

Transformative Change, Tipping Points and Philanthropic Opportunities

The Challenge

As Europe moves towards more ambitious stages on the road to almost complete decarbonisation by 2050 with an “at least” 40% greenhouse gas reduction target for 2030, change needs to become increasingly transformational in nature. That transformational nature manifests itself in complex integration needs of ever more decentralised and more digitised energy systems, which at the same time must be scaled up rapidly. Moreover, changes in energy, efficiency and mobility systems are highly reflexive.

At the same time, the European Union (EU) stands at a crossroads from many perspectives:

- **Political integration:** Further integration versus balkanisation, specifically with regard to the domains relevant for decarbonisation: an integrated European innovation and industrial policy, and an effective Energy Union.
- **Governance:** Continued reliance on the rule of law, with EU targets transposed into national laws versus improving the effectiveness of soft governance or methods of open coordination.
- **Competitiveness:** Europe as a leader in terms of driving sustainability, circularity, decarbonisation in globalised value chains versus avoiding integration and innovation challenges, and accepting a gradual decline of competitiveness.

Political, economic and social diversity between and within the enlarged set of 28 EU Member States, centrifugal pressures (of which possible Grexit and Brexit scenarios are only the most discussed examples), and large migration flows from Mediterranean and African crisis regions restrict the political bandwidth and fiscal resources to deal with the low-carbon transition and further complicate the picture.

However, how Europe responds to the energy trilemma of balancing security of supply, cost of energy/competitiveness and climate change mitigation will significantly determine the future of the EU itself. As it is the case in any complex system transition, two opposing transformative outcomes are entirely possible:

1. Europe masters the challenges and reaches a *higher-level system state*: A new balance of governance, institutional settings and political economy will allow reaping the promised benefits of “better growth, better climate”, and resolve the perceived dilemmas between competitiveness and climate through robust policy choices, implementation and innovation. In this outcome Europe will be a reference point for many of the national and regional low-carbon transformations across the world.

2. Europe fails at mastering the challenges and falls back into a *lower-level system state* than the current state: Policy cooperation is dramatically reduced, progress on the low-carbon transition will be country-by-country (at best) and highly contingent, and large-scale momentum will be lost.

In both scenarios the transition to the next state of the European system is likely to be characterised by non-linearity and tipping points. When it comes to transformative change, both in the positive and in the negative case, a painfully long, non-linear build-up to change tends to be followed by a surprisingly swift leap into a new state.

Thinking in Terms of Thresholds and Tipping Points

One could argue that in most critical areas of decarbonisation a threshold logic applies: After decades of building momentum, a large-scale, transformative shift can happen within the next decade if societies succeed in finding and mastering a critical mass of relevant change thresholds.

At the European Climate Foundation (ECF), we believe that Europe is approaching critical thresholds in a number of areas at this point in time:

- **Decoupling emissions from growth:** In many of the most successful EU countries, emissions are decoupling from growth. The new European Commission is putting strong emphasis on circularity to strengthen this decoupling.
- **Ending the reliance on coal:** Actions of governments, businesses and citizens have had the combined effect of closing the door to new coal development in Europe. In the next phase of the transformation, managing the decline of existing coal is on the agenda in Germany and the United Kingdom (UK) with first political commitments to end coal for power generation.
- **Decentralised energy systems:** 50% of German photovoltaic (PV) installations are owned by individuals and communities, and are creating strong momentum for a more decentralised and heterogeneous energy system architecture.
- **Risk awareness:** The French energy transition law includes a carbon-reporting requirement for asset managers. Stranded asset risk is entering mainstream discussion with the Bank of England, Standard & Poor's (S&P) and others in central roles.
- **Strengthened governance:** The 2030/Energy Union Frameworks call for new governance that potentially facilitates greater coordination of national climate and energy policies, and mobilises a new constellation of stakeholders in the energy market while embracing structural variance, uncertainty around innovation and external volatility.
- **Electric mobility:** European manufacturers are entering the electric mobility space and new business models are emerging around shared passenger electric vehicles (EVs), electrical light distribution trucks, and connected infrastructure and services.

Each of these thresholds is characterised by a fundamental shift in how large groups of stakeholders view the world. Transformation materialises via convergence of relevant stakeholders around new interpretations but may also imply that formerly relevant stakeholders find themselves replaced by new stakeholders. Take as an example the increasing role of IT and big data companies in the energy and mobility system transformations that could well lead to major upheaval of traditional energy systems and automotive industry structures.

Philanthropic Opportunities in the European Transformation

Four implications of this transformative change threshold logic can be determined for philanthropic strategies in Europe:

1. It is important to identify themes close to a critical threshold – positive or negative – and then focus resources. Philanthropy needs to reflect underlying currents in politics and even polity as a starting point for good strategies.
2. Systems thinking, integrated impact assessments, end-to-end global value chain modelling and scenario planning are useful tools to navigate the sensitivities and uncertainties of transformative thresholds. Philanthropy is well positioned to ask the

difficult questions, ensure open sourcing of models and explore unconventional scenarios to expand the solution space.

3. When aiming for transformative change, the *what* of the change – articulating details of a desired future and advocating them – is often less important than the competence of addressing the specific challenges of *how* to achieve a low-carbon transformation. Philanthropy is in a privileged position to step back from dichotomous trench warfare of interest groups to put the quality of dialogue and processes for convergence on the agenda.
4. Transformative change in Europe will need to be anchored in deeper value choices. Philanthropy can help connect the different levels of current discourse from the technical via the political to the moral. This connection across levels of discourse will be an important factor of success for transformative change.

The last years leading up to the twenty-first session of the Conference of the Parties (COP21) to the United Nations Framework Convention on Climate Change (UNFCCC) in Paris have been intense and demanding for the climate and energy community. Given the above dynamics of necessary transformative change and tipping points, it is a safe bet that the years to come will be no less demanding.

ALL ESSAYS AVAILABLE AT: www.europeanclimate.org

- Transformative Change, Tipping Points and Philanthropic Opportunities
- The Road to Paris and Beyond
- Dieselgate
- Scaling the 4 I's of Energy Efficiency
- Energy Union: The Making-Of
- Assets for a Low-Carbon Society
- Implications of the Paris Agreement for European Governance
- Industrial Innovation for Competitiveness
- Driving Change During Low Oil Prices