

EUROPE: FACING CLIMATE CHANGE

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Following the Paris conference on climate change, the Jacques Delors Institute, in partnership with the Basse-Normandie chapter of the European Movement association, hosted on 18 December 2015 a civic panel discussion on the theme “Europe: facing climate change”. Climate change has already begun, and locally-tailored solutions exist but could be developed further.

On Sunday 13 December 2015, 195 countries adopted a historic agreement in Paris to fight climate change. Five days after the “Paris Agreement” was signed, the Jacques Delors Institute, in partnership with the Basse-Normandie chapter of the European Movement, hosted a [civic panel discussion in Caen](#), on the theme of “Europe: facing climate change”.

To launch the discussion, four participants¹ took turns presenting climate issues, European energy and climate policy, and existing concrete solutions which could be developed at the local level, particularly in Normandy: **Jan Polcher**, climatologist at the CNRS and member of the IPCC; **Thomas Pellerin-Carlin**, research fellow at the Jacques Delors Institute; **Nicolas Joyau**, deputy mayor for the environment, sustainable development and energy of the city of Caen; **Dominique Rose**, farmer and biomass producer in the local area and administrator of the [Haiecobois](#) association.



1. The causes and effects of climate change

From a scientific viewpoint, Earth is like a marble in space. It receives and emits energy, mainly from the Sun.

Some human activities involve the burning of fossil fuels, which releases greenhouse gases - particularly carbon dioxide (CO₂). These gases amplify the naturally occurring greenhouse effect, which drives up the planet's average temperatures. The higher temperatures indirectly increase natural water vapour emissions. Changes in the water cycle explain why climate change causes more frequent and more intense extreme weather events such as floods and droughts.

In Basse-Normandie as well as in most parts of France and Europe, climate change has generated larger and more frequent flooding. In July 2013, Caen experienced rain typically observed in the tropics, which caused severe floods and is consistent with climate change impacts.

In the Mediterranean, climate change has played a significant role in the particularly intense and lengthy droughts seen in the east part of the basin, especially in Syria in the late 2000s, which contributed to the outbreak of the country's civil war.

The term ‘climate change’ does not always convey the real impact of the phenomenon to citizens, businesses and policy makers. The climate is a long-term average of daily occurring weather phenomena. Humans, however, can perceive climate change as a sort of ‘weather disorder’: an unusual trend in weather which produces more storms, more floods, more droughts, etc.

2. Energy and climate policy in the European Union

The EU's energy and climate policy aims to offer European citizens and companies secure, sustainable and affordable energy while preventing dangerous degrees of climate change at the global level. The policy has an internal and an external agenda.

Externally, the policy makes the EU an influential stakeholder in international climate talks in order to obtain a solid international commitment to the fight against climate change. The COP21 in December 2015, which produced the Paris Agreement, was successful in part thanks to the diplomatic efforts of the European Union and its members. The true impact of the Paris Agreement on the ground, however, largely depends on whether promises can be transformed into real action.



Internally, European energy policy aims at:

- reducing greenhouse gas emissions by 20% by 2020 and by 40% by 2030, from 1990 levels;
- developing renewable energy so that it represents 20% of energy used in Europe by 2020, and 27% by 2030; and
- improving energy efficiency by 20% by 2020 and 27% by 2030.

These goals must shape European policy and be achieved via European initiatives (e.g. legislation which promotes energy efficiency) and EU support for local initiatives to boost energy efficiency and renewable energies.

3. Local authorities: leading the fight for energy efficiency

For citizens and local authorities, the most important aspect of the energy question is often the energy cost.

For citizens, the issue is purchasing power, but for the poorest among them, the problem extends to paying their electricity bills and sometimes having to cut spending in other crucial areas such as food. Energy efficiency allows Europeans, and in particular the poorest, to spend less and increase their purchasing power.

Local authorities face significant energy spending, which tends to rise, in a very strict budgetary environment. The city of Caen, for example, spends approximately 5 million euros a year, including 1 million on public lighting alone. Energy efficient products such as LED bulbs, which use around 20 times less power than incandescent ones, should help reduce energy consumption and energy bills, for the city and, by extension, taxpayers. Improvements such as these are a goal of [Cit'ergie](#), an initiative supported by the European Union and the [Covenant of Mayors](#).

4. Biomass: an energy source for Normandy and Europe's future

In many industries and regions, renewable energy production already economically competes with fossil fuels. In rural areas like Normandy, biomass is often a more economical source of heating than fuel.

Biomass, a major renewable energy source, is often overlooked: used only within a small perimeter, or by producers themselves, it is under-represented, mis-represented or absent from statistics.

In rural Normandy, fields are traditionally separated by hedges. In the Manche department, an association by the name of [Haiecobois](#) collects wood between 0.5 and 40 cm in width from farmers' hedges. The wood is then chipped and used to heat buildings (homes, schools, etc.). On average, one cubic metre of collected wood saves 80 litres of heating fuel from being burned. In terms of climate change, on average, 1 tonne of biomass reduces by 2.5 tonnes the CO₂ emissions made from burning fuel to produce the same amount of heat.



This initiative is an example of a **circular economy strategy**, as all of the wood is produced, transported and burned within the region. Ashes from the burned wood are collected and used as soil fertiliser. By promoting the use of hedges, the initiative also develops local plant and animal **biodiversity**.

Developping biomass can also be a way to **adapt to climate change**. At a time when drought and flooding are a growing threat, hedges act as a regulating agent by soaking up a certain amount of excess water and reducing the likelihood and intensity of floods. The water is stored and limits the impact of droughts as well.

Biomass energy is a time and money saver for farmers, who no longer have to maintain their hedges. Better still, it is a small source of additional income. The process promotes the preservation and expansion of hedges, a sustainable approach from an economic, social and environmental standpoint.

Some types of biomass production are better than others, however. Certain producers create hedges solely for the purpose of biomass production, whereas such areas used to be natural forests or farm land used to grow food for people and animals. Biomass shouldn't be touted at all costs; it should be developed in keeping with the local environment, adaptation to climate change, and other uses of land, such as human food production.

5. Climate change: central to the world's major challenges

Climate change plays a central role, beyond environmental considerations, in today's major international challenges. As such, other issues were addressed during discussions, such as the world's growing

population, conventional and nuclear weapons policies, and major technological undertakings, including research to produce energy via nuclear fusion, at a much later stage.

The climate is a global public resource, and international governance of it raises questions concerning other forms of governance at the international level. Just how binding is an international agreement such as the one signed in Paris at the COP21, for example? How does an international climate organisation such as the UN Framework Convention on Climate Change (UNFCCC) justify the choice not to make decisions said to be the remit of other international bodies? Air and maritime transport, for example, are two industries responsible for a growing share of the greenhouse gas emissions which cause climate change.

Lastly, climate-related issues can be addressed in relation to trade considerations, particularly in the context of talks for a free trade agreement between the European Union and the United States.

Conclusion

Climate change has already begun. It disrupts weather patterns, which has a negative impact on people's lives. A response to this threat requires coordinated action at all levels, from global to the most local. The European Union is a leader of this coordinated action. The success of the Paris COP21, at which a historic agreement was adopted, proves that the international action of a united Europe can be effective. The agreement alone is not enough, however. It is a prelude to the launch and expansion of initiatives that effectively fight climate change and promote a sustainable society from an environmental, economic and social standpoint.

At both the EU and local level, the challenge is for decision makers, companies and citizens to find solutions that suit individual contexts. The fight against climate change will not be won with a magical, high-tech remedy but by coordinating solutions adapted to realities on the ground. In this context, the European Union does not dictate the appropriate path; instead, it promotes, supports and assists local initiatives: the release of new, more energy efficient products such as LED bulbs, used for public lighting in Caen, or the development of hedges in Normandy, both to adapt to climate change and develop renewable energy.

1. The PowerPoint presentations used by the participants are available on the [Jacques Delors Institute web site](#).

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