quality of the journal and will prevent the recurrence of the manipulation by which the journal has unwittingly been harmed. We are thankful to the thousands of researchers, authors, referees, and editors who have been engaged in ESPR in the last years and have contributed to increase the quality of the papers published in the journal. In view of the numerous messages of support that we have received from the members of the community, we are confident that they will continue to support the journal during this critical period. The problematic content we are



investigating represents less than 1% of the published papers in the last 6 years, and while this is a marginal amount compared to the whole, we have taken this very seriously.

We are sure that the clarification of the topics covered by the journal and the re-organization of the board of Editors will also ensure a better recovery of *ESPR*. Again, thank you for your help and for your support. January 2025.

Dr. P. Garrigues, ESPR Editor in Chief

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