

experimental data explained in plain language, this comic strip encourages the reader to view science from a new and hopefully more accessible perspective. The reader is invited to experience the excitement of scientific discovery and appreciate how laboratory research affects their everyday life. Other scientists may hopefully find inspiration on how to share their science story in a creative way to reach a broader audience.

#### **6.06.P-We501 Knowledge, Attitudes, and Practices Towards Plastic Clean-up Technologies**

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In recent years, innovators have developed various technologies to facilitate the removal of mismanaged plastic, a growing global issue associated with poor management during the different stages of plastic's life cycle. These technologies may be a beneficial resource for engaging public awareness, providing plastic pollution data, and collecting and removing plastic from the environment. However, due to the novelty of these technologies, the relevant knowledge, attitudes, and practices regarding these technologies remain unclear. Using a mixed-method approach, the present study investigated the general public and stakeholders' perceptions of plastic pollution, their knowledge and attitudes towards plastic clean-up technologies, and current practices. Cross-sectional survey data was collected from a representative sample of 948 adults living in Belgium, while qualitative interview data was gathered from seven stakeholders associated with areas of potential deployment of plastic clean-up technologies. Our preliminary descriptive results showed that the majority of participants considered plastic pollution to be a very big problem, and 46.9 % had heard of "plastic clean-up technologies" before, but only 6.6 % had ever seen one deployed in real life. Over 40% of the participants indicated having no knowledge at all about plastic clean-up technologies. Despite this, 84.2% agreed that plastic clean-up technologies can have a long-term positive impact on the environment in which they are deployed, and a percentage of 1.7 % disagreed. Further results will present associations between individual factors (sociodemographic, techno-optimism, value orientation) and the knowledge and attitudes toward plastic clean-up technologies. The interview data from the stakeholders will be analyzed by the time of the conference. In light of the fifth session of the Intergovernmental Negotiating Committee (INC-5) for an international and legally binding treaty to reduce plastic pollution, our preliminary results indicate that the public generally thinks that plastic clean-up technologies could lead to improvement in the area of deployment over time.

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#### **6.06.P-We502 Safety and Sustainability of Innovative Materials – The Communication and Knowledge Base MANTRA**

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There is a great need for new and innovative materials in order to adequately meet the numerous societal challenges of our time. Some non-exhaustive examples of this are materials to secure the green energy transition (e.g. in production of green hydrogen) or materials replacing or reducing the use of rare elements (e.g. in industrial catalysts for processes that require little energy). Adaptation to climate change or securing clean water resources are other areas with a need for newly developed materials. However, not only the effectiveness and efficiency of the materials for the applications must be considered, but also the safety for humans and the environment as well as sustainability must be ensured.

The project MANTRA - Data on innovative materials for sustainability and transfer has the important task of supporting research projects that are developing promising materials and processes specifically for the use in membranes and catalysis. Support is provided in science communication, networking, public relations, development of sustainability indicators, advice on materials safety and industry and practice transfer.