



COORDINATOR:
GHENT UNIVERSITY



31 PARTNERS
14 COUNTRIES



01/11/2024 to
31/10/2030



€ 45M



RATIONALE

As a public-private partnership project, PHARMECO's overall objective is to **revolutionize pharmaceutical manufacturing towards sustainability** by integrating environmentally friendly technologies / processes and harmonized sustainability assessments methods into healthcare industry practices.



CONSORTIUM



KEY OBJECTIVES

- Integration of **Safe and Sustainable by Design (SSbD)** principles in pharmaceutical manufacturing practices
- **Uptake of scalable, eco-friendly manufacturing optimizations and innovations** in pharmaceutical manufacturing, focused on reducing greenhouse gases, solvent use, water, and energy consumption
- Development of digital support tools for **prospective evaluation** to guide sustainable production via process simulation
- Establish **standardized environmental assessment systems** for (bio)pharmaceuticals, ensuring consistency across the industry.

TECHNOLOGIES

The **SSbD optimal route** design methodology will feed the technological platforms on **sustainable chemical synthesis, biomanufacturing & decontamination**.

Technologies/processes evaluated in these platforms will be selected based on:

- their potential** to strongly reduce the use of solvents, substance of very high concern (SVHC), and energy/water in pharmaceutical manufacturing,
- their scalability**,
- their alignment** with PHARMECO's industrial partners' corporate strategies.

TARGETED IMPACTS

Environmental impact:

- Target a **50% reduction in GHG emissions**, **30% decrease in solvent use**, and **substantial water and energy savings** per kg of drug produced.

Industry advancement:

- Implement **SSbD principles to align with EU Green Deal goals** and positioning the industry to meet rising regulatory expectations.
- **Create sustainability benchmarks** and a digital toolbox to guide companies in eco-friendly decision-making from design to disposal

Societal Benefits:

- **Standardize sustainability assessments** to easily compare providers' environmental and operational performance, leading to **more informed decisions**
- **Prioritize renewable materials and eco-friendly practices** to reduce industry pollution and promote a **healthier, more environmentally responsible society**

CONTACTS

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