



IMI* project (4 years) – ORSY

CHEM21: Chemical manufacturing methods for the 21st century pharmaceutical industries

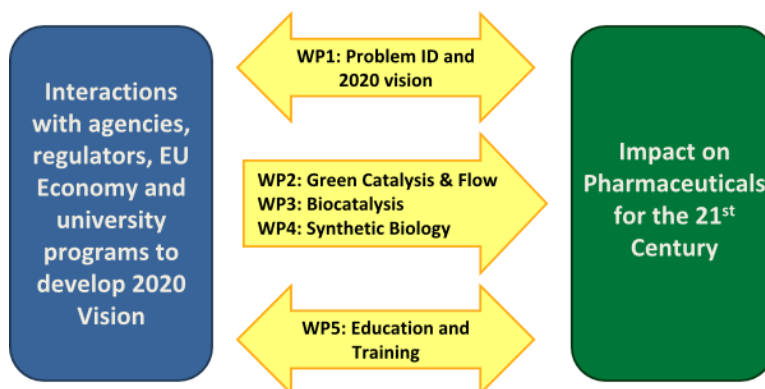


The CHEM21 project plans to generate a range of methods to make the drug development process more environmentally friendly. What's more, as well as being good for the planet, the methods developed by CHEM21 will also help the pharmaceutical industry to cut costs, resulting in cheaper medicines for patients.

Firstly, CHEM21 have analyzed and identified the priorities for technology development in the pharmaceutical industry. As a result, Vision 2020 document was constructed, which identified industry needs as well as the reasons for previous technological and market failures in rapid adoption of greener methodology.

The technology being developed is divided into three work packages based on chemical catalysis and synthetic methods, biocatalysis and synthetic biology.

Finally, the outcomes of the research efforts will be incorporated into education and training efforts to produce the next generation of process chemists with a good understanding of green and sustainable metrics.



ORSY is contributing to WP2 of CHEM21, which deals with the use of a range of catalysts with a main focus on replacing and applying catalysts based on common metals rather than the precious metal based catalysts that have limitations of sustainable supply. For example, we developed a new Cu-catalyzed xanthine synthesis, which has been applied for the synthesis of a medicine Bamifylline.

* IMI is a partnership between the European Union (represented by the European Commission) and the European pharmaceutical industry (represented by EFPIA, the European Federation of Pharmaceutical Industries and Associations).