



EUROPEAN UNION  
D.G. RESEARCH  
Unit of Environmental Technologies



# Low Carbon at Work

Modelling Agents and Organizations  
to achieve a Low Carbon Europe

## Universities and Research Organizations



UNIVERSIDADE DA CORUÑA



Universitatea de Vest  
din Timișoara



university of  
 groningen



SAPIENZA  
UNIVERSITÀ DI ROMA



The James  
Hutton  
Institute



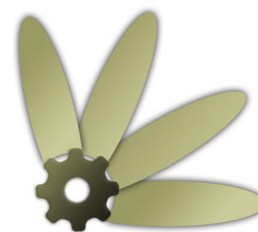
UNIVERSITY OF  
SURREY



The LOCAW project addresses the challenge of Call ENV -2010-4.2.3.1 “Foresight to enhance behavioral and societal changes enabling the transition towards sustainable paths in Europe”, to conduct “an analysis of barriers and drivers for engaging on sustainable, low-carbon paths individually (taking into account the diversity of lifestyles), on the level of individual organizations, and collectively (organization of the society and the economy)” and to contribute to “scenario development and a back-casting exercise in order to identify potential paths to engaging on an integrated effort to support the transition to a sustainable Europe”.

For further information, please, contact the Coordinator at:

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LOW CARBON AT WORK  
**LOCAW**

[www.locaw-fp7.com](http://www.locaw-fp7.com)

## Low Carbon at Work (LOCAW)

LOCAW provides an analysis of everyday practices in the workplace, as well as of the factors promoting or hindering the transition towards sustainable patterns of production and consumption. LOCAW examines seven large organizations in six different countries, in the public as well as the private sector and both heavy and light industry.

## Who is involved in LOCAW?

LOCAW involves the participation of seven research organizations: University of Coruña-Spain (Coordinating), University of Umea-Sweden, West University of Timisoara-Romania, University of Surrey-UK, The James Hutton Institute-UK, University of Groningen-The Netherlands, and University of Rome La Sapienza-Italy. The research has received funding from the European Union FP7 ENV.2010.4.3.4-1, Grant Agreement nº 265155. The total budget for this project is 1.9M Euros distributed among the seven institutions.



## Questions to be addressed in LOCAW

- How do behaviors and practices in the workplace act as barriers or drivers of changes towards sustainable paths of low-carbon behavior at the individual, organizational and societal level?
- How do EU environmental norms work in practice?
- How do market demands and social group pressures influence the management of everyday practices in the workplace?
- How do organizations create barriers and drivers for the individual involvement in sustainable practices within current EU environmental policies?
- How do people make connections between one area of their life and another? Does this have an impact on their identities, on their roles and everyday behavior related with sustainability?
- What conflicts and barriers exist for the cooperation among policy-makers, employers and social organizations in the implementation of sustainable practices at work?
- What examples of good practices regarding sustainability at work exist and in what conditions are they generated?

## Objective

The project analyzes (un)sustainable behavior and practices in the workplace and focus on the factors determining these actions in six organizations under investigation. The conclusions of this analysis are being used as input for the design of agent-based models which seeks to clarify interactions among relevant actors and provide insights into the necessary conditions to achieve transition to a low-carbon Europe. Although the project's focus is on workplace behavior, we also analyze the connections between practices at work and practices in other areas of life. Members of the organizations under investigation draw on the agent-based models to create scenarios. They are using their expertise to adjust the models to include predicted future pressures and challenges for their organization. This allows for better predictions and detailed descriptions of how to promote conditions for sustainability at work, as well as examples of good practices.

## The everyday as a research object

LOCAW studies the routines and rituals of everyday life, defined as taken-for-granted practices that are continuously repeated. It is one of the first research studies that explicitly examines sustainable practices and behaviors in the workplace in different EU countries and in several types of organizations

## The interaction between interest, awareness and public action

Although we think that climate change is universally well-known as a preoccupying reality, there are variations in the way it is thought about and discussed. Even if there is concern, this does not always translate into action. This has been referred to by environmental experts and politicians as the Value-Action gap. It may be the result of the necessity to provide clearer and simpler information. In other cases, environmental concern may not translate into specific actions because of the high cost (e.g., time, effort, money) of these actions. Equally, it may be because people find change threatening – to themselves, their families, their jobs and their lifestyles. LOCAW opts for a different perspective and focuses on habitual practices in the workplace and on the interplay of barriers and drivers of sustainable behavior at different levels: structural, organizational, and individual.



## Structural and organizational factors influencing sustainable behavior

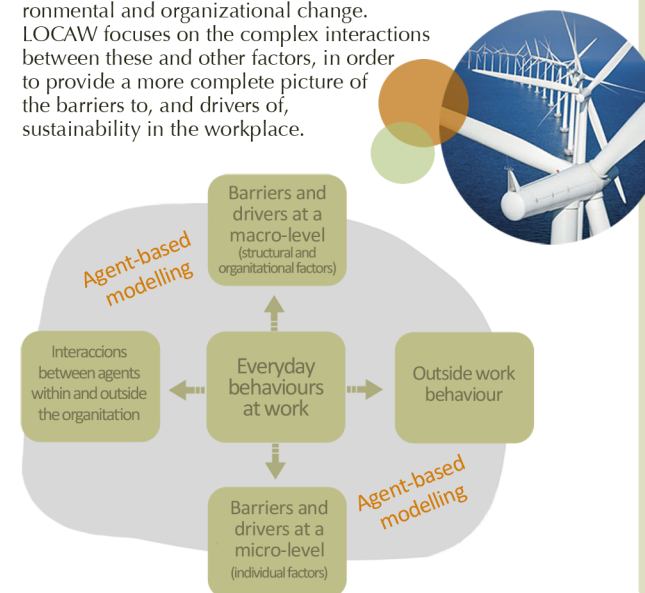
It has been shown that organizations sometimes lack a clear understanding of the complexities of sustainability. This is often due to deficiencies in communication and information management, the lack of appropriate training or the failure to see that sustainability practices can be good for business and the 'bottom line'. This research focuses on identifying good practices and the opportunities for managers to enhance the sustainable practices of employees. It examines whether corporate engagement with sustainability promotes pro-environmental behavior in the workplace. It explores the opportunities to introduce sustainability values into the internal logic of production and in economic decision-making processes.



## Individual factors influencing sustainable behavior

LOCAW studies individual and social factors such as:

- Knowledge** – which predicts many pro-environmental behaviors;
  - Motivation** - important for the understanding of intentions and willingness to act in a responsible way; and
  - Capacity** - important in the study of the perception of structural and organizational factors,
  - Solidarity** – which provides opportunities for collective social action,
  - Resistance** – critical for understanding barriers to social, environmental and organizational change.
- LOCAW focuses on the complex interactions between these and other factors, in order to provide a more complete picture of the barriers to, and drivers of, sustainability in the workplace.



## People

(in alphabetical order)  
(\*) = Country/Region Leader

- Amparo Alonso-Betanzos (UDC, Spain)
- Zoltan Bogathy (UVT, Romania)
- Verónica Bolón Canedo (UDC, Spain)
- Marino Bonaiuto (CIRPA, Italy)
- Mirilia Bonnes (CIRPA, Italy) (\*)
- Giuseppe Carrus (CIRPA, Italy)
- Tony Craig (MLURI, UK)
- Adina Dumitru (UVT, Romania)
- Eva Mª Espiñeira Bellón (UDC, Spain)
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- Pedro Vega-Marcote (UDC, Spain)