

THE PLATFORM'S PRIORITIES IN THE AREA OF RESEARCH ARE THE FOLLOWING :

- > the **characterisation of inflows and outflows** by mechanical, chemical and physico-chemical means;
- > the **separation of matters** by mechanical, chemical or other means;
- > **depolymerisation** (bio-/chemical and thermal);
- > the production of **alternative secondary materials**;
- > the **compounding of plastics**, and particularly of recycled materials and their incorporation into the process of **transformation** of plastics;
- > testing **and certification** techniques of **recycled materials**;
- > the (eco-)conception, implementation and testing of new products made from recycled materials.

VIA PEPIT, INDUSTRIALISTS WILL BENEFIT FROM

- > The use of a **one-stop shop of reference providing information and scientific expertise on the circularity of plastic products in Wallonia**;
- > an approach based on **guidance and prospection** to enable the identification of trends and opportunities;
- > **technical and scientific support** within the context of R&D, development and industrialisation;
- > **access to the very latest technologies**;
- > **support** with **feasibility and market studies** and help with **identifying business models that are innovative**;
- > help with **identifying sources of finance** most adapted to the projects;
- > support with the **structuring and the writing** of their **projects**.

with the support
of Wallonia



For further information or to express your interest please contact : info@pepit.tech

PEPIT

A collaborative technological platform
in the plastics recycling sector
dedicated to the transition of the plastics
industry towards the circular economy
initiated by :



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PEPIT

POLYMERS ECOCIRCULARITY PLATFORM FOR AN INDUSTRIAL TRANSITION

A Walloon solution to #PlanetOrPlastic

Under the Aegis of the innovation clusters GreenWin and MecaTech, the business cluster Plastiwin and with the support of the Accredited Research Centres Celabor, Centexbel, Cenaero, Centre Terre et Pierre, Certech, Materia Nova and Sirris

Plastic, as a result of its multiple, adaptable and economically affordable applications, has revolutionised our lifestyles and consumer habits. Its production has logically followed an ever-increasing demand so that today we use 20 times more plastic than we did 50 years ago. This consumption has resulted in a bulk of end-of-life products that represents a growing challenge on environmental as well as societal and socio-economic levels. The stakes are also of a geopolitical nature since 94% of the production of polymers stems from primary raw materials that come from petrol. Reducing primary sources of plastics would diminish our dependence on petroleum resources by as much : one ton of recycled plastic would result in the economy of 830 litres of petrol. This clearly demonstrates that **it is necessary to rethink the economy of plastics** in order to **develop a business model that is sustainable and more respectful of the environment**. This model will make it possible to extend the life cycle of

products while at the same time reducing the use of raw materials and the production of waste. It is within this context that the EU is promoting a transition towards a circular economy.

In Europe, of 25% of the plastic waste that is collected for recycling only half of it is actually done so in complete transparency, while the rest is sent for export, with no traceability. 75% of plastic products that are taken out of the consumption cycle are either subjected to waste-to-energy valorisation through incineration, or sent to technical landfill.

Beyond the worrying findings and emerging new regulations there are **also solutions. Some already exist** while **some are yet to be invented and applied**. We are at that crucial point in time when a problem or hazard can also become an **opportunity**. An opportunity that is **environmental, societal, social and economic**. An opportunity with **long-lasting effects**.

A REGIONAL AMBITION

It is in this context that the Walloon region aims to position itself within the economic and environmental transition, using the opportunity to create a plastics recycling industry in line with the principles set out by the European Commission. The creation of this industry is firmly on the Walloon government's agenda and will be included in the next Investment Plan of the Walloon Government. It will need to be based on a variety of projects and imply tight collaboration between the different links in the plastics production chain, from the raw material producer to the recycler.

The extension of the life cycle of plastic products would provide non-negligible economic

and environmental advantages. By avoiding the use of landfill and maximising the efficiency of the management of natural resources and fossils it will be possible to reduce the impact of environmental externalities linked to the plastics industry. At the same time innovative endeavours in recycling, reutilisation and recyclability will contribute to the **optimising of material circularity** and consequently to the **circular economy**, thus generating a **durable economic activity** by creating **long-term jobs** whilst at the same time stimulating innovation and investment.

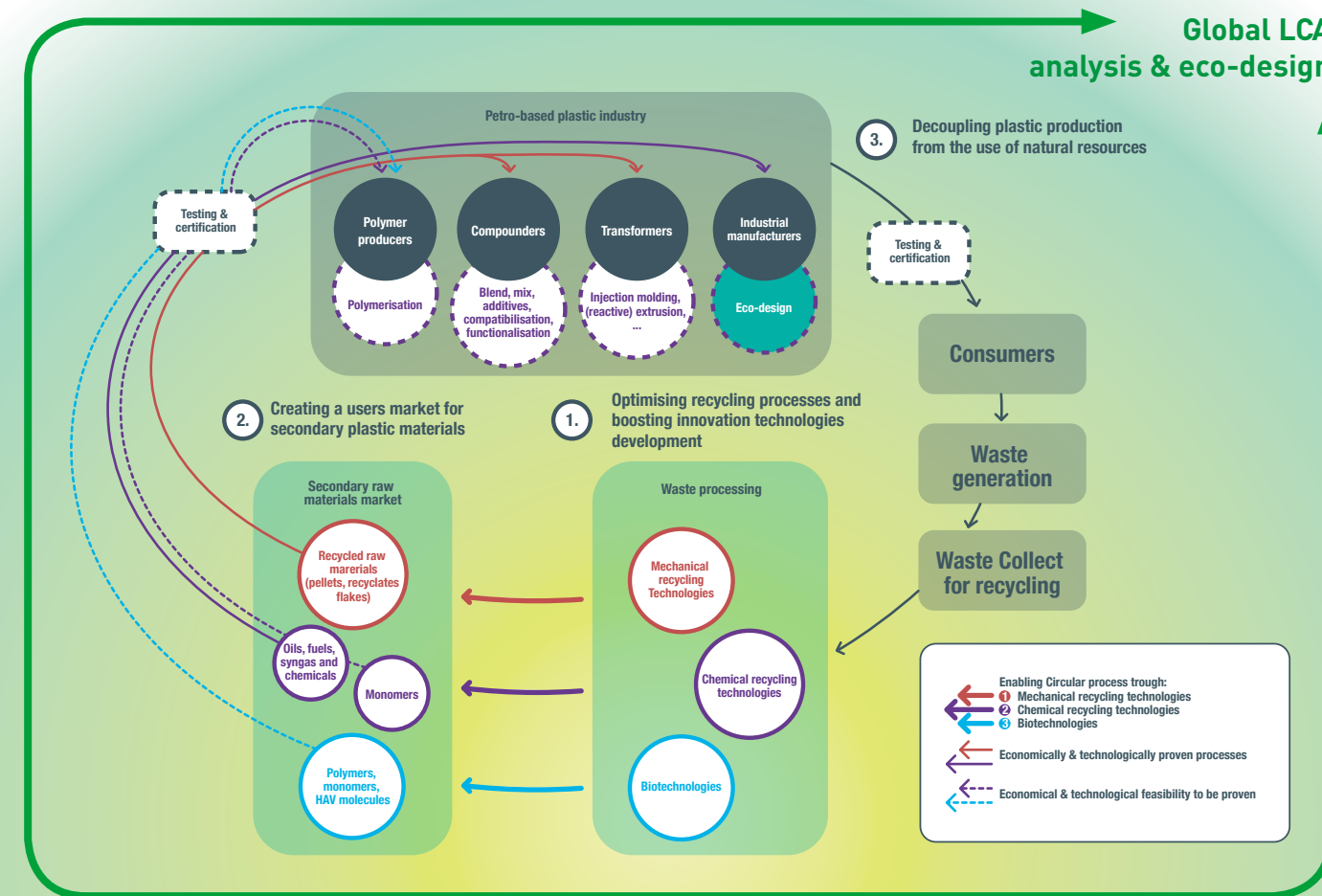
A WALLOON SOLUTION : PEPIT POLYMERS ECOCIRCULARITY PLATFORM FOR AN INDUSTRIAL TRANSITION

A Walloon collaborative technological platform in support of the circularity of the plastics industry.

The platform aims to boost innovation by industrialists by basing itself on three technological axes :

- > **MECHANICAL RECYCLING**
- > **CHEMICAL RECYCLING AND**
- > **BIOTECHNOLOGIES, THUS MAKING THE CIRCULARITY OF PLASTICS POSSIBLE IN WALLONIA.**

SCOPE AND AMBITIONS OF PEPIT



PEPIT

- > It is a **one-stop shop of reference dedicated to innovations in areas that include the circularity of plastic materials**.
- > It is a **cluster of technologies, abilities and equipment, and a network of experts**. Its constitution will be subject to a public/private partnership through the support of industrialists, researchers and public bodies.

- > It is also a **tool** to assist with:
 - **The setting up of tangible projects;**
 - **The diagnosing** of causes of blockages to innovation;
 - **networking** and attracting **international expertise and financing;**
 - providing an overview of the status of research and of environmental regulations;
 - **developing training programmes** and helping companies to **acquire new skills;**
 - **proactively identifying technological opportunities** in order to achieve **first mover advantage**.

WHAT WE HAVE TO OFFER...

- > **Access to a pool of regional experts**, via a platform that brings together **several Accredited Walloon Research Centres** working collaboratively on **project support and feasibility**.
- > The **sharing of skills and equipment** and a direct link between researchers and industrialists.
- > An **integrated technological structure** available to industrialists for the carrying out of specific tests and analyses, particularly with the aim of **reducing the risks associated with the launching of innovative projects**. This approach will mobilise **industrialists actively involved in the different segments of plastics production who wish to contribute** to the development of a **sustainable and circular plastics economy**. This undertaking will imply their commitment in projects aimed at either:

- > recycling end-of-life materials and maximising their added value in order for them to be integrated into a secondary raw materials market
- > recovering their own end-of-life products (circular economy) and/or end-of-life products from other industries (industrial symbiosis) with the aim of giving them a second life (e.g. developing a product from industrialisable quality recycled materials, or the conception of an innovative business model ...)
- > adapting processes for an effective management of resources in all phases of production and consumption
- > Conceive products in a manner that allows them to be repaired, and all or part of their components to be reutilised at end of life.