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The Future of the EU's Energy Project

Energy security dimension



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As part of this, we look at what energy security actually means at the household, state and European Union levels.

It is the first of four briefs exploring the various dimensions of the EU's energy project, all based on expert input and discussions among the GEF Knowledge Communities. The other three deal with social aspects, climate and democracy.

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Introduction

Energy is to society what food is to the body: a complex and essential enabler of life. For the EU, as for any other political community, securing sufficient energy supplies to meet its needs is vital to its prosperity, political stability and, quite possibly, social order. All aspects of the "European way of life" – political, economic, technological and social – ultimately depend on reliable access to energy.

Energy has always been an important part of the EU's raison d'être, as can be seen in both the 1951 Paris Treaty that established the European Coal and Steel Community, and the European treaty that was signed alongside the treaty founding the European Economic Community in 1957. However, with the exception of the liberalisation of public services, introduced in 1986 by the Single European Act, the EU's energy policies remained very much the responsibility of Member States.

Member States' reluctance to share energy competences with the EU meant that energy security, too, remained a primarily national concern, making a collective strategic approach impossible. Despite the lessons that should have been learned from the energy crisis of the 1970s, even the geopolitical aspects of energy security were thereby not given much attention by EU decisionmakers.

It was only in the 2000s, with the effects of the Second Gulf War on global energy supplies (Juhasz, 2006), and rising tensions between Russia and Ukraine, that energy security began to be taken more seriously in European political debates. At the same time, planning for future energy supply and demand was also changing drastically under the imperative of decarbonisation to reduce greenhouse gas emissions and mitigate climate change in response to the Kyoto Protocol. This culminated in the first European Renewable Energy Directive in 2001, the EU's 20-20-20 targets in 2008¹, and a climate package in 2009.

Following these evolutions, the EU has finally become aware of its structural dependency on the rest of the world for the energy that powers its economy and households. Global competition (Goodstein, 2004), the climate emergency and geopolitical turmoil – especially the Russian war against Ukraine - have all pushed energy security towards the very top of the political agenda for the EU and its Member States.



State of play

As reflected in the introduction, the understanding that Member States' energy security cannot be a solely national preoccupation slowly but steadily grew. As a result, the 2009 Lisbon Treaty finally enshrined energy policy as an EU competence. The Union adopted its first joint Energy Security Strategy in 2014 (Evans, 2014), and this was followed in 2015 by its Strategy for a European Energy Union (Erbach, 2015).

Nevertheless, differences of approach persisted, becoming glaringly obvious with the Nord Stream gas pipelines from Russia to Germany, which bypassed Ukraine and other Central and Eastern European (CEE) countries. The fact that the Nord Stream 2 agreement was signed in June 2015² – after the EU's enlargement to a large part of the CEE states, and despite the sanctions imposed by the EU following Russia's illegal annexation of Crimea in 2014 – showed just how superficial the concept of a common European energy security remained.

It took the chaotic disruptions to supply and value chains caused by the Covid-19 pandemic in 2020-21, followed by Russia's invasion of Ukraine on 24 February 2022, for the EU Member States and institutions to consider a truly common approach to energy security policy.

The Russian war of aggression has been a real game-changer, having both established the link between Europe's energy security and its wider security issues, and fast-forwarded Europe's understanding of its structural choices. These now-obvious energy vulnerabilities were always going to become apparent eventually, however, since Europe's blind reliance on both fossil fuels and the sometimes unpredictable countries that supplied them was anything but sustainable. In 2021 – a year before Russia attacked Ukraine, thereby profoundly disrupting global energy markets and EU supply channels – EU energy imports dependency stood at a solid 55.5% (Eurostat, 2023).

Energy security and the EU Green Deal

At the start of her presidency of the EU Commission, Ursula von der Leyen (2019) declared her intention of turning it into a "Geopolitical Commission". It has indeed developed a set of policies in response to the energy security challenge and its intersections with climate action, firstly through the Green Deal. The ad hoc RePowerEU plan presented in May 2022 in the light of the war in Ukraine went further, explicitly stating its aim of ensuring energy security by "rapidly reducing dependence on Russian fossil fuel and fast-forward[ing] the green transition" (European Commission, 2022).

Europe was fortunate that the Covid-19 pandemic and the Russian invasion did not happen until after the December 2019 launch of the EU Green Deal, which has enabled both the Covid recovery and the response to the invasion to be built on a green foundation. Indeed, the clear conclusion has been that Europe would have been able to cope with these crises even better had it been more ambitious in its energy transition a decade earlier. In 2022, the head of the highly respected International Energy Agency stated that the EU energy system would have been stronger and EU energy prices lower if there had been more renewable power generation and more energy efficiency in the 2010s.



This is the key lesson from the early 2020s, and should function as a wake-up call. Current frameworks and initiatives still fall short of delivering real energy security throughout Europe. Further-reaching European measures are needed if the EU is to achieve strong energy security at the same time as ambitious climate action, affordable energy for citizens and businesses, and mutual solidarity.

This realisation is visible in the increasing urgency with which Europe is addressing questions such as: how to accelerate permissions for power grid expansion and more renewables; how to redesign electricity markets to enable smart digitalised efficiency and management of energy load through demand response; and how to finance green energy investments and green industrial strategies throughout the EU, as well as in Ukraine, the Mediterranean neighbourhood, and globally.

New realities, new dynamics

It is important to recognise that energy security based on decarbonised, digitalised and increasingly electrified energy systems with renewable wind and solar at their heart is a very different proposition from old-style energy security based on stockpiling fossil fuels.

Resources

One of the differences is obviously found at the source, concretely: the replacing of oil and gas imports with materials and resources required for the manufacture of photovoltaic panels, electric vehicles, batteries, etc. New dependency risks are thereby arising, at a time of escalating strategic rivalry between the US and China, and growing demands for equitable economic relationships between the Global South and the EU. The USA's Inflation Reduction Act was an attempt to dramatically advance its global position in a transitioning world, and took the EU by surprise, prompting ad hoc responses finally structured around an EU's Green Deal Industrial Plan. Key to this European plan are the Net Zero Industry Act, which aims to strengthen the EU's competitive position in the global clean-tech industry, and the Critical Raw Materials Act, which aims to secure the supply of these materials and decrease EU dependence on other countries, while also increasing EU processing capacity for critical materials to 40% of its annual consumption by 20303. However, these Acts fall short in scope, as they are missing a serious investment pillar (Humphreys, 2023) and do not pay enough attention to key issues such as social impacts (displacement, jobs, etc.) and the environment (e.g. biodiversity), both from an internal and an external perspective

Deployment and infrastructure

Another difference between the new green energy security and the old fossilbased security – one that comes with huge opportunities – is the speed with which renewable projects can be built. Building solar farms and wind turbines is a comparatively fast and straightforward process – unlike nuclear power, which is being considered again in some EU countries in the wake of the gas crisis. Although nuclear electricity production is emissions-free, it is associated with risks, high costs and very slow implementation, putting its potential for largescale development in the EU in extreme doubt. It is essential that decisions be made on the basis of transparent, accurate data about construction costs and timescales, as well as waste storage and safety provisions. The scientific evidence to date points strongly in the direction of renewables.



Social impact

The transformation to a decarbonised, digitalised energy system will moreover impact people's lives in important ways, affecting social models, jobs, workers' skills required, and the entire value chain of the products we buy. It reaches into the very heart of how we live, which means it must also inform how we structure distributive and other policies. Understanding these new social realities and dynamics and integrating them into policy design will be critical to the future of the EU's energy security. The social dimension of the energy transition is addressed in more detail in a separate Political Brief of this Knowledge Community.

Grids

Grid constraints are a less discussed but nonetheless important bottleneck for the energy security of the EU's green transition. There is an urgent need to reinforce and extend grid connections to manage large volumes of offshore wind power and very fast growth in distributed solar. Moreover, transitioning away from fossil fuels requires the electrification of entire sectors, meaning that power grids will not just need to supply clean energy to existing users, but must also be able to meet ever increasing demand from industrial heat processes, EVs, electric heat pumps, etc. – and manage them smartly as part of the overall energy balancing system.

To deliver renewables-based electrification at an EU level, grids need to be upgraded at local, national and international scales. Nine countries around the North Sea, including Denmark, the Netherlands, Germany and the UK, recently agreed to develop an offshore ring-grid (Mehta, 2023). More major grid initiatives of this kind will be required to connect northern wind resources with southern solar resources across the EU. The European Commission (2022) estimates that the electricity grid will require about €584 billion of investment between 2020 and 2030, much of it for distribution. Unlocking these investments will require EU coordination. The 2022 revision of the Trans-European Networks for Energy policy (TEN-E) updated the categories of infrastructure eligible for support under the TEN-E Projects of Common Interest (PCI) programme to focus on renewables, including low-carbon gases such as hydrogen. Whether this and other existing policy and support schemes will be enough to deliver the estimated investment required for the electricity grid is highly doubtful.



Reflections on the state of play

The above overview serves as a reminder that the new understanding of European energy security in the context of the energy transition has not yet been clearly defined by the EU institutions, and cannot in any case be reduced to a simplistic construct. On the contrary, it is very much a moving concept that is constantly evolving to reflect the evolutions in our economy and societies and the available technologies, data and practices. Energy security will continue to affect all layers of society, and its strategy will need to evolve in line with those societal transitions.

It is essential that a new understanding of European energy security is not characterised by short-term, quick fix ideas that reaffirm the old fossil fuel model: it must be founded on a long-term, systemic, sustainable vision of European needs, resources and technology options, all coordinated at the EU level. It thereby has to build on the strengths of wind, solar and other renewable energy sources, and give high priority to sufficiency, efficiency, demand flexibility and energy storage. Below, we dive deeper into several aspects that are critical for such a future-fit sustainable energy security vision.

A post-fossil fuel concept of energy security for a greener, fairer, digital society

Shifting to sustainable and reliable energy sources

Sustainability and reliability are crucial to making sense of the concept. Even if fossil fuels will continue to feature in Europe's national energy mixes – in the short term, at least – there is no doubt that the structural answer to the EU's energy security issues includes the expansion and development of renewable energies. Many green energy technologies, as well as the EU's crucial move towards electrification, are highly dependent on critical materials such as copper or nickel. However, the global market situation for such materials is far from stable, and the EU risks exchanging its unreliable, Russia-heavy dependence on fossil fuels for a similarly precarious dependence on critical materials and products containing them.

The fierce competition between the US and China for dominance in green tech has led to a kind of arms race between them, with occasional spats in the form of export bans; but it has also resulted in multi-billion state support for the sector in both countries. Europe risks being outperformed by both protagonists and consequently finding itself in a weak, dependent position once again. At the same time, new economic and geopolitical axes are being formed across the world on the basis of availability of green transition materials and manufacturing capacities, both current and potential. How the EU engages within this geopolitical field, especially in relation to countries in the Global South, is something requiring urgent reflection. This means considering the whole of the value chain and linking its domestic and foreign aspects.

Environmental and social standards

If the transition to the new energy security is to be achieved without creating new vulnerabilities, there must be planning to maximise use of Europe's local energy resources. This will require comprehensive studies into issues such as the presence of critical materials in Europe, as well as the best, most sustainable mining practices in terms of environmental and social standards.



These environmental and social standards are, of course, equally crucial when it comes to imported resources, since there is a risk that new energy supply chains could replicate the injustices of the neo-colonial practices associated with fossil fuels. In its past, Europe dealt with threats to the security of its energy by means of strong-arm diplomacy and military pressure. It would be unjust, dangerous and counterproductive to replicate this model. It is concerning that the "friendshoring" being increasingly advocated in European energy security discussions could be prioritised over opportunities for equitable climate action partnerships with vulnerable countries to help both their and our clean energy transition⁴.

New infrastructure

In addition to massive investment in renewable energy, it will also be essential to direct efforts towards the electricity grid. The switch to reliable, clean energy can only happen if renewables projects are able to connect to electricity grids, but this is complicated by the fact that these are state-owned in some countries and privatised in others. The green transition will require an overhaul of the current set-up and huge improvements in grid connections.

Additionally, cyber security will continue to grow in importance and needs to be put at the heart of the European understanding of its energy security.

Demand side

Finally, it would be misleading to suggest that the energy transition only requires the replacement of abundant fossil fuel energy with abundant clean energy. While it is true that the resources used in a green economy have far less environmental impact, they are nonetheless finite, and come with social, environmental and international consequences. It is therefore of great importance that European thinking be balanced towards the demand side of the transition. A focus on sufficiency, efficiency and circularity will result in less energy being required – and this will significantly ease the challenge of greening the energy need that remain.

Balancing government institutions, market logic and investments

Government institutions

Europe's policy-making bodies are currently too weak to properly navigate a route to strengthened energy security. They simply do not have either the resources or the knowledge to monitor, gather, process and interpret the vast amounts of data with the required expertise to inform a strategic approach to the issue. The result is a lack of clarity and predictable policy.

There is a worrying trend for policymaking bodies to fill these gaps by outsourcing critical policy processes to big consultancies, rather than by investing in building institutional knowledge in Brussels and national capitals. The current approach relies too much on expertise and data provided by private corporations whose prime concern is to ensure their profitability, not the energy security of the continent and its citizens.



The transition to a new model will inevitably require the general public to make changes and exercise restraint, and this will only be accepted if the information they are given about who is doing what, and for what purpose, is accurate and not distorted by propaganda from vested interests. More and better-managed data creates greater resistance to disinformation, manipulation and nefarious political campaigns.

This lack of institutional capacity can also be seen in the development and scale-up phases of clean energy transition projects. Many Member States experience difficulties in finding mature, "good" projects to fund, but lack the ability to step in with expertise. Better institutional follow-up of potentially interesting projects through the provision of guidance and support would contribute to the maturation of projects relevant to European energy security.

Strengthening the policymaking institutions would also aid cooperation between the EU's governments. The first few months of the energy crisis in Europe were a reminder that not all the lessons from the pandemic have been learned and assimilated. Lack of cooperation and the prioritisation of national prerogatives has been detrimental to the energy security of Europe's citizens.

Markets

Building the new European green energy security will require market design reforms. The current market instruments used to ensure the energy transition and EU energy security have reached their limits. The widely acknowledged shortcomings in the wholesale electricity and global fossil fuel markets show that the unguided free market is no longer trusted, either by citizens or by companies seeking to invest in the energy transition.

Grids play such a key role in the green, energy-secure transition that the operators of transmission and distribution systems have become key players. They should be encouraged to take a more strategic role in helping governments to devise ambitious infrastructure programmes. Key focuses should thereby include: fairness; the creation of opportunities for system value in the electricity sector, not just a focus on commodity prices; the decentralisation of supply and demand; and flexibility. The market design needs to focus on phasing in innovations such as digitalisation to match renewable energy to users, and phasing out the use of coal and gas for electricity generation.

Finances

Finally, we need to adapt the ways financing is made available, governed and directed. The EU institutions are still mostly restricted to controlling the rules governing the market. They need to be able to influence investor confidence more actively, and more actively support system-valuable projects (and not just at trans-European borders, as with the TEN-E programme).

A new, secure, sustainable energy system should not be concentrated in the hands of a small number of players. European fiscal rules could be a powerful vehicle for the delivery of change on this level if they enabled Member States to invest in the green transition; yet, as they currently stand, these rules overemphasise austerity and fiscal discipline. A recent report by the New Economics Foundation showed that only four Member States, representing 10% of EU GDP, have the fiscal space and budgetary capacity to deliver investment in line with the 1.5C target (Mang & Caddick, 2023). By limiting Member States' fiscal capacity to levels that prevent them from investing in the transition to the clean and secure energy systems required to turn the long-term vision into reality, these EU rules have become a huge part of the problem.



The social aspects of energy security

Energy poverty is a serious and growing problem that takes many different forms and varies significantly between one Member State and another, and clearly needs to be addressed as part of any discussions about energy security. While it would be unwise to predict developments in the war in Ukraine or which of the next few winters will be particularly cold, current trends suggest that the EU is facing potential crises in energy costs for at least the next five years. The conjunction of a mild winter in 2023 and a Chinese economy in lockdown made the first year of being weaned off Russian gas rather easier than had been feared. But even with the precautions it has already taken, the EU remains vulnerable to harsher weather that could increase energy poverty still further or even lead to energy rationing.

National responses to the EU-wide commitment to reduce gas consumption by 15% have been both incomplete and socially unjust: an EEB study published in May 2023 found that "only 14 of 27 EU states have adopted mandatory measures to reduce energy" and, worse, that "governments refraining from mandatory reductions for business and industry are shifting the burden of the energy crisis onto the most vulnerable citizens". These concerns are shared by the Right to Energy Coalition and many NGOs dealing with energy poverty in Europe, who correctly stress that energy supply crunches and thus energy security cannot be seen separately from their effects on inequality in societies and that, in their scramble to address the crisis, government approaches have been too short-sighted and have failed to tackle the structural energy deficit and its structural effects on societal inequality.

Engaging the public in more structured ways is another prerequisite for the creation of resilient – energy secure - transformative policies. One way to achieve this is through education: the school curriculum needs to include the energy transition as well as climate change. Participative democracy and citizen involvement in policy-making has worked well in other parts of the world to persuade communities to embrace renewable energy infrastructures.

This topic will be explored further in the political briefs of this Knowledge Community on the democratic dimension and the social dimension.



Political proposals

The above reflections on the current state of play, introduce the necessity of a drastically new way of approaching energy security in the EU.

Updated strategy

The 2014 Energy Security Strategy has long been outdated (Maćkowiak-Pandera, 2023). It still relies in parts on fossil fuels and fails to recognise the magnitude of the climate crisis and the resulting need to put sufficiency, efficiency and clean energy at the heart of EU energy security policy. Neither does it take account of the huge technological developments that have taken place in the last few years.

The EU now needs a new, green vision for its energy security and a corresponding European Energy Security Strategy that Member States and the European public can rally around.

These should not be restricted to crisis management, but must also involve medium and long-term planning for a fair energy transition. Europe's understanding of energy security needs a re-think in line with today's realities, based on energy that is zero-emission, reliable and resilient. Sound analysis will be key here, and should lead to the adoption of a systemic, up-to-date understanding of energy security that balances the supply- and demand-side factors. This will require EU energy security⁵ to be defined on the basis of the reliability and sustainability of resources in the new geopolitical, technological and social context.

A prerequisite for this modernised strategy is that the energy transition must be put at in its core. As one of our Knowledge Community experts recently stated, "Security today depends on answers that meet the needs of our technological achievements, not ones that look to old solutions" (Maćkowiak-Pandera, 2023).

The shift to clean energy and electrification comes with new energy security dynamics, opportunities and vulnerabilities that all need to be addressed:

- The EU must both match the scale of US and Chinese global partnerships with respect to the materials needed for the transition to clean energy, and do so on the basis of a) genuine climate action partnership with emerging markets and developing economies and b) best practice sustainability standards (in minerals mining, for example), both in Europe and elsewhere. Europe needs to develop amicable and constructive partnerships with its neighbourhood and beyond in respect of climate, clean energy, security and critical materials. A key objective should be sincere, cooperative and mutually beneficial energy transition partnerships with African countries. There must be no "green colonialism" of energy supply.
- Environmental and social safeguards must be at the heart of energy security frameworks. Energy security does not exist in a vacuum: strategy must balance the security of supply with social, biodiversity and other cross-cutting areas.



- It is absolutely critical that Europe shifts gears when it comes to investing in improvements to the electricity grid, both by eliminating bottlenecks for the integration of clean energy production and by connecting Member States' intra- and inter-EU infrastructure.
- The new Energy Security Strategy must include an action plan to better equip EU and national public services to gather, monitor and assess scientific data to feed a strategic approach to energy transition and energy security. This must include investment in statistics organisations, research labs, artificial intelligence and governmental communication skills. We would welcome the creation of a European Energy Agency with the necessary human expertise to intensively support analysis and data sharing, as proposed by Bruegel in April 2023.

Reflecting the new Energy Security Strategy in practice

Implementing this new strategy will require bold policy frameworks. It is clear that free markets alone will not deliver either energy security or the energy transition. Target-setting will not suffice, and nor will reliance on carbon price or spot prices in the energy market.

Shaping the rules and financial frameworks

The EU institutions need to work with Member States to provide more robust and more detailed guidance on what is needed in order to deliver the new green energy security, and the roles that businesses and citizens will need to play.

To avoid the risk of a backlash, policymakers must include the public in the transition, engaging with them in terms of the numbers, timeframes and practical implementation of climate and energy targets. Balanced decisions will be required. These may include special tariffs for certain groups of consumers, in the short term at least, while enabling these groups to take ownership of their own energy transition in the longer term.

The electricity market needs to incentivise the activation of desirable resources from a climate neutrality perspective, while respecting the principles of stable energy supply. It must reward flexibility, while also being able to handle dispatchable capacity. As the system becomes more decentralised, grid expansion must make full use of locational signals so as to reduce constraints on electricity transmission and distribution in an economically viable manner.

In addition to setting the rules, the EU and its Member States should lead by example on finance, and create wider fiscal space. The EU institutions can do this by making meaningful changes to the economic governance framework so as to reflect the new realities, thereby creating more space for future-proof clean energy investments. A central European funding mechanism for this kind of investment should also be created in order to balance capacity differences between the Member States.



Demand-side focus

Easy wins for energy transition and energy security can also be achieved through demand-side measures, such as support for energy efficiency interventions and tackling of overconsumption. Securing energy by decreasing demand through savings and efficiency is indeed the first no-regret hurdle to be cleared.

Measures of this kind need to have the desired social outcomes designed in from the start, however: many schemes to support citizens to reduce energy consumption have mostly benefited richer households that can afford additional investments. Key programmes should be redesigned to target and prioritise lower income households. Serious investment in insulating and modernising the homes of people who do not have the means to do it themselves is the fastest way of achieving a shared sense of energy security. The Social Climate Fund and related national plans are a step in the right direction but, as it stands, the Fund is far too small to meet the huge need.

Another, often overlooked, demand-side intervention with enormous potential is sufficiency. "Sufficiency policies are a set of measures and daily practices to avoid the demand for energy, materials, land, water, and other natural resources over the lifecycle of buildings and goods while delivering wellbeing for all within planetary boundaries" (IPCC, 2022). The sufficiency approach to energy reflects planetary boundaries and the EU's historical and current use of resources. Scholars and organisations including the IEA and the ESABCC point to the necessity of including sufficiency measures in the policy mix.

Energy security for all

Finally, but crucially, Europe as a whole will not be energy secure for as long as some of its people are still experiencing energy poverty. The frameworks need to address both existing and potential inequality. The effects of underdelivering on energy security hit the poorest and most vulnerable hardest. They also negatively affect the living conditions of a much broader, typically middle class demographic, thereby expanding the numbers of those most affected. Both these dynamics increase inequality in Europe. Building on the need for a systemic view of the issue, the prevention of energy poverty in its broadest sense needs to be at the heart of our concept of energy security.

Conclusion

Triggered by the climate emergency, cost-of-living crisis, geopolitical turmoil and fierce competition for the clean tech pole positions, energy security has evolved drastically over the last couple of years. The EU's energy security toolbox, however, remained roughly untouched and left the Union paralysed. It's high time to recognise the importance of this dimension of the Future of the EU's Energy Project. Bringing order into this toolbox, thereby making it fit to deal with a changed world, is fundamental if we want to ensure sufficient reliable and sustainable energy for all.



Endnotes

¹ 20% cut in greenhouse gas emissions (from 1990 levels), 20% of EU energy from renewables, 20% improvement in energy efficiency

² See for example this Reuters article for more information: <u>https://web.archive.org/web/20150619181351/http://wk.reuters.com/article/2015/06/19/us-gazprom-shell-exclusive-idUSKBN00Z0IQ20150619</u>

³ This is a high, possibly overambitious, target that does not currently appear to be achievable for 10 of the 19 raw materials in question: <u>https://www.euractiv.com/section/economy-jobs/news/not-everybody-can-have-all-of-the-raw-material-supply-chain/</u>

⁴ See these <u>ECFR</u> or <u>ECB</u> papers for a more detailed discussion on the topic.

⁵ While there seems to be no definition at the EU level, there have been international attempts to find one. We suggest that the EU adopt a modified and updated version of the definition used by the IEA, of which the EU is a key member: "[...] energy security [is] the uninterrupted availability of energy sources at an affordable price. Energy security has many aspects: long-term energy security mainly deals with timely investments to supply energy in line with economic developments and environmental needs. On the other hand, short-term energy security focuses on the ability of the energy system to react promptly to sudden changes in the supply-demand balance." https://www.iea.org/about/energy-security



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About Knowledge Communities

GEF's Knowledge Communities are aimed at advancing political and public debates towards a green, socially just Europe, through establishing lasting networks of knowledge production, exchange and dissemination. They are structured around and with a GEF core expert, who delivers a political stock-take as well as new proposals and ideas for discussion with a wider group of actors (i.e. the Knowledge Community). This political brief results out of one of these Knowledge Communities.

About GEF

The Green European Foundation (GEF) is a European-level political foundation whose mission is to contribute to a lively European sphere of debate and to foster greater citizen involvement in European politics. GEF strives to mainstream discussions on European policies and politics both within and beyond the Green political family. The foundation acts as a laboratory for new ideas and offers cross-border political education and a platform for cooperation and exchange at the European level.

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