

# Introducing *Sustainability and Social Commitment* concepts in a Computing Degree

David López, Martha Velasco, Fermín Sánchez, Marc Alier, Jordi Garcia



UNIVERSITAT POLITÈCNICA  
DE CATALUNYA  
BARCELONATECH

## Introduction

The main problems in the relationship between Sustainability and Social Commitment (SSC) and engineering are:

- The lack of information and training in this field: engineers are not conscious about the relationship between SSC and their activity.
- Consider SSC as a personal option more than a part of the professional activity.

## Objectives of this work

- To achieve that all our graduated have acquired the SSC skill.
- To create a network of interested professors at our school.
- To ease the introduction and incorporation of SSC issues in the daily teaching and research activities.
- To disseminate and share our experience.

## Our approach

1) SSC concepts are strongly related to the daily engineer's work. Subjects specialized on SSC provide some general and necessary knowledge, but are not enough.

Proposal: To introduce SSC in most subjects, in order to have a holistic and integrated perspective.

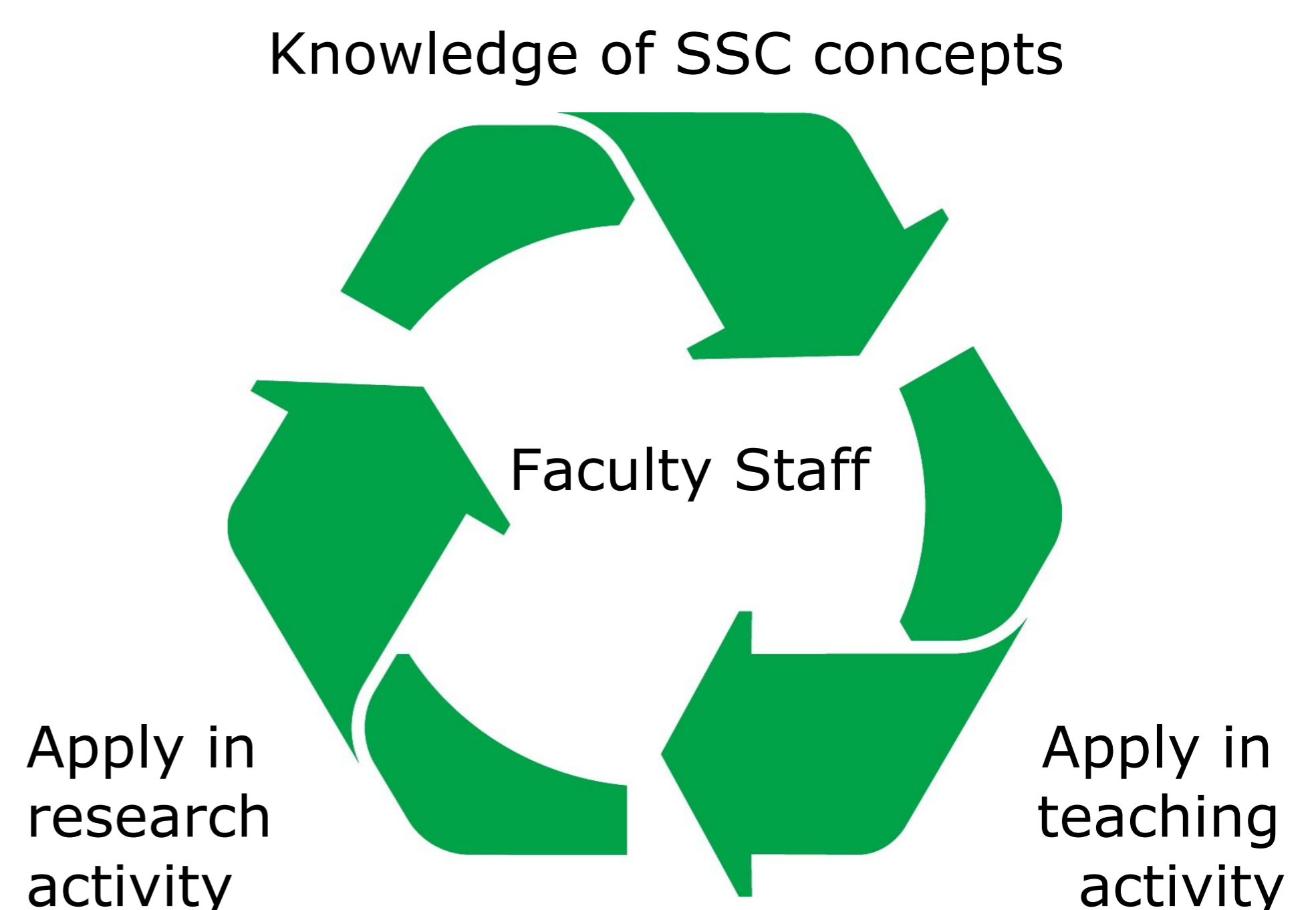
2) Teaching SSC requires involved professors.

Proposal: To create a network of interested professors, covering all knowledge areas in our degree.

3) Help these motivated professors to introduce SSC concepts in their subjects.

Proposal: Workshops to train professors. A knowledge database to search papers, conferences, books and experiences related to SSC in their field of knowledge.

Professors trained in the relationship between SSC and the engineer professional activity can apply this knowledge in their teaching and in their research, closing the cycle.



Then, SSC will be as natural in Computing studies as mathematics or electronics

## Results

- New curriculum started in September 2010, including SSC concepts in several subjects.
- More than 40 lecturers involved.
- Knowledge database available.
- The entire experience will result in a book, we expect to be published by the end of 2011.

## Recommendations to other institutions

- Include SSC concepts in most subjects. Then, it will become a natural part of the engineer's activity and it will create a holistic way of thinking.
- Create a network of interested professors, and give them training, information and tools.

## For further information

David López: [david@ac.upc.edu](mailto:david@ac.upc.edu), Martha Velasco: [marvelbe@gmail.com](mailto:marvelbe@gmail.com), Fermín Sánchez: [fermin@ac.upc.edu](mailto:fermin@ac.upc.edu), Marc Alier: [ludo@essi.upc.edu](mailto:ludo@essi.upc.edu), Jordi Garcia: [jordig@ac.upc.edu](mailto:jordig@ac.upc.edu)