

## HIGHER EDUCATION'S COMMITMENT TO SUSTAINABILITY: THE UPC'S POINT OF VIEW

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We live in an international context of changes and global crises in which universities must find their place.

The overall effects of the energy, economic and financial crises, climate change and the loss of biological and cultural diversity, food insecurity and huge social inequities, as well as armed conflicts, are just some of the major challenges that humanity must face this century.

A range of global problems, with very different local manifestations in an overpopulated world with overexploited resources, reflect the imbalance between human society and natural ecosystems.

We are now able to document the relationship between these crises. It is also possible to prove that there is a link between them, and that the expansive economic growth model linked to the concept of development must be reviewed.

The ecological footprint that modern societies have left on the planet is one of the main indicators of the inappropriate use of ecosystems. It is also a sign that we have exceeded our limits and that we need to restore the balance by reducing the impact of our lifestyles and by reconsidering the relationship between nature and culture.

A global map of the world's problems makes it clear that when it comes to introducing a sustainable way of life, we are talking about creating a new culture.

The word **sustainability** refers to a paradigm from which to articulate new ways of living and of understanding our place in the world. Sustainability implies changing the way we relate to ecosystems and the possibility of moving towards a culture based on harmonious coexistence and equality. To do so, a new area of knowledge must be created so that actions can be taken to tackle one of the greatest challenges of our times.

The paradigm of sustainability takes in the economic, social, human, environmental and cultural dimensions through a holistic and interconnected vision of the world, which must have its roots in education.

The international meetings held to move

in this direction have resulted in several statements that constitute the nucleus of many educational institutions. The UN Decade of Education for Sustainable Development and, more recently, the Bonn Declaration, as well as the final communiqué of the World Conference on Higher Education held in Paris in 2009, are examples of a process that is contributing to a greater understanding of the implications of sustainability for education and the realization that it must become one of education's primary objectives.

Principles such as interdisciplinarity, the contextualization of knowledge, systemic thinking, an intergenerational perspective and social commitment are part of an increasingly widespread language among professionals from the fields of education and sustainability. This language should percolate educational curricula at every stage.

In recent years, many educational institutions have included sustainability in their curricula and have dedicated resources to research in order to recover a healthy ecosystem, while others have moved forward by establishing participatory networks for the purposes of providing socially relevant knowledge.

However, the perspective of sustainability must become part of the learning and teaching processes in educational projects. We need to educate people so that they can *understand* and *act* in an interconnected, complex and global world. To do so, we need to know how to integrate all areas of knowledge and how to apply the right methodologies to put words into action. We must be able to educate from a holistic vision of reality and learn how to work transversally by identifying which competences are necessary for future citizens and which priorities should be established in research.

All these issues are part of the challenge inherent to the cultural paradigm of sustainability, and they must be clarified so that we can set the path we must follow as a global society.

Therefore, innovation in higher education now means acknowledging the need for a paradigm shift and the interdisciplinary

restructuring of knowledge, so that the urgent problems of our times can be addressed, researched and understood through a complex and plural prism.

The Universitat Politècnica de Catalunya (UPC) made inroads in this field almost 13 years ago. The work done then survives in the framework of the university's Institute for Research in Science and Technology for Sustainability (IS.UPC), whose aim is to generate technical and conceptual tools to create a more sustainable production model, and to collaborate in the UPC's endeavour to provide scientific and technical support for social, cultural and economic progress.

The path travelled so far is a small step in a major project that requires the collaboration of other universities and social stakeholders from different countries.

This GUNi report highlights the crucial role that higher education plays in building a sustainable world. It has opened up a toolbox to reveal the numerous initiatives that have arisen since this approach was taken and to bring about new courses of action that will enable us to make advances in this direction.

It would not have been possible to elaborate this publication without the help of the Banco Santander and its president, Emilio Botín, to whom I am greatly indebted for providing the financial support required for GUNi to fulfil its mission. I would also like to express my sincere gratitude to the Directorate of Universities and the Directorate of International Promotion of the Government of Catalonia for the support they gave to the publication and to the project as a whole. I am also deeply grateful to UNESCO, not only for their faith in

the project and the expert advice they have provided, but also for contributing articles and financial support to the publication. Thanks also to UNESCO International Institute for Higher Education in Latin America and the Caribbean (IESALC) for their financial support to this project. GUNi and the UPC would like to repay their invaluable help with gratitude and, most importantly, tangible results.

I would like to express my belief in the value of a diverse publication such as this, in which stakeholders from every region in the world come together to contribute their experience and thoughts on an issue as critical as the commitment of higher education to sustainability.

On behalf of the UPC and GUNi, I would like to thank all the authors from all over the world who have made their personal views known and whose knowledge and efforts have enriched this initiative, which we hope readers will find equally rewarding.

This project needs and greatly benefits from the convergence of such diverse perspectives. The meeting between the people from different cultures and with different beliefs who have contributed to this publication is the ideal template for promoting a different way of working. Dialogue is essential to reaching a consensus throughout academia on how to foster and sustain learning processes for a sustainable world.

I hope that all those who read this work will find in it an honest debate that will lead to multiple initiatives for identifying and generating new ways of moving from understanding to action.