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## IMPLEMENTING SUSTAINABLE DEVELOPMENT SKILLS IN TEACHING ORGANIC CHEMISTRY LABORATORY

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**A**mong the objectives to achieve in the Campus Bizia Lab research project for a sustainable transformation in education, we mark milestones such as promoting the circular economy, the energy transition and a sustainable culture and community. To get this aim, in the second semester of the 2017/2018 academic year, we have analysed the use of hazardous waste deposits and the behaviour of students who have done practices of the department of Organic Chemistry II of the UPV/EHU to correctly separate waste.

The practices carried out in the teaching laboratories of the Organic Department are two; Experimentation in Organic Chemistry and the practices of Organic Chemistry 2. In the first case, the total volume of hazardous waste generated is 96.04L and in the second one 45.94L. The cost of containers and managing the liquid waste of the two subjects is 113€, all without counting the rest of solid waste generated and the costs associated with the use of instrumentation and reagents.

After analysing the data obtained with a cheminformatics model, the amount of waste generated is high. For that reason, it is necessary to implement corrective measures such:

- ✓ Restore instrumentation in laboratories, and look for more sensitive techniques.
- ✓ Support the transition to a Circular Economy in the university.
- ✓ Implement Green Chemistry techniques.
- ✓ Improve the design and reduce the volume of practices.
- ✓ Use only the reagents and quantities needed.
- ✓ Share the chemical reagents between laboratories

### Biography

In order to find strategies to promote the responsible management of substances and materials of the laboratories in the Bizkaia Campus at the University of the Basque Country (UPV/EHU), we have created an interdisciplinary group made up of students, researchers and teachers from different departments of the Faculty of Science and Technology. All of them with extensive experience in research and endorsed by the numerous studies, reports, books and other publications.

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