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**SUPPORT THE CHAIR  
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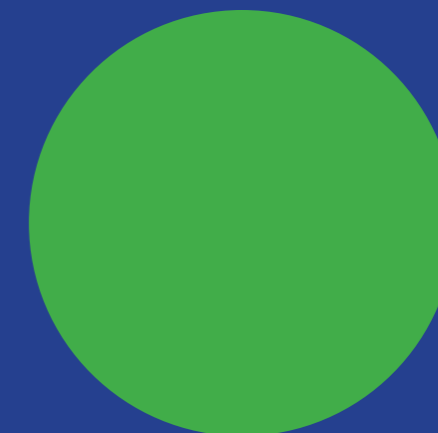
There are many opportunities for becoming a partner and joining efforts with the UNESCO Chair in Life Cycle and Climate Change ESCI-UPF and UNESCO to achieve a more sustainable development by supporting research, education, and communication.

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**Science  
at the service of  
the environment  
and society**



Helping public administration,  
businesses, and society as a whole to  
take science-based decisions towards  
a sustainable present and future

## YESTERDAY

The pursuit of environmental sustainability at the UNESCO Chair in Life Cycle and Climate Change ESCI-UPF (formerly known as the Research Group in Environmental Management (GiGa) at ESCI-UPF) continues a more than a decade of endeavor to allow a substantial improvement in methodologies supporting life cycle applications to climate change mitigation.

## TODAY

The UNESCO Chair in Life Cycle and Climate Change ESCI-UPF is an international centre of excellence in Life Cycle Assessment (LCA), and a leading source of innovative research on LCA and its application on mitigating climate change. It was founded in December 2010 by agreement between the United Nations Organization for Education, Science and Culture (UNESCO) and the Universitat Pompeu Fabra (UPF), being ESCI-UPF (Barcelona, Spain) the host institution. According to the objectives of the agreement with UNESCO, the Chair aims at promoting scientific research, cooperation, education and communication on sustainable development of products and services at national and international level for the benefit of

## TOMORROW

The Chair's long-term missions to meet tomorrow's challenges include promoting scientific research, cooperation, education and communication on sustainable development of products and services at national and international level for the benefit of the environment and society, joining efforts with the UNESCO to achieve the Sustainable Development Agenda by 2030.

the environment and society. Thus, facilitating partnerships between internationally renowned Researchers and Academicians of universities and other institutions in Europe, Latin America, the Caribbean and Africa, among others, such as Middle East and Asia.

Today, the UNESCO Chair ESCI-UPF is, together with the Mango Chair in Corporate Social Responsibility (CSR) and the Research in International Studies and Economics (RISE) group at ESCI-UPF, part of a research division dealing with the three dimensions of sustainability (environmental, social and economic).

## RESEARCH LINES

Studies at the Chair deal with Sustainability Management from a life cycle perspective (thinking), focussing on Environmental Science and Engineering, and/or including social and economic aspects in addition to the environmental ones. Its research activity covers methodological development and application in areas such as: LCA, eco-design, eco-labels, environmental declarations, eco-innovation, sustainability, circular economy, environmental marketing, etc. Research Lines at the Chair are structured on a sectoral basis: agrifood, construction, energy, new materials, packaging, tourism, waste, and others.

## RESEARCH ACTIVITIES

Providing a life cycle approach to current environmental challenges

- Analysing policies and developing models and good practices
- Evaluating environmental impacts of international trade
- Defining environmental, social and economic indicators
- Developing environmental policies for products
- Developing methods for the improvement of existing assessment tools

## Product and service improvement at the chair

### Life Cycle Assessment (LCA)

Analysis of the potential environmental impacts of a product or service throughout its life cycle, following the internationally recognized ISO 14040 and 14044 standards.

### Life Cycle Costing (LCC) studies together with a complementary LCA

LCC summarizes all costs associated within the life cycle of a product that are directly covered by one, or more, of the actors involved in the products life cycle, including externalities that are anticipated to be internalised in the decision-relevant future.

### Social Life Cycle Assessment (S-LCA) studies together with a complementary LCA

S-LCA is a method that can be used to assess the social and sociological aspects of products, their actual and potential positive as well as negative impacts along the life cycle.

### Development of criteria for ecolabels

Definition of rules for awarding ecolabels Type I and Type II.

### Environmental Product Declarations (EPD)

Development of Type III ecolabels and product category rules.

### Ecodesign

Introduction of environmental criteria in the product or service development process with the aim of minimizing its impact throughout its life cycle.

### Ecoinnovation

A new business approach which promotes sustainability throughout the entire life cycle of a product, while also boosting a company's performance and competitiveness.

### Green Public Procurement

Green purchasing through the development and implementation of environmental criteria for the tendering process of a product or service.

### Circular economy

Measurement of circularity and promotion of different circularity options for companies and products.

## Environmental Communication

### Product Environmental Footprint (PEF)

Development of multi-indicator measure of your impacts to identify trade-offs and make better strategic decisions.

### Carbon and Water Footprints

Development of methodology and Product Category Rules.

## EDUCATION PROGRAMMES

The Chair offers several workshops on environmental improvement of products, both at ESCI-UPF's offices and in-company, such as: Introduction to Life Cycle Assessment (LCA), Advanced Life Cycle Assessment Course, Introduction to Ecodesign, Environmental communication of products and services using environmental labels, Green Public Procurement, Greening Events and Introduction to GaBi Software (LCA Software); among others.

## RESOURCES

The team consists of an international group composed of about 20 researchers from different nationalities, specialised in Life Cycle Assessment (LCA), ecodesign and eco-labeling, applied to different sectors. Likewise, part of the team is specialist in the environmental evaluation of Plans and Programs (Strategic Environmental Assessment) and Projects (Environmental Impact Assessment), applied to renewable energies and waste, among others. The group is completed with strong collaborations and external researchers' stays, encouraged by the Chair. The research group is led by Dr Pere Fullana i Palmer, appointed as the director of the Chair in May 2011, a pioneer in the development and implementation of the LCA methodology and national and international renowned scientist in this field. The team is complemented with the punctual collaboration of other professionals, in relation to the needs of the research projects conducted at the Chair; and administrative staff and a communication department.

### Expanding strategic collaboration with partners and designing business tools.

The UNESCO Chair in Life Cycle and Climate Change ESCI-UPF maintains partnerships and collaborative agreements with research institutions, non profit organisations, state-owned enterprises and public bodies, and private-sector entities at national and international level.

## THE CHAIR AT ESCI-UPF

The Chair is based at ESCI-UPF in Barcelona, a public institution in the form of a consortium headed by a board of overseers. It was set up in 1993 by the Catalan Government and the Universitat Pompeu Fabra, together with other organisations that shared ESCI-UPF's philosophy and goals, including the Barcelona Chamber of Commerce, the Catalan Chambers of Commerce and PIMEC. All these institutions have a seat on the board of overseers. ESCI-UPF provides the Chair with all the resources necessary to boost research and innovation, as well as carry out management, administration, and communication related activities.

### Barcelona Life Cycle Management (BCN LCM) Cluster at ESCI-UPF.

Several research and/or training groups are concentrated at ESCI-UPF facilities in areas complementary to the research activity of the Chair, both belonging to the same school and external groups, taking advantage of the opportunities offered by the context.

- Research in International Studies and Economics ESCI-UPF (RISE)
- MANGO Chair in Corporate Social Responsibility ESCI-UPF (CSR)
- International Life Cycle Academy (ILCA)
- Cyclus Vitae Solutions, S.L.
- UNESCO Chair in Life Cycle and Climate Change ESCI-UPF

