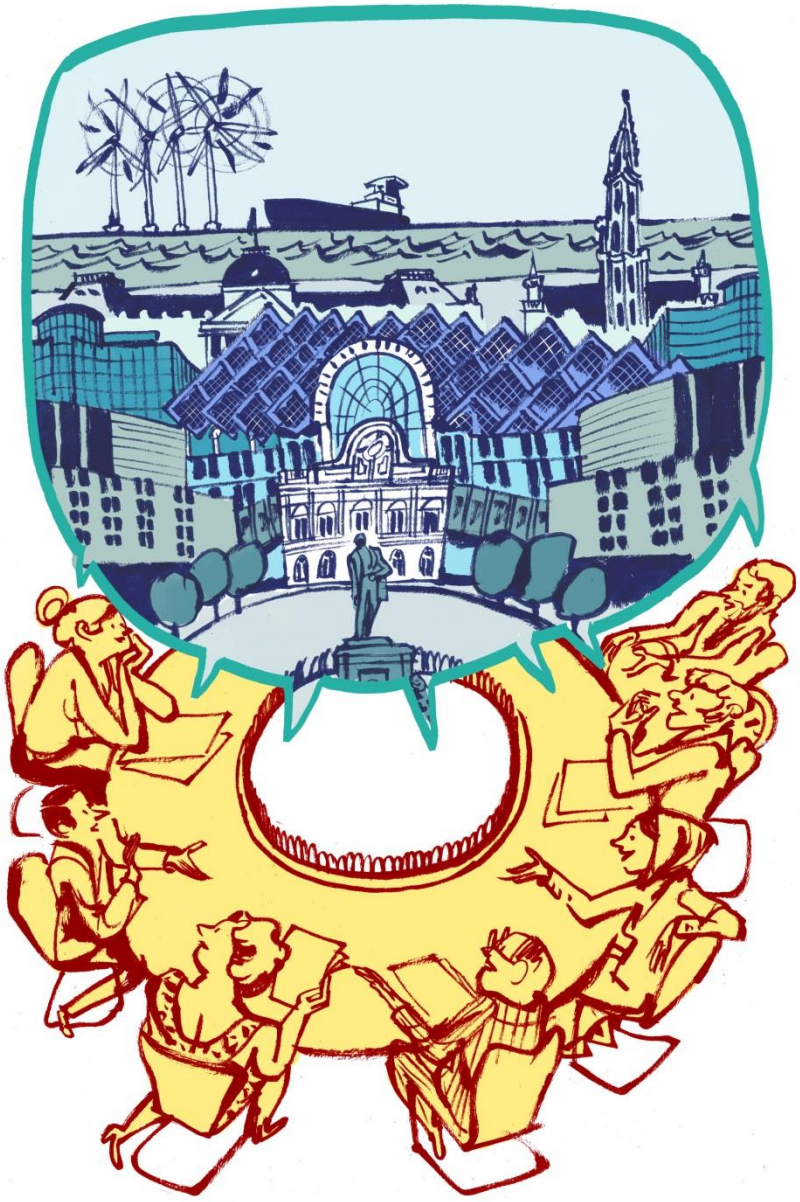
R&Dialogue

A vision and action plan for a low-carbon Europe



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1) Why we need a vision

Energy is essential for our quality of life as well as for the economy and business. The burning of fossil fuels to release energy is the primary source of anthropogenic carbon emissions. Even with significant savings in energy use, Europe will still need more energy than we are able to generate from low-carbon sources today.

The EU and its Member States are committed to jointly fulfil a binding target of at least a 40 per cent domestic reduction in greenhouse gas emissions by 2030 compared to 1990, as set out in the conclusions of the European Council of October 2014. Moreover, if we are to meet the even more ambitous European Union objective of at least 80 per cent greenhouse gas emission cuts by 2050,[1] a radical shift towards low-carbon energy generation is required.

How do we bring different groups together in this effort? The R&Dialogue project consortium believes that the objectives of the European Commission's 2050 Roadmap would be much easier to achieve if citizens, civil society and scientists not only share the overall ambition of emissions reduction, but also agree with, and contribute to, the possible solutions. When citizens feel part of the processes that give us low-carbon policies and solutions, we will be closer to achieving a low carbon society. This is why we believe we need to co-create a vision of a low-carbon society. Or rather, Europeans need to develop a number of visions: for Europe[2], for their own countries, for regions, for cities, and for themselves as individual citizens. Low-carbon processes might start with numerous visions, and might end with a set of overarching strategies, followed by tailor-made projects and local solutions.

To explore how to envisage a process of creating a joint vision, the R&Dialogue project has set up dialogues in ten countries, bringing together several hundred stakeholders and in some cases citizens. For the R&Dialogue project, the most important objective is to give an example of how, through dialogue, European societies can find inspiration to progress towards a low-carbon society**.** We define a vision as a way to imagine how the future *could* be. The R&Dialogue project has produced ten visions in different European countries. These can be found at the project's web site, www.rndialogue.eu.

[1] http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52011DC0112&from=EN
[2] In this text, «Europe» does not refer to a specific definition. It can mean the European Union of today or in 2050, the European Economic Area, Europe as a geographical definition, or something else.

The European vision outlined below, which is only one of many visions possible, is a result of a three year learning process. The R&Dialogue consortium discussed the experiences made and lessons learned during the ten country dialogues. Based on these findings an overall vision for Europe has been constructed. The vision tries to highlight the insights of this mutual learning process, but clearly it does not necessarily reflect the opinions and interests of all the external stakeholders involved. The chapter 'Vision for Europe in 2050' lays out the characteristics of a possible low-carbon Europe in the future. The chapter 'Ways of getting to the low-carbon society' gives recommendations for how to achieve this transition.

2) Vision for Europe in 2050: a full-fledged low-carbon society

In 2050, Europe's greenhouse gas emissions are close to zero. Parts of the European economy are carbon negative, i.e. we take more greenhouse gases out of the atmosphere than what we emit. This society is characterised by the aspects outlined below.

Participative energy evolution. There is continuous energy dialogue between various groups of experts, stakeholders and citizens: researchers, civil society, industry and politicians meet regularly at various levels of policy making, administration and project development. Scientists entertain constant communication on innovation with industry, politicians and the public. Citizens play an active role, and have the skills and knowledge that are necessary to get engaged in decision making processes. A culture of dialogue and communication is established, and this culture is characterised by respect and appreciation of each other's various perspectives, interests and types of knowledge. This is the foundation of a mutual learning process, which enables social change to support new forms of energy generation (e.g. change of consumption and living) and significant investment.

Residents are often shareholders in local projects. Regional or national financial support contributes to the funding of innovation projects. New energy projects are not proposed as a "given", but are decided in collaboration with local communities and open up for citizens and local politicians to influence the design of the project. Citizens are also offered to buy a stake in the project. This allows them to take ownership of issues such as landscape modifications and future income generated by

the project. At schools and universities, pupils and students learn about energy sources and strategies and how to make choices that compound environmental respect with satisfaction of personal needs. They also learn the skills and principles of good and respectful dialogue so that they can develop joint solutions not only for energy issues but also for other complex challenges.

Evidence based short/medium/long term planning. Public bodies, private enterprises and civil society representatives make energy planning an inclusive process, which takes into account the implications of energy strategies for the different sectors of society. A monitoring and evaluation process is led by climate ombudsmen, who give annual updates on the progress towards the low-carbon society. This analysis is both quantitative, e.g. emissions reductions, broken down by country or even by region, but also patterns of consumption, which indirectly stimulates emissions at home or abroad), and qualitative (which policies are likely to cut emissions further in short, medium and long term). Carbon taxation schemes, and/or a well-functioning European Emissions Trading Scheme (ETS), encourage low carbon production and consumption. Goods and services that originate outside the EU's single market are taxed according to their estimated CO_2 footprint when they cross the borders of the European single market.

Integrated European energy system. European energy markets and grids are cross-border and interconnected. This has been made possible due to improved infrastructure and appropriate national and EU legislation, but also because of increased dialogue and mutual trust between countries and regions. European regions and cities that have similar profiles and values cooperate in a model of energy twin cities and regions. This is part of a broader scheme of best practice sharing.

Flexible energy mix. Energy is supplied primarily by renewable and other low-carbon energy technologies. Each country and macro-region has an energy mix which 'which takes account of the 'energy trilemma' of energy costs, energy security and the need for clean energy generation (i.e. very low-carbon) as it applies in each European country. This will account for the very different renewable energy generation opportunities in each country as well as different material infrastruture and approaches to energy project investment and decision-making. More energy is

produced locally and at small-scale. CO_2 capture and storage is applied to heavy industries and to energy generation that still uses fossil sources.

3) Ways of getting to the low-carbon society

Learnings from national visions and action plans and the R&Dialogue project

The vision described above is *a* vision, not *the* only vision for what a low-carbon society could look like. For the R&Dialogue project, the most important objective is to give an example of how, through dialogue, Europe can find inspiration to progress towards a low-carbon society. But how can a good dialogue be achieved?

The following are common principles that have been part of the R&Dialogue framework, either from the outset or as learnings from the activities of the project:

- long-term personal commitment of participants
- involvement of all stakeholders that want to participate
- listening and empathy
- appreciation of what everyone can bring to the dialogue
- respect of knowledge and competence of everyone
- protected dialogue spaces
- transparency
- flexibility
- agreement of the objectives by the participants of the dialogue

Furthermore, methods such as “Nonviolent Communication”,” Focusing”, “Design Thinking” and “Dragon Dreaming” were applied to involve different stakeholders in creating joint solutions. These methods are empathic, creative, and partially dissolve implicit hierarchies between participants with varying level of expertise and authority, facilitating mutual understanding and better communication.

One of our main findings is that the dialogue process should in many cases be seen as equally important as the dialogue output. Informal dialogue allows for regular gatherings where a diverse set of stakeholders get to know each other in a situation where there is no immediate decision to be made. This creates a culture of dialogue rather than confrontation, and will build trust and mutual understanding. However, both informal and formal dialogue and consultation processes are needed to develop strategies towards a low carbon society.

Building blocks in the transition to a low carbon society

There are many possible areas of intervention for achieving the vision emerging from the national dialogues. The following are some significant examples of possible steps that could be taken; for a full description please refer to the individual national visions.

- Continue to explore innovative ways to meet the growing need for participation of all energy stakeholders which goes beyond the current involvement in formal decision-making processes, which are primarily focused upon traditional consultation.
- Establish more long term multi-stakeholder dialogue spaces. Representatives from research, civil society organisations, industry, media and public administrations should meet regularly to tackle the challenges of transition to a low-carbon society.
- Promote an inclusive dialogue process, which ensures that everyone is able to engage equally, and where the voices of all people can be heard, including disadvantaged and disempowered members of society.
- Recognise the value of education and training in empowering all members of society to take part in an energy dialogue through increasing knowledge, skills and confidence.
- Openly discuss, and make more explicit, the values that underpin each regulatory option to enable citizens to better understand which policy measures they want to support.
- Frame the energy transition as a holistic process that can to some extent form part of the solution to other global challenges, including socioeconomic issues, such as poverty, unemployment, and hunger, as well as environmental issues, such as the management of air quality, water resources and waste.
- Provide knowledge and tools to enable greater consumer awareness of direct and embedded energy use.
- Facilitate the move towards a circular economy which preserves and enhances natural capital in the system by valuing products which are designed for remanufacturing, refurbishing, and recycling.

Below are four examples of how these recommendations could be followed up in practice.

ACTION: Increase the visibility of carbon

What? Encourage greater transparency regarding the direct and embedded use of resources and carbon emissions of consumer goods and services. For example, through distributing domestic smart meters, improving product labelling, promoting low carbon industry standards, and publicising awards for low resource consumption.

Why? To improve consumer awareness and contribute towards more informed choices and behaviours. For a person to prioritise an issue and act upon it, that issue needs to be of direct relevance to them and they must be able to identify a connection and relevance with the cause. By increasing the visibility of carbon to wider audiences, we will be able to both raise awareness of the urgency of the issue, and demonstrate how our actions can help to address this issue with real effect.

ACTION: a 'Let's Talk about Carbon' or 'Carbon Dialogue' Train

What? Literally a train which would travel the length and breadth of the EU, visiting each Member State. There would be information and exhibition space as well as open spaces for dialogue. There would also be couchette's carriages allowing some people to stay on the train for several days at a time (along with the organisers who would do weekly shifts on the train). Each MS would decide how to select the persons to stay on the train when it passes through their country. There would also be events at villages, towns and cities when the train passes through such as low carbon pop-up actions, festivals, debates with local persons, schools & colleges, university students, writers, musicians, artists, etc., involved. Non-EU European countries would also be invited to participate.

Why? Instead of expecting people to come to Brussels to have a European dialogue, the idea here is that 'Brussels goes to the people'. The train would gather great publicity in national and local media, stimulating debates and interviews, films, etc. The power of the Olympic Beacon carried around the host country before the games open is legendary and attracts great crowds and publicity. A sustainability train has already been trialed successfully in India. It can be envisaged that many unexpected

creative pop-up activities could arise around the arrival of the Carbon Dialogue train once it has started its long journey through the EU-28 and other European countries.

ACTION: Establish a 'Clearing House' for dialogue

What? Establish a publically available inventory or database of dialogue processes in the EU28 and EU scales. All organisations would have the opportunity to submit information on dialogue and engagement processes to the European dialogue inventory. There will be an opportunity to provide information on how the process was undertaken, for whom and why, and what were the main outcomes. Reports and papers can also be submitted for filing in the online directory. A further idea is that members of the public and other stakeholders who wish to put their names forward as potential participants in future dialogue and engagement activities could do so through the dialogue clearing house.

Why? A dialogue clearing house would help build up the capacity for dialogue from within the practitioner community and the citizenry and help continuity between different processes. Too often, engagement and dialogue processes end-up 're-inventing the wheel' with insufficient learning occurring from one project or initiative to the next. Sharing best practices and making case studies readily accessible through a single inventory would go a long way to correcting this problem. An inventory of persons willing to participate in engagement and dialogue activities would also help establish projects and build-up existing experience and capacities. Data protection issues would need to be considered carefully, as would use of the citizen database by commercial organisations.

Recommendations for EU low-carbon research and innovation

Action: Establish fast-track EU research funds for urgent research and innovation needs. Allocate part of the EU research budget ("Horizon 2020") to upcoming challenges, to be more in sync with unforeseen societal or technological and scientific developments.

Action: **Allocate more EU funds for the roll-out of already existing but immature low-carbon technologies and solutions**, and in particular for projects that involve citizens (both as users/consumers and as otherwise affected parties) in the development of the projects.

Action: **The European Commission should support, fund and take an active part in development of low-carbon research & technology partnerships and infrastructure projects between different European regions**. The emphasis should be on countries that have either similar or complementary energy systems or markets. Establishing cross-border dialogue and cooperation projects would help to identify energy solutions that are most effective and efficient for the specific region.

Action : Involve civil society and industry more thoroughly in the design of low-carbon funding programme criteria scope and priorities. This should be part of a broader dialogue with citizens on European legislation and projects. This should not be restricted to EU commission officials, but should include members of the European Parliament, energy stakeholders, researchers, and civil society. It is important that this be a two-way exchange, which should allow dialogue participants to have a say on the output, and that such consultations do not only happen *after* legislation or projects are adopted. Such interaction is a supplement to written consultations, and to the feedback loop within the Brussels circles of policy makers and stakeholders.

Action: More research funds for experimenting innovative dialogue formats to facilitate communication and knowledge co-production between science and policy, science and industry, science/industry/policy and citizens.

R&Dialogue

Go to www.rndialogue.eu for more European and national reports and low-carbon visions, blogs and photos from the R&Dialogue project