

## What steps have we taken in 2021

2021 was a year of further development for Waste4ME. We have kept our earlier progress and have increased it thanks to continuous improvement of internal operational, technical and financial processes in the company. We focused on gaining insight and knowledge to arrive at a program of requirements in the fields of technology, environment, legislation, skills and organization.

To start with, we have set up a process in which all these different perspectives are brought together in a logical connection. This optimization process has also led to a better understanding of how we can properly integrate Life Cycle Assessments and things like ISCC+ into our standard approach.

Expectedly, our main task was the technical improvement of our solution – the WER unit – and proved practical cases delivery based on test runs, mass- and energy balances, LCA's, and the WER unit upgrade (redesign for lower emissions, improved oil performance and better endurance). In 2021 Waste4ME conducted multiple tests with 8 different types of material and analyzed 15 types of waste. In the R&D sector we accomplished the design of a water treatment system; defined waste composition requirements suitable for chemical recycling, as well as gas separation options; built a gasification unit and tested for low value oils to gas; and worked on dechlorination of input waste.

Nowadays, circularity is becoming an increasingly important requirement among our business development partners, our own analyses and political ambitions. Over the past year we have spent a lot of time getting the different insights to 'fill' this concept. This enabled us to take a further step in the LCA approach and further detailing of mass and energy balances.

Because permanent further development is necessary due to technical innovations, increased measurement options, upcoming stricter legislation and the changing market and expectations of stakeholders, we have taken part in various (international) programs that focus on further innovations and developments, including collaboration with existing and new partners. These are, first, PyroCHEM Park – the successor of Pyrolysis Cluster Moerdijk. This cooperation project has already started and soon its first results will be announced. Waste4ME has also started business development in Denmark and joined the Frontsh1p - Hoziron2020 project, supported by the EU. Besides that, Waste4ME worked with a Bulgarian entity to validate emission levels and was involved in other international and local projects. Performing at the plastic to oil market is combined with constant cooperation with multiple petrochemical entities for the defining of oil composition requirements and this was one of our priorities in the past year.

With gaining reputation on the market, we realized that our communication policy needed to be reviewed to address a wide circle of potential customers and other stakeholders. This process led to an increased understanding of our customers and market's needs and is being implemented in our customer service policy.

Interns of colleges and technological universities have made a valuable contribution in all these developments. In 2021 four interns graduated at our company. Furthermore, we build an international team (currently we have 8 nationalities in our team speaking 10 different languages) of talented and result-driven professionals, whose specialties vary from legal, science, chemical, mechanical and finance. We plan to hire new professionals to strengthen our team. For those who want to improve themselves and receive new knowledge we provide courses and trainings.

To keep a clear picture, we concentrate on constant learning, follow changes in the legislation and market processes. High quality management and environmental system standards implemented in the company are approved by ISO9001 and ISO14.001 certificates which we maintained in 2021. Simultaneously, we started preparation for the ISCC+ certification of processes.

We believe that 2022 will be a year of changes and development for our company. First, our test site is moving to a new location where we will continue our WER unit upgrade and test runs and the design of a 35-kiloton chemical recycling plant. Undoubtedly, such plans will require an expand of the staff to embrace a wide range of expertise fields.