

# Editorial

There is an urgent need for technology development and deployment to afford a more sustainable and circular chemical industry. This special issue is dedicated to **Green and Sustainable Chemistry**, with a specific focus on **Waste Valorization**.

Our goal was to showcase and highlight how technology-driven companies, mostly originating from academic institutions, can aid in the transition from a linear economy to a more circular one. Our vision was to bring together players from academia, industry, and start-up organizations to build a balanced and informative issue addressing the various angles of plastic Waste Valorization.

We are proud to present contributions from leading Swiss Start-ups such as Depoly, Bloom, Embion and Plastogaz (all of which are currently or were previously nominated as part of the TOP100 Swiss start-ups by VentureLab). The issue is complemented with remarkable accounts from academia, the industry and the technology transfer office from the EPFL.

**Dr. Swetloff** (Technology Transfer Office, EPFL) explained in his account how technology transfer offices are critical bodies to facilitate the ‘spinning out’ of companies that originate from academia, and how this office can be the link between the marketplace and the academic world.

**Dr. Hunston** and his team (Plastogaz SA), describe the recent evolution and developments in the field of catalytic hydrocracking of plastic waste. Their analysis considers both academic contributions and patent applications.

**Dr. Héroguel and coworkers** (Bloom Biorenewables SA), discuss the production and end-of-life of sustainable materials and describe four key checkpoints that must be addressed prior to successful market entry of materials made from natural biomass polymers.

**Dr. Siankevich and Dr. Nahi** (Embion Technologies SA) discuss the utilization of cereal by-products into feed supplies.

**Dr. Likozar and his team** (National Institute of Chemistry, Ljubljana, Slovenia) present an overview of the production of platform chemicals from various biological sources. This is complemented by modelization data that is bringing tremendous value in the development of such methods.

**Dr. Uran, Dr. Ireland and coworkers** (Depoly SA) provide an overview of various plastic recycling technologies and then focus on polyesters by discussing technologies and companies developing PET depolymerization methods.

**Prof. Das and Dr. Qin** (University of Bayreuth, Germany) review methods to valorize polystyrene waste by photochemical methods and highlight the recent progress in this field.

Finally, **Dr. Bobbink and Dr. van Muyden** (Plastogaz SA) provide insights in transferring academic ‘know-how’ to an industrial application through entrepreneurship.

We hope that these interesting accounts will quench your thirst on the critical topic of Waste Valorization and bring additional, necessary, inspiration to develop new ideas, and shape new collaborations across the field. We wish you an enjoyable read!

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The CHIMIA Editorial Board is very grateful to Dr. Felix Bobbink and Dr. Fabrice Gallou for their great efforts in organizing this issue on Green and Sustainable Chemistry – Waste Valorization allowing an insight into the technological progress that is being made in this vital field.

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The cover illustrates how innovation, in particular from academia, contributes to added-value and more sustainability in the industry. All contributors have some past, current or on-going connection to the Swiss ecosystem, where synergies across the board are critical for a more sustainable future.

Cover art: Antoine van Muyden