

Plastics & Environment

3rd Edition

Exploring Environmental, Sustainability and Planetary Health dimensions

 **4-5th June 2026**

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 **<https://eventi.unibo.it/workshop-plastiche-ambiente>**

Scientific Sessions

Session 1 - Innovative monitoring methods and intra- and inter-environmental compartment fate of micro and nanoplastics

Micro- and nano-plastics are quite ubiquitous in the environment. What makes “the difference” is the quantity present in each environmental compartment and the features that micro- and nano-plastics have therein. Quantity, size, shape, chemical composition and color are parameters both used for micro- and nano-plastics characterization and impact assessment on health and environment, as well as the target of the environmental monitoring. In this respect, a plethora of sampling techniques and analytical methods exists for their quantification. This section is devoted both to the environmental data description inter- and intra-environment processes involving plastics, and to the methodological protocols adopted as well as intercomparisons among them.

Session 2 - Ecotoxicological and environmental impacts of plastics: emerging evidences and future challenges

Plastics are now pervasive across environments, yet their ecological and ecotoxicological impacts remain poorly resolved. This session addresses plastics and their additives as contaminants, focusing on ecotoxicological effects, underlying mechanisms of action across biological levels, and consequences for broader ecological processes and ecosystem functioning. Studies on the mechanisms of controlled environmental degradation of micro and nanoplastic (MNP) pollution are also considered. We welcome contributions from diverse environments and disciplines to identify commonalities and differences that can advance understanding of plastic impacts and remediation strategies

Session 3 - Human exposure and adverse health effects of micro and nano plastics: unravelling the mysteries behind these ubiquitous threats.

Micro and nano plastics (MNPs) are ubiquitous materials and exposure to humans occurs through different routes, such as ingestion and inhalation. Adverse effects on primary target tissues and distal ones is likely. The session aims at bringing together latest knowledge on the impact of MNPs on relevant human barriers and other secondary target tissues, with emphasis also on the relationship with realistic exposure to these ubiquitous pollutants. Starting from lessons from pharmacology and in accordance with the 3R principles, integration of in vitro and in vivo methodologies, as well as researches on new approach methodologies (NAMS), contributing to MNPs risk assessment, will be considered relevant in this session.


Session 4 - Promoting Safe and Sustainable by Design, circularity and bioeconomy in polymers innovation

Advanced safe and circular (bio) polymers represent a paradigm shift in materials science, moving beyond the linear 'take-make-dispose' model toward closed-loop ecosystems. Central to promote the innovation and market in this field is the EU strategy for Safe and Sustainable Chemicals and Materials, declined into the Safe and Sustainable by Design (SSbD) framework and guidelines. Researches on new sustainable materials and processes, including the valorization of bio-based feedstocks, molecular self-healing, and programmed biodegradability are welcome. Also considering the mitigation and remediation technologies, this session has the ambition to present how integrating different dimensions, including physical and chemical sciences, biotechnology, toxicology, economic and social impacts, in a LCA perspective, it is possible to design innovative sustainable materials and promote a circular (bio)economy.

Session 5 - Climate-neutral cities and plastic. Rethinking practices, governance and politics for urban and environmental health

The session examines the socio-economic, political and cultural dimensions of urban environmental transitions, focusing on how practices, infrastructures, public policies and governance systems shape pathways toward plastic-free, circular and carbon-neutral cities. Plastic is framed as a core element of urban socio-technical systems, embedded in everyday practices, institutional arrangements and power relations. The session highlights participation, education and public engagement, as well as environmental justice and inequality, approaching cities as laboratories of socio-ecological innovation and collective transformation toward more sustainable urban futures.

Important Dates

 Abstract Submission
Deadline

April 20, 2026


Registration Deadline

May 11, 2026

Stay tuned for updates !!



Registration Fee

 Full participant
(researchers, professors,
technicians, company
employees) **100 €**

Junior participant **40 €**
(master and PhD students,
post-doc research fellows)

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