

Low Carbon Societies Network



ENCI-LowCarb Project Ends

Dear reader,

This is the final newsletter of the ENCI-LowCarb project, which ends on March 31, 2012.

In this newsletter you can read about the collaborative scenario design in France (p. 2), lessons learned from the Project (p. 3), and get an overview of the project outcome (p. 4).

We also welcome you to continue networking.

Gunnar Boye Olesen, editor



Networking Continues

The ENCI-LowCarb Project has started the “*Low Carbon Societies Network*”, hosted by INFORSE-Europe.

The Network provides a **meeting place for NGOs and researchers** working for low-carbon and sustainable energy scenarios and strategies, primarily for national scenarios.

It is also a vehicle for **collecting low-carbon scenarios**, and an outreach channel for the ENCI-LowCarb Project to **promote the further development** of scenarios and strategies, with stakeholder involvement.

INFORSE-Europe is committed to maintaining the network, with continuation of the website, of news via the e-mail newlist, of the interactive e-mail list for discussions of scenarios as well as of strategies, and of collection of scenarios for above-80% greenhouse-gas reductions. There will also be seminars, training, and other events, as far as resources allow.

The Network will continue to be open to NGOs and researchers wishing to exchange information as well as to know more about scenarios and strategies with stakeholder involvement.

At the final stage of the project, INFORSE-Europe is **supporting the launch of projects** to develop new scenarios and strategies, with stakeholder involvement.

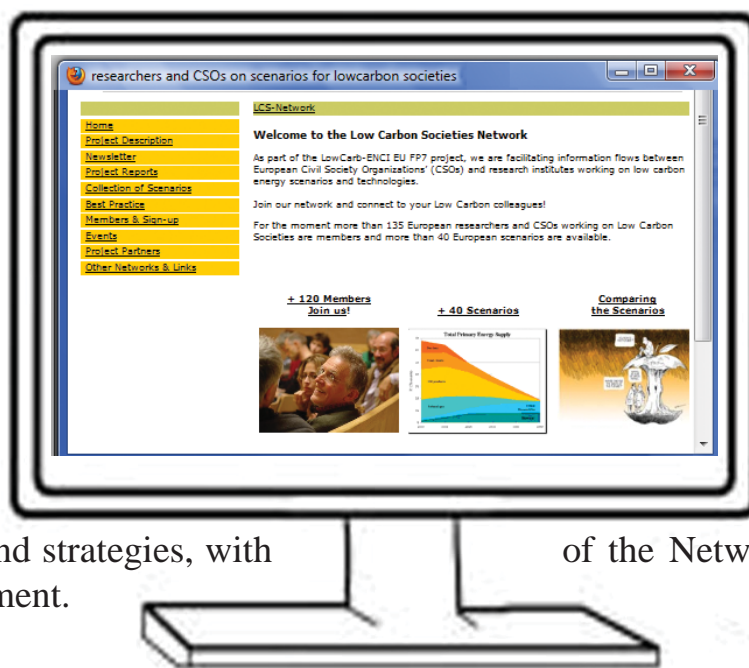
We can assist the development of proposals and initiations of projects. We can also suggest funding and partners for activities.

If you have joined the Network, you will receive e-mails about the continuation of the Network, and about the Project's outcome.

If you would like to join the Network, to receive news on scenarios and events, and to discuss development of scenarios and events with stakeholder involvement, you can register online.

You can register to receive e-mail, to be visible on the website, and also to take part in the interactive e-mail list.

If you have information on national or regional scenarios, please send information and links to lowcarbon@inforse.org. We will add them to the online **database of scenarios** at www.lowcarbon-societies.eu.



This newsletter is published by the “*Low-Carbon Societies Network*” project, financed by the European Commission's 7th Framework Program for Research (FP7).

The project's official name is *ENCI-LowCarb* or “*European Network Engaging Civil Society in Low-Carbon Scenarios*”. The project period is 2009-12.

The project's aims include the creation of a European network on energy scenarios to facilitate information flows between Civil Society Organizations (CSOs) and research institutes in Europe about low-carbon energy scenarios and technologies.

Join our network, please register on the web site.

Our Project Team built ambitious energy scenarios for 2050 for Germany and France. In the process we met with stakeholders to build support for the scenarios and to identify measures that might counter negative social and economical impacts.

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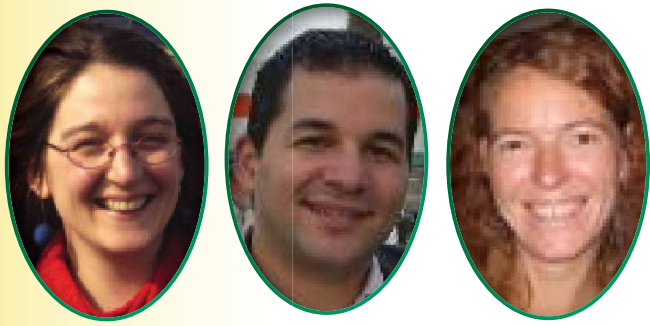
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www.lowcarbon-societies.eu

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ENCI-LowCarb: Collaborative Scenario Design in France



By Meike Fink from RAC-France, Ruben Bibas and Sandrine Mathy from CIRED.

The core activity of this project was the development of a methodology for the transparent integration of stakeholders' contributions into the scenario design process to enhance their acceptance of the resulting low-carbon pathways. This effort constitutes an important step towards distinguishing what is technically and economically feasible from what is acceptable. Today, many published scenarios emphasize the fact that they are built on public consultations or on stakeholders' contributions. However, transparency is lacking concerning the methodologies used to incorporate and to translate such input into assumptions to be used in modeling. This project (ENCI-LowCarb) aimed to explore this scientific gap.

Energy scenarios outline possible low-carbon futures built around assumptions about changes in prices of fossil fuels, about technological choices, and about the mechanisms of energy demand and supply, among other factors. Scenarios are influential tools in political decision-making processes, since they shed light on the long-term impacts of today's investment decisions, especially regarding infrastructures. Thus, it is crucial that these simulation pathways derive in part from discussions with main national stakeholders.

The collaborative scenario design process in France included the participation of approximately 100 French stakeholders ranging from civil society organizations, including trade unions and non-governmental organizations, to private companies and banks as well as statewide and local authorities. Participating stakeholders were asked to define or to select acceptable CO₂-emission mitigation measures. Their input was used in the technical-economic model "Imaclim-R France" (developed by CIRED) to create a scenario that was economically and technically self-consistent as well as acceptable by the participating stakeholders.

The collaborative scenario-design process developed within the project was divided into several steps:

1. Organisation of Expert Meetings

With the aim of heightening the economic and technical realism of the modeling tools, expert meetings were organized to correct and to update exogenous hypotheses (costs, potentials, investments, learning curves, etc.). The dynamics of the model itself were also tuned with regard to investments in the electricity sector and the dynamics of the residential sector.

2. Stakeholder Mapping: Identification of the National Stakeholders

To secure the participation of those stakeholders who play an essential role in the energy sectors at stake (residential, transport, electricity), we adopted the methodology of a stakeholder mapping that included two main parameters for each stakeholder: its influence in the sector and its interest in the transition. Based on this analysis, main stakeholders were identified and a contact list was established.

3. Organization of Sectoral Stakeholder Meetings

In order to create scenarios with a high degree of stakeholder acceptance, the project team ENCI-LowCarb invited the selected representatives of national stakeholder organizations to sector-specific meetings (transport, residential, electricity, etc.). During these meetings, stakeholders were invited to express their visions of the evolution of technology choices, policy measures, and economic incentives that would be necessary and acceptable to reduce CO₂ emissions.

The meetings were recorded to collect a maximum of viable information. All stakeholders answered a questionnaire, and minutes of the ongoing discussions were taken. It was decided to limit the number of stakeholders to 15 to foster in-depth discussions.

The meetings were divided into three stages:

- Presentation of the project methodology;
- Gathering input concerning the main sector-specific topics;
- Detailed presentation of several selected subjects and discussion with the invited stakeholders.

A questionnaire was developed for each of the subjects under point three. Energy scenarios were based on the answers of the stakeholders to these questionnaires and on the content of the ongoing, moderated discussions.

4. Translation of Stakeholders' Contributions into Modeling Parameters

Between the evaluation of the contributions of stakeholders and the modeling exercise, an important step was the translation of the stakeholder visions into model parameters.

The information gathered within the sector-specific stakeholder meetings was translated by the project team into model parameters and added together to "scenario #1". Points of disagreement were laid open and handled by the development of scenario variants.

5. Organization of a Cross-Sectoral Feedback Seminar

Whereas the first round of stakeholder meetings was sector-specific, the second one was cross-sectoral, with the aim of overcoming artificial separation of energy-system-related questions between sectors.

The main objective of the cross-sectoral meeting was to obtain feedback on "scenario #1". The stakeholders' comments were then incorporated into the model. Points of disagreement arising from the evaluation of the outcomes of the first meetings were presented in the form of scenario variants.

Unfortunately, the emission reduction in the scenario based solely on policy measures that are acceptable in the eyes of at least half of the stakeholders was too low to achieve either the necessary reduction consistent with the recommendations of the IPPC or the French objective for 2050 – a reduction about 75% of the emissions against 1990. Indeed, the policy measures that were judged acceptable only achieved a CO₂ emission reduction about 67% compared to 1990.



How to Reflect the Views of Stakeholders and Civil Society in Energy Scenarios and Strategies - Lessons Learned

By Meike Fink, Project Coordinator from RAC-France and Gunnar Boye Olesen from INFORSE-Europe

Within the ENCI-LowCarb Project, we have sought and obtained the active involvement of stakeholders in the creation of energy scenarios. This has yielded valuable insights that might help others seeking to involve stakeholders in development of energy scenarios and strategies.

In general, involvement of stakeholders improves scenario development as well as the final results, but the process takes time and resources.

It was also our experience that, while stakeholders can agree on some issues, there are conflicting views on other issues, leaving the scenario developers to decide which options to select.

Another lesson drawn from our experience was that, for some stakeholder groups, no low-carbon pathway seemed feasible.

Whom to Involve?

Stakeholders of an economic sector are by nature a diverse group, and civil-society organisations are even more so. It is not easy to choose stakeholder representatives who can represent important players and trends in a constructive way that can be used to inform scenarios for low-carbon development paths.

The project partners decided to involve stakeholders based on their importance in their respective sectors and on their interests.

The partners also decided to invite a smaller group of representatives, 15 for each sector in each country.

These were constructive choices that led to useful dialogues. The choice led to a combination of progressive stakeholders and more conservative ones. In some cases, this mix made it impossible to come close to a consensus on measures to reach the proposed 85% reduction of CO₂.

This was most evident in the transport sector, which today is highly dependent on fossil fuels. The group seems to represent well the views within the sectors, highlighting some of the challenges ahead in the transition to a low-carbon economy.

One lesson learned is that the choices of stakeholders, and of specific representatives from larger stakeholders, can decide the ability of a stakeholder dialogue to approach consensus on measures that can lead to a low-carbon society.

How to Involve Stakeholders:

Stakeholders can be involved in many ways. The project partners adopted a process that started with smaller *expert meetings in key sectors, followed by stakeholder dialogues* in the same key sectors. Each stakeholder representative was invited to *two dialogues*. This provided the option of informing the first scenarios with the expert meetings and of *adjusting scenarios between the first and the second dialogues* with the stakeholders, allowing expert and stakeholder inputs to inform the scenario development at several points in the process.

To involve the busy stakeholder representatives, it was helpful that the project used scenarios based on high-profile *models similar to those used by government planners*. It also helped that the proceedings *did not include specific quotes* from stakeholders, but only summaries of stakeholder opinions. Further, the project partners (the NGOs) *used substantial time to invite stakeholders* and to secure their participation. In spite of this, fewer stakeholders attended the second dialogue sessions than the first ones.

At the stakeholder dialogues, *the draft scenarios were presented first*. Participants then answered a series of *prepared questions, discussed the proposals, and were invited to present their own proposals*.

This led to a number of *useful observations and proposals*. It also underlined the *quite different attitudes* towards low-carbon scenarios among the stakeholders from the various sectors.

	Electricity			
	Transport			
		CCS	CCS	CCS
		"Smart Policy as Usual"		
			"Green World"	
				"All Technology Options"

The draft scenario proposal matrix presented by Germanwatch and PIK to the stakeholders.

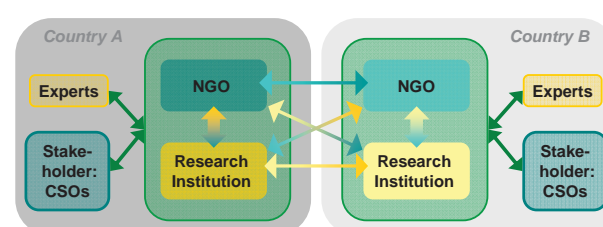


Illustration of the project's scenario building interactions among researchers, NGOs, experts, and stakeholders. More information: Project's reports.

How to Integrate the Results of the Stakeholder Consultations:

The opinions and proposals from the stakeholder consultations were integrated in the scenarios. For the IMACLIM-E model this was simple in many cases, as the model can work with different policy measures as inputs. For the REMIND-D model, however, the transformation from policy measures to model input needed more work by the modellers. In some cases, the inclusion of the majority views from the sectorial stakeholder meetings did not allow the scenarios to reach the 85% reduction target with reasonable costs. This was dealt with by development of more scenarios, including some that allowed more reduction options in the model (in one case, earlier retirement of coal-power plants) to reach the required reductions.

Realism Increasing via Stakeholders:

The use of stakeholder dialogues strengthens the foundation of the scenarios. While it might not always be possible to follow the majority opinion of stakeholder groups and still meet the emission-reduction objectives, decisions to deviate from stakeholder majority opinions must be taken with proper discussion of the choices. This increases the realism of the scenario, and it also provides knowledge of the kind of support and opposition that a given scenario can expect in the sectors involved.

Experiences from NGO Researcher Cooperation:

An important feature of the project was the cooperation between researchers and NGOs in the scenario development process. This allowed the project to use *advanced and complex models* that could not be handled by NGOs alone.

It also made possible the combination of NGO knowledge about stakeholders and political opportunities with the knowledge of researchers on macro-economics and on energy choices. The cooperation *took time*, and the success of the project depended to a large extent on the participants' interest in cooperating.

In conclusion, we *strongly recommend* that others also *involve stakeholders and civil society* in the development of scenarios and strategies for transitions to low-carbon societies. To be successful, however, the process *must be planned well* and *must have sufficient resources* to involve stakeholders with constructive results.

Main Outcome of the ENCI-LowCarb Project

After almost three years of work, the results of the ENCI-LowCarb Project have been finalised. The results are divided into three categories:

- Reports and articles from national scenario developments in Germany and France;
- Synthesis and outreach materials, based on the scenario developments;
- Other materials, including descriptions of other scenarios, descriptions of researchers and NGOs active with scenarios, seminar proceedings, etc.

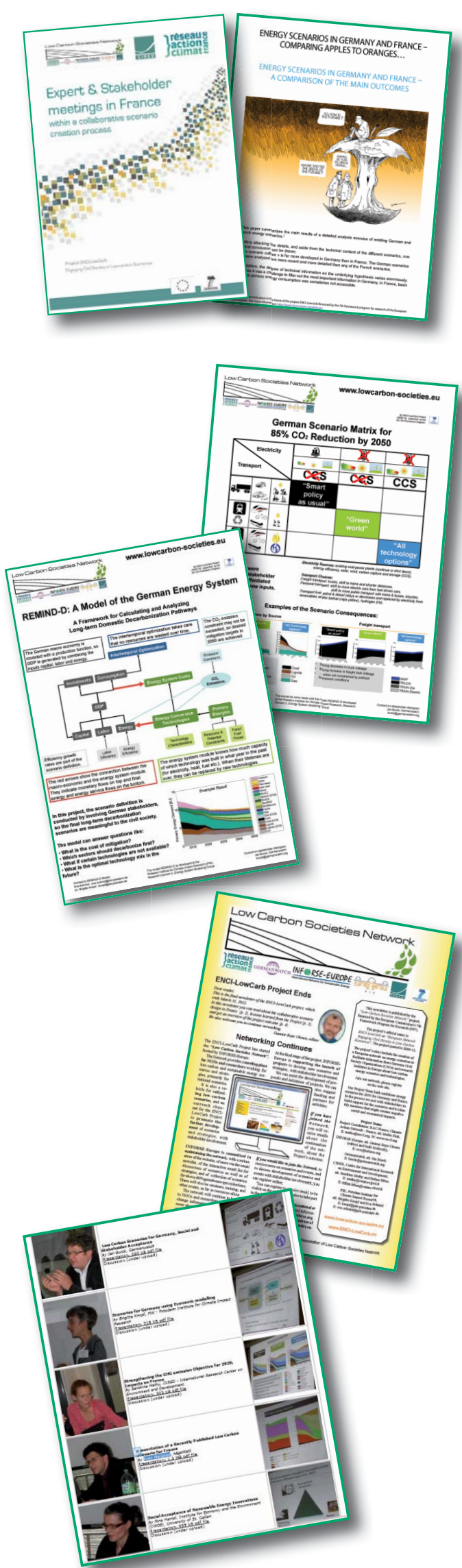
The materials are or will be available from the website www.lowcarbon-societies.eu, while the reports and articles from the German and French scenario development processes also will be available on the website www.enci-lowcarb.eu.

Reports and articles about German scenario developments within the project:

- “*REMIND-D: A Hybrid Energy-Economy Model of Germany*”. This report describes the model structure, main input parameters such as costs of energy and transport technologies, and validation of the model.
- “*Expert & Stakeholder meetings in Germany within a collaborative scenario creation process*”. This report summarises the two expert meetings and four stakeholder dialogues on transport and energy.
- *Report for the wider public on German scenarios and experiences from stakeholder involvement.*
- “*Ambitious Mitigation Scenarios for Germany: A Participatory Approach*”, forthcoming article to be published later in 2012.

Reports and article about French scenario developments within the project:

- “*Expert & Stakeholder meetings in France within a collaborative scenario creation process*”. This report summarises the two expert meetings and four stakeholder dialogues on buildings, transport, and energy.
- *Scientific report on the IMACLIM-R model and the French low-carbon transition scenarios developed within the ENCI-LowCarb project.*
- *Report for the wider public on French scenarios and experiences from stakeholder involvement (in English and French).*
- Article: “*Quel rôle pour les scénarios Facteur 4 dans la construction de la décision publique?*”, *Revue Développement Durable et Territoires*, Numéro Spécial sur le Facteur 4; Vol. 2, n° 1 | Mars 2011: <http://developpementdurable.revues.org/8802>



Synthesis and outreach of scenario developments:

- Article “*Social Acceptance in Quantitative Low Carbon Scenarios*”, presented at International Conference: “*Connecting Civil Society and Science - A Key Challenge for Change towards Sustainable Development*”, Stuttgart, Germany, Oct 20-21, 2011.
- *Final Report of the ENCI LowCarb Project. Summary and synthesis of the French and German scenario development processes and of other project activities.*
- *Fact sheets on stakeholder involvement (in English, French and German), IMACLIM-R and French scenarios, REMIND-D and German scenarios, along with recommendations for future developers of scenarios with stakeholder involvement (6 fact sheets in total).*
- *Posters highlighting models, scenarios, and stakeholder processes.*

Other materials from the project:

- “*Energy Scenarios in Germany and France - Comparing Apples to Oranges*”, report.
- “*French Greenhouse Gas Emission Reduction Scenarios*”, report.
- “*A Comparison of 11 French Low-Carbon Scenarios*”, report in French.
- “*A Comparison of 5 German Low-Carbon Scenarios*”, report in German.
- Database with short descriptions and links for 50+ national scenarios, and 6 regional scenarios, web page.
- “*Networks on Low Carbon Societies and Scenarios*”, report and web page.
- “*Local and Regional Scenarios Methodology, Challenges and Opportunities*”, report.
- 9 Project newsletters, online.
- Presentations/ proceedings from 8 European and international project events, online.
- Database with 130+ contacts of NGOs researchers and other stakeholders that are active and interested in scenario developments and stakeholder involvement, online.