

Youth for Energy Futures Report

Youth for Energy Futures Programme
Heinrich Böll Stiftung Paris | Virage Énergie

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Preamble

The publishing of the sixth IPCC report in spring 2022 recalled the extreme emergency to take significant measures to tackle climate change. The devastating impacts of climate change are already noticeable and as the temperature rises the situation is going to exacerbate, impacting especially populations that are already vulnerable. To prevent a climate catastrophe, we need to amplify the ecological and energy transition to achieve climate neutrality by 2050. This requires deep and rapid changes in our energy mix and in numerous economic sectors that will affect the whole European society. If not anticipated and accompanied by governments and local authorities, these changes risk creating social upheavals. In a nutshell, our society faces the important challenge of implementing an energy transition that is socially just in a very short time.

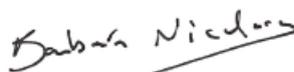
Those most concerned and dismayed by this challenge are the younger generations. Their strong mobilisation during the climate school strikes and their involvement in NGOs and grassroots movements bear witness to this. Through the Youth for Energy Futures' programme, the Heinrich Böll Stiftung Paris and Virage Énergie wanted to offer the opportunity to young adults to explore and discuss solutions. Therefore, the twelve young adults from Italy, Germany and France were invited to several study trips allowing them to meet local actors and visit production sites, laboratories, initiatives of the civil society etc.

Because the solutions have to transborder, the programme reunited young adults from different regions that went on study trips in all three countries: the Hauts-de-France region in France, North Rhine-Westphalia in Germany, and the Piedmont and Lombardy regions in Italy. These regions have in common that they are characterised by an important industrial history marked by profound economic and social transformations from which we can learn for the future.

The following report was written by the participants of the Youth for Energy Futures Programme and sets out the issues and possible solutions that young European people identified for a socially just energy transition in Europe.



Marc Berthold, director of the Heinrich Böll Stiftung Paris



Barbara Nicoloso, director of Virage Énergie

Executive summary

This report summarises the learnings from the study trips to industrial areas of France, Germany and Italy, experienced by a group of twelve students and young professionals, called the Youth for Energy Futures Programme. Through these study trips, we explored the local (lack of) implementation of what is commonly called the “energy transition”. These industrial areas were taken as a focus because they are very energy intensive, which means that the transformation to a clean and sufficient energy system seems even bigger and more complex. The energy transition refers to the conversion from a dirty (e.g., non-renewable) energy system to a clean and sufficient one (e.g., renewable). It also includes changing people’s conception of a limitless and cheap energy, as well as shaping behaviours in line with the social, economic and environmental aspects of energy. Yet, it also designates a more complex transformation of the economic, political, social and historical context and values that we highlight in this report. As such, the transformation of our local, national and European energy systems are key to achieve the climate goals set in the Paris Agreement that should enable us to secure a liveable future for humans and all other living beings. Therefore, this report is intended for all decision-makers at local, national and European level.

As young citizens of several countries, we have been struck by the energy and climate challenges ahead of us. Our opinions and reactions are too often not taken seriously because of our age and/or “lack” of experience. We do not pretend to be experts in the field of the energy transition, nor to be representatives of “the” European youth. Yet, this future will be mainly ours. And we are worried. This report is our way of creating this space to express our opinions.

First of all, our field trips offered the opportunity to discover good practices that have in common building systemic transformations. The first one concerns the collective construction of a narrative that enables a positive outlook to the future, far beyond a green transition that would reduce everyone’s comfort. The second one uses social justice and inclusion as a means to build ecological resilience and communities. The third one aims to transparently communicate the opportunities and risks linked to the use of technologies in the energy transition.

Unfortunately, we have also witnessed many problematic practices such as greenwashing, the buck passing of responsibility concerning who should be in charge of organising and implementing the energy transition. Furthermore, the consumption culture has rarely been questioned and public communication lacks transparency and critical thinking. We draw from these study trips some key learnings such as:

- 1. The EU pushes member States towards environmental action; yet, the European energy transition is still primarily designed at the national level and in a top-down way.**
- 2. The lack of a systemic approach is disconnecting energy transition from other planetary boundaries and other major concerns (e.g., peak oil, rare metals) and thus halting the energy transition.**
- 3. The weight of identity and cultural specificities embodied in a territory must be taken into account.**
- 4. The requalification of workers needs to be fostered to stop the weaponizing of unemployment as an argument to delay energy transition.**
- 5. Political leadership at all governance levels is lacking to push forward the energy transition.**

6. Gender imbalance in the governance of the energy transition needs to be addressed.

7. State involvement to make sufficiency policies rise in the public debate is key to lead the energy transition.

Finally, we would like to share with you our vision for the future: we should collectively continue to foster cooperation between various stakeholders to share ideas, challenges and solutions; as well as to support strong and ambitious EU legislation that sets EU-wide standards and targets. We should start supporting financially and methodologically the construction of narratives to engage citizens' in their desired future. We should also frame the energy transition as economically beneficial for regions and people; and developing sufficiency plans and measures in preparation for a major structural change on both demand and supply side.

Introduction: From where we speak and what our objectives are

Youth for Energy Futures (YEF) is a multidisciplinary and multicultural programme and network of twelve students and young professionals from France, Germany and Italy exploring energy, environment and climate related issues. Together, we advocate for a fair and just energy transition at the European and local level.

The project is coordinated jointly by Virage Énergie, a French non-governmental organization, and the Heinrich Böll Stiftung Paris.

Since September 2022, we have participated in three study trips to explore different industrial European regions: **Hauts-de-France in France, North-Rhine Westphalia in Germany and Piedmont and Lombardy in Italy**. They aimed at meeting energy stakeholders at national, regional, and local level to learn about the state of the art of the energy transition. We met a variety of stakeholders, including politicians and administrators, business CEOs, NGOs members, activists and researchers pioneering the green transition. The visits provided insights on energy resources - renewable, nuclear and fossil fuels. On top of that, we had the opportunity to discuss directly with **local actors enabling or, at times, inhibiting the energy transition**. Thus, we could observe the economic, political, social and historical factors explaining the state of the energy transition in the different places we visited.

The objective of the following report is to share our informed opinion from our visits to industrial France, Germany and Italy, with European decision-makers and opinion leaders.

We understand the energy transition to be a keystone of the pathway towards climate mitigation as well as the objectives established by the United Nations Framework Convention on Climate Change (UNFCCC) and the European Green Deal. However, **our three study trips shed the light on knowledge and implementation gaps in-between different governance levels**. We witnessed cases of national, regional and local actors lagging far behind international and European targets and virtues. As exposed in the last IPCC report published in 2022, inaction will be fatal, putting humanity and other living beings at risk of extinction over the middle and long term.

After briefly introducing our group, this paper reports what we witnessed and learned from our study trips in France, Germany and Italy. This paper illustrates best (and worst) practices derived from experiences in implementing the European energy transition locally, bearing in mind international, European, national, and regional interplays. Eventually, it aims to inspire European and at all relevant scales decision-makers, whether public or private.

Best practices: Transformative practices that support a locally embedded energy transition

Best practice 1: Construction and use of locally embedded narratives to engage citizens

To start with, behind all good practices we witnessed, a well-structured and functioning narrative was embedded. Narratives (or storytelling) - defined as using the structures of stories to explain, share and deal with experiences - were created and **driven by both local governments and civil society actors**. The most striking and particularly successful example is the French town of Loos-en-Gohelle, which is characterised by:

- **learning from the past** through a deep analysis of the socio-economic and identity crisis due to the closure of the coal mining industry in the second half of the 20th century. It recalls **our current situation of oil dependency**. Scientific studies on peak oil and fossil fuels resource depletion are indeed predicting a crisis of this economic model since 2008, with the publishing of the International Energy Agency *World Energy Outlook*;
- building a new pride for the inhabitants (from marginalisation to pillars of the change) around the **local identity** - not to be confused with exclusion from others;
- **shaping a habitable but also a desirable future**, ‘from the black slag heaps [coal mountains] to the green slag heaps’, recognised by UNESCO as part of the World Heritage patrimony, with many positive impacts, including an improved quality of life and international recognition;
- **fostering the involvement of each and every stakeholder** and promoting participative democracy processes (such as the “Fifty Fifty” tool, that enables inhabitants to propose and realise their own projects in exchange of the technical support of the municipality).

The elements of this narrative recipe can equally be found in other civil-society projects, such as the Italian initiative Cascina Cuccagna. This urban farm in the centre of Milan used to be in ruins. The farm was rebuilt and today, it serves as an educational centre to promote local food involving the local community.

The use of a peculiar and local identity is a strong driver to unite people and call them to action to implement ambitious public policies. The identity component is although not to be confused with exclusion from others. On the opposite, it is **a tool that promotes inclusivity**: for instance, the Cascina Cuccagna urban farm is spreading **an openness message** by promoting a Milanese food identity. In the same way, by leveraging the Catholic identity of the Rhein-Ruhr area, the German NGO ‘Kirchen im Dorf lassen’ has gathered many citizens to demonstrate against the extension of mining areas and the annihilation of nearby villages. Loos-en-Gohelle decision-makers also created the **international network La Fabrique des Transitions** to share best practices and advocate for a deeper energy and ecological transition at the local level in France.

On the contrary, the peri-urban community living in Seveso was unable to unify itself especially in the aftermath of the industrial disaster that stroke the Italian town in 1976, due to a lack of cohesion and to the divisive strategy of the chemical company ICMESA (especially about individual negotiations around financial compensation). In this situation, **civil society actors can have a magnet-effect**. For instance, the environmental association Legambiente has launched a ‘memory strategy’ in Seveso to aggregate people, called the “Bridge of memories”.

Best practice 2: Thinking and building ecological resilience through social justice and inclusion

Many visits offered us examples of **resilience**. Resilience is here defined as the structural restoration of essential functions after a disaster. In Loos-en-Gohelle, both economic and food poverty were tackled through **social justice and inclusion policies**, for instance through the creation of a municipal network of shared gardens. In Seveso, the memory shaped by Legambiente insists on the recovery of the inhabitants, while the contaminated area is now hosting an open garden. In Milan, the Cascina Cuccagna initiative increases the **resilience of the local food system** and creates a place where to **reunite the local community**. Via Baltea, an urban regeneration project in Torino, integrates food production and commercial activities with the building of spaces where people can participate in workshops, experience solidarity and in a general way, find a place they belong to.

In each case, resilience cases were **collective**, and not focusing on individual capacity to recover from an economic or industrial catastrophe.

Best practice 3: Transparency about technological innovations

The energy transition requires new technology and innovation to be achieved. Transparency and citizens' inclusion can foster their development. The following examples were particularly significant:

- CD2E is an association located in Loos-en-Gohelle whose aim is to **properly inform citizens** and policy-makers about the **energy transition technologies**, especially photovoltaic and solar panels and small wind turbines installed in the fields and explanatory panels inside the building. They also supply energy to the national grids;
- ENVIPARK is a **technological park** located in Turin where both existing technologies and some **research labs are open to visitors**. It offers sustainability pathways and supports companies and public administrations;
- Loos-en-Gohelle gives a good example of the community's **involvement in the energy transition** thanks to public policies. The most striking example is the installation of solar panels on the church roof: it acts as a symbol of the **collaboration of the community to pursue the energy transition**.

Bad Practices: Practices that slow down and endanger the energy transition

Bad practice 1: Greenwashing: deceiving claims and delayed actions

“We are very green” was a repetitive statement from stakeholders during our field trips and it would often turn out to be the first sign of greenwashing, which describes the process of conveying a false impression or misleading information about how a company’s activities are environmentally sound. Common forms of greenwashing are **strawman empty strategies, randomly set climate goals, with no investment or measures towards fulfilling their promises**. As a bystander, you start to wonder about the posturing of the highly skilled experts presenting projects and goals, because a **lack of middle and long-term visions is striking**. Companies portray their targets as revolutionary and effective, while we see a lack of long-term vision and no clear steps on how the energy transition will be implemented.

The company ArcelorMittal talking about “green” goals, that were hardly evident during the visit of the steel plant, followed by recent reports on their level of air pollution way above environmental standards, is an example of greenwashing. It is striking that their strategy relies only on technological solutions and completely avoids questioning the purpose of steel production: which uses of steel are really essential and justify this energy-intensive product? Could a reduction in production volumes be an option to limit greenhouse gas emissions?

This greenwashing strategy benefits from official recognition and public support: indeed, the French government, through its France 2030 Plan is financing this strategy with up to 1.7 billion euros. Their Smart Carbon scenario to reach net-zero relies completely on the contribution of carbon capture and storage (CCS) technology that is still heavily criticised by environmental organisations and has not been used on an industrial scale in the European Union yet. It is worrying to **rely on undemonstrated technology** to preserve pre industrial climate levels.

Greenwashing is not only performed by companies, but **public communication is blurring the discourse on “green” and “fake-green” practices**, making it difficult for citizens to take differentiated and informed decisions. Key-terms and concepts, such as “green hydrogen” for example, are **defined in a complex way that confuses the average citizen**. Should hydrogen produced by nuclear energy be framed as “green” in the same way that hydrogen produced by renewable energy is? This question reopens the debate launched by the EU Taxonomy definition process, which has labelled nuclear and gas as “green” investments to drive the energy transition.

Intransparent communication can also explain the lack of a social facet in the public discourse. There is little to no representation of workers, young people or minorities’ interests in the public debate which is often only focused on solutions for industry. The social implications of the energy producing and consuming industries are often kept out of the public view. For instance, only the Milan bus company, ATM, introduced us to a worker, who could explain their point of view on the electrification of public transport, including the implications for staff, who are often not substituted after retirement.

Bad practice 2: Consumer culture: no systemic vision of the transition

What became evident in the Port of Dunkirk, in the North of France, is that **origins of the products we use and their supply chains stay in the background in our everyday life**. We don't question the energy needed to produce products or to move around. Moreover, the harbour is just a tiny puzzle piece in a global network of commercial shipping and trade – with an enormous demand for energy. Loss of habitat and biodiversity, alongside energy consumption have to be prioritised in conversations about greening global supply chains. The visit exposed the scale of Europe's **consumer culture**. The European Union's origins placed emphasis on economic growth based on fossil energy at its core, naturally, a diverse range of products ensued. But we have come a long way since the establishment of the European Coal and Steel Community (ECSC), for instance, with a recent adoption of the Directive on corporate sustainability due diligence. Still, it seems that products' life cycle stays in the background, so that the **energy needed for their production and transport is rarely questioned**, let alone questions of social implications of global trade. With human rights and the SDGs on today's EU frontier, it is time to finally curb excesses and redesign operations in a sustainable pattern.

Bad practice 3: Opacity in public communication and lack of critical thinking

With this in mind, we noticed a **lack of transparency** towards the consumers concerning the environmental impacts of a product's supply chain. **Citizens are sometimes misled**, by not being shown how economic growth and increased energy consumption hold emission reduction commitments and affect the environment. In North-Rhine Westphalia, Germany, we visited the largest carbon emission source in Europe: **the lignite mines of RWE Power AG**. The impact of open mines is firstly ecological, as it affects groundwater quality and contributes to biodiversity decline. It has additional societal impacts as well, as shown by the ruins of the villages, the mine-working identity of the region and the massive protests against mining sites' expansion. Stakeholders, politicians and media have to be transparent about the fact that energy is an expensive resource. Cheap fossil energy always means there is exploitation somewhere in the value chain; **fossil subsidies take away money that could be spent on climate friendly alternatives**, and exploitation of people and the environment artificially keeps the costs at the lowest possible.

Most industrial sites we visited did not integrate more general goals into their energy transition plans, even though developed by international bodies such as the UNEP, e.g. adaptation to climate change or gender equality. **The lack of a global reflection over energy production and consumption by some industries was particularly striking**. The Seveso disaster showed how keeping environmental and safety standards at their minimum can have dramatic consequences. It highlights the importance of risk assessment and management, and shared standards. Yet, **risk perception and assessment in the energy sector often seemed to be silenced** in the public discourse and among industrial stakeholders/sites.

Bad practice 4: Buck-passing or how to shift the responsibility to other stakeholders

1. Among different governance levels

Multi-level governance can sometimes limit direct political action when it fails to share competences in a clear way. The various governance scales are often used as an excuse for local inaction and blaming of other levels. Instead of reflecting on how to find local solutions that rule within the framework of one's legislative competences, an **endless loop vicious circle of public authorities blaming each other takes place**. This scapegoating expands to the European level and is also practised by member States. Additionally, a narrative built by the industry sector is that political incentivisation is needed to drive innovation and make the energy transition attractive.

2. Among different policy clusters

Multi-level governance is limiting political action, due to the share of competences. Therefore, in the field of sustainability and energy transition we understand the structural boundaries of decision-making. However, **governance scales are often used as an excuse for local inaction and blaming of other governance levels**. Instead of reflecting on how to find local solutions that rule within the framework of their own legislative competences, a vicious cycle of public authorities blaming each other takes place. Moreover, this blaming expands to the European level and is also practised by member states. Additionally, a narrative by industry is that political incentivisation is needed to drive innovation and make the energy transition attractive.

Key Learnings: Cross-cutting takeaways that should be taken into account while planning and implementing the energy transition

Key learning no. 1: EU pushes member States towards environmental action, yet, the European energy transition is still primarily designed at the national level and in a top-down way.

Despite the transboundary character of climate change and energy policy, energy issues are still considered as nation-State centred questions. Nevertheless, it is interesting and meaningful to note the importance of the European directives in the energy transition: for example, these directives lead ATM Milano to replace all non-electric buses with electrical ones by the end of 2030.

Key learning no. 2: The lack of a systemic approach is disconnecting energy transition from other planetary boundaries and other major concerns and thus halting the energy transition.

As a background-diverse group, gathering young/future scientists, biologists, engineers, political science students and climate activists, we consider that the energy transition can only be successfully achieved by adopting a systemic approach.

During our visits, we witnessed how energy transition was isolated from other major ecological issues, such as biodiversity loss. At the same time, we felt a great mismatch between energy production and energy consumption. This is related to the opacity problem, stressed above in this report. In some cases, for example in Dunkirk, physical barriers were set up to avoid contact between consumers/citizens and producers.

Key learning no. 3: The weight of identity and cultural specificities embodied in a territory must be taken into account.

Some regions have an economic dependency on coal mining and identify themselves as a proud coal mining region. It can be difficult for citizens to seize the paradox and act against a local industry even though it is not sustainable because it made families prosperous for several years or decades.

To be transformative, energy transition needs to overcome mere “localism” and networks of local stakeholders are required to share experience and advocate at a higher level - even though industries often develop their activities in regions with a weak sense of community (e.g. Seveso in Italy).

Coal mines shaped landscapes and social organisation. A strong cultural/social identity, sometimes linked to an unusual landscape (e.g. slag heaps), can be a lever, as it fosters a community to drive a transition. Additionally, decision-makers can encourage such a positive identity by developing or supporting cultural structures and events, such as festivals. At the same time, this local identity needs to be representative of the local diversity at large (women, young/old, unemployed people, with disabilities, minorities) and not only creating an identity based on the people in socially dominant positions.

Key Learning no. 4: The requalification of workers needs to be fostered to stop the weaponizing of unemployment as an argument to delay energy transition.

Employment issues are often portrayed as a barrier to energy transition, however, some industries are not employment and labour-intensive anymore (steel or coal mining, for instance, such as ArcelorMittal in Dunkirk or RWE in Garzweiler); renewables and energy efficiency could open new job opportunities that strengthen the territory's economic resilience and attractiveness whilst creating many more jobs.

There is an urgent need in the requalification of former industry workers to maintain a sense of belonging and strengthen social organisation. For instance, the construction sector has to keep up with the green and digital transition to achieve the objectives set out in the EU renovation wave. (Re)Education is one of the most credible answers to a fear of unemployment in many industries.

Key Learning no. 5: Political leadership at all governance levels is lacking to push forward the energy transition.

Scaling up renewables is mostly a matter of political will, often necessary to set a good example. However, the bureaucratic "mille-feuilles" and unclear responsibilities on different levels represent a lock-in. Institutional misfits contribute to blurry discourses and strengthen the lack of trust in government bodies. As a consequence, it fuels the so-called "Not In My Backyard" protestations, thus slowing down social acceptance of renewables. Institutional misfits can also be worsened by political exploitation of the energy transition. The Hauts-de-France region is a striking example of this phenomenon, with a regional government supporting the opposition to the development of onshore wind turbines, against the French national law on the energy transition.

Behavioural changes require strong policies and imply difficult solutions. To accelerate the development of renewable energy, it is important to ensure a constructive dialogue between citizen-users and local authorities. The presence of facilitators to ensure the deliberation processes could reduce the power imbalances and support designing a mechanism for collective decision-making.

Narratives need to be adjusted to profiles of local communities to be assured that the information is heard by the largest number of citizens, and to reveal their inner levers. People react to different communication strategies. Better communication gives real means to lead change.

Key Learning no. 6: Gender imbalance in the governance of the energy transition needs to be addressed.

Women are marginalised in the energy and infrastructure sectors, as they represent respectively 20% and 16% of leadership roles, according to the 2022 Global Gender Gap report published by the World Economic Forum. The example of ArcelorMittal France is outstanding, despite the efforts made to address the gender gap, as only 14% of its employees are women. This imbalance is also historically rooted in the energy industry. The Lewarde Coal Mining Museum in the Hauts-de-France Region puts this issue in the spotlight, stressing that women were paid far less than men in the extraction process.

To circumvent exclusion of women from the budding transition industries, it is important to take direct action to include women in every sector. There are projects already starting in this European Year of Skills directly aimed at including women in traditionally male dominated fields. It is important to clearly map the gender gap in different industries, gain clarity on the entry barriers for women and bridge them with direct action projects.

Despite the significant contribution of women to the extraction of valuable resources and raw materials, they have frequently been excluded (sometimes by law) from underground mining and many other forms of mining (frequently employed in administrative positions), and continue to face discrimination and barriers to decent work in the mining sector today. Additionally, women can play a salient role in alerting about environmental catastrophe and in keeping its memory alive as well. The case of Seveso is here striking, as women were the first to start the alarm, when they realised the injuries of the children and it is also, mostly women that are keeping the memory of the site alive through volunteering in environmental associations, such as Legambiente.

Key Learning no. 7: State involvement to make sufficiency policies rise in the public debate is key to lead the energy transition.

We recognize the physical and mental effort that sufficiency requires. Sufficiency is here intended as a set of public policies and individual actions to avoid and reduce the use of energy. Sufficiency is too often considered as and reduced to individual actions, especially weighting on the poorest populations. On the opposite, sufficiency targets the richest households and the wealthiest countries that are overpassing the planetary boundaries because of their overconsumption of resources.

Sufficiency needs support and a positive narrative. Decision-makers have a role to play in such a narrative development (e.g., by hiring a “narrative officer”, or insisting on the co-benefits rather than on the “sacrifices”).

In the private sector, the reflection on energy consumption is almost exclusively focusing on efficiency (technological solutions) rather than sufficiency (collective and individual changes). It is therefore a common goal for the public and private sectors to work together, to support each other in order to co-design a push towards green and social innovations.

In our visits, not a single stakeholder was promoting sufficiency in the energy field, except the cities’ representatives in Milan/Lille/Köln, when it came to mobility issues and the development of cycle lanes. Also, advertising was an important blind spot of our three field trips, although developing an ad-free city policy could be one of the first steps towards sufficiency.

Youth for energy: Our common vision for an engaging future drawn from the field trips

We are committed to finding systemic solutions for a just and fair energy transition in Europe. We are concerned about the mismatch between energy production impacts and our everyday consumption habits and are impressed by local commitment and creativity to build a resilient energy future. Therefore, we call for **more transparency, awareness and ambition amongst decision makers and industries**. The environmental impact of our common industrialization path makes it necessary to act together and drive the energy transition.

Below, we distillate and summarise key learnings and practices down to our vision and narrative we want to share beyond our own experience. We structure them as following:

- Continue: Supporting the pace and strength of existing solutions
- Start: Mainstreaming some local solutions
- Stop: End the support for these solutions and make them socially and economically unviable.

CONTINUE → supporting the pace and the strength of existing solutions

To foster cooperation between various stakeholders to share ideas, challenges and solutions. All three regions that we visited were crossed by networks of activists, business, municipalities and citizens that were mobilised to fight climate change, environmental damages and social inequalities. These networks constitute the informal backbone of all societal transformation and in our precise case, are absolutely essential to drive the change.

Examples from our study trips:

- La fabrique des transitions (Loos-en-Gohelle): https://fabriquedestransitions.net/index_fr.html
- CD2E (Loos-en-Gohelle): <https://cd2e.com/>

To support strong and ambitious EU legislation that sets EU-wide standards and targets and effectively enforces them. Targets and standards, as well as changes in legislation have greatly impacted changes at the regional and local levels. Stakeholders, heavy industries especially, were relying on them for further transformations. The fact that environmental regulations are steered at a regional level for all EU-based businesses reassured most of them and incentivised them to respect them. Regulations should have automatic binding character and sanctions need to go beyond mere fines.

Examples from our study trips:

- REDD+ (Reducing Emissions from Deforestation And Forest Degradation in Developing Countries): <https://redd.unfccc.int/>
- ETS (Emissions Trading System): https://climate.ec.europa.eu/eu-action/eu-emissions-trading-system-eu-ets_en

START → mainstreaming local solutions

To support financially and methodologically the construction of narratives to engage citizens' in their desired future. Leverage the collective identity to build on an aspirable vision of the future. This story shall connect the past, present and future, while building on emotions such as collective belonging and pride to engage citizens for their future. Especially,

integrating unconventional storylines to build an inclusive energy transition. These key elements will help to share and deal with lived experiences of the climate crisis. Furthermore, these narratives tend to give clear roles to each stakeholder which is helpful to structure the new societal path that has to be built. To conclude, it is of the utmost importance that these identity-based narratives are used to convey inclusiveness, as the climate change crisis is also an opportunity to design a fairer and more inclusive society.

Examples from our study trips:

- Loos-en-Gohelle: <https://www.cerdd.org/Actualites/Territoires-durables/Loos-en-Gohelle-Sur-notre-territoire-il-n-existe-pas-un-seul-recit-mais-plusieurs>
- Die Kirchen im Dorf lassen: <https://www.kirchen-im-dorf-lassen.de/>
- Cascina Cuccagna: <https://www.cuccagna.org/>

To frame the energy transition as economically beneficial for regions and people.

The energy transition constitutes an opportunity for structural and mindset changes that are locally-based. There doesn't seem to be one unique framing for the energy transition: it needs to be locally and culturally embedded. For this, a majority of the society needs to support the changes and see the positive impacts in their everyday lives.

Examples from our study trips:

- Loos-en-Gohelle: https://loos-en-gohelle.fr/wp-content/uploads/2022/09/Encart_TEPOS.pdf
- CD2E: <https://cd2e.com/domaines-dexpertise/energies-renouvelables/>

To start developing sufficiency plans and measures in preparation for a major structural change on both demand and supply side. Request sufficiency measures and structural changes from key industrial actors. Focusing only on renewables, efficiency measures, as well as relying on technological solutions will not be enough to meet the targets of +1,5°C as laid down in the Paris Agreement and that will keep the world in a safe space.

Example from our study trips:

- Virage Énergie: <http://www.virage-energie.org/>.

STOP → end the support for these solutions and make them socially and economically unviable

To practise greenwashing. One of the biggest threats to the changes our society needs to undergo at a speedy pace are all the false-solutions mainly claimed by industry leaders and representatives, which aim at delaying, undermining and distracting transformative policies, businesses and citizens from the climate and environmental targets. These targets are clearly laid down in the latest IPCC reports. Moreover, those practices mislead citizens in their attempts to contribute to the energy transition.

Examples from our study trips:

- ArcelorMittal and green Steel: <https://france3-regions.francetvinfo.fr/grand-est/lorraine/greenwashing-l-acier-vert-n-existe-pas-encore-2371846.html>
- RWE: <https://www.clientearth.org/projects/the-greenwashing-files/rwe/>

To conclude, the main issues at stake are the lack of actions that live up to the energy, climate and environmental crisis our societies face. In our opinion, starting structural changes based on citizens' engagement and strong positive narratives is essential to move towards an aspirable future.

Schedule of the Youth for Energy Futures Programme

18th - 21st of September 2022: Hauts-de-France

- Visit of the Port of Dunkirk
- Visit of the ArcelorMittal steel plant in Grande-Synthe
- Visit of the Historical Mining Center in Lewarde
- Meeting with the NGO CD2E in Loos-en-Gohelle and visit of their training and experimental sites for solar energy and sustainable building
- Meeting with Antoine Raynaud, chief of staff at the town of Loos-en-Gohelle
- Meeting with Audrey Linkenheld, mayor of the city of Lille and Jérôme Pianezza, municipal councillor at the city of Lille in charge of International cooperation

21st - 24th of September 2022: North Rhine Westphalia

- Meeting with a speaker of the NGOs Kirchen im Dorf lassen
- Visit of the coal mining sites in the Rhenish area
- Meeting with Andreas Wolter, mayor of the city of Cologne
- Visit of the Chempark Leverkusen
- Visit of the Ermen&Engels industrial museum in Engelskirchen

20th - 23rd of March 2023: Piedmont and Lombardy

- Visit of the Milanese initiative ESTà and visit of their experimental site Cascigna Cuccagna
- Visit of the former FIAT factory Lingotto in Torino
- Visit of the maker space Via Baltea in Torino
- Visit of Envipark, a site hosting companies and laboratories of the renewable energy sector in Torino
- Meeting with the mobility service of the city of Milano
- Visit of the ATM (the Milanese public transport company) bus depot
- Visit of the heat pump lab of Milan Polytechnic School
- Visit of Bosco Delle Querce park in Seveso

Portraits of the visited regions



The **Hauts-de-France** region is the northernmost region of France. It borders Belgium to the northeast, the North Sea to the north and the English Channel to the west and the Ile-de-France to the south. With over 6 million inhabitants, it is the third most populous region in France. Highly urbanised, the region counts an important number of medium to large size cities such as Amiens, Arras, Douai, Calais, Dunkerque, Valenciennes, etc. The biggest urban area is the Métropole de Lille counting over a million inhabitants.

The northern part of the Hauts-de-France, on which the study trip focused, is historically characterised by an important trading economy due to its geographic situation. During the industrial revolution the presence of coal made it possible to develop a heavy industry sector. At the end of the 1970's the closure of the coal mines coincided with the decline of the steel and the textile industry, two major economic pillars of the region, causing an important economic crisis.

Today, the industrial sector of the Hauts-de-France employs 15,6% of the population which is slightly over national average. The most important sectors are the chemistry-pharmacy industry, the metallurgy and steel industry and the production of capital goods.



North Rhine-Westphalia is the most densely populated federal state of Germany. It is located in the west of Germany, bordering Belgium in the southwest and the Netherlands in the west/northwest. The Rhine-Ruhr metropolitan region, on which the study trip focused, spreads from the Ruhr area (Dortmund-Essen-Duisburg-Bochum) in the north, to the urban areas of the cities of Düsseldorf and Cologne in the south. With over 20 million inhabitants it is the largest metropolitan region in Germany.

The region's economy has been profoundly transformed during the industrialization in the late 19th century. Supplied by abundant coal mines, an important heavy industry sector emerged. During this period, the three economic pillars of the regions were the mining, the steel, and the automotive industry.

Even though coal mining never completely stopped in the region, the economy was hit by the European coal and steel crisis in the 1960s and 70s. Today, the industrial sector still employs 21,4 % of the population but logistic, financial/high tech and insurance/multimedia services dominate the economic profile of the region.

Piedmont and Lombardy are neighbouring regions that are located in the north of Italy. Piedmont is surrounded on three sides by the Alps where it borders France and Switzerland. It is also bordered by the Italian regions of Lombardy, Liguria, Aosta Valley, and for a very small part with Emilia Romagna. Lombardy is bordered by Switzerland to the north, and by the Italian regions of Trentino-Alto Adige and Veneto to the east, Emilia-Romagna to the south and Piedmont to the west. Piedmont has a population of 4,3 million inhabitants whereas Lombardy has about 10 million inhabitants, constituting more than one-sixth of Italy's population.

The capital of Piedmont is Torino, an important business and cultural centre in Northern Italy. The city's automotive industry played a pivotal role in the Italian economic miracle of the 1950s and 1960s, attracting hundreds of thousands of immigrants, particularly from the rural southern regions of Italy. This evolution earned the city the nickname of Capitale dell'automobile (Automobile Capital), until the oil and automotive industry crisis severely hit the city in the 1970s and 1980s. As a consequence, its population began to sharply decline and the closures of large-scale factories produced more than 5 million m² of industrial wasteland.

Lombardy also underwent important de-industrialization between the 1970s and the 1990s, when steel mills lost competitiveness to China and independent scooter and carmakers lost scale. For that reason the landscape is still dotted with vast industrial wastelands even though the region is today the main industrial area of Italy generating a fifth of the country's GDP.

In 2019, Lombardy produced 62 million tonnes of CO₂ making it remain the most emitting region in Italy. The main source of greenhouse gas emissions is road transport (22%). In 2021, the share of renewable energy in gross final consumption was 14.2%. The main share of energy from renewable sources produced in Lombardy derives from hydroelectric production, followed by solid biomass and geothermal.

In Piedmont, renewable sources play an increasingly important role, exceeding 20% of all final energy consumption in 2020. As in Lombardy, hydroelectric plants are the most important producers of renewable energy, while as much as 16.8% of capacity belongs to photovoltaic plants. As far as final energy consumption is concerned, the weight of renewable sources continues to grow in the regional energy balance, exceeding 20% of all final energy consumption. CO₂ emissions of Piedmont were 22.4 million tonnes in 2020.





Historical Mining Center, Lewarde



CD2E, Loos-en-Gohelle



Port of Dunkirk



ArcelorMittal, Dunkirk



Kirchen im Dorf lassen



Chempark, Leverkusen



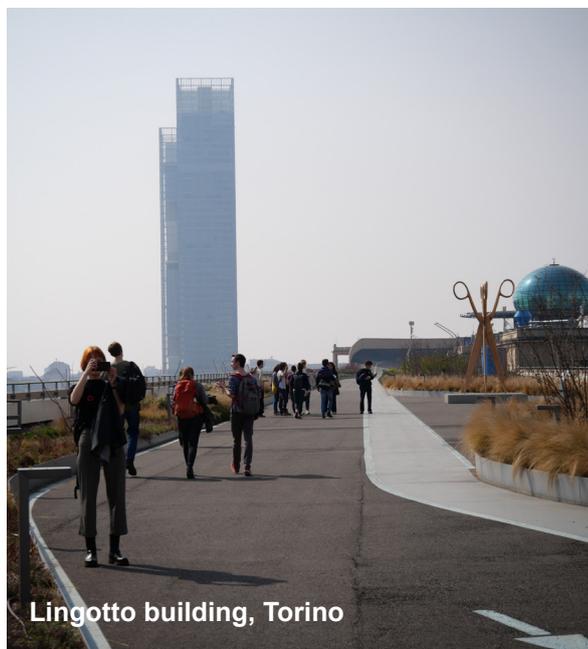
CD2E, Loos-en-Gohelle



Coal mining pit, Rhenish area



ATM bus depot, Milano



Lingotto building, Torino



Via Baltea, Torino



Bosco delle Querce, Seveso

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The Heinrich Böll Stiftung is one of the main German political foundations. As a think tank for green visions and projects, it disposes of a worldwide network with currently 35 international offices and promotes exchange and cooperation on the issue of just ecological transition, especially between civil society actors. The **Heinrich Böll Stiftung Paris** contributes to the strengthening of French-German, Italian-German and European cooperation.



Focused on energy and societal transition, the French NGO **Virage Énergie** produces practical tools for awareness-building and decision-making since 2006. Virage Énergie supports public actors in the definition of strategies in order to create a sufficient and sustainable society. Based in France, Virage Énergie also contributes to European cooperation projects on energy and climate issues.

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