December 2019 marked the height of the European Union (EU) climate mobilization, with the presentation of the European Green Deal, the adoption of the 2050 climate neutrality objective (-Poland), the agreement on the taxonomy and the new EIB lending strategy. The EU has opened a new raison d'être ensemble for the next thirty years, that is the equivalent of the time that separates us from the fall of the Berlin wall.

Three months later, some saw the Covid-19 crises as an opportunity to cut or kill the Green Deal altogether in the name or realism. With all institutional resources devoted to coping with the many emergencies, its agenda has been altered. Yet the April 23 European Council made it clear: recovery strategies will aim to accelerate the sustainable and digital transitions and the Green Deal will be an essential pillar. Moreover, the European Commission (EC) has been working on a flagship, comprehensive Smart Sector Integration Strategy and maintained its publication for June 2020.

But the EU is walking on a very thin line. Initial reactions to the Covid-19 crisis was lamentable. After a late wake up, a wave of extraordinary financial and budgetary emergency measures have been decisively taken by the EU and the European Central Bank (ECB). EU's social net has been setting a global benchmark. The EC will present its European recovery strategy aligned with the carbon neutrality objective on 27 May 2020. The European Parliament will have to be involved and the European Council will then finalize and approve the strategy, and the next budget.
The Green Deal is still very fragile and challenged by the multiple crises. So is the EU. This memo highlights the Twelve Labours that will make or break the Green Deal's energy and industrial aspects. Strategic and rapid reinforcing measures are needed in light of the new economic, social, geopolitical and possibly institutional crises facing the EU.

1. **Fostering political cohesion & consensus**

The Covid-19 crises can unravel the EU if its cohesion weakens and if East-West and North-South divides grow. The Council can be paralyzed by a lack of solidarity and election of new populist leaders. Another threat to address is that economic discrepancies among Member countries and regions will further widen due to differences in the ability of governments to provide support (lending capacity, interest rates) and ultimately, ensure that jobs are not lost, that companies do not go bankrupt and that a genuine economic recovery happens. Measures needed include:

- Beyond the adjusted European stability mechanism, a solidarity tool to allow weaker EU economies (with a higher public debt and stronger recession) to borrow at the same rate than stronger ones alongside mobilizing both monetary and budgetary tools that can benefit the most affected countries;
- A boosted Just Transition Fund attached with greater control over the allocation of money;
- An agreement on a much higher 2021-2027 budget with greater solidarity provisions to support the most hit regions and sectors. Sticking to budget austerity when the very existence of the EU is at threat is simply irresponsible. One could not have imagined post Second World War Western Europe without the Marshall plan. Saving billions today will ultimately cost trillions and crash the EU tomorrow.
- Reaching a consensus on a 2030 target of “well above -50 % CO2 emissions” and the possibility to raise it in 2025 alongside setting the 2040 intermediary objective, once the impact assessment have been prepared and discussed;
- The ability for the EC to hold responsibility for achieving the binding EU carbon neutrality 2050 target and intermediary targets and take decisive action on those countries that would lag behind, based on a fair progress assessment;
- An option to include carbon abatement in the neighborhood, under certain conditions to avoid building carbon walls at EU's borders and reap economic benefits of lower cost CO2 abatement there;
- Strong own budget resources for the EU while voting on taxation matters should move to majority.

2. **Giving a clear policy and regulatory direction to reduce risks and costs**

There is nothing worse for societies and economic actors than uncertainty over the willingness and ability to fulfill policy objectives. This means risks, costs and that potentially, status quo could even be rewarded. The EU's energy transition process is about to move from the easy (but not less costly), low hanging fruits phase (adding renewables and slowly improving energy efficiency) to the much deeper, systemic decarbonization phase that targets all gases, all sectors and mobilizes all policies. What critically matters now is:

- Providing clarity and certainty by Autumn about the Climate Law, the 2030 target, the direction of the ETS reform;
- Implementing measures already in place (such as the Mobility package) and avoiding that recovery measures taken have direct or indirect impacts that prevent the acceleration of the energy transition. Attention needs to be paid to the transport sector notably were EU-level coordination
would boost the effectiveness of measures in support of the clean mobility roll out, notably in the segment of corporate and institutional car fleets.

- Paying renewed efforts to enhancing national objectives that are often insufficient (it is astounding that several national energy and climate plans are still missing) and avoiding political and regulatory uncertainties and confusions (as has been the case in Spain in 2015 or in Germany in 2019 with renewables regulation).

3. MAKING ENERGY EFFICIENCY A TOP PRIORITY

The transport and residential sectors showcase poor energy efficiency results. The 2020 targets will be achieved due to the crisis and not because of effective policies. The EU is not on track to meet its 2030 targets. The 2018 Long Term Strategy vision by the EC made it clear: EU's final energy demand will have to be cut by half by 2050 in order to reach carbon neutrality.

- Current 1%/year average building renovation rates must at least triple, which is daunting and urgent task! Priorities should be public & multi-level buildings;
- Member countries need to get their act together as funding is not the core problem: their political will is often low and they are too often failing to abide or properly transpose EU regulation from 2012 and the 2018 amendments. For instance, as of early May 2020, only 6 countries had submitted their long-term building renovation strategy, that was due for March. Yet stakes are high: thousand jobs, the environment and easing the pressure from rising energy bills!

4. ADOPTING A NEW POLICY PARADIGM AND STEPPING UP INVESTMENT SUPPORT

Decisive yet temporary steps have been taken by the EU: the 3% budget deficit rule has been suspended; state aid rules have been eased so that companies in need of credit lines can be supported; the ECB is offering unlimited liquidity and buying bonds emitted by governments. This marks the end of the liberal & competitive market integration paradigm that governed EU policies after the 2004 reunification.

A new paradigm must now come into play: the strategic resilience, decarbonization and industrial leadership paradigm. Market integration must continue, but state aid and budget deficit rules should be systematically eased when it comes to financing the decarbonization and long-term deployment of technologies or projects that have no credible alternative or would be too costly to finance through markets. Competition is and should remain important, but to the extent that it does not prevent mobilizing the required investments or weakens European companies in the global competition. A reflection must start already on how to trigger the investments into new flexible electricity generation and storage tools: the Clean Energy Package is not tailored for the carbon neutrality objective, nor for a global economic and technological confrontation. A new market design, simplified and streamlined, is unavoidable in the longer term.

The EU was preparing to mobilize 1 trillion EUR over the next ten years for the Green Deal, largely building on leveraging private funding. Yet what was possible under the Juncker Investment Plan for Europe looks hardly possible in the post Covid-19 environment, with huge debts on corporate balance sheets and much higher risk premiums for long-term lending. This requires:

- Mobilizing more EU and government guarantees and funding, which will have to come from public debt issuance;
- Revising the 1 trillion EUR investment target by 2030 upwards, as there is no choice but to think bigger now.
- Ensuring that massive liquidity flooding EU economies is spent in a manner that, as much as possible, meets the needs of an accelerated energy transition.
5. Focusing on achieving the end goal and stopping the counterproductive tensions around nuclear and gas

The role of nuclear and natural gas in the energy transition are controversial. The bottom lines are: the focus should be on cost-effectively reaching the end goal rather than prescribing the means; Poland, Hungary, the Czech Republic or Romania will not support the decarbonization agenda if Germany or Austria seek to ban their ability to develop nuclear power. France will simply not give up this strategic technology and will keep at least 50% of nuclear power in its electricity mix. Within the European family, there will be as many ways to reach carbon neutrality as there are family members. Putting nuclear in a different category than renewables in the taxonomy simply means ignoring pollution and social costs of raw material extraction, the fact that nuclear waste is being dealt with and that the EU will need many new-builds to reach the carbon neutrality objective and ensure security of supplies.

Natural gas will continue to be important in the current decade for its current uses, notably to push out coal. It will then be used to produce clean hydrogen provided it is cheap and secure and with a few exceptions, for power generation or end-uses, if combined with CCS. Need for massive inter-seasonal storage as is now the case will reduce thanks to energy efficiency gains and electrification. In all cases, methane emissions from the value chain must be dramatically, rapidly and credibly curtailed. This is the daunting task of the European and global gas industries. Member countries should rather:

- Ramp up plans to accelerate electrification and for the deployment of low carbon technologies, ease regulation for renewables permitting, develop best practices as to include local communities, plan for a greater deployment of biomethane in the transport sector, ensure a cost effective scale up of clean hydrogen and alignment of supply and demand in regional clusters, and improve coordination for offshore wind in the North Sea and large transmission infrastructure.

6. Avoiding misleading decarbonization scenarios

Many decarbonization scenarios have been presented in Brussels. All have their assumptions, strengths, weaknesses while broadly bringing electrification of end uses to a minimum 50%, and reducing energy demand by a minima 1/3. But too many tend to play with wishful realities and arrangements. A critical assessment is needed with regards to possible:

- Downplaying the role and impact of energy efficiency gains. This leads to higher electricity demand, and investments into generation, transmission, storage for peak loads and seasonal storage.
- Overplaying the role of CCUS: geological structures are available for large scale CO2 storage. CCUS will be indispensable but the risk is that it enables to keep significant fossil fuels in the mix and carbon intensive end-uses, such as in the industry, for methane-based hydrogen production, for aviation or for power generation. In general, negative social acceptance is ignored, costs are downplayed and so is the missing, challenging link between the emitter, and the collector.
- Non inclusion of public acceptance often taking for granted, such as for onshore wind, nuclear, CCUS as mentioned above, biomethane, transmission grids. Potential available resources in many cases are simply misleading.
- Downplaying the importance of energy sobriety, which will be critical to reach carbon neutrality. Consumer and corporate behaviour will have to change. Solutions should become the new leitmotive, notably in the transport sector. Fully grasping
environmental life circle assessments will also be essential, but challenging given that measurement is complex, sensitive and results often point to multiple emission pockets that are hard to address, so that achieving results will take long time and a clear division of responsibilities between the producer, the consumer and society.

7. ADDRESSING THE ELECTRICITY INFRASTRUCTURE AND SUPPLY SECURITY CHALLENGES

The policy debate often does not pay enough attention to transmission and distribution grids that will have to be developed, modernized and adjusted in order to accommodate notably four future power generations pools in Europe: the North Sea; France’s nuclear+renewables+hydro cluster; Spain’s and the Mediterranean’s solar+wind clusters; but also, increased decentralized sources.

This will trigger high costs, grid stability challenges and social resistance. Cyber and physical security risks to the infrastructure will grow. While European networks can accommodate a much larger share of renewables not least thanks to greater cross border interconnections, close policy and system planning (including storage and bottlenecks), short and long term, is paramount but often insufficient, as shown by Germany’s difficulties in planning and building four North-South transmission lines or increasing curtailment of excess renewable capacities. This will particularly be the case for the offshore potential in the North Sea where five to ten times more capacities will have to be installed by 2040. And also, in the short term, for managing the German nuclear phase out in winter 2022, alongside some coal plant closures and possibly, limited availability of nuclear capacities in Belgium and France.

- More systematic implementation of existing coordination mechanisms and tools among Member countries is required;
- The EU needs to recenter its energy security strategy around addressing the new risks and threats stemming from the new power production centers & electricity highways and digital systems.

8. IMPLEMENTING AN ASSERTIVE INDUSTRIAL STRATEGY WITH LOW CARBON TECHNOLOGIES AND SYSTEMS AS PILLARS OF THE STRATEGIC AUTONOMY OBJECTIVE

The crises have accelerated an awareness of the need to revamp industrial policies at national and European level. The worst-case scenario is to roll out the Green Deal with massive job destruction and European industries destroyed by loss of competitiveness, imports of foreign equipment, non EU asset takeovers, and carbon leakage. Among the strategic priorities:

- Securing and creating new jobs and ensuring the recovery measures benefit European value chains, building up of skills and re-skilling strategies;
- Preserving & building industrial autonomy and leadership for low carbon technologies:
  - Re-investing the international governance on norms to ensure EU standards prevail in Europe and globally;
  - Identifying European strategic economic sectors that embrace all their stakeholders, be they big or small;
  - Fostering resilience & protection of networks and critical supply chains components via financial support means (from takeovers, external dumping, cash flow strains and foreign malign interferences);
  - Establishing a Strategic EU investment vehicle to take shares within strategic sector companies, including start ups and SMEs, in order to help them recover or protect them from foreign bidders, under the condition that they meet ESG criteria and are aligned with the Paris Agreement; This would be critical to keep investment levels steady and avoid that companies are focused on reimbursing loans.
- Raising public investments, building consumer confidence in ensuring easy & competitive access to clean mobility infrastructure, progressively raising eco-design norms in providing industries with support and time to adapt;
- Boosting private investment in providing for tax incentives that aim to accelerate the decarbonization of value chains in line with the taxonomy;
- Developing industrial policies both via eco-system and comprehensive value chain approaches, that is for example, supporting critical metals extraction, refining, fuel cell design, battery cell production, clean and digital infrastructure roll out, second life solutions for batteries, recycling;
- Developing an EU external energy component to support investments from EU companies organized in clusters in providing tailor made, comprehensive solutions to partner countries for infrastructure, smart and sustainable cities, sustainable and affordable electrification, sustainable agriculture. A review of EU’s external aid efforts to reach the SDGs is also required so as to strengthen conditionality as governance is often still a critical obstacle and avoid that private sector opportunities are hampered by development financial institutions whose role should focus on segments where the market cannot deliver investments.

9. UNLEASHING CONTRIBUTIONS FROM CITIES

European cities are at the heart of the battle against environmental degradations and for improving the well-being of European citizens, 74% of which live in cities. Their aspirations for a healthier and more resilient urban environment will grow due to the Covid-19 crisis. Many cities are already climate frontrunners and will increasingly challenge national climate policies. Although DG Regio is not under the responsibility of Frans Timmermans, a lot has been happening already to structure and support efforts for sustainable cities/territories and for climate adaptation measures. More can be done to:

- Include them in cross regional policy planning at national and European level (such as through the Covenant of Mayors);
- Give them more financial capacities to ensure no city is left behind and so that they can undertake large, structural urban transformation projects, notably for adaption strategies, circular economy, fight against pollution with territorial clean public transport schemes, smart mobility, digital transformation.
- Reconsider the subsidiarity principle as governments will have to increasingly accommodate their ambitions and work with them, notably to deploy low carbon mobility solutions.

10. SECURING CITIZENS’ TRUST AND SUPPORT

Citizens need to support the Green Deal. They are generally very concerned by environmental degradations. Before the crises, overall willingness from citizens to pay for the transition or to align their behaviour was often lower than the ranking of climate concerns. Following the crisis, citizen's ability to pay will be further constrained and lower income segments & part of the middle class are obviously primarily concerned now with their subsistence and jobs. Securing citizen's support requires:

- Enhanced education programmes, awareness raising;
- Visible, immediate benefits: cleaner air, jobs, competitive, low carbon solutions;
- Social justice, whereby the highest emitters pay more while the lowest emitters receive more, and whereby those with a lesser ability to pay enjoy greater support than the others; energy poverty cannot be further exacerbated by transition costs; States need to directly support the most vulnerable consumers;
Economic justice, whereby those benefiting from state aids do not reward their management and shareholders unduly and align with the Paris Agreement/Green Deal;

Transparency, whereby citizens better understand how decisions are made, how fiscal policy is organized in terms of pressure and redistribution, and how governance is made. Recent initiatives to involve citizens in reflection and decision-making are key. What also matters is greater transparency in the European Parliament, where deputies can have different hats and can monetize that.

11. LEADING THE BATTLE FOR THE DIGITAL TRANSFORMATION, DATA CONTROL & PROCESSING

The EC has rightly identified that the industrial and energy security strategies must include a robust digital component and Commissioner Breton has resolutely engaged in this battle. The world's digital giants are American or Chinese, building on a massive ability to use private data in order to provide & develop services. The GDPR could not reverse EU's failure on the personal data front to build European digital champions and protect personal data.

The EU must still develop a very clear approach to mass surveillance technologies operated by private companies, especially when based outside the EU and with ties to governments. The next frontier is about the internet of things (5G and tomorrow, 6G) as well as industrial data: if the EU loses the battle over the control of its industrial data and transfers sovereign tasks and systems to foreign tech players, its economy is bound to cripple in the coming two decades. The strategic autonomy agenda and sovereignty would be void. This now is the mother of all battles and it requires to give priority to:

Ensuring that European company and industrial data from strategic sectors are protected and that a performing European eco-system develops to lift performances and develop new services, which combines secure storage, artificial intelligence, space, electronics, supercomputing and digital & smart systems.

Support EU the roll out of EU technologies in sovereign areas such as telecoms, data centers, energy control systems and strictly limit external technology uses.

12. RESPONDING TO A DETERIORATING GEOPOLITICAL AND GEOECONOMIC ENVIRONMENT: A SPECIFIC RESPONSIBILITY FOR GERMANY

The post Covid-19 global geopolitical environment is further degraded and strategic global shifts will accelerate. The US-China rivalry will turn into a confrontation, with greater global implications and is the biggest foreign policy challenge for the EU. China will accelerate towards seeking global technology and economic leadership, alongside expansion notably in countries that are part of its Belt and Road Initiative. The US could fight back with protective measures and global containment, as has already been the case. A second mandate from Trump could definitely crash transatlantic relations. Leading global economic powers will provide massive economic and financial support to their strategic industries with the aim not only to help them survive, but to give them a strategic boost and help them expand globally with the aim to strengthen or take leadership positions. US unilateral behaviour on sanctions and extraterritorial norms is already jeopardizing EU's economic interests. The EU must be well aware that global competition will accelerate to an all out rivalry where opponents can have better tools because they can make swifter decisions than the 27 EU Member countries, and act in their long term interest.
Moreover, the climate governance may cripple: preliminary findings show that economic measures taken by a number of countries in the world to address economic and social hardships are not aligned with the Paris Agreement.

Germany will be central to future EU policies and hence, to external interferences, lobbying and pressures. Are the German government and institutions ripe to face this existential test for Germany and the EU? With the current coalition osteoarthritis and upcoming elections, the answer is rather no. Moreover, Germany is more dependent than others on external trade and investments. Its 4G sub-stations rely for 45% on Chinese technologies. The country has a structural difficulty to grasp the implications of the changing world order moving towards strategic confrontation as opposed to rules and codes building on multilateralism, transatlantic cooperation, mutually beneficial dialogue, interdependent relations with China and Russia, open trade and investments – principles that will increasingly belong to the past and would only partly recover if Biden is elected. Germany rightly seeks to maintain these but is not doing enough for plan B: the EU strategic autonomy agenda.

The threat is that Germany seeks short-lived external appeasement and short term benefits at the expense of long term realities and interests, and underestimates the global exacerbated rivalry and fundamental rifts within the EU that could destroy its cohesion and ultimately, affect its own sovereignty and stability. France’s leadership ability is constrained by the fact it does not have the macro-financial credentials and economic weight to impose a direction that could bridge differences between East and West, and North and South. France can bring marginal changes but not fundamental shifts: it can side and work with link-minded countries while being unable to get Germany, the Netherlands or Poland shifting on core issues, or fully addressing concerns coming from Italy. Poland, Italy, Spain will also be part of this inner and outer new level of geopolitical and geoeconomic struggles. Against this backdrop, the EU should:

- Continue to ramp up its geoeconomic expertise and tools, notably to counter extraterritorial norms from external players and to protect and support EU strategic sectors’ interests. Not only must the EU think in categories of power, but also resolutely act so.
- If COP26 fails or is only half a success, move from a pro-active, cooperative approach based on influence and voluntary contributions to more unilateral global climate actions and implement its carbon border adjustment mechanism, alongside tougher trade agreement provisions.

There is a growing awareness and preparedness to address several of these issues and the EC is showing that it is well aware of many of these challenges. What now matters is to properly assess and incorporate all of them, and to have all Member countries and the EU aligned on mastering these 12 Labours of Heracles.