



Charlemagne Prize Academy Annual Report 2022 – on the Future of the Union

**Shaping the Change –
How Can We Succeed in a World of Transformation?**



Charlemagne Prize
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How Can We Succeed in a World of Transformation?**



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Introduction: The war has challenged us

Dr. Jürgen Linden, Chairman of the Charlemagne Prize Board of Directors



The ongoing war in Ukraine has disrupted Europe and the world and its far-reaching repercussions affect not only our daily lives but also served as a massive wake-up call with regard to our sense of security.

Science, and thus also the European Charlemagne Prize Academy, is slow to react to these changes.

Since February 2022, the war and its consequences for the public have been at the forefront of lawmakers' and corporations' work and responsibility, and will remain so indefinitely. Science should offer its support.

Alliance efforts of the West, for example with African or Asian states, the effects of sanctions, the need for humanitarian aid or the stabilisation of the financial market, and especially the sustainable treatment of consequential and collateral damage of the war regarding energy security, disruptions of supply chains, import and export related problems, price increases or even inflation are of considerable importance for hundreds of millions of people. They demand political action and should be scientifically investigated.

Furthermore, the question of how to proceed with the two counterparts and manifesting blocs after the war is highly relevant in this context.

The Charlemagne Prize Academy has set itself the task of answering crucial questions about the future of Europe. In this respect, we call upon young researchers and thinkers worldwide to address these questions and we are delighted to support them.

The Charlemagne Prize Academy has set itself the task of answering crucial questions about the future of Europe.

Shaping the Change – How can Europe Succeed in a World of Transformation?



Dr. Werner Hoyer, President of the European Investment Bank

With Russia's brutal attack on Ukraine, the world has become a different place. Today, Ukrainians are fighting for all Europeans and for liberal democracies around the world. If Vladimir Putin can claim a success, however small, it would serve as his victory and as encouragement for all autocrats, be it in Russia, China or Iran.

In spite of all the horrors of this war, we should also recognise how strongly Europe has reacted to this external threat: Europe stands united against the aggressor. Europe is actually acting as a real Union, imposing massive sanctions on Russia and for the first time ever delivering deadly weapons to an active war zone. If we continue resolutely down this path, I am convinced that Putin's aggressive actions will lead to a stronger and more united Europe.

Europe was already facing many significant challenges before the war - from economic crises and a lack of competitiveness to climate change and the consequences of the coronavirus pandemic. Every single challenge has shown: As a continent of small and medium-sized countries, in a world where giants wrestle for power, unity is our greatest strength.

Europe's political priority in 2022 has been to replace the shortfalls in Russian gas supplies to achieve energy security quickly. The short-term focus on this and the next winter should not be distracting us from the most pressing problem facing humanity: global warming. There are very few years left to transform the economy in a way that will avoid throwing the climate completely out of balance. The transition to a zero-emissions economy is our biggest challenge, but it is also a great opportunity to completely end our dependence on oil and gas — and thus also on autocratic rulers.

Every single challenge has shown:
As a continent of small and medium-sized countries,
in a world where giants wrestle for power,
unity is our greatest strength.

Let us be clear: A response not only needs to be effective
in softening the fallout from these crises and lead the way
to a more sustainable and digital European economy,
but it must assist all EU member states equitably.

EU governments need to take more decisive, vigorous and unified action. Here, we can build on past successes. European financial support was the motor behind some of the more recent technological developments. Success stories range as far as from the EIB financing the development of BioNtech's efforts in developing a COVID vaccine to the scaling-up of the European offshore wind industry.

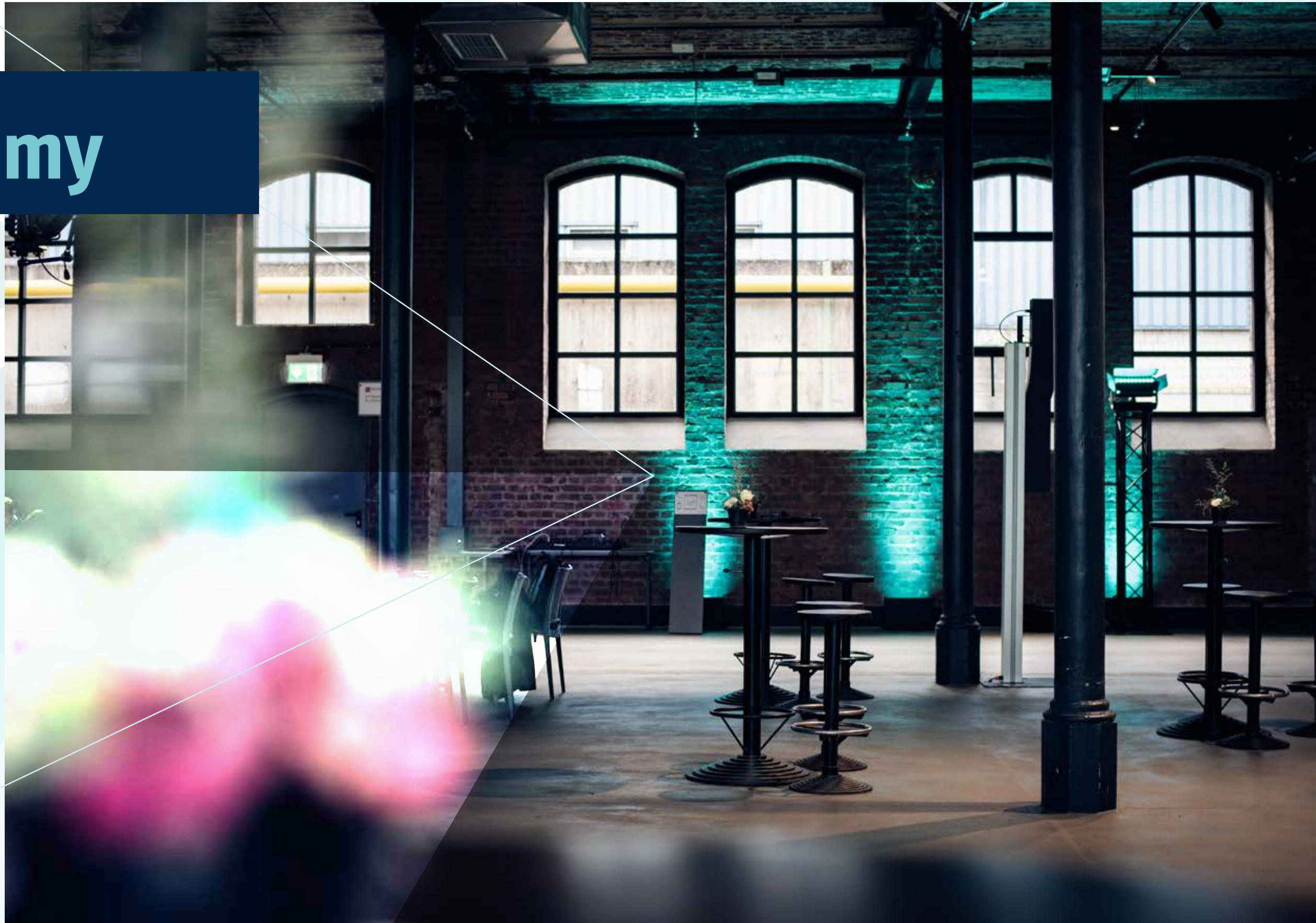
In light of the current energy and a looming economic crisis in Europe, I am convinced that once more, we need dedicated action. Let us be clear: A response not only needs to be effective in softening the fallout from these crises and lead the way to a more sustainable and digital European economy, but it must assist all EU member states equitably. In other words, it must be European.

However, we should not forget: Our ability to respond to autocratic aggression and to make large-scale investments in green technologies relies on our economic power. The same applies to much needed investments into security and future competitiveness of our economy. Our economic power today grew during industrialisation in the mid-19th century, based on innovations like railways, electricity and later the car.

In the age of climate change and digitalisation, Europe urgently needs to call on its historic innovative power. To secure Europe's place in the world, we need to shape technological developments actively today to remain competitive tomorrow. This means: We need targeted and bold investments into digitalisation, green technologies and advanced sectors such as artificial intelligence, space, quantum computing and biotechnology. These areas are key to future economic prosperity.

I thank the Charlemagne Prize Academy to have brought together experts from politics, science, economy and media to discuss the challenges for Europe. You will find their contributions and their suggestions for solutions in this report.

Economy



Europe's Economies under Pressure: Adapting to the Current Challenges

Dr. Rolf Strauch, Chief Economist and Management Board Member, European Stability Mechanism



With the world still recovering from the devastating impact of Covid-19, Russia's invasion of Ukraine has dragged the global economy back into a state of turbulence. The

European continent has been affected the most by soaring energy prices, which have pushed inflation to levels not seen in decades - squeezing real incomes and macroeconomic stability at risk.

The energy shock hitting Europe represents a terms of trade shock. This leads to transfers of income and wealth abroad. This matters more for the euro area than other global regions. In the United States, for example, terms of trade improved. It means the US is importing additional income. But for Europe, the immediate impact of the current energy crisis is worse than the oil crisis of the 1970s. And this loss of income cannot be fully compensated.

Consequently, economic growth in Europe is slowing considerably. According to forecasts, euro area GDP growth in 2023 will slump to 0.3%, down from 3.2% last year (EC Autumn Forecast 2022). A recession is possible in some European countries, most notably Germany.

How are policymakers responding to these difficult challenges?

Central banks around the world are focused on restoring price stability by means of monetary tightening – that is, increasing policy rates. Although powerful, monetary policy is nevertheless a blunt tool, as it impacts various industries, sectors, and society in an equal manner.

European countries are applying a more targeted response to the energy crisis, in the form of fiscal policy. Governments have introduced measures to support households and companies such as subsidies, reduced taxes, and price regulation.

According to forecasts, euro area GDP growth in 2023 will slump to 0.3%, down from 3.2% last year.

Considering the current constraints of fiscal policy, let me point out a proposal that could prove to be an effective solution in this regard: a fiscal stability fund for the euro area.

However, it must be remembered that governments face a balancing act. On the one hand, fiscal policy is expected to support economic growth and alleviate the cost-of-living pressures. On the other hand, it needs to be sustainable - it is necessary to rebuild fiscal space following the Covid pandemic. Another constraint is that fiscal and monetary policy need to be aligned. Therefore, measures to mitigate the impact of high energy prices need to be targeted, that is support the most vulnerable, and be temporary. Otherwise, the task of monetary policy to bring down inflation will become even more complicated.

Considering the current constraints of fiscal policy, let me point out a proposal that could prove to be an effective solution in this regard: a fiscal stability fund for the euro area. The fund would provide loans to euro area member states on favourable terms and be activated in the event of large external shocks. This would increase the euro area's resilience by providing additional fiscal space that both monetary policy and national fiscal policy cannot adequately address. The establishment of a stability fund could be a good addition to the EU economic governance framework.

Coming back to the energy crisis, it is clear that in the longer term, Europe must reduce its dependence on fossil fuels. There is a double urgency in this respect: the climate crisis requires ambitious and decisive action, and we should also ensure that Russia is not capable of weaponising energy supplies.

To address these concerns, the EU has launched REPowerEU – a comprehensive set of measures to eliminate the dependency on Russian fossil fuel and accelerate the EU's transition toward renewable energy. To finance these goals, a large portion of funds available under the existing Next Generation EU programme €220 billion is already available. The diversification of supplies, large-scale investment in green projects, and improving energy efficiency are key pillars of the plan.

The energy crisis is the latest in a series of crises that Europe has experienced in recent years. Coordinated action at European level has been a major factor in recovering from the euro crisis and the pandemic. This is an achievement we can be proud of. By continuing this approach, we can overcome the current challenges and strengthen Europe's resilience to new crises. In an increasingly uncertain international environment, solidarity is the crucial way forward for our continent.

The Euro as a mind-set

**Ben Knapen, Former Minister of Foreign Affairs of the Netherlands,
Former Minister for Development Cooperation and State Secretary for European Affairs**



Today, the euro is the world's second most important currency after the US dollar. Twenty EU member states carry the currency, including Croatia as of January 1 2023 and with two more (Romania and Bulgaria) set to adopt the euro in the near future. More than fifty countries and territories outside the EU also use it or have their own currency linked to it.

That is a quite remarkable development in the twenty years since its introduction.

At the start expectations were flying high and flying low. For some the euro would soon be the challenger of the dollar for dominance in the world. And sceptics made their voices heard: Media were flooded with statistics showing that currency unions all failed in the past, underlining the inevitability of a euro failure in the years to come. Fortunately, it didn't happen although it was a bumpy ride with quite some unexpected curves on the road.

To be fair, the decision to establish a single European currency was not an economic-financial but a political decision. In the years before the completion of the Single Market (free movement of goods, services, capital and people) had marked to culmination of the so-called functional integration that had always been the vehicle for creating further interdependence in (Western-) Europe as foreseen by the founding fathers of the project, back in the middle of the last century. A qualitative leap forward on integration was needed after German reunification seemed to shift the center of gravity in the European Union.

A currency union served this purpose as it had all the features of a more systemic intervention in the European project, and as it was not just a gradual functional integration process.

Many prominent economists emphasized the need to create a political union first in order to create a currency on a more solid political footing than could be the case two decades ago. But since a political union was simply not feasible, Germany and France pressed for this leapfrogging event of the euro introduction first, hoping for the other requirements to follow suit one way or the other.

But as the first chief economist of the European Central Bank, Otmar Issing, already stated in 1999 “the unifying force of the single currency can scarcely be expected to derive from pure symbolism, let alone workings of mythology. Instead, a currency has to convince through stability”.

In the first decade of the euro, we witnessed a mixed bag of functional integration pressure and political institutional shortcomings. On the one hand a single currency allowed for a boost on foreign direct investment in euro countries, as vagaries and exchange rate risks disappeared. We tend to forget today how painful this exchange rate volatility used to be for governments and businesses alike. We also tend to forget how much political misgivings it created before we got the European Monetary Union.

On the other hand there was this cautionary tale of a badly regulated market, which gave access to cheaper credit, with an apparent absence of moral hazard and with a series of severe aftershocks in the euro zone after the banking crisis of 2008, culminating in a near break-down of the currency union.

In the years thereafter it led to a complete overhaul of the regulatory regime in the euro area. With a six-pack, with new supervisory mechanisms, new resolution mechanism, with an upgraded European Stability Mechanism and an extended role of the ECB.

But there was quite some improvisation as well, with responsible politicians and administrators acting as tightrope walkers without a safety net. Just remember the institutional gamble of Draghi's ‘whatever it takes’ in July 2012.

And of course, since there was no political union, there were these improvisations on the fiscal side of the equation. I remember vividly the heated nightly discussions in Brussels on the so-called Fiscal Compact in the same year, aiming at several measures to ensure and to enforce fiscal discipline, establish closer coordination and institutionalise the governance of the eurozone. There was British prime minister Cameron red-heated around midnight running hence and forth between the conference room of the Council and his delegation quarter, blackmailing all others with a demand of privileges for the City as a reward for his consent with the Compact. For me it was the clearest demonstration so

far that the Tories didn't feel any responsibility for the European project anymore. At the same time Italian sherpa's were dancing in the corridor as they managed to soften some of the demands on fiscal restraint. But all in all the creation and consequence of the Fiscal Compact was a clear demonstration of improvisation and symbolism, useful symbolism though. People in those days were rapidly losing trust in the EU and in the governments of member states as unemployment went up, and financial stability went down. The euro was largely blamed and governments seemed unable to exercise some control of events. Therefore, we had to act. Symbolism nevertheless, and in hindsight we know.

In hindsight, the whole exercise underlined the weakness of the fiscal part of the eurozone. First, the Fiscal Compact was a treaty only between 26 member states, so without Great Britain and Czechia. Secondly, the obligation to transpose the Treaty on Stability, Coordination and Governance in the Economic and Monetary Union, as the Fiscal Compact was officially called, into EU law as was agreed upon, never happened. Today, it is not even on the agenda anymore. No country is willing anymore to surrender the power of enforcement on fiscal policies to the Commission.

As the Fiscal Compact has no relevance and no teeth, one can conclude today that the Fiscal Compact was a timely effective confidence building measure, which shows that the euro countries haven't made much progress on the fiscal part of the currency union.

That leaves us with the question: did the euro fulfill our dreams? Did it contribute to a prosperous and stable Europe?

For those who expected the euro to become a serious competitor for the dollar the answer would be ‘No’. On the contrary, the dollar rose in prominence as a world currency. The US market is deeper and one should bear in mind that at the end of the day the US is the one and only safe haven. Safe haven also means that a country has the capacity and the credibility to make sure the haven is and stays safe. This is the point where the relationship between a currency and an army pops up.

At the same token the European Central Bank still is a guardian of a currency without a country. When German media criticize the ECB for a dovish stand on inflation, they criticize the ECB as a producer of inflation in Germany. When Italian ministers criticize the ECB for its actions against inflation, it is complaining about the rising costs of public debt service in Italy, not in other euro countries. So, to some extent the single currency is still a currency without a country. And in order to change that, we need to overcome prejudice and tabu in a way that requires real political courage.

But having said that it is my strong conviction that the euro has contributed to and still contributes to stability in Europe. First of all, it has dramatically enhanced citizen's awareness of interdependence in this part of the world. We got accustomed to the necessary dealing and wheeling to balance each others interests in the management of the euro. We got accustomed to measures addressing economic imbalances between member states. Although it was and will be painful from time to time, we were forced to look at issues more in a European frame than we used to do in the past. Italy's public debt is not just Italy's but our European issue as well. German balance of payment surpluses are not just German surpluses, they are European imbalances.

We have gradually familiarized with this European frame of looking at and dealing with such issues, with natural and positive spill-over effects elsewhere. This a huge, be it implicit, leap forward.

Let me give two recent examples.

After the covid-pandemic broke out, it took member states only five weeks to figure out there was no other than the European way to organize procurement of equipment and medication. And it took only a couple of months to come up with a European rescue package of 750 billion euro – the Next Generation EU containing loans and grants, and European bond program.

After Russia invaded Ukraine on 24 of February of 2022 it didn't even take five hours to demonstrate military and political unity towards the aggressor.

Now, it is hard to prove that things would have happened differently if we hadn't had the euro. But amidst all in-fighting, occasional irritation and prejudice, the financial and economic realities over the last two decades in euroland have learned us a pivotal lesson: the European Union may be a market place where countries trade their different interests and perspectives but it is definitely our market place. And since we share this same market place, we develop capabilities, reflexes, habits and experiences to live and work – yes, and sometimes to struggle - together. And to take one another into account.

In a world full of challenges and dangers this mind set is not a trivial thing. It's something to cherish.

Seizing opportunities, mitigating risks:

How can the digital euro foster a resilient and innovative future for the EU?



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Introduction

Technological change and digitalisation are permeating all aspects of the economy and society, and monetary policymaking is no exception. Digital currencies issued by central banks have been gaining more and more momentum in discussion around the world, including in the euro area where the European Central Bank (ECB) is looking into the potential of a central bank digital currency (CBDC), the digital euro. This trend toward digital currencies has likely been amplified by the implications of COVID-19, which showed the need for more resilient and future-proof solutions for digital payments.

Against this background, this research project aimed to contribute to the ongoing policy debate in the EU on the digital euro by developing potential scenarios for the future. The scenarios

explore the key drivers that can shape how the digital euro project evolves as well as the potential impacts on key stakeholder groups, drawing recommendations for the future.

Despite widespread belief, CBDCs differ from crypto-assets such as cryptocurrencies (e.g., Bitcoin) and stablecoins. Cryptocurrencies are not tied to an underlying asset. As a result, their value is very volatile. In addition, they are decentralized and are not controlled by a single authority. Stablecoins, in turn, feature in theory a relatively stable price because they are backed by an underlying asset such as a commodity or a currency. Their supply can even be regulated by an algorithm. However, not only is this type of digital currency not inclusive because it is not widely accepted as a means of payment, but it could carry significant risks. Unlike a digital euro, which would be backed

by the ECB and thus fall under the deposit insurance scheme,¹ a stablecoin could be subject to a financial run if all users ask for their asset or currency back and would not be covered by any insurance mechanism.

A digital euro, in the retail form currently discussed in the euro area,² would be offered by the central bank as an alternative to cash (powered through digital means) and widely available to the general public. It would differ from virtual transactions, such as those enabled by card payments, bank transfers, and existing digital wallets (such as Google Pay, Apple Pay, etc). Unlike the bulk of current digital payments, which consist of ‘checks’, involving a plethora of actors to verify, clear, administer and execute transfers, a digital euro is expected to eliminate the checking operations, and circulate more easily, behaving as a digital form of cash. At the same time, digital-euro transactions will be performed, most likely, by relying on some of the existing and emerging digital solutions for payments.

Recently, the efforts to understand what a digital euro could look like and its potential impacts have been intensifying. After experimentation work started in 2020 and a public consultation carried out at the same time,³ the ECB launched a more in-depth investigation phase⁴ into the digital euro project in 2021. The European Commission is also joining the current work of analysing the potential of the digital euro, having launched on 5 April a targeted consultation on the digital euro project.⁵ This experimental work is accompanied by important contributions in the literature⁶ and reports from other central banks⁷ that are currently studying the development of their own CBDCs or from institutions⁸ looking at the broader development of CBDCs.

What makes research on the digital euro relevant?

In a world in transformation, slowly recovering from the pandemic, harnessing the power of innovation and anticipating future challenges is a crucial task on policy and industry agendas around the world. In this context, the payments ecosystem has shown an increasing need for resilient and future-proof solutions for cashless payments. The digital euro, like many of the digital currency projects underway, attempts to respond to this trend by providing an additional choice for consumers and ease of payment. Reactions to this innovative solution for digital payments, however, may be uneven, as the digital euro is expected to generate significant changes in the payments landscape, including risks and opportunities across a wide range of stakeholders. In view of this, to tap the opportunities of digital transformation, policymakers should closely analyse the key drivers of change in the payment ecosystem and the potential of a digital euro as the next step for one of the most tangible symbols of EU integration, the common currency.

An abundance of simultaneous developments related to digital currencies makes this a fast-moving field. Central banks are under increasing pressure to keep up with digitalisation and respond to a growing interest in and need for digital payment solutions in comparison to cash. To date, the number of CBDC projects has grown exponentially: 90% of central banks are already looking into the benefits and drawbacks of CBDCs and about two in three central banks are considering issuing a CBDC in the short to medium term.⁹ The most recent and anticipated addition to the debate has been the US Federal Reserve (Fed), which launched an exploratory and consultative exercise on the potential of the CBDCs (without committing, however, to issuing a digital dollar).¹⁰

1] The deposit insurance scheme, regulated by Directive 2014/49/EU, ensures that all deposits up to €100 000 are protected through national Deposit Guarantee Scheme all over the EU.

2] CBDCs can be designed in two forms: for use by financial intermediaries only (i.e., wholesale CBDCs) or for broader use in economy-wide transactions (i.e., retail CBDCs). Wholesale CBDCs are settled for interbank transfers, encompassing payments between financial institutions, including cross-border payments, in the form of digital assets. CBDCs, in the retail form, embody the electronic form of cash or fiat currency. In short, retail CBDCs are exchangeable in the same way that individuals use cash.

3] ECB (2021), Eurosystem report on the public consultation on a digital euro. https://www.ecb.europa.eu/pub/pdf/other/Eurosystem_report_on_the_public_consultation_on_a_digital_euro-539fa8cd8d.en.pdf

4] See: https://www.ecb.europa.eu/paym/digital_euro/investigation/html/index.en.html

5] European Commission (2022). Targeted consultation on a digital euro. https://ec.europa.eu/info/consultations/finance-2022-digital-euro_en

6] See, among others: Boonstra, W. (2022). CBDC and the international position of the euro. SUERF Policy Note Issue No 269, March 202; Fegatelli, P. (2021). The one trillion-euro CBDC: Issuing a digital euro without disrupting the bank lending channel (No. 209; SUERF Policy Brief); Auer et al (2020). Inclusive payments for the post-pandemic world. SUERF Policy Note Issue No 193, September 2020.

7] See, among others: Fed (2022). Money and Payments: The U.S. Dollar in the Age of Digital Transformation; Sveriges Riksbank (2020). E-krona pilot Phase 1.

8] See, for instance: BIS. (2021). Central bank digital currencies for cross-border payments. Report to the G20; Boar, C., & Wehrli, A. (2021). Ready, steady, go? Results of the third BIS survey on central bank digital currency. BIS Papers No. 114. Bank for International Settlements.

9] This figure includes not only retail CBDC projects, but also wholesale projects which focus on interbank transactions. Kosse, A. & Mattei, I. (2022), Gaining momentum – Results of the 2021 BIS survey on central bank digital currencies (No. 125; BIS Papers). <https://www.bis.org/publ/bppdf/bispap125.pdf>

10] Federal Reserve System (2022). Money and Payments: The U.S. Dollar in the Age of Digital Transformation. <https://www.federalreserve.gov/publications/files/money-and-payments-20220120.pdf>

The digital euro is also part of the agenda for securing the strategic autonomy of the EU in key sectors. The digital euro could limit the potential influence of over-reliance on foreign solutions in the field of digital payments in the euro.

At the same time, the private sector is developing novel solutions in the field of digital currencies, in the form of stablecoins.¹¹ The market for stablecoins has been rapidly growing, from approximately 9.5 billion USD in April 2020 to over 180 billion USD in May 2022,¹² with potential risks of instability if stablecoin projects become more widely adopted.¹³ Behind the rapid growth, there are also fluctuations and signs of potential weakness: between May and September 2022, the market shrank to approximately 140 billion USD.¹⁴ In the euro context, a stablecoin redeemable 1:1 for euros, the Euro Coin, was launched in June 2022.¹⁵ As the market evolves, the time is ripe for experimentation to understand which solutions would best respond to the evolving needs and the role that CBDCs can play.

More broadly in the context of overarching policy goals, the digital euro is also part of the agenda for securing the strategic autonomy of the EU in key sectors. The digital euro could limit the potential influence of over-reliance on foreign solutions in the field of digital payments in the euro area. According to the ECB's vision, it would aim to foster trust in digital payments, as a solution backed by the central bank, and strengthen monetary sovereignty in the euro area.¹⁶ Overall, the digital euro fits into the agenda of digitalisation of the EU and would contribute to ensuring that the opportunities for digital transformation are tapped for the EU's citizens.

Employing foresight methodologies for the future of the digital euro

While a highly technical topic in nature, the success of the digital euro ultimately will depend on its uptake. The right incentives need to be created for stakeholders to either support the implementation of a potential digital euro or to just use it if implemented. It is thus crucial to systemically consider the interests of different stakeholder groups and multiple drivers of change (which are both macro and micro factors influencing the potential implementation of the digital euro) to understand in which direction the digital euro should best go.

Against this background, this research project explores how the digital euro can foster a resilient and innovative future for the EU, relying on foresight methodologies to devise scenarios for the implementation of the digital euro. The scenarios developed consider both micro-level implications, by investigating and mapping the different opportunities and challenges across the various stakeholders, as well as macro-level aspects, by analysing what a digital euro could mean for the EU integration process and more broadly for the EU as a global actor.

This research proposes an original methodology that consists of combining both desk research and consultations with experts of CBDCs to develop reliable scenarios for the future of the digital euro (see Figure 1).

At the heart of the digital euro are stakeholders. Whether and how the digital euro is taken up and used in the economy will determine its impacts. The key stakeholder groups will play different roles with respect to a digital euro, from users to facilitators or even competitors. In particular, the emphasis lies on five key stakeholder groups and their interactions: citizens, businesses, fintech companies, commercial banks, and third countries. Their interest in the digital euro project will be shaped by the drivers of change described below (see Figure 2).

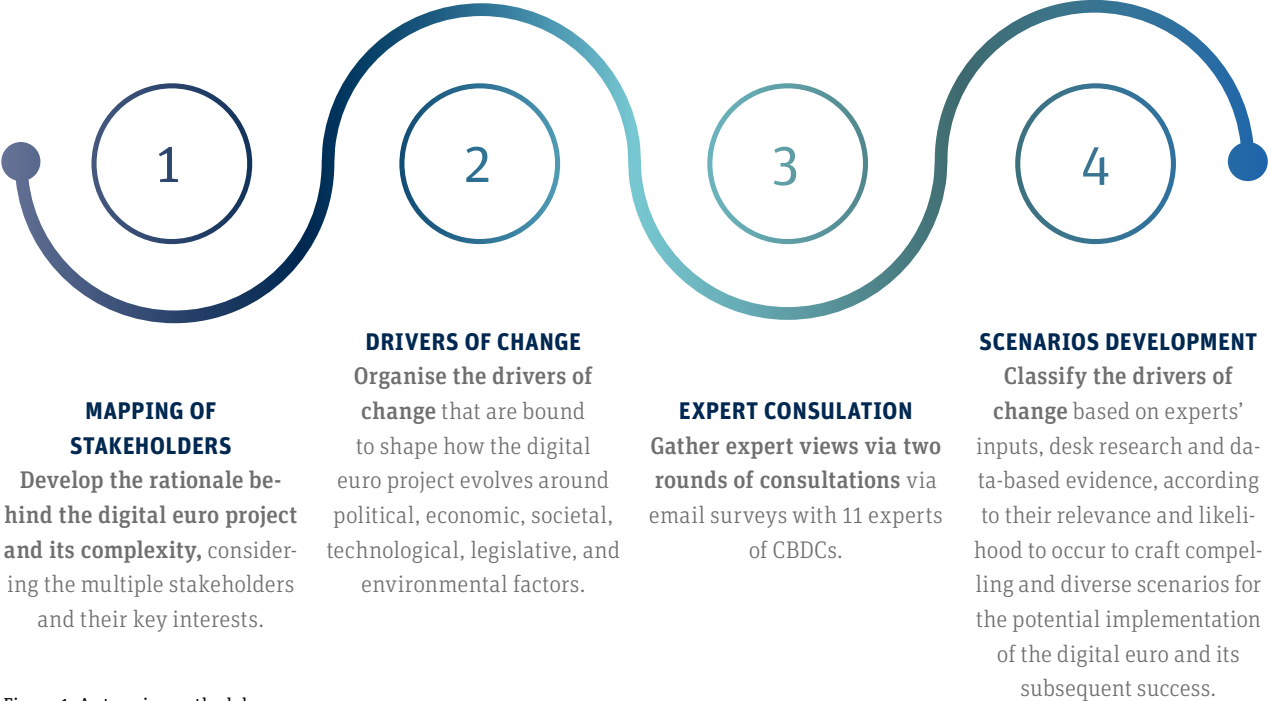


Figure 1: A stepwise methodology
Source: Authors' own elaboration

11] Stablecoins are privately issued digital currencies that are backed by an underlying asset such as a commodity or a currency.
12] The figures are based on a selection of top 15 stablecoins as reported by: The Block (2022). Coin Metrics, 2 September 2022. <https://www.theblockcrypto.com/data/decentralized-finance/stablecoins>. Last accessed: 2 September 2022
13] The risk is acknowledged in the proposal for a regulation on markets in crypto-assets presented by the European Commission. Proposal for a Regulation of the European Parliament and of the Council on Markets in Crypto-assets, and amending Directive (EU) 2019/1937, COM/2020/593 final. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0593>
14] See footnote 12.
15] Circle (2022), Euro Coin (EUROC) is coming on June 30th, 16 June 2022. <https://www.circle.com/blog/euro-coin-is-coming-on-june-30>. Last accessed: 2 September 2022
16] Lagarde, C. & Panetta, F. (2022), Key objectives of the digital euro, 13 July 2022, The ECB Blog. <https://www.ecb.europa.eu/press/blog/date/2022/html/ecb.blog220713-34e21c3240.en.html>. Last accessed: 2 September 2022

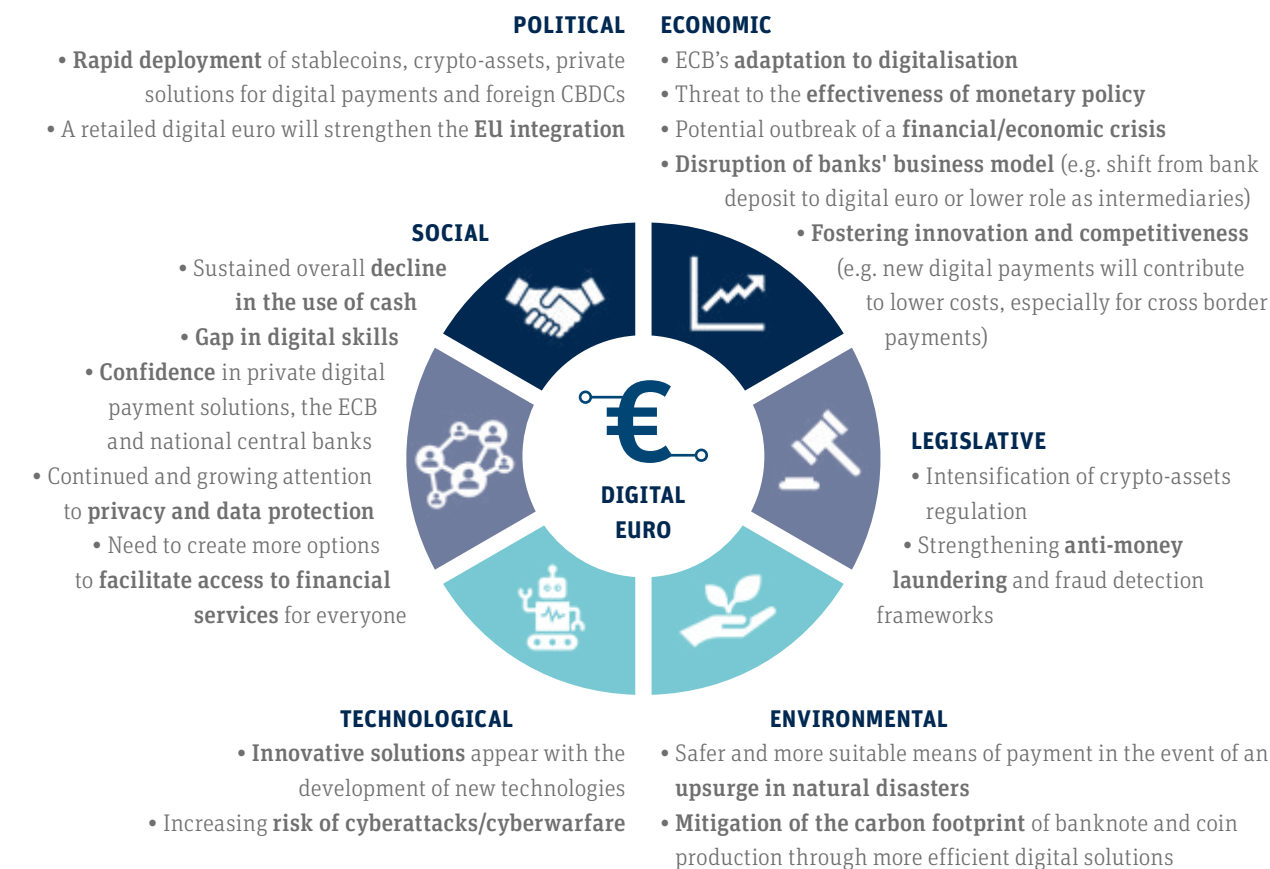


Figure 2: Mapping the drivers of change
Source: Authors' own elaboration

Scenarios for the future of the digital euro

The development of the scenarios is based on the relevance (i.e., low importance to high importance) and the likelihood of occurrence (i.e., uncertainty to certainty) of the drivers of change. The most critical drivers of change are those that can have great impact (i.e., high importance) but are also highly uncertain and can shape different scenarios for the future. The scenarios are accompanied by key general trends (i.e., drivers of change that are highly important and fairly certain to come true, thus shaping the broader picture), that are common across all the scenarios and capture developments that are expected to materialise with a high degree of certainty. The general trends provide relevant information for the background picture, but they do not have a critical impact on whether a digital euro is adopted and its success in case of adoption. In a nutshell, the key general trends are:

- Sustained decline in the use of cash, which generates a greater demand for digital payment solutions.
- Continued and growing attention to privacy and data protection

in relation to the payment preferences of citizens; however, in general citizens tend to trust public authorities more than big tech companies.

- In the payment system, both payers and payees show clear confidence in the ECB and net support for the euro.
- Efforts to regulate crypto assets will intensify in the EU and internationally.
- A balance must be struck between data protection and individuals' right to privacy on the one hand, and the prevention of financial crimes on the other hand.

Based on the most critical drivers of change and the underlying general trends, four main scenarios have been developed (Figure 3). The scenarios are explorative, rather than prescriptive and they seek to understand the key factors that need to be considered in the digital euro project and what potential outcomes could be generated by these factors.

FOSTERED TRUST AND STRONG COALITIONS OF SUPPORTERS ENABLE PUBLIC-PRIVATE MONEY INTEGRATION

- **The digital euro is adopted and used widely.**
- The digital euro fosters **integration** with other solutions and **interoperability** in the landscape of digital money and digital payment solutions.
- The Eurosystem **harnesses the trust** it enjoys among citizens to encourage the deployment of the digital euro through public-private partnerships.
- **Larger and smaller retailers alike** offer digital payment options through the digital euro since it is a free (or low-cost) alternative to other solutions.
- **Limits on holdings and the integration of existing stakeholders** in the implementation process mitigates potential negative effects on banks.

LACK OF INTEGRATION WITH EXISTING PRIVATE SOLUTIONS DWINDLE THE ROLE OF THE DIGITAL EURO

- **The digital euro is adopted, but it faces issues of uptake and integration in the market.**
- The digital euro, and its underlying infrastructure, fails to **integrate** with existing/future privately-issues digital currencies and payment solutions.
- **Problems in communication** lead to lack of clarity among the public about what the digital euro is.
- The landscape of digital payments is **dominated by big tech companies**, whose digital payment solutions are known and widely accepted.
- The digital euro remains an option for paying digitally, but **its uptake is overall limited** since it is **unclear what advantages it brings** compared to existing solutions. Its **future is thus uncertain**.

A DIGITAL EURO OUTSHONE BY UNINTENDED OUTCOMES ON THE FINANCIAL SYSTEM

- **The digital euro is adopted, but its implementation leads to unintended outcomes.**
- The limits on individual holdings are not enough to prevent **negative impacts on commercial banks**.
- The impacts depend on the **size of the commercial banks**, with the more affected banks being the smaller ones, with more limited bargaining power compared to bigger commercial banks. Some citizens switch to holding smaller amounts of digital euro instead of small deposits, even if the digital euro holdings are not remunerated.
- Commercial banks are growing **increasingly sceptical about the digital euro** and are seeking private collaboration to set standards for digital payments – in the same spirit as the European Payments Initiative (EPI).

AN INCONCLUSIVE DIGITAL EURO PROJECT LEAVES A GAP IN THE MARKET

- **The digital euro is not adopted.**
- There is **no agreement** on the right design and implementation approach to limit potential negative impacts. The project is put on hold without clear perspectives for the future.
- There are new attempts, involving commercial banks and other stakeholders including big tech, to establish a pan-European project for digital payment. The attempts are not successful as commercial banks have **competing incentives and needs** (e.g., securing role as intermediary) than big tech (e.g., establishing their presence in the market). Therefore, they opt for developing different solutions.
- The focus in the EU remains on regulation to mitigate any **market distortion risks and market fragmentation** stemming from privately developed digital payment solutions.

Figure 3: Explorative scenarios for the future of a digital euro
Source: Authors' own elaboration

	Fostered trust and strong coalitions of supporters	Lack of integration with existing private solutions	Unintended outcomes on the financial system	Inconclusive digital euro and gap in the market
CITIZENS	<ul style="list-style-type: none"> The digital euro is an appealing payment option in interactions with public administrations Trust in the euro and its institutions partly thanks to guarantees/standards around privacy and data protection 	<ul style="list-style-type: none"> There are limited added benefits for citizens due to lack of integration with other solutions and limited awareness 	<ul style="list-style-type: none"> Satisfied by the digital euro, some citizens switch to holding small amounts of digital euro instead of small deposits Trust in the digital euro remains stable 	<ul style="list-style-type: none"> In the absence of a digital euro, citizens turn to private payment solutions
BUSINESSES	<ul style="list-style-type: none"> The digital euro becomes a common means of payment for consumers The digital euro provides a cheaper digital payments solution 	<ul style="list-style-type: none"> The digital euro is attractive for businesses as a cheap of option for digital payments But the limited uptake among citizens is a downside which dissuades businesses from using it 	<ul style="list-style-type: none"> The digital euro is attractive for businesses as a cheap of option for digital payments The digital euro becomes one of the main means of payment between citizens and businesses 	<ul style="list-style-type: none"> In the absence of a digital euro, businesses turn to private payment solutions
FINTECH	<ul style="list-style-type: none"> Create opportunities for fintech to facilitate transactions with customers 	<ul style="list-style-type: none"> Fintech companies continue to innovate in the market, responding to user needs, aiming to fill the gap left by a digital euro that is not integrated with other solutions and thus less appealing for users 	<ul style="list-style-type: none"> Fintech companies, unlike banks, are not negatively impacted by the uptake of the digital euro They continue to innovate in the market (alongside or note the digital euro) 	<ul style="list-style-type: none"> Risk of private solutions becoming dominant and abuse of their position, although competition law and regulation are expected to address these concerns to some extent
BANKS	<ul style="list-style-type: none"> Currency substitution risks are partially alleviated by limiting individual holdings Key intermediaries facilitating the distribution of the digital euro 	<ul style="list-style-type: none"> Commercial banks do not experience disruptions also due to the limited uptake They may decide to pursue private initiatives to foster cooperation on digital payments 	<ul style="list-style-type: none"> (Smaller) banks experience disruptions due to shifts to digital euro holdings (i.e., currency substitution risk) There is diminished trust in the ECB They investigate potential collaborations (like the EPI) to set standards for digital payments 	<ul style="list-style-type: none"> Cash becomes less and less used and regulation is not able to fill the gap in the convertibility of commercial bank money
THIRD COUNTRIES	<ul style="list-style-type: none"> Currency substitution risk, capital flow volatility, and systemic risk need to be considered should CBDCs be available across borders 	<ul style="list-style-type: none"> Given limited uptake, the digital euro plays a marginal role internationally and other CBDCs become more prominent 	<ul style="list-style-type: none"> The experience of the implementation in the euro area can help other countries in the design of their CBDCs 	<ul style="list-style-type: none"> There is a risk of strategic sovereignty if the payment landscape becomes fully dominated by large foreign players

Figure 4: Implications of the scenarios for stakeholders, including risks and opportunities
Source: Authors' own elaboration

Conclusions and recommendations

Before drawing recommendations from the scenarios, several limitations need to be acknowledged. First, the scenarios explore the economic, social, and political factors that are shaping the digital euro project but do not explore in detail the technical configurations that could be used for the digital euro. Upcoming research could explore more the technical impacts, complementing the existing literature. Second, it cannot be excluded that other scenarios could be envisioned for the future of the digital euro depending on new developments in the project. This explorative foresight exercise is based on the most salient drivers of change according to an extensive literature review and expert feedback collected between January and August 2022. More scenarios could be developed in the next stages of the work conducted by the ECB on the topic.

Based on the key features of the scenarios, several lessons and recommendations can be drawn to feed into the ongoing debate on the digital euro.

Foster integration and interoperability of solutions and leverage existing knowledge and networks in the euro area.

To support its uptake internally, in the euro area, the digital euro would benefit from being positioned not as a competitor but as a solution integrated with other digital currencies and other means of payment. Such an approach could create an enabling environment for innovation in digital payments and digital currencies. At the same time, building cooperation with key stakeholders (such as the banking system and the fintech sector) would also help with leveraging existing knowledge and networks and facilitating implementation. From the perspective of the end users of the digital euro, interoperability with other solutions and ease of use will likely play a key role in ensuring the uptake of the digital euro.

Foster cooperation on CBDCs and connected topics internationally to allow for interoperable use cases.

As almost all central banks around the world are investigating the potential of CBDCs, whether in retail or wholesale form, there is a good opportunity to learn from other existing cases (whether already implemented, in the pilot phase, or research phase). In addition, there is also an opportunity to build cooperation

between countries and investigate the potential for developing solutions that are interoperable/compatible. More broadly, the digital euro project could be an opportunity for the EU to become a leader in this field, positioning the euro internationally and engaging in cooperation at the international level.

Strive for wide adoption through clear communication and balancing user needs with requirements to prevent illicit activities.

It is essential to get citizens on board with clear communication about the role and benefits of the digital euro compared with traditional means of payment and how it distinguishes itself from other forms of digital currencies (e.g., crypto-assets such as Bitcoin). The main concerns of users, including privacy and data protection, need to be addressed with explanations about the safeguards considered in this sense. Nevertheless, a balance needs to be struck between the need to ensure privacy and data protection and the concurrent need to ensure that the digital euro does not fall prey to illicit activities such as money laundering.

Avoid unintended disruptions in the banking sector.

In establishing strong cooperation for the digital euro, the ECB needs to carefully assess the design and the impact of the digital euro on the banking system to avoid disrupting the business model of commercial banks and their role in the market of payments.

Explore opportunities for partnerships, both between public entities as well as between public and private actors

There may be opportunities to encourage the use of the digital euro and contribute to the digital transformation of other public services. For instance, partnerships could be set up with public institutions in which the public institutions would support the use of the digital euro as a form of digital payment for services they offer.

Partnerships could also be established more broadly between public and private sector entities, including digital payments intermediaries, to contribute to the implementation and use of the digital euro.

Security

Security - The European Challenge



Europe's 9/11 Moment:

Europe and the EU after the invasion of Ukraine

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The Russian war against Ukraine on the 24th of February 2022 is a paradigm shift in international security and could be labelled as Europe's 9/11. The invasion of Ukraine has for many Europeans wider security implications than the 2001 terrorist attacks on the United States that opened a two-decade long war on terrorism. As 9/11 for the Americans, the war in Ukraine opens a new strategic era for the Europeans, even if many would argue that Putin's imperialist ambitions can be traced back to 2014 and the illegal annexation of Crimea or even the 2008 summer war with Georgia.

The war in Ukraine is a critical moment for the Europeans because it challenges and shakes many beliefs that had shaped Europe's approach to international security and war since 1945. From this perspective, it is indeed what the German Chancellor Scholz called a watershed moment, a *Zeitenwende*. It marks the return of major interstate wars in Europe. The Balkan wars of the 1990s saw massive violence and ethnic cleansing but were not conflicts in which major powers were using war in pursuit of imperial objectives. From this perspective, it is not only a violation of the post-Cold War order, but also of the principles enshrined in the United Nations Charter, the Helsinki Final Act, the Paris Charter, the NATO-Russia Founding Act, and many other essential documents defining the European security architecture since 1945. It also contradicts the principles enshrined in the European Union treaties.

For the Europeans, this massive pushback challenges the very nature of the rules based international order that Europe (and the West) have been defending. Moreover, the very nature of the conflict waged by Russia in Ukraine puts back on the table some critical and unpleasant military questions. This new environment puts demanding requirements for defence at the forefront of foreign and security policy. The Europeans who had only reluctantly embarked on an effort to increase military

spending after the annexation of Crimea in 2014 are now engaged in an attempt to rebuild a solid military often after decades of "peace dividends", which saw the European forces shrink and, in some instances, become quite hollow. The over reliance on US military capabilities both to ensure the defence and deterrence posture of NATO and to support Ukraine has exposed the limits of European military capabilities in a crude light.

A geopolitical EU emerging in the context of an existential threat

When, as early as 2019, President Von der Leyen called for a "geopolitical Commission" in order to promote "a stronger Europe in the world", one of her six priorities, she probably did not expect to see this ambition to be tested to this extent. The global implication of Covid already pushed the European Union to act decisively outside the traditional framework in order to provide a response to an unprecedented health crisis. The war in Ukraine forced again the EU outside its comfort zone to achieve two simultaneous tasks: a comprehensive and complex reappraisal of its relationship with Russia and stepping up support to Ukraine, a country at war, at unmatched levels and breaking new grounds in record time.

This happened in a good coordination with other like-minded partners, starting with the United States and the North Atlantic treaty Organisation (NATO). It suffices to list the series of decisions taken since February 24 to measure the dramatic changes that occurred: largely cutting energy dependency on Russia and imposing unprecedented sanctions on a major power and close neighbour previously described as a partner were already extraordinary decisions. But the decisions to use the European Peace Facility to arm Ukraine, the establishment of an EU training mission for the Ukrainian forces, the decision by many Europeans to deliver more and more sophisticated weapons to Ukraine, the use of EU instruments to help replenish stocks of donated military equipment were radically new developments just as

the decision to grant a candidate status to a country at war. No observer would have predicted such a high level of engagement from Europe before the war.

The critical point to understand this radical transformation not only of the European security environment but of European policies (both at the national and at the EU level) lies in the fact the war has gradually shifted from an existential conflict for Ukraine (and Russia) to a war that is increasingly perceived as existential for many Europeans in spite of the fact that neither the EU nor NATO are directly engaged in the conflict.

Can Europe be up to the challenge?

If this assessment of an existential struggle underway is correct, the question becomes whether the Europeans are up to this generational challenge.

The first duty is to the support to Ukraine in the long term. The conflict is unlikely to end before months or more. The Europeans need to further structure their assistance to Ukraine, including in the military realm, to enable the Ukrainians to push back Russian forces and ultimately prevail in the battlefield. This is not only about moving to more sophisticated equipment but to deliver them in a timely fashion and provide over time the ammunition and logistical support needed. This is also about providing the Ukrainians with a real European perspective and further develop the efforts to reach out to the vulnerable states on Europe's periphery.

The second duty is to fully recognise the radically transformed nature of the security environment when the temptation to claim that the current war is a parenthesis and that we could go back

to normal. The hard strategic reality is that Europe needs to fully adapt to an era of great power competition in which others, friends and foes alike, play on all the levers of power. The EU has a large toolbox but is only learning to use a diversity of tools. As most Europeans are now committed in the NATO context to significantly increase defence spending and modernise their military, they now need to sustain this effort over time. In many instance, it will take years to rebuild proper European military forces and will require a robust and prolonged effort. This effort is necessary and is our best chance to preserve peace on the continent. It is also essential to share properly the burden with the United States which, including in the support to Ukraine, continue to bear the largest share of the military effort, and face an growing need to prioritise between competing and demanding priorities. This is important to preserve the transatlantic alliance.

The last challenge is to be preserve European unity. As the war in Ukraine enters its second year, European (and their North American allies) have been remarkably united and, contrary to Vladimir Putin's hope, have not appeared divided or under public opinion pressure in spite of the energy crisis and the financial cost of both sanctions and support to Ukraine. Public opinion support for Ukraine remains strong across the continent and there are very few voices arguing for a appeasement. Preserving this unity and sense of urgency over time is a condition to meet the objectives of sustaining the current effort.

Europe and the Europeans (in both the EU and NATO context) have successfully reacted to the largest challenge to European security in decades, they now need to achieve their full adaptation to a degraded security environment that will not vanish.

The hard strategic reality is that Europe needs to fully adapt to an era of great power competition in which others, friends and foes alike, play on all the levers of power.

In Search for Military AI in the EU's AI Strategic Discourse



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Introduction

Since 2017, the European Union (EU) has branded itself as being at the forefront of shaping an emerging AI policy in the light of ‘intensified systemic rivalry on digital governance’¹. Such a leadership role has been showcased by releasing several strategic documents (Communications and the White Paper²) and creating public initiatives (the European AI Alliance) led by the European Commission (EC). To highlight these ambitions the EC has introduced the first-ever Proposal for Regulation AI Act aiming to legally regulate AI and establish standards for its future use. However, the importance of AI has come with an exemption, the EC has explicitly stated in the White Paper that ‘it does not address the development and use of AI for military purposes’³. In other words, the EC has decided to formulate its emerging AI policy orienting it toward the Single Market and

the economic transition, excluding the military angle. Such a decision has received criticism for leaving security-related questions out of the policy scope⁴; but what would be the EU’s position and a potential response if military AI were misused or worse, used against the EU?

One of the possible counterarguments for calls to involve military AI, namely military developments as a readiness to use them against enemies, might still be uncomfortable or considered as not ‘natural’ in the EU⁵. In other words, the EU aims to position itself as a different kind of power that is not defined by its military capacity⁶. However, the EU-level defence policies such as the Permanent Structured Cooperation (PESCO), the European Defence Fund (EDF) or the Common Security and Defence Policy (CSDP) show that military-related policies are already included in

the EU agenda. Furthermore, the financial instruments of these policies are used to support the development of AI capabilities. For example, the EDF envisages up to 8% of its budget for disruptive technologies, including AI⁷. The EC has also confirmed the ‘AI for Defence (AI4DEF)’ project under the European Defence Industrial Development Programme (EDIDP) supporting defence industry in AI⁸. In 2021, the new Directorate-General for Defence Industry and Space (DEFIS) was established to ‘uphold the competitiveness and innovation of the European defence industry’⁹ and in 2022 the Hub for EU Defence Innovation was established within the European Defence Agency (EDA) to ‘to stimulate, facilitate and support cooperation on defence innovation among Member States’¹⁰.

Therefore, this noticed mismatch between the EC’s stance of excluding the military from the emerging AI policy and, at the same time, employing existing defence instruments to support AI-related capabilities¹¹, leads to questions about the perception towards military AI in the EU. How military AI is framed in the EU? What does it suggest to debates on EU actorness, typically based on a dichotomy of normative vs. military? Building on these discussions, this research has involved a broader scope of relevant EU institutions¹² by selecting 27 documents¹³ and including the public commentary of the EU decision-makers as relevant discourse. The selected sources have covered the period 2017-2021 and have been used for the frame analysis. Frames in the context of research have been defined as ways to structure the complex reality and its different elements by interpreting rhetoric and discourses, and also naming relevant players, positions, and policy actions¹⁴.

Building on the research and its findings, this report proposes an overview of the inter-institutional dynamic and three frames of military AI depicted within the discourse. It reveals inconsistency across different EU institutions and policies in the case of military AI. Alongside normative proposals for military AI governance referring to the normative power of the EU, there are desires for military capability and advancement leading to increased militarization in the context of AI developments. Therefore, even though military AI is excluded from the initial scope of the emerging AI policy introduced by the EC, it is an integral and relevant part of the inter-institutional debates and tensions on the future directions of both EU’s AI and security policies.

What is military AI and what is its impact?

There is no unified definition of military AI as AI is firstly associated with commercial functions that can also be used for highly diverse military purposes and use¹⁵. AI is considered to be dual use meaning that it has current or potential for both military and civilian applications while a distinction between the two is not clear-cut¹⁶. Therefore, AI is seen as an enabler that can be applied to different branches of the army and used in land, sea, air, and space, as well as at different levels of warfare – from political to operational and tactical¹⁷. Apparently, there is a noticeable trend to employ AI to assist in generating and giving data and information for military operations¹⁸; such a function has already been tested by the British Army to use AI to absorb data and provide information from the field of exercise¹⁹.

- 1] Report of Foreign Affairs Council, 3807 meeting, 2021.
- 2] Communication COM (2018)795 “Coordinated Plan on Artificial Intelligence,” European Commission, 2018; Communication (2019)168 “Building Trust in Human-Centric Artificial Intelligence,” European Commission, 2018; Communication COM (2018)237 Artificial Intelligence for Europe, European Commission, 2018; White Paper COM (2020)65 “On Artificial Intelligence – A European Approach to Excellence and Trust”, European Commission, 2020; Communication COM (2020)66 A “European Strategy for Data Communication”, European Commission, 2020; COM (2021)205 “Fostering a European approach to Artificial Intelligence,” European Commission, 2021.
- 3] White Paper, On Artificial Intelligence – A European Approach to Excellence and Trust.
- 4] Ulrike Franke, Jose Ignacio Torreblanca, “Geo-tech politics: why technology shapes European power,” ECFR, accessed July 15, 2021, <https://ecfr.eu/publication/geo-tech-politics-why-technology-shapes-european-power/>; Ulrike Franke, “Artificial Intelligence diplomacy. Artificial Intelligence governance as a new European Union external policy tool”, Policy Department for Economic, Scientific and Quality of Life Policies, 2021.
- 5] Isabel Ferreira Nunes, “Civilian, Normative, and Ethical Power Europe: Role Claims and EU Discourses,” European Foreign Affairs Review 16 (2011): 19.
- 6] Marijn Huijck, Hanna I. Muehlenhoff, “The European Union as a Masculine Military Power: European Union Security and Defence Policy in ‘Times of Crisis’,” Political Studies Review 18, no:3 (2020): 364.
- 7] The European Commission, COM(2021)70 Action Plan on Synergies Between Civil, Defence and Space Industries, 2021.
- 8] “Artificial Intelligence for Defence,” European Commission, accessed 14 June, 2022. https://defence-industry-space.ec.europa.eu/system/files/2021-06/EDIDP2020_factsheet_AI_AI4DEF.pdf.
- 9] “Defence Industry and Space,” European Commission, accessed 10 September, 2022. https://ec.europa.eu/info/departments/defence-industry-and-space_en
- 10] “Hub for EU Defence Innovation Established within EDA,” European Defence Agency, accessed 10 September, 2022. <https://eda.europa.eu/news-and-events/news/2022/05/17/hub-for-eu-defence-innovation-established-within-eda>
- 11] Inga Ulnicane, “Artificial Intelligence in the European Union. Policy, Ethics and Regulation,” in: The Routledge Handbook of European Integrations, ed. Thomas Hoerber, Gabriel Weber, Ignazio Cabras (Routledge, 2022): 264.
- 12] The European Commission (EC), the European Parliament (EP), the European Council, the security-related agencies (the European Defense Agency (EDA), the European Union Agency for Cybersecurity (ENISA)), the EU Institute for Security Studies (EUISS)), and the High-Level Expert Group for AI (HLEG).
- 13] It includes Communications and the White Paper of the EC, Resolutions of the EP, reports and strategies of the agencies, conclusions of the European Council, and publications of the HLEG.
- 14] Martin Rein, Donald Schon, “Reframing Policy Discourse,” in: The Argumentative Turn in Policy Analysis and Planning, ed. Frank Fischer, John Forester (Duke University Press, 1993): 146.
- 15] Alex Wilner, Casey Babb, “New Technologies and Deterrence: Artificial Intelligence and Adversarial Behaviour,” in NL Arms Netherlands Annual Review of Military Studies 2020, ed. Frans Osinga, Tim Sweijts (Springer, 2020): 406-407.
- 16] Inga Ulnicane, “The governance of dual-use research in the EU. The case of neuroscience,” in: Emerging Security Technologies and EU Governance. Actors, Practices and Processes, ed. Antonio Calcara, Raluca Csernatoni, Chantal Lavallee (London and New York: Routledge), 2020: 4.
- 17] Peter Svenmarck, et al., “Possibilities and Challenges for Artificial Intelligence,” Swedish Defence Research Agency, 2018.
- 18] Zhang, et. Al., 2020.
- 19] “Artificial Intelligence used on British Army operation for the first time,” Army, accessed November 17, 2022. <https://www.army.mod.uk/news-and-events/news/2021/07/artificial-intelligence-used-on-british-army-operation-for-the-first-time/>

One of the main features of such enabling power is that it leads towards increased automation and more independent operation of different weaponry (for example, unmanned vehicles, drones, or lethal autonomous weapons systems (LAWS)) as well as multiple purposes such as targeting, defense, or navigation. In other words, the increased automation basically marks the transformative change that AI application brings to the military, while human involvement, whether on the battlefield or the decision-making, is being gradually erased²⁰. Therefore, this rather broad term of military AI might also be about the weaponization of AI at first developed for different and not necessarily exclusively military purposes (for example, facial recognition application has been already used on the battlefield in Ukraine²¹).

Thus, military AI is not only about technical solutions and new ways of operation; it also signals significant political changes for national and international security, challenging existing policies and pushing for a reassessment of new risks. Apparently, these military AI developments are not just about different ways of fighting, but also how it might pressure countries to compete more and even become more war-prone when automation decreases war casualties on the battlefield²². At the same time, military AI triggers issues of ethics and human rights: if LAWS are allowed to target whom to kill without human intervention, what effect will this have on fundamental principles of human dignity²³? These dilemmas require clearer positioning or even a strategy on how to address them – what important and far-reaching technological, but also political, social, and even moral effects military AI developments might create. As we are in the stage of emerging AI policies, the existing perception, concerns, and their transformation into policymaking become a matter of setting a tone, drawing boundaries, and searching for the most favorable approach toward military AI.

Military AI is not only about technical solutions and new ways of operation; it also signals significant political changes for national and international security, challenging existing policies and pushing for a reassessment of new risks.

Differences between EU institutions on military AI

This research reveals that the positions of the EU institutions on military AI are inconsistent and differ. Firstly, the European Parliament (EP) appears to be at the forefront of including, reflecting, and even advocating for military AI compared to others. This tendency is particularly evident when the EP puts itself in contrast to the EC by calling and even insisting the executive institution to formulate its position and include it in the scope of the emerging EU's AI policy. Given EC's explicit refusal to consider that, the EP becomes a leading player in formulating the approach towards military AI in the EU.

This tendency is also evident when considering the relevant documents of respective agencies. For example, the European Defence Agency (EDA) has included military AI-related comments focused on military capability development in the EU, but these comments appear rather episodically in different EDA's documents with no dedication to military AI. The same angle on capability building has been identified by the European Union Institute for Security Studies (EUISS) in its policy brief being the most strategically looking and reflective single document on military AI. Additionally, the European Union Agency for Cybersecurity (ENISA) has issued a couple of relevant reports on its direct responsibility of cyber, but without putting it into the light of military AI. Thus, agencies appear to be paying attention to military AI developments, but at least their rhetorical contribution is scattered and dispersed through different documents of different priorities. In the context of subordinated European agencies, the High-Level Expert Group for AI (HLEG), established by the EC and consisting of experts, academics, and business representatives, has emerged as an important voice, considering military AI (LAWS in particular) through the lens of ethics.

Military AI is not discussed as a central matter. Therefore, military AI is predominantly absent from public speeches, comments, and statements by those involved in shaping the emerging EU's AI policy.

Regarding the public commentary on the EU decision-makers, there is a noticeable absence – or silence – of discussion on military AI. From the selected comments, speeches, and statements for the period 2017-2021, the only relevant speech in this context is the State of the Union Address by EC President Ursula Von Der Leyen. Even in this case, military AI appears episodically and in the more general context of EU policies. Similar observations on the rest of the public commentary: general references to cyber or defence, but military AI is not discussed as a central matter. Therefore, military AI is predominantly absent from public speeches, comments, and statements by those involved in shaping the emerging EU's AI policy.

Several insights can be drawn from such an overview of the EU institutions and their discourse construction on military AI. The inter-institutional divisions and inconsistency are clear without any common agreement on where to place military AI within the emerging AI policy. On the other hand, such fragmentation does not mean that the matter of military AI is ignored. The active role of the EP and the involvement of the HLEG and other agencies in the discussion show that military AI is part of the debate in the EU. Therefore, the following frame analysis becomes an exercise based on bringing the existing discursive elements together and suggesting key directions of that debate.

Frame 1: military AI and the problematic arms race

The first frame focuses on military AI as a part of the international arms race which is perceived as problematic. According to EP's views in relation to the international environment - "the modern arms-race dynamic resulting from major military nation states are outpacing the progress"²⁴. Therefore, military AI is seen as a source and motivation for the arms race, the definition of future power, and inflating competition between the major players.

The reflection of military AI or AI in general as a new era of power race is not unique and specific to the EU. Inga Ulnicane has argued that the talk of a space race in AI discussions has been widely used and represents technology development as a global competition among nations and regions²⁵. However, for the EU, military AI developments resulting in the arms race become a signal of increased insecurity and antagonistic international nature. Such perception is particularly evident from the HLEG's comments on the developments of the LAWS: "[LAWS] could lead to an uncontrollable arms race on a historically unprecedented level and create military contexts in which human control is almost entirely relinquished"²⁶. While at the same time, "an unknown number of countries and industries are researching and developing LAWS"²⁷. Therefore, the combination of yet unfamiliar capabilities of military AI and the fear of the race towards them is what defines the increased insecurity for the EU.

20] Norine, MacDonald, George Howell, "Killing me softly," PRISM 8, no:3 (2019): 114; Christopher Whyte, "Poison, Persistence, and Cascade Effects," WINTER 2020 14, no:4 (2020): 40; Ian GR Shaw, "Robot Wars: US Empire and Geopolitics in the Robotic Age," Security Dialogue 48, no:5 (2017): 466.
21] "War in Ukraine," Clearview.ai, accessed 17, November, 2022, <https://www.clearview.ai/ukraine>.
22] Frank Sauer, Niklas Schornig, "Killer drones: the 'silver bullet' of democratic warfare?," Security Dialogue 43, no:4 (2012), 375.
23] Stuart Russell, "Take a Stand on AI Weapons," Nature 521, (2015): 415-418.

24] Stuart Russell, "Take a Stand on AI Weapons," Nature 521, (2015): 415-418. Questions of interpretation and application of international law in so far as the EU is affected in the areas of civil and military uses and of state authority outside the scope of criminal justice, 2021.
25] Inga Ulnicane, "Against the New Space Race: Global AI Competition and Cooperation for People," AI&Society, (2022).
26] High Level Expert Group on Artificial Intelligence, Ethics Guidelines for Trustworthy AI, 2019.
27] High Level Expert Group on Artificial Intelligence, Policy and Investment Recommendations for Trustworthy AI, 2019.

Framing military AI by using the wording of the arms race or proliferation, creates direct parallels with the Cold War analogies of nuclear, and space programs and competition between the two major power centers in the 20th century.

Indeed, the documents do not mention any particular state, non-state players, or difficult relationships that could exploit military AI against the EU. The concerns over military AI and the perceived competitive international race are mainly described through the practices and fearful scenarios of the use and misuse of military AI. In this light, the EP suggests various examples of concern: “unregulated use of AI <...> exposed to manipulation, to errors and inaccuracies”, “proliferation, interference by third parties with AI-based autonomous technology”²⁸. Therefore, this frame reveals that the institutions, namely the EP and the HLEG are worried about potential negative outcomes associated with uncontrolled and undefined technological developments which are also put in a broad way (error, inaccuracies). It creates an impression that the chosen rhetoric of these undesired likelihoods can also be read as an urgency and a call for action to discuss where the EU stands in this international context.

Framing military AI by using the wording of the arms race or proliferation, creates direct parallels with the Cold War analogies of nuclear, and space programs and competition between the two major power centers in the 20th century. In other words, such chosen rhetoric frames military AI in the light of conventional warfare and capacity-based – measurable – power (“update all existing treaty instruments on arms control, disarmament and

non-proliferation so as to take into account AI-enabled systems used in warfare”²⁹). Therefore, such a framework limits a better understanding of the novelty and complexity of military AI.

Is there something beyond modern security perception framing military AI in the context of “principles of territorial integrity, non-intervention and the use of force”³⁰? Therefore, to avoid such limitations, it becomes particularly important to find ways of perceiving today’s trends of these developments that might be free from the familiar analogies of the past.

Frame 2: military AI as a transformative technology

The second frame presents military AI as a transformative technology. In this light, the EU institutions, the EP and the EDA in particular encourage them to accept this technological transformation and to achieve the corresponding level of military advancement. For example, the EDA states that “AI will transform the future battlefield, we need a new generation of planners who understand the optimizations AI can induce to their systems”³¹. As a result, such transformation and adaptation are expected to lead to “an autonomous EU capability to test and qualify European developed defence capabilities prior to deployment in operations and missions”³².

This frame matches the ways other national governments and international organizations perceive AI through major and far-reaching changes³³. In the case of the EU, the perception of change and transformation becomes not only about military per se, but also future strategic goals defined by using in this case political concepts of autonomy and resilience: “the EU needs to strive for strategic resilience <...>, especially for AI and its military applications”³⁴. Interestingly, although the international context is perceived as increased insecurity due to the race towards military AI, these calls for more European military investment through military AI seem to be encouraging an instrumental and competitive approach to defining EU actorness. For example, the proposals to “better streamline Union efforts in this field [military AI]”³⁵, “increased investment in European AI for defence”³⁶ or President of the EC Ursula von der Leyen’s statement that “we are already investing in common European platforms, from fighter jets, to drones and cyber”³⁷ could be interpreted as an ambition to boost military AI on the EU level. The relation of military advancement through technological transformation and its importance for strategic goals also suggests the preferred actorness of the EU itself – a more internationally resilient, autonomous, and militarily capable EU.

Thus, the frame suggests that the perceived transformation and necessity for the EU’s advancement of military AI is directed toward more intense militarization of the EU, even if it is presented for defensive and strategic purposes. It is also noticeable

that the framing of EU institutions, mainly the EP and the EDA, positions the EU as a military power, challenged to respond to power competition and security concerns, also by military developments. At the same time, this frame leads to further questions; in the case of building military capabilities, what would be the directions taken regarding military AI and how would these developments support the idea of autonomy and resilience in terms of the EU’s international position? Particularly when the discussion about the transformation remains in the rhetorical framework of warfare, armies, and power exercise.

Frame 3: military AI and the human-centric governance

The third frame focuses on the governance of military AI which is supposed to be based on the EU’s human-centric approach toward AI. The human-centric approach has been a core of the EU’s emerging AI policy and has already received different reactions and evaluations. For example, it has been criticized as providing limited guidance for a policy, requiring consensus on the EU level, and masking diverging positions on the exact meaning and outcome³⁸. On the other hand, military AI, is seen as a useful basis to look for responsible military use of AI³⁹. Indeed, for this frame, the humancentric approach appears as a central reference point for various policy measures suggested by the institutions.

The frame suggests that the perceived transformation and necessity for the EU’s advancement of military AI is directed toward more intense militarization of the EU, even if it is presented for defensive and strategic purposes.

28] European Parliament, (P9_TA(2020)0275), Framework of Ethical Aspects of Artificial Intelligence, Robotics and Related Technologies, 2020; European Parliament, Resolution on artificial intelligence.

29] European Parliament, 2021/C 456/04, Resolution on artificial intelligence: questions of interpretation and application of international law in so far as the EU is affected in the areas of civil and military uses and of state authority outside the scope of criminal justice, 2021.

30] Ibid.

31] European Defence Agency, “European Defence Matters. After the first CARDS: What’s next?” 2020.

32] European Defence Agency, “The EU Capability Development Priorities,” (2018): 18.

33] Inga Ulnicane, et al., “Governance of Artificial Intelligence: Emerging International Trends and Policy Frames,” In: The Global Politics of Artificial Intelligence, ed. Maurizio Tinnirello (CRC Press, 2022): 43.

34] European Parliament, Resolution on Artificial Intelligence.

35] European Parliament, (2021/C404/04), Framework of Ethical Aspects of Artificial Intelligence, Robotics and Related Technologies, 2021.

36] European Parliament, Resolution on Artificial Intelligence.

37] State of the Union Address by President von der Leyen at the European Parliament Plenary.

38] Anais Resseguier, Rowena Rodrigues, “AI Ethics Not Remain Toothless! A Call to Bring Back the Teeth of Ethics,” Big Data & Society 7, no:2 (2020): 3; Nathalie A. Smuha, “The EU Approach to Ethics Guidelines for Trustworthy Artificial Intelligence,” Computer Law Review International 20, no:4 (2019): 19; Hendrik Schopmans, Jelena Cupac, “Engines of Patriarchy: Ethical Artificial Intelligence in Times of Illiberal Backlash Politics,” Ethics and International Affairs 35, no:3 (2021): 330.

39] Vincent Boulanin, et al., “Responsible Military Use of Artificial Intelligence: Can the European Union Lead the Way in Developing Best Practice?” SIPRI (2020), 9.

The ENISA, the HLEG, and the EP provide different suggestions on what this governance should look like: an AI toolbox with mitigation measures⁴⁰, monitoring, and restriction of LAWS⁴¹, and the legal obligation to prevent mass surveillance using AI technologies⁴². They show that the overall model of governance should be restricting and limiting, to establish control over how military AI is developed and used. At the same time, the principle of “meaningful human control”, mentioned in different documents, reveals that these limits expectedly put on military AI are based on normative terms and a human-centric approach. Therefore, the governance should address not only perceived security concerns over international dynamics, but also the very core of the previously discussed dilemmas of the human-technology relationship. Calls from the EP to regulate LAWS are the most illustrative examples of these goals; they vary from bans of killer robots (“the need for an EU-wide strategy against LAWS and a ban on so-called killer robots”) to yet limited exemptions of their use (“LAWS should be used only in clearly defined cases and in accordance with authorization procedures”⁴³).

Therefore, this frame suggests that governance of military AI is predominantly about the future regulation, institutional basis, and checks and balances (human control) to respond to the increased insecurity, but also about the dilemmas regarding autonomous technology. These proposals for governance and the human-centric approach show that the institutions position the EU as a normative power, preferring institutional, rules, and values-based responses to security concerns. On the other hand, it is still to be seen how the human-centric approach should be applied to the complexity of military AI applications and ensure their control. Also, how the normative nature of governance fits within the international competition on military AI as well as calls for the EU’s militarization unraveled in the second frame. Particularly when the effectiveness of such governance will inevitably require a much broader international coalition and a more coordinated approach.

Conclusion and recommendations

Following the debate on where the EU stands towards military AI in the context of its emerging AI policy, this research has suggested inter-institutional mapping and an in-depth look into the relevant discourse which revealed inconsistency across institutions and EU policies in terms of military AI. Based on frame analysis, three frames have been discussed: 1) military AI and the problematic arms race, 2) military AI as a transformative technology, and 3) military AI and human-centric governance. Presented separately, these frames suggest how the international context and developments of military AI are discussed, and then what are the two directions of the EU’s possible response. These directions also show that the debate on military AI is not monolithic, but highly complex with different priorities of contributing EU institutions and decision-makers involved in these discussions.

This report has argued that military AI appears to be a part of the EU security agenda as well as a matter of the emerging AI policy. Though its elements are not directly involved in the EC’s leading strategic documents on AI, the references and proposals by different EU institutions showcase the importance and even the urgency of the matter. At the same time, the three defined frames suggest that in the context of military AI the EU is positioned as a normative and military power, aiming for human-centric governance and the imagined level of military AI advancement. However, various questions remain. Is there a possibility of finding an inter-institutional agreement on what the EU-level priorities of military AI are? Should it become an integral part of the CSDP or the future AI Act? At this point, a step forward seems to be impossible without the leadership and initiating role of the EC.

All three frames also demonstrate that the discussion on military AI relies on the Cold War vocabulary and modern security understanding. Such rhetoric might be instrumental to stress the

Debates on military AI also require
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urgency and to help familiarize with a yet unknown phenomenon and its potential consequences to security. However, military AI evidently and actively involves various players (for example, big tech companies) or dual-use (both civilian and military) applications that create multiple ways in which its enabling power can be used and misused for different purposes. Therefore, debates on military AI also require a fresh look into what contemporary security is and what this complexity of military AI means for the EU in the future.

Building on the research findings presented in this report, three policy recommendations are proposed to the EU decision-makers.

- **A more coordinated approach between the EU institutions and relevant policies.** The report has demonstrated that military AI is part of the debate and intensively cultivated by some of the EU institutions while others remain more silent. A similar inconsistency between different policies (AI policy and CSDP) is also noticeable. Therefore, it is important to address these inconsistencies and aim for a more coordinated approach. The EC, learning from its experience of establishing the HLEG, should initiate a similar independent body to formulate such an approach toward military AI. Its conceptual and strategic proposals could become a basis for institutional and policy coordination.

- **Reassessment of the Cold War vocabulary and related security perception.** The current rhetoric and approach in a way simplify the complexity and transformative nature of military AI. However, the focus on the arms race and competition between powers seems to be inadequate for addressing ethical or human rights concerns which become highly topical in terms of military AI or AI use in general. As the EU aims to lead in formulating the emerging AI policy internationally, it should also propose innovative definitions and corresponding vocabulary of military AI and include elements, free from the limiting Cold War rhetoric and analogies.

- **The EU’s human-centric approach towards military AI should be further developed.** It is important to move further from the still evolving discussion on what the human-centric approach to AI generally means toward concrete policy measures to mitigate those security concerns. It becomes particularly relevant as the recently adopted EU Strategic Compass marks a strengthened role of emerging technologies for defence and security, but it does not yet involve more concrete details of their governance. Therefore, it is important to combine these seemingly parallel strategic and conceptual developments into a more specific and action-oriented application of the human-centric approach toward military AI.

40] European Union Agency for Cybersecurity, AI Cybersecurity Challenges. Threat Landscape for Artificial Intelligence, 2020.

41] High Level Expert Group on Artificial Intelligence, Policy and Investment Recommendations for Trustworthy AI. European Commission, 2019.

42] European Parliament, (2020/2016(INI)), Resolution on Artificial Intelligence in Criminal Law and Its Use by the Police and Judicial Authorities in Criminal Matters, 2020.

43] European Parliament, 2021/C 456/04, Resolution on artificial intelligence: questions of interpretation and application of international law in so far as the EU is affected in the areas of civil and military uses and of state authority outside the scope of criminal justice, 2021.

Strategy



How Europe can stay one step ahead of energy security threats in the sprint towards climate targets

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The European Union (EU) was agile and decisive in responding to Russia's earlier attempts to weaponize its energy exports in 2006 and 2009 in the form of natural gas shut offs to Ukraine. The ensuing directives adopted by the EU prioritized diversification of routes and sources and market reforms, resulting in billions of dollars of new energy investments and progress on the liberalization of the energy markets. A decade later, the EU acted with unwavering unity to implement sanctions and provide military and humanitarian support for Ukraine following Russia's shocking attack on the sovereign nation and the subsequent war on European energy security. On the energy front, EU-level and national market emergency measures such as support schemes to ease high energy prices, and efficiency and natural gas storage mandates, enabled Europe to weather the 2022-2023 winter, albeit at a very high cost. Now, Europe has a unique opportunity to use what it learned to foresee and counter threats to its energy systems from Russia and other adversaries. There are three main areas where Europe can mitigate potential energy security risks and enable the energy transition with proper planning: diversifying energy suppliers and interconnections, developing new renewable and low-carbon energy sources; preparing the electricity grid of the future; and optimizing efficiency. This approach will also accelerate Europe's path to decarbonization through minimizing reliance on high-carbon intensity suppliers, reducing wasted energy across the value chain, and ensuring that the grid of the future is prepared for large volumes of renewable energy and dynamic load management solutions.

Strategic Diversification of routes, sources, and suppliers

Russia's curtailment of natural gas exports launched the European energy markets into a frenzy due to several factors: overreliance on one producer; a preexisting supply crunch; decade-long lead times for developing new projects; and a failure to

fully interconnect natural gas systems across Europe. Addressing each of these issues will render future market manipulation by Moscow or other malign actors ineffective and will remove impediments to decarbonization.

Deploying and securing new renewable and low-carbon fossil supplies is central to resolving the energy crisis and freeing the continent from Russian influence over its energy system. Europe and its allies will need to overcome several obstacles to achieve this freedom, such as diversification of renewables supply chains, defining a clear role for natural gas in a net-zero world, expediting project development, and forging partnerships with diverse producers across the globe.

Reforming supply chains will be vitally important to sourcing critical minerals necessary for the energy transition. Additionally, critical mineral supply chains must be environmentally sustainable and attentive to workers' rights. This issue has the potential to instigate the next energy crisis if mismanaged now. There are valuable lessons that could be transferred from resolving the oil and gas supply chain challenges. Coordination on mining, production, processing of, recycling critical minerals, and standards will bolster the critical minerals supply chain and improve transparency across the sector.

A pivot from Russian natural gas sources is a tremendous opportunity for Europe to transform its natural gas value chain into a resilient, low-carbon, diversified network. New natural gas projects should be built with a decarbonization pathway in mind to align with Europe's net-zero goals. Europe can achieve this through working with suppliers on identifying greater efficiencies, integrating hydrogen into the system, and deploying carbon capture, utilization, and storage at scale, as well as implementation of methane emission reduction solutions.

Fast-tracking projects of energy security significance is one the most effective ways to get ahead of future supply shortages. Every month counts in tight market conditions: for some businesses, fluctuation in energy prices can be the deciding factor for keeping operations going. Nevertheless, new interconnections aren't the same as new supplies. Amidst lingering supply shortages and market volatility, European buyers can enter into long-term contracts to avoid uncertainty and price fluctuation in the spot market. These contracts also play a critical role in pushing projects to final investment decisions and serves as an insurance policy against possible temptations to return to Russia's risk-soaked exports. Moreover, these long-term commitments are also an opportunity for the buyers to partner with producers who are intentional about reducing carbon emissions and have specific climate targets. Buyers and sellers could explore how to integrate some of these climate benchmarks into contracts to ease concerns around the role of natural gas in a low-carbon future, as there is still some hesitation from the European buyers around how to align climate commitments and secure energy supplies on the path to 2050.

Building the electricity grid of the future

The European grid is significantly better integrated compared to several decades ago. However, the existing system is unprepared and insufficient for the transformation necessary to achieve a secure, low-carbon future. The grid must evolve to absorb significant renewable generation and electrification of services, plus more distributed producers, electric vehicles, and battery systems. It must also withstand and recover from kinetic and cyber-attacks, as well as extreme weather events exacerbated by climate change. There are massive benefits to addressing these challenges preemptively through innovative market solutions, utility reforms, and investments in additional grid infrastructure. Public engagement is also critical to projects' success. With advance planning, the grid can serve as a source of resilience. Alternative sources, interconnections and systems can be engaged in case of emergencies—whether accidental or malicious in nature.

Most importantly, a well-functioning grid is the gateway to massive decarbonization, enabling fuel switching to low-carbon electricity production and electrification of services.

Prioritizing efficiency at every step

The European Council introduced 10 percent voluntary and 5 percent mandatory targets for reducing electricity consumption as part of its emergency measures. These targets and record energy prices drove Europe to achieve major reductions in energy demand in 2022. Although much of Europe's demand destruction came from reduced industrial activities and behavioral changes by the households at the price of reduced comfort and convenience. However, when implemented proactively, energy efficiency measures reduce demand in ways which maintain or improve the quality of life.

As Europe strives to recover economically, it must make its molecules and electrons go further. A wholistic, systematic approach will be necessary to improve efficiency in energy production, transmission, and consumption and to address supply chain and labor shortages that are already impacting efficiency measures implementation.

2023 must be the year when Europe goes on the offense against potential threats to access, affordability, decarbonization of the energy systems. New low-carbon generation, robust cooperation with global producers, electricity grid fortification, and improved efficiency will put Europe in the driver's seat of its energy systems transformation. It cannot assume a reactive position against the next wave of energy security risks—from Russia or other adversaries, including climate change.

Most importantly, this proactive approach will send strong signals to the private sector around the value of projects that will enhance security and create new economic growth opportunities, particularly in grid investments, renewable energy generation, natural gas infrastructure, and efficiency deployments, and provide greater confidence for partnerships with diverse natural gas suppliers.

Diversifying energy suppliers and interconnections, developing new renewable and low-carbon energy sources; preparing the electricity grid of the future; and optimizing efficiency.

How to use framing methods to protect our natural resources



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Political discourse in democracies has always relied on the rhetorical skills of politicians and the power of language. The art of convincing people to understand your political standpoint is certainly one of the most vital qualities of a good politician. The use of political framing or vivid language is therefore an effective method of communication in the political discourse.

Elisabeth Wehling's published work on „Politisches Framing“¹ brought the linguistic science behind the use of political framing to the public's attention in 2016. Since then, at least in German discourse, there has been a greater emphasis on the precise analysis of certain frames used by politicians and spin doctors. It is worth noting that the term „political framing“ can have a negative connotation. German Finance Minister Lindner recently tried to dismiss the proposed reform of the German „Dienstwagenprivileg“ (a tax incentive to use company cars) as a „leftist framing“. In this context, his intention was clearly to allude to a sketchy motivation of using a certain „frame“. While it may appear that framing has an unethical influence on voters opinion, it is actually part of the democratic battle for the sovereignty of interpretation in political discourse. However, the embellishment of disputed political terms or contexts should always be the ethical limit of any framing.

„Framing“ has also been a method to convince people and gain a communicative advantage in other spheres. In negotiation theory for example „the anchoring effect“ is well known and often utilised. Generally in price negotiations the setting of a so-called „reference-point“ is known to have a great influence on the negotiations. An example for this method would be to be first to name a price in a negotiation, so that all other offers from the other party would have to consider this first offer to not be unreasonable. This intrigued me especially with regard to my Charlemagne project. How does the political discourse reach its (desired) outcome? Based on my observations, democratic discourse is a multi-faceted negotiation. Adapting framing methods known from negotiation theory to political communication, therefore, seemed a promising project.

Climate change is one of the most pressing and contentious issues in current political discourse. Relevant as the topic is, it naturally represents an ideal policy debate on which to apply negotiation methods, especially as the needed socio-environmental transformation has a potentially significant economic impact. The concept of „natural capital“ is a particular focus of this project.

„Natural Capital“ is an economic approach to quantify the value of the planet's natural resources for our societies. Water, forests and clean air can be valued as „natural capital assets“. This approach has gained popularity in recent years, particularly among international organizations. The possibility to integrate environmental protection in terms of the economic sciences into political discourse presents a great opportunity. This shift in perspective enables policymakers to break up the dogma of balancing interests of environmental protection against economic interests. Therefore, it can pave the way to a holistic analysis of both policies and business projects. By using economic concepts and vocabulary a traditionally non-economic element, the protection of our environment, can be „framed“ and integrated into the economic discourse. Consequently, drawing on the natural capital approach already involves framing methods to a certain extent. One of my main research goals was thus to evaluate whether the approaches used by the proponents of „natural capital“ are aligned with the insights of academic research in the field of framing. In this context I researched two main aspects of framing related to natural capital.

Firstly, I focused on whether the economic integration into national accounting and investment projects adheres to the insights of Behavioural Economics. The question of whether the practical applications of natural capital apply the ideas developed from Kahneman's „prospect theory“ served as the beginning point for this particular section of the research. My hypothesis was that an effective use of this theory could be identified by a prudently set „reference point“ to trigger the effects of „loss aversion“. The policymaker's goal therefore should be to utilise the psychological effect of loss aversion in such a manner that a policy assuring the protection of the environment is perceived as impeding economic loss in the eyes of the electorate.

The second part of my research project focused on the aspect of how linguistic framing takes place in the political discourse about environmental protection. The academic starting point for this aspect of the project was the work of Elisabeth Wehling². In this context the goal was to evaluate whether the proponents of environmental protection in the European political discourse make use of current insights of political framing to the right extent or whether there is even more leeway to develop a powerful political narrative for the economically sensible protection of the

environment. A major focus of this investigation was the analysis of how German politicians communicate climate change policies to stakeholders in the economy and publicly to the electorate. If we think about how the fight against climate change can work out in Europe it is largely up to political communication to engage with the population. The example of the „yellow vests“ protests in France was a clear sign of social frictions occurring if these approaches fail. Thus, my argument is that the future of a social and cohesive Europe also depends on how we manage and communicate our response to the climate crisis.

Framing and Natural Capital

In my first research stage I familiarised with the main aspects of prospect theory and loss aversion and consequently analysed the Natural Capital approaches of The World-Bank-led partnership Wealth Accounting and the Valuation of Ecosystem Services (WAVES) and The United Nations Environment Programme Finance Initiative (UNEPFI) in light of the aforementioned theory.

Whereas the UNEPFI program was very promising from a natural capital point of view it did not identify and ameliorate a framing approach to the particular framework.

However, I found that the SEEA Central Framework, which was co-authored by the WAVES group, uses a framework that is very susceptible to framing approaches. It uses physical and monetary measures to assess natural capital at a given point in time (stock variables) and their change over a period of time (flow variables). Analysing the framework's concepts and proposed approaches to natural capital accounting, SEEA's definition of natural resource depletion is reasoning with key concepts of Prospect Theory, like reference point and loss aversion. Both for the SEEA Central Framework and the System of National Accounting (SNA), depletion is the decrease in the quantity of stocks of a natural resource due to the extraction of a natural resource by economic activity occurring at a greater level than that of recovery.³ However, while for the SNA the value of depletion is shown alongside non-economic driven losses, like catastrophic events, in the SEEA „the value of depletion is considered to be a cost against income“. In this way, physical depletion in the SEEA is not an entry in the monetary flow accounts, but rather a deduction from the measures of value-added, income, and saving so as to obtain depletion-adjusted economic indicators.^{4,5}

1] Wehling, Elisabeth. 2016. „Politisches Framing, Wie eine Nation sich Ihr denken einredet - und daraus Politik macht“. Ullstein Publishing.

2] Wehling, Elisabeth. 2016. „Politisches Framing, Wie eine Nation sich Ihr denken einredet - und daraus Politik macht“. Ullstein Publishing.

3] „System of Environmental-Economic Accounting 2012 - UNSD“, accessed December 10, 2021. https://unstats.un.org/unsd/envaccounting/seeaRev/eea_final_en.pdf

4] Ibid.

5] Bartelmus, Peter. 2014. „Environmental-Economic Accounting: Progress and Digression in the SEEA Revisions.“ The Review of Income and Wealth 60 (4): 887–904. <https://doi.org/10.1111/roiw.12056>.

The accounting of depletion in SEEA allows to estimate the impact of economic activities on the stock of natural resources and how the revenue from the extraction of natural resources is being incorporated by the government. By incorporating the depletion of natural resources into measures of economic activity, like income and savings, the SEEA central framework changes the reference point of what we think of economic growth. When natural resources are not considered, we have measures of economic activity that present economic output as if natural resources were infinite and left unaltered by economic activities. However, economic activities make use of natural resources and when this happens at a higher rate than the regeneration rate of resources, there is a loss in natural wealth. By calculating measures of income and value-added discounted by depletion of natural resources, the SEEA framework, therefore, offers a path for a new reference point in which we can conceptualise and measure economic activity by a more comprehensive value that accounts for the net environmental impact on natural resources stocks and change in natural wealth.

The incorporation of the depletion of natural resources into income measures can also trigger loss aversion effects. With depletion-adjusted indicators, we can better assess the economic and environmental scenario by evaluating the extent to which losses are being triggered by a certain economic activity and whether the balance between the loss and the output generated is at the desired level. For the specific case of the use of non-renewable natural resources, I believe that the framing of depletion values in natural capital accounting can have an even bigger loss aversion effect, by demonstrating that what is being depleted is more valuable than what is being generated as income. Moreover, the use of depletion-adjusted economic indicators also opens the possibility of evaluating the transactions between the owners and users of natural resources.⁶ This clarity regarding the rate of depletion of natural resources and the economic actors associated with it helps us frame the environmental impact of economic activities on natural resources stocks, and possibly trigger loss aversion effects by discounting these losses from the economic indicators. In other words, because the depletion of natural capital is considered to be a cost against income in the SEEA framework, not a measure of non-economic driven losses like in the SNA, depletion does not only change the reference

point in which we think of economic activities; it also has the ability to trigger loss aversion effects by showing that overall income is being reduced by the loss of natural capital resources.

An example of how reference point and loss aversion play out in the calculation of natural capital can be seen in one conclusion presented in Colombia's 2016 forest accounts. Analyzing the physical stock of forest assets, the developers of the forest accounts found that additions to forest stocks were bigger than timber extraction losses, but that was not necessarily positive since most of the additions were happening because of the expansion of timber plantations. Meanwhile, timber extraction from natural forests was still significant, implying a reduction in carbon storage service provided by natural forests but not by the expanding timber plantations.⁷ As this example shows, the calculation of natural capital, in this case, for forest assets, can fundamentally be used to change the reference point around the environmental impact of economic activities and work as an instrument for loss aversion applications.

What does the political practice do?

In my second research stage I then interviewed two senior German politicians to understand how they think about and frame natural resources in their political communication: Dr. Danyal Bayaz, Finance Secretary of Baden Wuerttemberg and Katharina Beck, Speaker for Finance of the Green Parliamentary Group in Bundestag.

In each interview I singled out a particularly striking and convincing argument related to the framing of natural resources and consequently integrated each politician's approach into my final recommendation catalogue. Secretary Dr. Bayaz used a particular way of comparing gains and losses to portray a certain setting for decision-making: „For example, if fewer pesticides are allowed to be used, agricultural yields may fall. This will also be reflected in the prices of agricultural goods. Natural capital accounting would make it more transparent to people what value they are getting in return for protecting our natural resources.“ Katharina Beck, however, alluded to an ideological valuation of natural resources to appreciate their perceived value in society, business, and politics.

Economic activities must also take the depletion of natural resources into account quantitatively to facilitate effective political communication; the “real profits” must be presented.

Recommending a frame

In the last stage of my research, I identified the different approaches found in the prior steps and analysed the respective framing methods also in the light of further examples drawn from political communication. I identified three promising approaches to political communication about natural resources: (1) juxtaposing financial gains/losses and courses of action, (2) ideological valuing of natural resources and (3) evoking ‘loss aversion’.

The explicit recommendations according to the three approaches are:

1. Juxtaposing financial gains/losses and courses of action.

When presenting costs of different courses of action in relation to the fight against climate change, several options and their precise implications should always be broken down. A comparison of two different options is believed to have a greater psychological effect than the presentation of one preferable option with any benefits. This is also in line with the behavioral economics approach under point (3) and the related scientific findings.⁸

2. Ideological valuing of natural resources.

An idealistic valorisation of natural resources effectively promotes climate-protective policies. The crucial point here is that the feedback to higher values is adapted to the targeted audience as the recipient of the message. For example, a universal value in communication to the German electorate is the concept of freedom. Additionally, it's important to consider the context and timing of the reference values and the frames selected.²

3. Evoking ‘loss aversion’.

Economic activities must also take the depletion of natural resources into account quantitatively to facilitate effective political communication; the “real profits” must be presented. This is achieved by deducting the value of consumed natural resources from the calculated profits according to classical accounting methods. Lower profits imply different profitability considerations for economic activities and therefore have less legitimizing power for the corresponding activities.

Conclusion

All three approaches are effective in the right context to communicate natural resource conservation politically. It should be noted that a combination of different approaches is also conceivable, for example of approaches 1 and 3, by comparing, for example, two courses of action that in turn follow in themselves a framing of natural capital accounting and integrated ‘depletion’. Approaches 1 and 3 also differ from Approach 2 in that they primarily necessitate a shift in the inherent economic way of looking at things, whereas Approach 2 incorporates “non-economic” elements for the overarching legitimization of economic activities. While the effectiveness of approach 2 also depends on discursive trends (e.g., freedom energies), Approaches 1 and 3 are steadily applicable for shifting perceptions about economy and the environment. Ideally, policy makers can/should use different approaches in different circumstances according to the recommendations above. A common communication advice is: “Know your audience!”. Accordingly, approaches 1 and 3 in their pure form are particularly preferable for a business-related audience, while approach 2 is more receptive to a broader audience.

6] Ibid.

7] Colombia Country Report 2016 - Wavespartnership.org,” accessed December 10, 2021. <https://www.wavespartnership.org/sites/waves/files/kc/Colombia%20Country%20Report%202016.pdf>

8] cf. “Loss Aversion in Riskless Choice: A Reference-Dependent Model” Amos Tversky and Daniel Kahneman, in: The Quarterly Journal of Economics, Vol. 106, No. 4 (Nov., 1991), pp. 1039-1061).

Equality



Mind the GAP: How does the EU Gender Action Plan embrace diversity and intersectionality?



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Research Question: Mind the GAP: How does the EU Gender Action Plan embrace diversity and intersectionality?

Background

Facing the question of how Europe can succeed in a world of transformation, someone should not neglect the increasing potential of Feminist Foreign Policy (FFP). In recent years, an increasing number of EU member states (MS) are committing to FFP. Most recently, the Netherlands and Germany joined this club. Therefore, it is not surprising that the possibilities of an EU FFP are entering the political discussions. Prominent voices demanding an FFP for the EU are Ernest Urtasun and Hannah Neumann, both members of the European Parliament, Greens/ European Free Alliance. Together with the Centre for Feminist Foreign Policy (CFFP), the MEPs conducted a study exploring an FFP for the EU. Based on the study’s results, Hannah Neumann presented the possibilities and challenges to the Committee on Foreign Affairs as a rapporteur on the opinion in 2019. Neumann refers several times to the EU Gender Action Plan III (GAP III) as an instrument of realising an FFP for the EU, which should be “accompanied by clear, measurable, time-bound indicators of success, including an allocation of responsibility for different actors, and clear objectives in each partner country”.¹ The EU’s new Action Plan on Gender Equality and Women’s Empowerment in External Relations 2021–2025 (GAP III) is now set in place.²

Exploring the potential for EU Feminist Foreign Policy, this essay functions as a map of the status quo of feminist policies of the European Commission (EC) and the European External Action Service (EEAS). Analysing the EU’s global policies advancing gender equality, this essay focuses on the specific questions regarding the Gender Action Plans (GAPs):

Guiding Questions

- Gender inequality as a policy issue for the EC and EEAS:
» What is the problem presented to be for the EU?
- Gender inequality as a form of violence:
» Which forms of violence is GAP III focussing on?
Cultural, structural, or direct violence?
- Gender inequality through the lens of intersectionality:
» Which systems of oppression are being overlooked in GAP III? Racism, Ableism, Classism?

Intersectionality is about the analysis of power dynamics in societies; this includes gendered power relations and their consequences for inequalities.

The GAPs present a very useful case for mapping the EU’s status quo for two reasons: (1) Although most policy areas are linked to the EU’s foreign policies, the GAPs also cover institutional change within the EU as an institution. Acknowledging the linkage between internal and external gender policies is critical. Hence, a feminist foreign policy can only be successful if it also tackles an institution’s internal structure that reinforces inequalities. (2) In total, the EU created three GAPs. The GAPs have changed over time regarding priorities, objectives, and approaches. (3) Most FFP countries put intersectionality at the centre of their policies. Regarding the EU’s commitment to intersectionality, the current GAP III is the most progressive one. For this purpose, intersectionality functions as a guiding principle for understanding the degree to which the EU connects gender inequality to other forms of inequalities.

Introduced by the feminist Professor of Law Kimberlé W. Crenshaw in 1989, intersectionality is a concept rooted in Black Feminism. Following the definition by the Center for Intersectional Justice, “intersectionality describes the ways in which systems of inequality based on gender, race, ethnicity, sexual orientation, gender identity, disability, class and other forms of discrimination ‘intersect’ to create unique dynamics and effects that all forms of inequality are mutually reinforcing”.³ Considering the transformative notion of this concept to move toward a more equal world, it is crucial to ask what the EC’s and the EEAS’s strong commitment to intersectionality entails for policy designing and programming. One consequence could be that the policies of the current GAP III address all forms of inequalities simultaneously to prevent one form of inequality from reinforcing another. To what extent the EU’s policies reflect this intersectional approach or are even aiming to set a fundament for intersectional justice through its external actions will be explored in the following sections of this essay.

1] European Parliament. 2019. OPINION of the Committee on Foreign Affairs for the Committee on Women's Rights and Gender Equality on Gender Equality in EU's foreign and security policy (2019/2167(INI)). Rapporteur for opinion: Hannah Neumann.
2] For an overview of all documents, see the “Gender equality and empowering women and girls” set up by the European Commission.

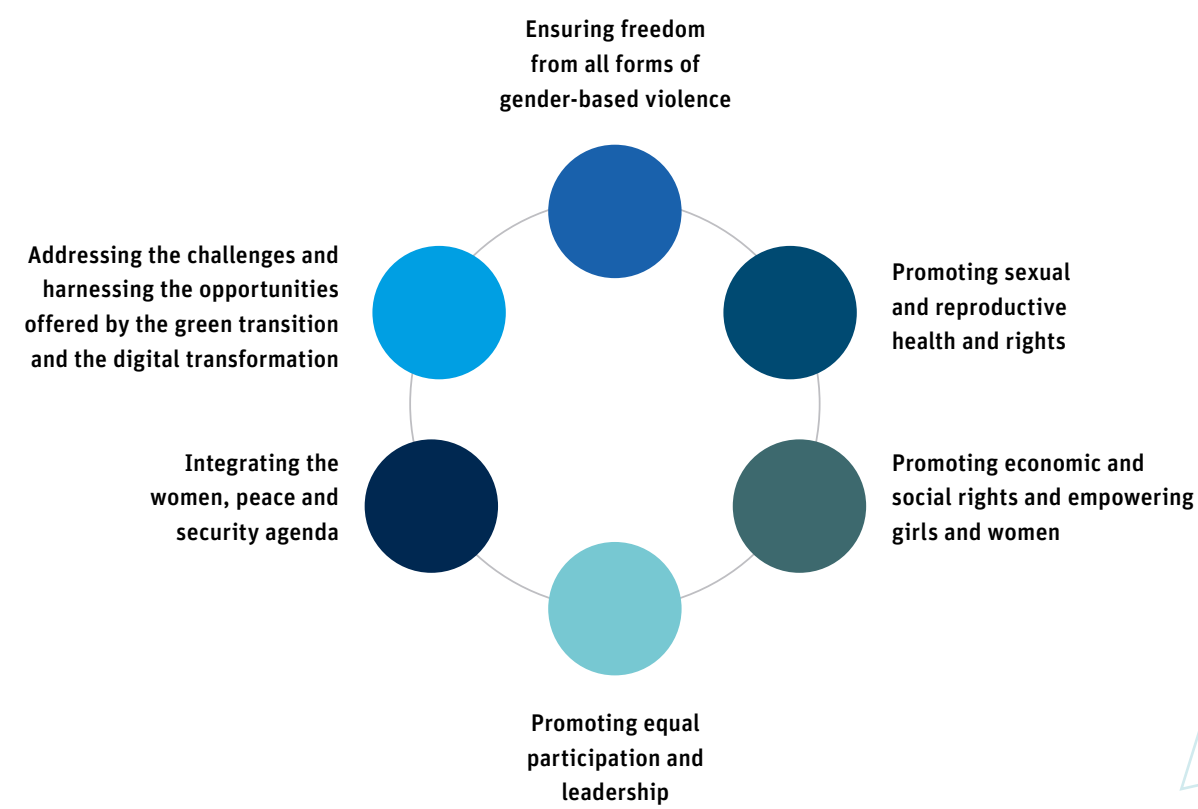
3] The Center for Intersectional Justice is an independent non-profit organisation based in Berlin. Its mission is to make anti-discrimination and equality policy more inclusive and effective in Europe. The organisation's Honorary President is Kimberlé Crenshaw, distinguished Professor of Law at UCLA and Professor of Law at Columbia Law School.

Mind the GAP!

The EU declares gender inequality as one of its pressing issues. With its first GAP from 2010-2015, the EU provided an institutional framework that was key for two reasons. Firstly, the EU defined for itself what forms of gender inequalities outside of EU borders are pressing issues. In general, all three GAPs tackle different forms of direct, structural, and cultural violence to a certain

extent. Examples of GAP projects are gender-sensitive conflict resolution in Colombia (GAP I), gender-responsive budgeting in Morocco (GAP II), as well as sexual and reproductive rights in the Philippines (GAP III). As this essay looks in particular at GAP III, the different forms of violence are illustrated with an example of the six thematic areas of engagement.⁴

GAP III: Six Thematic Areas of Engagement



The overall thematic objective in GAP III regarding climate change and the environment is that women, in all their diversity, influence decision-making processes on environmental conservation and climate change policies and actions. Therefore, GAP III identifies four thematic objectives. This example investigates objective 3: Women, men, girls, and boys, in all their diversity, addressing climate change in their daily lives and preserving the national environment are supported. To illustrate how different forms of violence are linked to gender inequality, the indicators present a helpful entry point. GAP III states that “the number of women and girls reached by programmes aimed at strengthening individual resilience and safety in the face of disasters (swimming lessons, emergency drills and exercises)” is an indicator of gender equality.

Direct violence: If women and girls do not learn how to swim, they are more likely to die in an emergency linked to flooding. Another result is that other people might die while trying to rescue women and girls who cannot swim. The form of direct violence is, therefore, death by drowning.

Structural violence: There are several reasons women and girls are excluded from swimming lessons, which can be related to insufficient menstrual hygiene products. If women and girls cannot access affordable menstrual hygiene products, they will not attend swimming classes. If a state enforces swimsuits restriction in public swimming pools or schools, which prevents certain religious groups from participating in these lessons, they will not attend swimming classes. Both are forms of gendered forms of structural violence.

Cultural violence: Women and girls are less likely to be sent to schools because of their lower societal status. Consequently, boys and men are prioritised to be sent to school because they are regarded worthy of investing educationally. In different cultural settings, this has different dimensions. However, the familiar narrator is that society establishes a culture where women and girls are considered less worthy of an education. This short overview of projects shows that the EU has picked a wide range of programmes where gender policies are implemented.

How intersecting forms of inequality are tackled and by whom?

The GAPs indicate how the EU defines itself as a global actor that tackles gender inequalities through the EEAS and the EC. The question of which gender issues are tackled is immediately linked to who is involved and how. As the GAPs are dealing with gender inequality outside the EU’s border, the main institutional actors involved in the GAPs are, at first sight, the European External Action Service, the European Commission, and the EU Delegations. Nevertheless, this analysis should not overlook the various stakeholders and partnerships that have evolved through the GAPs. Although the number of actors involved is difficult to grasp, consultation processes are one way to capture actor GAP actors involved. For example, the Directorate-General for International Partnerships of the European Commission (DG INTPA) and the EEAS in collaboration with the Policy Forum on Development organised in November 2021 and December 2022 structured dialogue events to enhance the GAP III implementation.⁵ The event offered a snapshot of ‘unusual suspects’ involved in implementing the GAP III, such as the Council of European Municipalities and Regions (CEMR). This umbrella organisation represents local and regional governments in Europe. The CEMR can be identified as an unusual actor involved because external action policies are mainly linked with country-level policies. However, local and regional governments play an increasingly significant role in developing partnerships such as the economic empowerment of women in the climate sector as well as in dealing with refugee shelters in Europe.

It is, therefore, fair to say that consultation processes show how and who is tackling intersecting forms of inequalities listed in the GAP III. Another possibility to understand how and who is involved in the GAP III implementation is to look at the online targeted consultation from April to May 2020. This form of consultation was conducted in preparation for GAP III by the Commission Services and the EEAS. Contextualising the results of the consultation, the EU published a report. For example, during the consultation process, participants were asked: “How should intersectionality be addressed in the implementation of the GAP III?”

4] Also see the Webinars offered by Capacity4dev.

5] More information about the annual session of the structured dialogue on the implementation of the EU’s Gender Action Plan III can be found here: <https://www.pfddialogue.eu/events/gap/>

Not only does the report categorises the different answers to this question, but it also legitimises the EU’s understanding of intersectionality by explicitly mentioning the EU Gender Equality strategy 2020-2025, the European Institute for Gender Equality’s (EIGE) definition, and Article 10 of the Treaty on the Functioning of the European Union. According to the EU, intersectionality is therefore rooted as a core concept to tackle gender inequalities in different thematic areas.

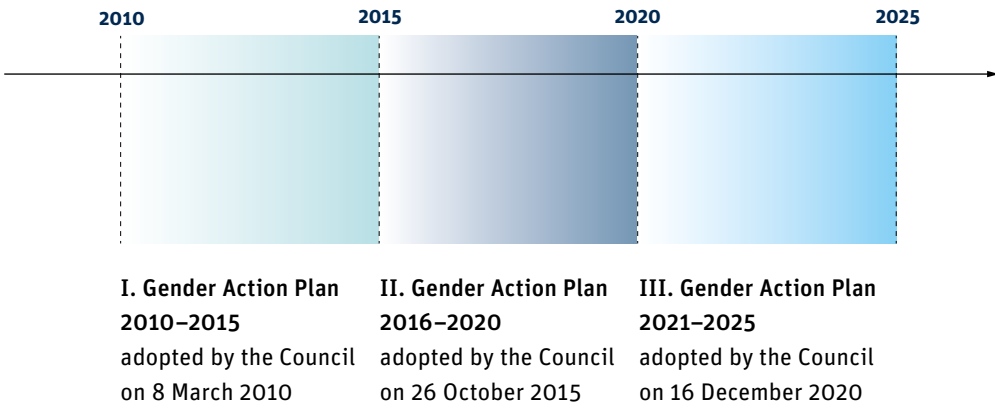
Promising Practices

- » **gender-sensitive:** aims to understand and address the social and cultural factors that produce gender-based discriminations and inequalities in the diversity of private and public life
- » **gender-responsive:** aims to increase accountability and accelerate the implementation of commitments to gender equality with a rights-based approach at the international, national and community levels
- » **gender-transformative:** aims to evoke a shift or a positive change in terms of the socio-economic, cultural, institutional, and political paradigm(s) that produce(s) gender-based discriminations and inequalities in a given context

Indeed, each GAP has a specific focus but, at the same time, builds on the previous one. An example of how the GAPs make one another is the gender transformative approach as a promising practice to tackle gender inequality. According to GAP II, a promising method for gender equality is an opportunity to raise awareness, provide information about the state of play of gender equality, and promote a greater understanding of the causes that produce gender inequalities and discrimination. Equally, it is an opportunity to increase the visibility of good results for attaining gender equality in a given context or sector.

Three of the five pillars of action of GAP III illustrate an example of a specific focus. The first pillar deals with gender mainstreaming in terms of funding; 85% of all new actions throughout external relations will contribute to gender equality and women’s empowerment by 2025. In terms of monitoring and evaluation of the results of this pillar, the EU can be held accountable with the help of concrete numbers in 2025. The second pillar of action reflects the new shift of Von der Leyen’s Commission towards international partnerships instead of development cooperation. The second pillar of GAP III emphasises the necessity of a shared strategic vision and close cooperation with MS and partners at multilateral, regional, and country levels. To what degree this shift will impact the actual implementation for partners on the ground is critical for any future GAPs. It is clear, however, that the fifth pillar, ‘measuring results’, is the red threat of the EU’s engagement in gender policies. This is also a development linked to the previous GAPs. Contrary to the voluntary and narrative-based reporting mechanism of GAP I, GAP II committed to an annual reporting of all EU actors on the EU contribution to at least one objective per thematic priority and on each of the six objectives regarding the shifting of institutional culture. The strong commitment of GAP III to measuring the results will then be used for evidence-based arguments on why policy frameworks like the GAPs should be of interest to the External Action Service and how much financial resources are needed. Another example of how the GAPs build on each other is the concept of gender transformation, which is developed further from Gap I to Gap III. First, GAP I picks up on gender transformation by highlighting the need for shifting institutional culture. Second, GAP II clarifies that a gender transformative approach is one of the various promising practices. Now, GAP III lists a gender transformative approach as one of the two key concepts, besides intersectionality, on how the EU should realise gender policies externally.

Timeline of GAPs



Despite these efforts, the EU’s limitations in realising a gender transformative approach have become increasingly evident. Although GAP III acknowledges with the focus on intersectionality the multiple layers of discrimination women and girls face, a crucial aspect is missing. Intersectionality is about the analysis of power dynamics in societies; this includes gendered power relations and their consequences for inequalities. For example, the Joint Staff Working Document on Objectives and Indicators to frame the implementation of the Gender Action Plan III (2021-25) acknowledges the role of men and boys in a gendered structured society. This can be found in the section on ‘Ensuring freedom from all forms of gender-based violence as a thematic area of engagement. In particular, it states the percentage of men and boys acknowledging that gender-based violence is not acceptable as a crucial indicator for the GAP III objective that “women, men, girls and boys, in all their diversity are agents of change regarding discriminatory social norms, gender stereotypes, and gender-drivers of conflict”.⁶ Yet, the same document fails to cover fully how masculinities and femininities impact a gender transformative approach. LGBTQ+ is not listed once. The document only vaguely refers to women, girls, boys, and men in all their diversity. This vague wording could function as a positive means to leave room for context-related interpretation.

However, vague language also lacks clear commitment and a clear understanding of what diversity means. To encounter the risks of pushbacks of already set definitions and objectives, GAP III makes use of its own institutional frameworks with the final objective of tackling gender-related inequalities.

How is GAP III navigating inequalities in different contexts?

One of the biggest challenges for an intersectional approach is the complexity of power relations in societies. However, this does not mean that an intersectional analysis is an impossible task. To understand how GAP III is navigating inequalities in different contexts, this research project interviewed EU experts working on intersectionality in different areas like climate. From an institutional perspective, one way of enduring this complexity is cross-referencing indicators of other gender policy frameworks. This is also the case for GAP III. It complements and supports the implementation of the following Commission documents: the EU Gender Equality Strategy 2020-2025, the LGBTIQ Equality Strategy 2020-2025, the EU Anti-Racism Action Plan 2020-2025, the EU Roma Strategic Framework for equality, inclusion, and participation as well as the EU Strategic Approach to Women, Peace, and Security (WPS) and the Council Conclusions on the EU Action Plan on Human Rights and Democracy 2020-2024.

6] European Commission (EC).2020. Joint Staff Working Document on Objectives and Indicators to frame the implementation of the Gender Action Plan III (2021-25), Brussels, 22.6.2020, p. 13.

“Ecofeminism demands you should shift your minds from a system that is based on extraction, colonialism, etc.! ”

Christy Aikhorin, Women Engage for a Common Future



Furthermore, the specific institutional and strategic objectives and indicators play a crucial part in showing how other policy frameworks are linked to the GAPs. As an entry point of how GAP III tries to tackle inequalities in different contexts, it is worth mentioning Objective 5 of the Joint Staff Working Document on Objectives

and Indicators to frame the implementation of the Gender Action Plan III (2021-25). The section about strategic engagement at the country level points out that GAP III implementation is informed by sound gender profiles and framed in Country-Level Implementation Plans (CLIPS). In November 2021, Plan International published the results of a survey regarding the GAP III implementation at the country level. One of the four fields of the study dealt with CLIPS. Plan International gathered information across four regions and published the following results: Middle East, East, and Southern Africa (MEESA); West and Central Africa (WACA); South America and the Caribbean (ROA), and Asia and the Pacific (APAC). The general results for all four regions are that COs were unaware or had no information on the CLIP. However, if CLIPS were finalised, they were mostly aligned with local context priorities, e.g., ‘Gender lens in curricula’; ‘Enactment of laws regarding violence against women’ or ‘Establishment of a single national registration system based on gender indicators’.

To embrace the general objective of GAP III to consult and cooperate closely with all relevant partners, the EEAS Team Europe Initiative could offer one solution. The use of Team Europe is an indicator of the EU’s Global Gateway Initiative to move away from development cooperation toward international partnerships. For example, The CLIP for Georgia covers both the programmatic and political commitments and proposes specific actions and initiatives for promoting gender equality in the country. Furthermore, the Team Europe Initiative is considered by the EU Delegation and the EU MS, particularly in relation to increased

information sharing on gender equality, joint analysis, joint messages, and implementation. Currently, a group of interested EU Member States, the EU Delegation, and the non-EU MS is being formed to support greater women’s political participation in Georgia through joint messaging and coordinated actions. In addition to the Team Europe Initiative, the CLIP of Georgia explicitly mentions EU MS and their engagement, among them MS with a FFP like Germany and the Netherlands.⁷ In terms of transparency, it is helpful for actors involved to understand which MS is engaged with what topic and how. In particular, this form of transparency is coherent with the focus of GAP III regarding “full coherence between external and internal action increases EU credibility, and contributes to better results and impact, in line with the principle of policy coherence for sustainable development”.⁸ If CLIPs directly mention which MS is responsible for what, it could lead to better access for COs to cooperate with the EU delegations and EU MS.

CLIP for Georgia 2021-2025: Increased access for women in all their diversity to financial services and products, and productive resources

“Germany maintains its support to the empowerment of female winemakers and guesthouse owners (tourism) and the development of a sustainable tourism.”

“The Netherlands will contribute to this specific objective by facilitating, promoting and stimulating access to finance for women entrepreneurs via the loans from Dutch Entrepreneurial Bank and Dutch Good Growth Fund.”

Germany’s decision to support the wine and tourism industry is a way of adapting to the national context. The Dutch support can also be linked to an attempt to embrace the importance of context. By offering financial means to women, the Dutch approach transfers the responsibility to the women themselves on how and when they want to empower themselves economically. Although Germany’s approach considers sustainable tourism, the overall approach of economic empowerment is for both MS embedded in a neo-liberal understanding of gender equality and empowerment. This is not unique to Germany or the Netherlands. It is firmly embedded in the EU’s approach to gender equality. For this reason, all three GAPs lack an actual intersectional approach. Hence, intersectionality is about the overlapping systems of oppression that structure our society. The current neo-liberal understanding of economic empowerment does not fully consider how ableism or racism comes into play regarding gendered economic inequality. This is a problem because the EU claims to apply a universal approach to what gender equality means and what a gender-equal world could look like. Despite attempts to apply intersectional frameworks, the EU’s claim to universalism has however yet to be realised.

With GAP III towards a Feminist Foreign Policy?

All in all, the GAPs are a vehicle for the EC and the EEAS to amplify feminist foreign policies. With its six areas of engagement, the GAP III touches on policy issues that are immediately linked



to FFP. In addition, GAP III embraces feminist strategies such as an intersectional analysis and a gender transformative approach. This gender framework entails direct, structural, and cultural violence. It is coherent with other international gender frameworks like the

Beijing Declaration and Platform for Action, the WPS agenda, the 2030 Agenda for Sustainable Development, the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), Istanbul Convention. However, the original roots of intersectionality in law remain weak. This presents one of the most significant threats to feminist policies in general.

The assumption is that EU gender policies will change in a progressive manner. The current status of anti-feminist strategies in the EU and globalised pushbacks is an alarming signal that this assumption of future progress should be reconsidered. In a world of transformation, the EU has the means to shape the progressive change toward feminist policies in coherence with the EU’s overall strategy. Climate and digital solutions fighting gender inequalities are a good example of that because GAP III is in coherence with the thematic issues of the EU’s Global Gateway. In addition, the most important step is already taken by declaring gender inequality as one of the EU’s pressing issues. The EU has, therefore, a promising fundament to elaborate from gender mainstreaming policies toward feminist policies. The evolvement of feminist concepts such as intersectionality and gender budgeting in external action policies is, therefore, proof of the EC’s and EEAS’s capability to institutionalise feminist policies. Nevertheless, the EU is an institution with MS pushing for their own interests, whether they have or not an FFP. As there is not a single FFP but rather various FFPs, it will be challenging to compromise on specific policy areas. At this moment, the GAP III, with its six thematic areas of engagement, could be helpful for MS to agree on prioritising certain policy areas for a common FFP for the EU. It is, therefore, not a question of whether the EU works toward a Feminist Foreign Policy, it is instead a matter of how.

“It's good to see intersectionality in the Gender Action Plan, but getting intersectionality into actual legislations would be the benchmark.”

Farah Abdi, Transgender Europe

7] European Union Delegation to Georgia. 2021. EU Gender Action Plan III: Country-Level Implementation Plan (CLIP) for Georgia. Ref. Ares(2021)6015024.

8] European Commission (EC). 2020. Together towards a gender equal world: EU Gender Action Plan III. Brussels, 25 November 2020, p.4.

Gender quotas for elections to the European Parliament



Position:	Vincent-Immanuel Herr	Martin Speer
Host Institution:	Berlin-based activists and authors	Berlin-based activists and authors
Year of Birth:	Das Progressive Zentrum, Berlin	Das Progressive Zentrum, Berlin
Citizenship:	1988	1986
	Germany	Germany
Academic Mentor:	Prof. Dr. Gabriele Abels, University of Tübingen	
Research Question:	How to make European democracy and institutions stronger, more inclusive, and resilient in a world of transformation?	

Background / Introduction

The pursuit of gender equality marks a core tenant of the European Union’s political and social identity. Articles 2 and 3 of the Treaty on the European Union leave no doubt that the Union is based on, among others, the value of equality and that it “shall promote [...] equality between women and men.” The Charter of Fundamental Rights of the European Union explicitly mentions, that “equality between men and women must be ensured in all areas, including employment, work and pay.”¹ Yet, in reality, these promises remain all too often unfulfilled. The EU’s very own Gender Equality Index indicates that women do not enjoy parity with men in any domain of life, as the following graphic of the report shows..² This gap between aspiration and reality undermines European democracy and credibility, making it an internal and external weak point for this continent in a world of transformation.



The Gender Equality Index (GEI) is a composite indicator that measures gender equality in the European Union over time based on a set of six core domains. The Index assigns a score of 1 to 100 to the EU and its Member States, with a score of 100 indicating that a country has achieved full gender equality. The GEI score for the EU in 2021 is 68.0, with an improvement of only 4.9 points since 2010.
Source: eige.europa.eu

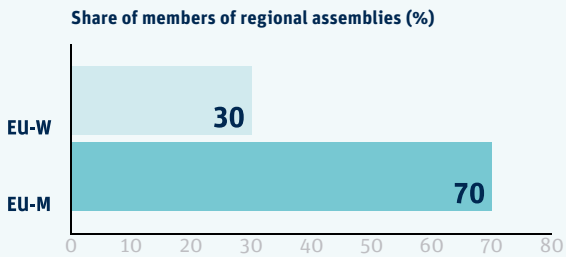
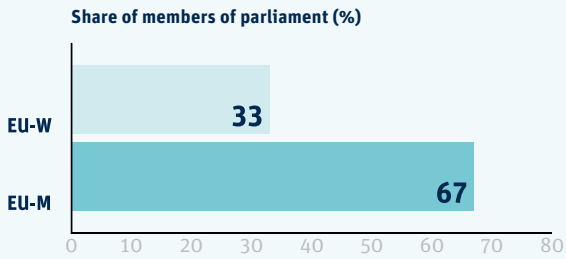
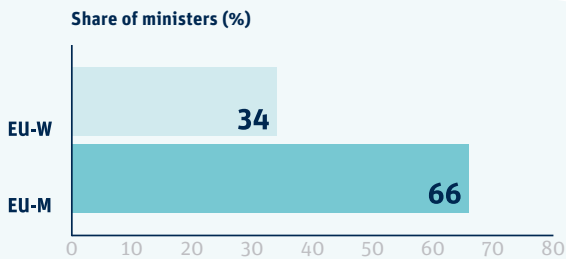
1] EUR-Lex, “Charter of Fundamental Rights of the European Union,” Article 23, retrieved November 26, 2022. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:12012P/TXT>
2] European Institute for Gender Equality, “Gender Equality Index 2022,” 17.

In fact, the study suggests that the domain of power – e.g., access to points of leadership in the political, economic, or societal sphere – is the area in which European women are furthest from gender parity, despite significant progress in this domain in recent years. Yet much of the progress is due to an increase of women in positions of economic leadership rather than in politics. This unequal access to positions of power is not a new phenomenon. Already in November 1992, the recently renamed and restructured European Union held its first “European Summit of Women in Power” in Athens. The resulting “Athens Declaration” read in part: “We note that the current position of women in the Member States of the European Communities as in other

European countries is still characterized by profound inequality in all public and political decision-making authorities and bodies at every level – local, regional, national and European.”³ Yet, the issue itself remains 30 years later. This is particularly peculiar given that increasing the share of women in positions of power, and especially political power, may well be – through the usage of quotas – the area in which progress could be initiated and achieved more easily than in other domains of inequality. In fact, increasing efforts to achieve gender parity in elected offices may provide benefits to the European Union that go beyond simply fulfilling a core promise of its founding treaty.



Political



Domain of Power.
Gender Equality Index Score
for the European Union
(2021).
Source: eige.europa.eu

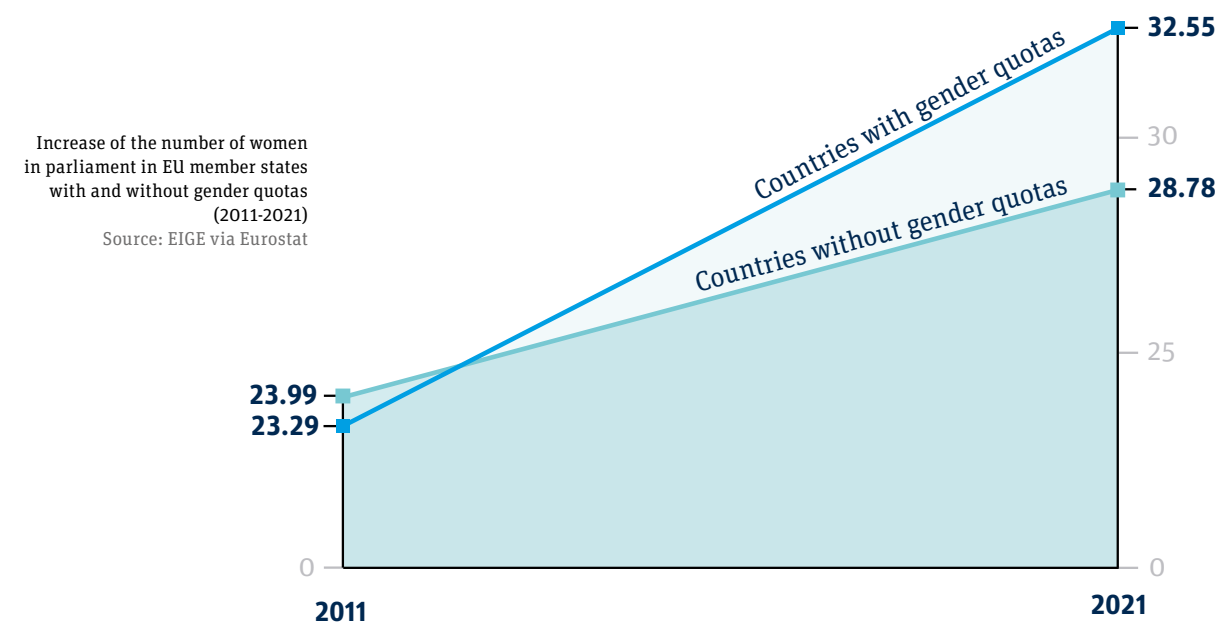
3] “Athens Declaration (1992),” European Institute of Gender Equality, retrieved: September 3, 2022. <https://eurogender.eige.europa.eu/posts/athens-declaration-1992>

Status Quo: Share of Women in European Parliaments and Existing Quota Systems

The European Parliament in its 2019-24 legislative session has a share of 39.3 percent of women lawmakers.⁴ In comparison, women at the EU national level hold only an average of 33 percent of parliamentary seats.⁵ Currently, no EU member state features more female than male members at the national level in parliament, with Sweden having the highest share of women at 46.1 percent.⁶ The concept of increasing gender parity in European parliaments has been actively discussed since at least the 1980s when left-leaning or socialist parties in several EU member states began to impose quotas on their own electoral list formation. This happened for instance in Spain and Germany. Beyond self-imposed regulations, the emergence of nationally applied and legally binding gender quotas gathered momentum in the 1990s, culminating in the passing of the so-called parity laws in France in 2000 and Belgium in 2002.

As of today, eleven EU member states have introduced some form of legally binding gender quotas to ensure parity within their respective national parliaments (though the exact mechanisms and the target percentages vary between some of these countries): Belgium, France, Ireland, Greece, Spain, Croatia, Italy, Luxemburg, Portugal, Poland, and Slovenia.⁷ Others, most notably the Nordic EU member states, keep relying on party-imposed voluntary gender quotas.

The number of women in parliament has increased more rapidly in member states with gender quotas



No EU member state features more female than male members at the national level in parliament, with Sweden having the highest share of women at 46.1 percent.

Gender quotas at the EU level

There is no gender quota system in place for European Parliament elections. In fact, elections to the European Parliament (EP) have very few universal provisions in place in general. As a result, rather than one election to the Parliament, there are 27 individual elections: each regulated, administered, and run by the respective national government, allowing for a wide range of different provisions and parameters within a few basic rules set forth by the European Union. While the Maastricht Treaty originally envisioned identical rules and practices to be adhered to for EP elections by all member states (“uniform procedure”), the failure to ratify such a universal approach in the Council led to the introduction of a few basic principles (“common rules”), such as universal suffrage, the types of lists accepted, or the number of seats available per country. All other decisions – including whether to apply gender quotas – are left with the member states.⁸ Gender parity in the European Parliament thus is currently only subject to national provisions. This may explain the palpable frustration felt in the observation by gender quota researchers Petra Ahrens and Lise Rolandsen Augustín: “... debates about introducing gender quotas for EP elections have led nowhere and thus it remains a matter for aggregate national decisions whether we will ever see a gender balance among MEPs and in the political groups.”⁹

Whether futile or not, members of the European Parliament have not given up hope quite yet. The Parliament’s very own Committee of Constitutional Affairs (AFCO) produced and passed a legislative proposal (A9-0083/2022) in May 2022 for adoption by the Council that would comprehensively reform European electoral procedures. Among other demands, it “calls for the introduction of measures that ensure equal opportunities for women and men to be elected without infringing the rights of non-binary people, through the use of zipped lists or quotas.”¹⁰ However, the proposal sets out to achieve much more than gender parity and aims to return to the idea of uniform procedure abandoned after the Maastricht Treaty. The proposal “considers it essential to improve the transparency and democratic accountability of the Parliament, by strengthening the European dimension of the elections, notably by transforming the European elections into a single European election, especially with the establishment of a Union-wide constituency, as opposed to the collection of 27 separate national elections, which is the way that European elections are organised today.”¹¹ The proposal marks an important milestone towards strengthening representation and cohesiveness in European elections, but there are already signs of resistance in the Council to adopting this far-reaching proposal, MEPs have confirmed in discussions with us.

4] “Women in the European Parliament (infographics),” The European Parliament: News, last modified September 12, 2019. <https://www.europarl.europa.eu/news/en/headlines/society/20190226ST028804/women-in-the-european-parliament-infographics>
5] “1 in 3 parliament and government members are women,” Eurostat, last modified March 7, 2021. <https://ec.europa.eu/eurostat/de/web/products-eurostat-news/-/edn-20210307-1>
6] „Drucksache 20/3250. Unterrichtung durch die Kommission zur Reform des Wahlrechts und zur Modernisierung der Parlamentsarbeit – Zwischenbericht,“ Deutscher Bundestag, 01.09.2022, 33.
7] European Institute for Gender Equality, “Gender Equality Index 2021,” 61.

8] “The Maastricht and Amsterdam Treaties,” Fact Sheets of the European Union, last retrieved January 23, 2022. https://www.europarl.europa.eu/ftu/pdf/en/FTU_1.1.3.pdf
9] Petra Ahrens and Lise Rolandsen Augustín, “The European Parliament and gender equality: a continuing struggle,” Social Europe, last modified May 22, 2020. <https://socialeurope.eu/the-european-parliament-and-gender-equality-a-continuing-struggle/>
10] “REPORT on the proposal for a Council Regulation on the election of the members of the European Parliament by direct universal suffrage, repealing Council Decision (76/787/EEC, Euratom) and the Act concerning the election of the members of the European Parliament by direct universal suffrage annexed to that decision,” European Parliament, retrieved September 4, 2022. https://www.europarl.europa.eu/doceo/document/A-9-2022-0083_EN.html
11] Ibid.

What can we learn from existing quotas and proposals?

The information above allows for the drawing of a few conclusions.

1. Achieving gender parity for elections of the European Parliament may happen by one of two possible avenues: through legally binding gender quotas, or by voluntary party quotas. The second path seems to be significantly less realistic if not impossible under current circumstances. It would involve convincing European political parties and/or their umbrella-level European party families to change their bylaws governing the creation of electoral lists to include gender parity clauses. We can thus assume that the only viable path to gender parity in the European Parliament involves some sort of legally binding centralized EU regulation featuring a gendered approach to electoral provisions.
2. Incorporating such a legally binding provision is possible, for instance by adding such a requirement within the common rules currently outlining the election process held by national governments. This could be considered the “small option”. A “big option” is what the EP’s ACFO is going for: an overall attempt to revive the Maastricht idea of uniform procedure, which besides other streamlining efforts also includes a gender quota system of some sort. Both options, however, would necessitate unanimous Council approval, which is far from certain.

3. An implementation would likely follow one of two blueprints seen in national contexts specifying exactly how gender parity in the parliament is achieved. One is based on a zipper-style system in which all candidate lists must alternately name women and men, thus aiming for roughly 50 percent of either gender in parliament. For example, France and Belgium utilize such an approach. The other model defines gender parity as both genders holding between 40 and 60 percent of available seats, something the European Institute for Gender Equality (EIGE) refers to as the “gender balance zone”.¹² A zipper-style approach may not be required under this method if each member state ensures that after the election, at least 40% of seats are held by each gender. Both models may work at the EU level.
4. The effectiveness of a gender quota system depends also on the potency attached to sanctions for non-compliance. As was evident in France after passage of the Parity Law, quotas only work if non-obliging parties are held to account properly, for example by disallowing voting lists that do not have an equal share of women and men to be used on election day.

5. Legally binding gender quotas seem prone to judicial challenges, particularly regarding their constitutionality vis-à-vis the concept of the free vote, the liberty of parties, or alleged discrimination against men. Highest court decisions revoked early attempts at parity laws in Italy and France in the 1990s. Similarly, the Spanish model was challenged, but withstood judicial review in 2003. It seems that the Spanish model of gender neutrality (requiring either gender to hold at least 40 percent of seats) made a judicial challenge alleging discrimination against men difficult. France and Italy ended up having to pass parity laws after constitutional amendments.¹³ In Germany, attempts to establish binding gender quotas at the state level were overruled and nullified by the state constitutional courts in recent years.¹⁴ However, a research commission for the German Bundestag, tasked with analyzing a number of electoral reforms, admitted in September 2022 that the European Court of Human Rights (the court of the Council of Europe) finds binding gender quotas to be reconcilable with the right to democratic elections.¹⁵ This view may foreshadow a legal debate to be held in front of the EU’s very own European Court of Justice.

Stating the benefits

Quotas for political elections are always a source of controversy and criticism. However, they have also proven to be effective tools of breaking through the glass ceiling of power and paving the way toward more equitable and inclusive political institutions. There are at least four good reasons to consider the implementation of a gender quota system for elections to the European Parliament.

Keeping a European promise. A parity law, and thus the establishment of equal access to positions of parliamentary power, would fulfill a central promise of the EU treaties as well as the EU Charter of Fundamental Rights. Thus, the EU would not only be a community of values on paper but would authentically live up to these core values. If the EU wants to be a powerful voice of values and democracy in a world of transformation, both internally and externally, it must close this central gap of inequality. Change must start in the European Parliament, especially as it claims for itself to be a “fervent defender of the principle of equality between men and women.”¹⁶

Unlocking European potential. 51 percent of the EU population are women, yet the continent’s own parliament has not managed to incorporate and activate the ideas, skills, and potential of the larger population group into politics on an equal basis. A parity law can substantially increase the share of women in the European Parliament and secure it in the long term. Also, having women equally represented in positions of power would increase the effectiveness and quality of policymaking, as studies highlight.¹⁷

A parity law, and thus the establishment of equal access to positions of parliamentary power, would fulfill a central promise of the EU treaties as well as the EU Charter of Fundamental Rights.

12] “Gender Equality Index 2021,” 60.

13] Michael Hailbronner, Ruth Rubio Marín, “Parität in Deutschland und Europa,” *Verfassungsblog. On Matters Constitutional*, last modified July 20, 2020, <https://verfassungsblog.de/paritaet-in-deutschland-und-europa/>

14] Toni Spangenberg, “Germany mulls gender equality law for politicians” *Berliner Zeitung*, 08.02.2021.

15] “Drucksache 20/3250,” 36.

16] “Equality between men and women,” *The European Parliament*, retrieved: September 6, 2022. <https://www.europarl.europa.eu/factsheets/en/sheet/59/equality-between-men-and-women>

17] “Why women in politics,” 2018, *National Democratic Institute*, retrieved: September 11, 2022. <https://womendeliver.org/why-women-in-politics/>

Fast-tracking gender equality. Since France became the first country in the world to introduce a parity law in 2000, there are now legal regulations in eleven EU states that have substantially increased the proportion of women in parliaments. In other states, there is an active culture in some parties to include quotas for women in party statutes, for example in Sweden, Austria, and Germany. Yet, binding quotas have induced the quickest progress overall. The 2021 Gender Equality Index remarks on their effectiveness: “At current rates of change, countries without measures in place are projected to take more than 60 years to achieve gender parity in parliament, while countries with binding quotas are expected to take less than 20 years.”¹⁸

Increasing legitimacy of European institutions. Despite all the progress made in recent years, the EU and its institutions still have a problem with trust. Just 36 percent of people in the EU have a positive image of the EU Parliament¹⁹, and around 45 percent do not trust the EU institutions in general.²⁰ Only 45 percent of people believe that their voice carries weight in the EU.²¹ More diversity in the European Parliament, the only directly elected of the EU institutions, can help strengthen trust in the Union. At the same time, a parity law in the EU could have beneficial effects beyond Brussels and Strasbourg. It may force the hand of member states to take a close look at the share of women in positions of political power at home and initiate a discussion on equal access to power across the continent.

Identifying the hurdles

Feedback on this research with EU parliamentarians, scientists, and civil-society experts has indicated where most resistance to an attempted implementation of a gender quota system at the EU level might be found. We have identified X points of resistance as discussed below.

Parties and groups within the European Parliament. Hesitancy to fully embrace a gender parity law for the European elections or outright opposition can most prominently be observed in the ranks of the European People’s Party (EPP), Renew Europe (Renew), Identity and Democracy (ID), and European Conservatives and Reformists (ECR) groups. Some members of the Progressive Alliance of Socialists and Democrats (S&D) group also remain skeptical. However, the recent reform proposal on the EU Electoral Act could mobilize enough support in Parliament despite opposition.

EU member states on the Council. Here, the situation is complex and fragmented. Some Eastern European states reject a quota proposal entirely – the current governments of Poland and Hungary in particular have been relentless in their opposition to many initiatives and treaties referring to questions of gender equality, e.g. by questioning, defaming as ideologically misguided, and considering leaving the Istanbul Convention aiming to combat gender-based violence.²² Central or Western European member states show a more open attitude towards the inclusion of binding gender quotas into European electoral law. Somewhat surprisingly, there is also noteworthy hesitancy, if not resistance, within the EU’s Nordic bloc, because these countries traditionally rely on voluntary systems to ensure gender parity and remain skeptical of EU overreach. Either way, long negotiations on the EU Electoral Act can be expected.

Critique of the current proposal as toothless. Parity legislation must be binding, and violations sanctioned. The proposal for the EU Electoral Act marks an important step forward but is not comprehensive enough. Ideally, legislation should “ensure female candidates are placed at electable places on national and Union-wide constituency lists by making compulsory the use of methods to alternate female and male candidates such as zipped lists” and include sanctions in case of a breach, as the European Women’s Lobby suggests.

It is striking that most of the criticism of a quota system is voiced by men.

Men. It is striking that most of the criticism of a quota system is voiced by men. Lawmakers proposing a gender quota system or parity law are to a large extent women. Likewise, civil society activists and proponents are also overwhelmingly women. At the same time, it is most often male politicians rejecting such proposals, or alternatively not paying much attention to the work behind them. At face value, this gendered division of support and criticism may not be all that surprising as it would be women benefitting from binding gender quotas for elections. On a deeper level, though, the refusal to condone or even discuss measures for increasing gender parity in parliaments by many (though not all) men, is an indicator that the overall benefits of equal and fair representation are not sufficiently understood by men in particular and the wider society in general. This is perhaps where change may also come about. If more men, especially those holding prominent positions of political power, take up the cause of establishing gender parity, this may help to convince other men that gender quotas are beneficial way beyond the women that would gain seats as a result. In fact, studies and experience have shown that men can be effective allies for gender equality and bridge builders for other men to reconsider their stance on such questions.²³

Conclusion

While gender quotas or similar methods of ensuring gender parity in parliaments have been prominently discussed and implemented in many EU member states, the discussion of and attempts to implement such measures at the EU level has until recently been surprisingly muted. Now, with a European Parliament proposal on the table, this discussion might pick up speed, or alternatively disappear into political oblivion after a gridlock in the Council. Either way, there are good reasons to seriously consider and push for a solution to guarantee gender parity in the European Parliament. Such an endeavor is not only possible, as this analysis has shown, but it would also hand the EU a clear win while also empathically underlining her commitment to the value of equality and equal access in a time of transformation and uncertainty.

18] “Gender Equality Index,” 61.
19] “Socio-demographic trendlines. EP Eurobarometer (2007-22),” Edition 8 (April 2022), The European Parliament, 8. <https://www.europarl.europa.eu/at-your-service/files/be-heard/eurobarometer/2022/socio-demographic-trends-national-public-opinion-edition-8/de-sociodemographic-trends-2022.pdf>
20] “Standard Eurobarometer 96 – Annex,” European Commission, T44. <https://europa.eu/eurobarometer/surveys/detail/2553>
21] “Eurobarometer Survey 94.2 of the European Parliament,” The European Parliament, 2020, 38. <https://www.europarl.europa.eu/at-your-service/files/be-heard/eurobarometer/2020/parlemeter-2020/en-report.pdf>
22] Stephanie Burnett, „Istanbul Convention: How a European treaty against women’s violence became politicized,” Deutsche Welle, 20.07.2022. <https://www.dw.com/en/istanbul-convention-how-a-european-treaty-against-womens-violence-became-politicized/a-56953987>

23] See, for example: J. B. Drury & C. R. Kaiser, “Allies against sexism: The role of men in confronting sexism,” Journal of Social Issues, 70(4), 2014, 637–652.

Insights

Research Year 2021/22



Insights

Charlemagne Prize Award Ceremony 2022

26 May 2022



“In recognition of their courageous and encouraging efforts to fight against brutal state despotism, torture, oppression and the violation of basic human rights by an authoritarian regime – and to campaign for democracy, freedom and the rule of law, the Board of Directors of the Society for the Conferring of the International Charlemagne Prize of Aachen in 2022 have elected to honour the Belarusian political activists Maria Kalesnikava, Sviatlana Tsikhanouskaya and Veronica Tsepalo.”

Excerpt from the citation about the award of the International Charlemagne Prize of Aachen in 2022



“We are a European nation that was unlucky – we had to prove our right to freedom and democracy, to a full-fledged existence in the European family. But we proved it.

We remember all the help we are given in the fight against the dictatorship, and we will make it worth your while in a New Belarus.”

Tatsiana Khomich



Karlspreis Europa Forum

25 May 2022



“We should not constantly fall into the temptation of rethinking things or calling for a change of paradigm, while people actually concentrate on what is doable, realistic, relevant and necessary. Therefore, I believe it is not about rethinking the European security architecture, as this has developed quite positively in the last 20 years through the implementation of procedures and standards, but what we need to achieve is a discussion about our definition and the goals of European Security - How can we bring life into this European security structure to make it more resilient and to strengthen our institutions?”

Benedikt Franke,
CEO of the Munich Security Conference



“I strongly believe that in order to build a resilient European security architecture, we need to free ourselves from a long-standing mantra about the inability to build security in Europe without Russia. Russia has destroyed the existent security order and replaced it with disorder.”

Iulian Romanyshyn,
Charlemagne Prize Fellow 2020/21



“We want security in the whole region. So, if you talk about the withdrawal of Russian troops from Ukraine but forget to say that Russian troops are present in Belarus, too, you don’t solve the problem in its complexity.”

Sviatlana Tsikhanouskaya,
Charlemagne Prize Laureate 2022

European Charlemagne Labour Forum 14 – 15 November 2022



“AI can support us at work in many ways. However, for this to happen, the principles of human-centred work design must always be observed during the development and introduction of AI-based technologies.”

Univ.-Prof. Dr.-Ing. Verena Nitsch,
Head of the Institute of Ergonomics,
RWTH Aachen University



“We need to invest more in training and education to increase IT competence of workers and we need more women in IT jobs!”

Anke Rehlinger,
Minister-President of Saarland



“When we discuss whether the regulation of AI, for example in the wake of the AI Act, represents an advantage or a disadvantage for Europe in global competition, we should consider two aspects: On the one hand, Europe is not the only one to currently engage with this topic. All the big players are trying to shape this AI economy. On the other hand, we should also keep in mind that such regulations can also provide chances for companies that want to build up trust with their consumers and users. A regulatory framework that everyone can rely on will help with the integration of AI and its acceptance.”

Sophia Greulich,
Digital Change Consultant, IBM Germany

European Youth Breakfast



Freedom in Security – Aachener Zukunftsforum für ein wehrhaftes Europa 17 November 2022



“Europe's security can only be achieved through close transatlantic cooperation. This means not only the need for Europe to be able to stand up to Russia and China, but also the important role that the USA plays as guarantor of European security cooperation.”
John Kornblum,
Former Ambassador of the United States to Germany



“A defensible Europe is important because I come from the country that has brought war as if this very country, which has suffered so much, had learned nothing from history. This must be resisted – with all our strength and thoughts”
Dr. Tatiana Timofeeva,
German Historical Institute in Moscow



“A defensible Europe is important to me because democracy and the rule of law must be safeguarded in order to continue to promote prosperity and peace on our continent and in the world.”
Prof. Dr. Kristina Spohr,
Professor of International History at the Henry A. Kissinger Center for Global Affairs, Johns Hopkins University, Washington DC and at the London School of Economics

Karlspreis Europa Summit 2022

16 November 2022

Opening speech by Nathanael Liminski, Minister for Federal, European and International Affairs and the Media and Head of the State Chancellery of the State of North Rhine-Westphalia



What a time to be holding the Karlspreis Europa Summit! We could of course say that this conference is overshadowed by the events of recent months, weeks and days.

We could, however, also put it differently: the events show how necessary, and indeed how highly topical, conferences such as the Karlspreis Europa Summit are.

If, when I became head of the State Chancellery five years ago, someone had told me that soon there would be a global pandemic, followed by a devastating, once-in-a-century flood and then a war in Europe, I would not have believed them. But here we are, experiencing a constant state of crisis. Some talk about a simultaneity of crises. Others of crises stacked on top of each other. Indeed, there are probably many more expressions to describe the current situation.

One thing, however, is clear: we have been catapulted into a new reality, into a new normal. We need to adjust our political processes as well as our political debate to this new permanent state of crisis. Everyday political routine is no more.

To avoid falling into melancholy or fatalism, we as politicians, but also as young academics, should remind ourselves that, in the classical sense, crisis refers to the moment of decision. In its original Ancient Greek meaning, the term is value-neutral. Its outcome is open. Thus, crises can also be a moment to get it right.

Given the abundance of challenges we face as open democracies, however, we must join forces to overcome them. And we have to learn – more than ever before – from our mistakes and the shortcomings of the past.

When, if not now, do we need to take action in Europe, do we need to face the new reality together?

Europe's strength is based on trust, trust in each other, but also in the world. As a strong country in the heart of Europe, Germany has recently lost a lot of trust – whether it be on issues of security or energy. We need to rebuild that trust.

And we need to counteract the centrifugal forces that exist within the European Union. We need to push forward the issues that have been on the table for many years. Otherwise, we will lose the trust of our citizens.

When, if not now, do we need to rethink our security policy?

We hosted the Ukrainian Ambassador yesterday. His message remains that of his predecessor. It is clear and straightforward: rhetoric and action need to be reconciled.

It is right that, in Germany, we are very cautious about supplying arms. We will always bear the historical responsibility to do so. But when a war of aggression so blatantly violates international law, threatening not only the territorial integrity, but the very existence of an entire nation in our immediate neighbourhood – when, if not then, must support, trust and partnership be brought to bear?

We need a broad, public debate on security policy in Germany. We need to break out of the usual channels of our debate on security policy. We need to underline the relevance of issues relating to security policy for everyone in this country.

There is war in Europe. We have to make ourselves clearly aware of this from time to time. Yesterday evening, we invited soldiers of the German Armed Forces to the Ständehaus in Düsseldorf. Prime Minister Wüst expressed the state government's gratitude to the women and men in uniform. He thanked them for their commitment to peace and security.

We have come to understand that the defence of our democracy, the defence of our values is not something we get for free. We need to invest sustainably and effectively in our security – and on many fronts simultaneously. This is because Russia is waging war not only with military might, but also through energy, through refugee flows and through disinformation. They pierce the heart of our democratic society. On all these fronts, we need to pool our resources in Europe. We still have too few European success stories here.





In the "Strategic Compass", we as the European Union have set ourselves concrete goals for our common security and defence policy. Now is the time to implement them. The basic prerequisite for this is – once again – trust. At least within the Franco-German tandem, the “European engine”, this trust must prevail. If this engine sputters – as is currently the case – it undermines Europe as a whole. Here, Germany must show that it understands and takes into account the security concerns and fears of its partners. The topic of military armament receives a different level of attention in France. In Germany, we have come to understand that we need relevant military resources to be able to act as a player on the global stage.

The war in Ukraine is affecting more than just our security. When, if not now, do we need to talk about our energy supply?

Be it supply, infrastructure or even regulations. Europe urgently needs to make progress on all these fronts. We can no longer explain to anyone why each member state is implementing its own energy transition. Or why, in the midst of a crisis, it takes us enormous effort to help each other.

We need an EU internal market for energy, one which is worthy of its name. We also have to think of our supply relationships from a European perspective. Here, too, we must learn from our past

mistakes and not unilaterally change focus. This applies to the types of energy involved, to supply relationships as well as supply routes. For us in North Rhine-Westphalia, and I am sure I do not need to spell it out here in Aachen, the ports in Belgium and the Netherlands are closer than some ports in Northern Germany. Zeebrugge, Antwerp, Rotterdam - these are the relevant ports for us. Not necessarily Hamburg, Brunsbüttel and Wilhelmshaven.

In the current crisis, we already experience a reliable supply from our neighbours. We want to further expand these close and dependable connections. To this end, we are in close exchange with our partners in Belgium and the Netherlands. Not only regarding gas connections, but also cross border hydrogen networks in the future.

North Rhine-Westphalia continues to depend on energy in bulk, more than other parts of Germany. Our chemical industry in particular needs energy and other basic materials in large quantities. For this purpose, too, we are expanding our supply relationships towards the West – on rails, through shipping on inland waterways and through pipeline infrastructures. We also need to diversify our energy sources. One key is the accelerated expansion of renewables.

When, if not now, do we need to talk about the green transformation?

Besides the acute crises I listed earlier, climate protection remains the greatest challenge facing our generation. In its coalition agreement, the new state government in Düsseldorf has undertaken to move forward decisively in this area. Our state is to become the first climate-neutral industrial region in Europe.

With the European Green Deal and the "Fit for 55" programme, the European Union has also formulated ambitious plans. Now it is important that we successfully implement them. This will be a sign to others: we can become climate neutral as a continent and maintain our prosperity at the same time.

The opportunities for this have never been greater: no generation before us has had access to so much knowledge and to so many new technologies. We must seize this opportunity. If the green transformation is to succeed, we need to combine it with the digital transformation.

When, if not now, do we need to talk about Europe's competitiveness?

It is our competitiveness that enables us to tackle the crises of our time with a claim to leadership. Our economic progress creates more than just prosperity. It also creates the political opportunity for Europe to set standards worldwide, for example when it comes to climate protection. But also in general: our European model combines growth, social equity and good jobs with human rights, freedom and democracy. This model must not be put at risk.

The challenges are enormous. When, if not now, do we need to tackle them together?

Russia's President Putin wants to destroy the model of Western democracy through a profound energy and refugee crisis. By destabilising our societies. Through disinformation and attacks on our infrastructure. The time has come for us to speak of the end of innocence.

We need to prepare ourselves for the crises that are shaking us to the core right now as well as for the crises that are yet to come.

We must fight for our European model. Not only for ourselves, but also to be able to remain the guarantors of peace, democracy and the rule of law in other parts of the world.

To achieve all this, we need a lively discussion that brings everyone to the table: politics, science and business. Old and young. People from all regions of Europe.

We need a debate that is creative, that allows fresh and bold ideas, that moves beyond the well-trodden paths.

When, if not now, should we have this discussion?

The Karlspreis Europa Summit offers an excellent forum for precisely this discussion.

We need to prepare ourselves for the crises that are shaking us to the core right now as well as for the crises that are yet to come.

State of the Union: Taking Stock and Thinking Ahead



“We must think ahead about what is going to be our policy towards Russia when this dreadful war in Ukraine is over. We cannot just live alongside a defeated and disgruntled country, because that is what happened after World War I, and in part it led us to World War II. Then after World War II the Allied Western powers quickly incorporated part at least of defeated Germany into its orbit. Of course, we have to think about refugees; the reconstruction of Ukraine’s infrastructure and economy; the trajectory of Ukraine’s longer-term relationship with the EU, and even with NATO. But we must also think beyond this, and consider Ukraine’s neighbours and its foes, and the broader European continental and international framework in which they and Ukraine can be rebuilt and live alongside each other for the long term.”

Anne Deighton, Emeritus Professor of European International Politics, Wolfson College, University of Oxford



“I would argue that we have experienced a holiday from history and that history is returning with a vengeance. The atrocities that we have recently witnessed made it very clear that the transatlantic relationship is essential.

As we look at the strategic competition, the United States cannot form a coherent policy vis-à-vis China or the Indo-Pacific without Europe and Europe cannot form a coherent policy towards Russia without the United States. We’re incredibly dependent on one another.”

Heather A. Conley, President, The German Marshall Fund of the United States



“I would like to challenge the dimension of the current crisis narrative by pointing out that, if we look at the last 10 to 15 years, we could speak of a sequence of never-ending crises, including terms like Eurozone, Brexit, Migration, Pandemic, or War. While the media often predicted an imminent collapse of the EU and disintegration, we sometimes tend to neglect that crisis can also lead to new forms of cooperation and integration. Sometimes we’re failing forward.”

Kiran Klaus Patel, Chair of European History, Ludwig Maximilian University of Munich

Europe's Energy Transition: Balancing Energy Security and Climate Protection



“I see no contradiction in the fact that we have an energy crisis and a dynamic of the crisis that can be used for the upcoming transformation process. Overcoming the crisis and kick-starting the transformation can go hand in hand if we simultaneously align the necessary crisis instruments with the transformation of our economy.”

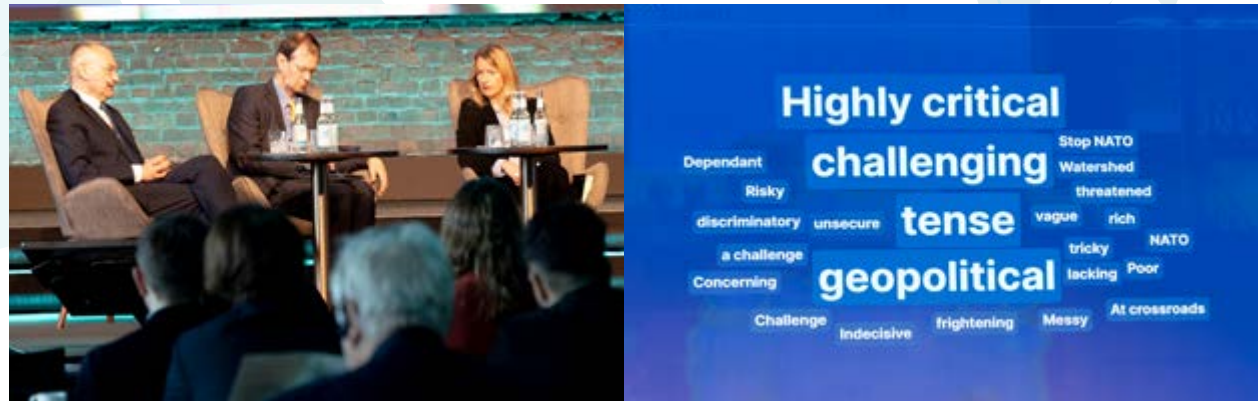
Achim Wambach, President, ZEW – Leibniz Centre for European Economic Research



“I’m not among the ones believing that the very high prices we had on the gas markets in September or October are in some way physiological. There was a pathology of the system.”

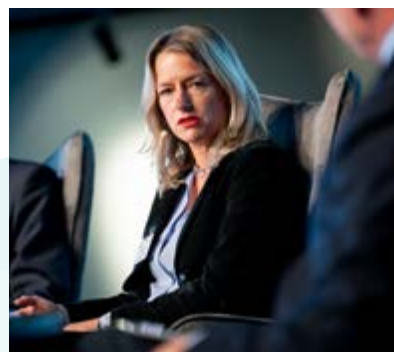
Simone Mori, Head of Europe, Enel Group

The European Union's Strategic Compass: Rethinking Security



"In the U.S., we look at Russia and China as a de facto alliance and they were creating a two-frontier trap for us – one in the Indo-Pacific, the other one in Eastern Europe. What is happening right now is therefore truly remarkable because the bravery of the Ukrainian population in course of this brutal attack is now dismantling that. If you don't get to a satisfactory military solution that provides for security in Ukraine, all considerations of efficient reconstruction are simply academic."

Andrew A. Michta, Dean of the College of International and Security Studies, George C. Marshall European Center for Security Studies



"We need to see how politics is going to evolve. While the situation between the U.S and Europe with regard to the war in Ukraine is critical and essential, we have to acknowledge that responses are being designed, resources are being found and decisions are being made, which is more than what we observed in the wake of the Russian invasion of Crimea in 2014, during the war in Syria or during the former conflicts in the Balkans. So we're in a different space."

Rosa Balfour, Director, Carnegie Europe



"Europe must face all of its neighbours. Unless NATO is going to change its profile to do more in North Africa, the Sahel region and beyond, then I think, Europe will actually have to equip itself with the capability to do that."

Ian Bond, Director of Foreign Policy, Centre for European Reform

Europe's Economies under Pressure: Adapting to the Current Challenges



"Currently, Europe is not seen as a place for investment. We need to have an answer to the developments in the world and if we want to succeed through technological leadership in the next years, we will need a regulatory clarifying framework and political leadership."

Stefan Berger, Member of the European Parliament



"If interest rates are higher elsewhere in the world, the money will inevitably go there. So, we cannot rely on regulation by the ECB or by the markets, but we must ensure that we act quickly and allocate the money where it is needed and used innovatively. That is the only way we can keep the money in Europe and stabilise our society."

Alexander Wilden, CEO, schwartz GmbH

Brussels Speaking: In Conversation with Guy Verhofstadt MEP



“We use the word Union, but we are not a union.
We are patchwork.
There will be the day the European Union disappears
when we don’t change the way we work.”

Guy Verhofstadt,
Member of the European Parliament



Roundtable Discussions

“Europeans can no longer afford the luxury
of remaining dependent on fossil fuels.
Renovating buildings and investing in energy
efficiency has been a climate necessity for
decades, they are now clearly a geopolitical
and economic imperative.”

Thomas Pellerin-Carlin,
Director of EU Programme,
Institute for Climate Economic



“In order to successfully navigate the rapidly
evolving landscape of artificial intelligence and
shape its development in line with European values,
it is essential that the EU establishes itself as a
leading global player in the field. This requires
ongoing efforts to stay informed about the latest
technological advancements and translate them into
effective policy frameworks. The future success of
the EU depends on our ability to proactively address
these challenges and seize emerging opportunities.”

Pegah Maham,
Data Scientist, Stiftung Neue Verantwortung



“As a transgender woman of colour who came
to Europe on a boat 10 years ago fleeing fear
of persecution because of my gender identity,
working towards EU Policy with an intersectional
lens is incredibly important. Especially because
we continue to find ourselves living in uncertain
times that are marked by a rise in racism,
xenophobia, right wing populism,
a climate crisis, among other difficulties.”

Farah Abdullahi Abdi,
Author, Humanity in Action

Insights

The International Campus of Excellence



Preface:

The world at a crossroad

Mustapha Achoubane, Ambassador of the Royal European Academy of Doctors and
Chair of the Executive Committee, ICOEXCELLENCE



Today, we find ourselves at a crucial moment as humanity witnesses numerous challenges that are aiming to jeopardize the world as we know it. The war on Ukraine, climate change, increase of extremism, the aftermath of the Covid-19 pandemic, cybercrimes, water and food security, job losses, and economic stagnation are all examples of challenges that are sketching mega-trends for a new reality that ultimately affect our communities.

Many times, I have found myself wondering if this is the reality we want to live in and the reality we want our future generations to inherit?

The “International Campus of Excellence Initiative” aims to reflect and collaborate on creating a world of possibilities, on a strategy that will contribute to improve the quality of life for citizens and enhance our own behavior to better serve our planet. This strategy is built on TRUST, which in this case stands for Transparency, Respect, Unity, Staying Inquisitive, and Tolerance.

Indeed, our world is at a crossroad, and we need inspiring thought leaders that will set a solid collaboration framework for humanity to thrive.



ICOEXCELLENCE is an unparalleled global circle of visionaries that fosters the relentless quest of knowledge, science, and business diplomacy, aiming to bring together two generations of luminaries alongside exceptional young leaders to discuss cutting edge issues. The initiative is supported by 50 Nobel Laureates, 12 Former Head of States, 9 Astronauts, 6 Michelin Star Chefs, and 1200 Industry & Civic Society Executives.

The aim is to provide applied insights to the most pressing challenges in the world by connecting human capital, investment, and intellectual assets with those who are willing to be change makers.

The ICOEXCELLENCE 2022 conference took place in Morocco. Hosted by the Open University of Dakhla it comprised the theme: "The Role of Knowledge, Science, and Education in Shaping the New World". The Charlemagne Prize Academy acts as a future partner organization. Several of the participants contributions are presented in the following.

The Role of Knowledge, Science, and Education in shaping the New World

Prof. Dr. Ulrich Hermann, Chairman of the Charlemagne Prize Foundations' Advisory Board and Managing General Partner at Einstein Industries Ventures



A critical component of our current era is that crises and renewals follow one another at a much faster pace, making transformational processes as well as collaborative approaches to the challenges of our time imperative.

Probably the greatest joint project in post-war history is the idea of a united Europe, which is crisis-proof due to its interconnectedness and structure and is taken seriously as a unified actor on the world stage. For more than 70 years, the Charlemagne Prize has been awarded to personalities and institutions who have rendered outstanding services to European unity and the European idea of peace and understanding, and who are thus a living reflection of the European integration process.

But in addition to rewarding action and creating value, it is always important to be part of the development process – not only through appropriate agenda setting, but also through your own content and initiatives.

In the future, how the Community positions itself in the context of current crises - such as rising inflation, energy shortages, and the unstable security situation on its eastern borders – but also in solidarity with its neighbours, partners, and the rest of the world will be of enormous importance for cohesion in Europe. Africa will be of great importance to Europe, as will the transatlantic alliance and how to deal with regimes that disrupt its values and order.

In Europe, I think that the economic topic of digital transformation is one of the most important practical issues for maintaining peace and prosperity, just like the energy issue, the security issue, the immigration issue and the climate issue. I would therefore like to take a closer look at this economic topic and highlight some very important areas for action on the road to an ecologically just and economically prosperous future.

There is a growing understanding that the global economy as a whole, and in its global entanglement, is by no means heading for a "classic" recession. Once the weak companies have been cleaned

up and the innovative and forward-looking companies that have been strengthened during the crisis have been reinvigorated, it will not be back to business as usual. What is coming seems like a harbinger of a fundamental reordering of our economic model. We are observing asymmetries, i.e. broken supply chains with simultaneously full order books, global dependencies and at the same time national foreclosure, exploding energy costs and initially ineffective interest rate interventions. The experts disagree: is it stagnation, stagflation, inflation. It is a cocktail. Why this cocktail? The reason: never before has there been such violent and global intervention in the economy before a "recession" at such short intervals. We have stormed our global economy, with the following: Nearly all governments of industrialized economies flooded their economies with cash in the Corona years 2020 and 2021. At the same time, states, on the recommendation of epidemiologists unfamiliar with economics, have intervened harshly in highly complex, systemically laterally interconnected, globally steady-state, decentralized supply chains, in some cases with trade and production disruptions lasting months. Quite comparable to this, the war-related intervention in the course of politically motivated economic sanctions of the Ukraine crisis in the energy market, with the consequence of a complex reorientation of the global economic forces Russia and China in their relations with the Western industrial nations, especially with the energy consumer Germany.

As necessary as ad hoc measures to contain the pandemic, respond to the war and ease the energy crisis may initially seem, we also suspect that their long-term consequences can only be positively resolved in a systemic change of our current economic paradigm. Moreover, the transformation towards an ecological and sustainable society seems to stand in the way of the acute management of the crisis ahead. Green concepts and the complete absence of a target image of a "green" digital market economy today make an exploitation of carbonized resources at the expense of the environment seem economically superior again. Thus, in today's energy crisis, what was unthinkable just two years ago is back on the agenda. Such as the extension of the operation of coal-fired power plants in Germany – the country of the energy turnaround.

The established economic system of the former analogue economy, with its large organizations based on the division of labour, overproduction, the dependencies of global "just in time" supply chains, the lack of economic incentivization of a shared use of products, can no longer be the target image of a post-crisis society without further increasing the ecological damage already done. A recognized "green" business model is needed that enables the prosperity of a further growing earth population, but at the same time renews the resources of our earth, and brings our life as a whole into a balance with nature.

The "Internet of Things" offers a perspective for this. Here, inefficiency in the use of our resources is increasingly being eliminated. Digital business models help to open up completely new revenue potentials. Overall, the Internet of Things presents itself as a solution space for the ecological question. It sells "usage" not "products." Durable physical products require fewer resources over the utility cycle. Software features replace mechanical ones and reduce wear and tear. Users perceive the next generation of products via improvements in digital user experience (UX, UI). Economic obsolescence shifts from physical to digital product features and increases (material) product lifetime. The interconnectedness of products in platforms and their autonomous capabilities leads to smarter deployment and massive increases in unused capacity. Overall, fewer products are in use per user. In the economic system of the Internet of Things, which we call the "green digital economy of things," it becomes possible that, by focusing our innovation cycles on usage, not product sales, we industrially deplete fewer resources than they can regenerate – and not vice versa.

And we see a lot of hope from consumers Behaviour:

- In the spirit of the times, customers are already exchanging their "possessions" for convenience in exchange for "access" to platforms that manufacturers create with their systems of smart, intelligent products and services.
- The connectivity of smart, autonomous product systems on platforms lead to a superior user experience for consumers, in which the sharing of products is understood as an advantage, accepted as a fundamental product characteristic, and even incentivized as an opportunity to participate in a value creation.
- In order to master the data hunger of the digital economy of things, the "operating system" of an Internet of Things is moving into space. With the launch of more than 100 thousand satellites in the next five years (that is about ten times more since the launch of the world's first satellite "Sputnik 1" 65 years ago), a completely new industry is currently emerging with the "New Space", which will grow to approximately 1500 billion euros in revenue by 2035.

- Reorienting the business models of intelligent networked product systems to "usage" requires long-lasting products. This increases the importance of production systems for renewal compared to those for manufacturing products.
- With decreasing marginal costs for energy and communication, large organizations based on the division of labour that were created to overcome them are disappearing. The digital twin of production of one becomes the central "asset" of production. The construction of first-time profitable "micro factories" lowers the barriers to reindustrialization and the export of industries to low industrialized countries. With large or changing organizations, rigid structures are also disappearing.
- However, a new business model involves a fundamental realignment of the organization. The demands on leadership are by far the greatest in the area of change management. The fields of action are leadership and creating purpose from employees.

Let me summarize:

Our structural crisis today may not just be a result of war, inflation, and Covid-induced interventions in the economic cycle, but the end of the economic model of the analogue era. An era in which, despite all the regulations at the end, the total cost of the ecological footprint of the producers was not in the least borne by their business model. In short, growth and prosperity were essentially based on the assumption that the next generations would bear the cost of environmental damage. But the crisis presents itself as an opportunity to fundamentally solve the problems of today's industrial and production systems and their business models in the areas of supply chains, overproduction, resource scarcity.

The green digital economy of things shows the solution space for this. It can be understood as an economic model whose goal is to replace sales and ownership, with access and usership, to replace the paradigm for growth and innovation through product replacement with that of constant product renewal. It is an economic model in which networked and intelligent products instead minimize their unused capacity and place the digital user experience at the centre of innovation programs.

In this context, a new economic model will require investments and the promotion of innovation, research, and the radiance of new ideas. For Europe and its partners, for Africa and for the international community, it will be particularly relevant in the coming years how the bridge between economic necessities, political challenges and networking in knowledge transfer can actually be built.

Growing New Economic Markets: The Collaborative Relationship Between Academia and Industry

Prof. Dr. Randy Avent, President of Florida Polytechnic University



Vannevar Bush was a notable, gifted academic who served as vice president and dean of engineering at the Massachusetts Institute of Technology and cofounded Raytheon. But Bush is perhaps better known for his work in government policy, which began in the early 1940s as Germany invaded France. At that time, Bush knew the U.S. was reluctant to enter World War II because critical pieces of its military technology were seriously flawed¹. With deep experience in both academia and industry, he also knew that academia excelled at creating knowledge that provides new solutions to problems while industry excelled at turning those theoretical solutions into commercial products. Armed with this experience, Bush arranged a meeting with President Franklin D. Roosevelt and proposed a collaboration of government, academia, and industry to be focused on advancing critical military technology that could help win the war². Afterward, Bush wrote his seminal paper, *Science, The Endless Frontier*, which proposed a linear segregated research model that laid the foundation for how research would be conducted in the United States³.

Bush's linear model was described as unidirectional and composed of three steps: basic research, applied research, and critical technology development. His model has since been expanded to include "down-chain" product development elements that often include tasks like component development, component testing, subsystem development, subsystem testing, product development, and product testing. One can think of these models like tasks in a Gantt chart where later stage tasks represent more maturity.

Consistent with Bush's early concept that universities excel at creating new knowledge while industry excels at productizing that knowledge, universities typically focus on the early stages of the model by conducting federally funded research. Industry, on the other hand, tends to focus on the late stages by creating self-funded products. Academic research typically operates on a timeline of decades while industry timelines are many fewer years, and it can take several decades for academic research to be applied to products. Because there are translational difficulties between academia and industry, driven in large part by cultural differences, the middle stages of the model are commonly referred to as the "Valley of Death" because so much research never makes it through those phases.

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Today there is a general consensus that Bush's simplistic model does not accurately reflect the product development process. Most experts argue that rather than being segregated or unidirectional, the model is both iterative and multidirectional. Given this fact, product development trajectories can potentially be described using signal flow graphs, Markov models, or design structure matrices⁴ instead of assuming development progresses linearly from basic research to product testing.

What is more important than the model trajectory is how the process begins, which can be directly correlated with product impact. For instance, focusing on the right-hand side which ends with a product, one can imagine two distinct development pathways toward successful commercialization⁵. The first occurs through "market pull," which traditionally is the method for product development and begins with the customer. This pathway requires critical thinkers who analyze customer data and develop products responsive to their needs, which means it is often low risk and incremental, supporting linear, sustainable growth. This approach features tasks driven and directed by a defined end goal or product and typically do not reach back to the

R&D phases of the model. Longstanding companies like Hilton (1919: \$39B)¹, IBM (1911: \$112B), GMC (1911: \$55.7B), and Bank of America (1998: \$330B) have succeed for decades because their well-established approaches to new product development lead to sustaining linear growth.

The second pathway to successful commercialization is "technology push," which often is simply known as innovation. While the market pull pathway focuses on consumer need, technology push is developer focused. It uses creative thinking to uncover a market stemming from a newly developed technology. This approach is high risk but can lead to transformational products that result in exponential growth. While technology push generally includes critical technology development, it often relies on existing research or knowledge that has been published in the literature as opposed to spawning new university research. Emerging companies that effectively employ enabling technologies have grown meteorically and enjoy valuations significantly higher than their market-pull competitors. These include AirBNB (2008: \$97B), Apple (1996: \$2,690B), Tesla (2003: \$539.2B), and BitCoin (2009: \$835B).

1] Gruber, Jonathan and Johnson, Simon. *Jump-Starting America, How Breakthrough Science Can Revive Economic Growth and the American Dream*. New York : Public Affairs, 2019. Morrison, Samuel. *History of US Naval Operations in World War II, Volume IV, Coral Sea, Midway and Submarine Actions*. Boston: Little Brown, 1949. Kennedy, Paul. *Engineers of Victory: The Problem Solvers who Turned the Tide in the Second World War*. New York: Random House, 2013.
2] Zachary, Pascal. *Endless Frontier: Vannevar Bush, Engineer of the American Century*. New York: The Free Press, 1997.
3] Bush, Vannevar. *Science, The Endless Frontier: A Report to the President*. Washington, DC: US Government Printing Office, 1945.

4] Eppinger, Steven and Browning, Tyson. *Design Structure Matrix Methods and Applications*. Boston: MIT Press, 2012.
5] Christensen, Clayton. *The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail*. Boston: Harvard Business Review Press, 1997.

Focusing on the left-hand side of the model, the process begins with basic research, which is the systemic study of the structure and behavior of nature and is a quest for fundamental understanding. The same market pull vs. technology push routes used in the product development portion of the model also apply to its basic research portion. Here, they are known as use-inspired research and curiosity-inspired research respectively. An excellent example of curiosity-inspired research is Niels Bohr’s work on quantum theory and understanding the atom. His work was fueled by a desire to understand nature, not motivated by a perceived use. Alternatively, Louis Pasteur was a French chemist who wanted to develop a process that rids milk of harmful pathogens. Pasteur understood that to do this, he needed to conduct use-inspired basic research on the fundamental biology of bacterium. His work laid the foundations for hygiene, public health, and much of modern medicine⁶.

Given these examples, it may make sense that federal support of basic research should be entirely focused on use-inspired research, since it often leads to innovative products that create exponential growth. However, just as in commercialization where technology push leads to more impactful results, curiosity-inspired research can actually lead to brand new economic markets that are even more impactful than innovation.

Use-inspired research has created many new products that have driven the U.S. economy since World War II and improved worldwide living standards, including vaccinations that reduce or eliminate disease, supercomputers that can predict weather, LED lights that dramatically⁷ reduce energy consumption, and the Human Genome Project that soon may lead to personalized medicine.

The role of curiosity-inspired basic research in creating new markets can be exemplified in Charles Townes’ and Arthur Schawlow’s early work on the spatial coherence and optical amplification of stimulated electromagnetic emissions, which led to the invention of lasers⁸. A second notable example is Watson and Crick’s discovery of the DNA double helix. Neither researcher was motivated by solving a known market problem. Instead, they simply were working to fundamentally understand reproduction and how traits are passed generationally. While the work was a seminal research discovery, its market implications were extraordinary. Over time, DNA and the genome gave rise to modern molecular biology, which is foundational to many of today’s multi-billion-dollar biotechnology companies⁹.

The space between research and commercialization is known as the Valley of Death, which refers to the model’s middle elements where a mismatch occurs between academic research and industry needs. Some of these transitional problems can be explained by cultural differences between academia, whose purpose and rewards focus on publications, and industry, whose

purpose and rewards focus on delivering products. Bridging this gap and improving the application of new knowledge to products has been the focus of many proposals. These largely center on building agencies whose mission is the transition of research into products, providing more incentives to industry for conducting research, and encouraging universities to undertake more technology and product development.

Finally, growing a robust technology economy depends on collaborative relationships between academic research and industry development. Traditional product development is market driven and will continue to thrive while venture capital funding stimulates growth in innovative high-risk technology-push markets with roots in federally funded basic research. But with waning public support for academic research, particularly traditional basic research, a national research strategy that provides strong funding at universities focused on strategic, complex problems is required to create new economic markets that will continue to grow the economy.

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6] Louis Pasteur. Wikipedia. [Online] https://en.wikipedia.org/wiki/Louis_Pasteur
7] (Date company was established: Current Market Cap).

8] Laser. Wikipedia. [Online] <https://en.wikipedia.org/wiki/Laser#Uses>
9] The Francis Crick Papers: Discovery of the Double Helix, 1951-1953. <https://profiles.nlm.nih.gov/spotlight/sc/feature/doublehelix>

Cyber securing the globe

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Cyberattacks on corporations have stolen military secrets, erased over \$100 billion in shareholder value, lost the personal information of 150 million people, and led to the shutdown of critical infrastructure. NATO 2030 recognizes cyberattacks as a key risk to alliance members and allies. In June 2021, a senior official at the US Justice Department told Reuters that ransomware attacks were being elevated to a similar level as terrorism. Yet cyberattacks remain a critically understudied and poorly understood threat to countries around the globe. In this article I want to explain the nature and size of the global cyber security problem and a critical element for the solution— global cooperation in research and cyber solutions.

The network nature of the cyber security problem

When hackers attacked the Colonial Pipeline in May 2021, they were seeking to make \$4.4 million dollars through extortion. But their actions took down nearly 50% of the US East Coast's gasoline supply. There was panic buying, hoarding, and the highest fuel prices since 2014. On May 14, 2021, 87% of the gasoline stations in the Washington D.C. area were out of fuel. The company paid the hackers \$4.4 million in Bitcoin, some of which was recovered by the FBI.

The impact of technical errors affecting critical infrastructure provides an indication of the potential risk from cyber attacks. On June 17, 2021 a technical error at Akamai, a US content delivery network (CDN) led to outages at the Reserve Bank of Australia, several Australian commercial banks, the Hong Kong Stock Exchange, and four US airlines. A mere eight days earlier, a similar issue at another CDN took Amazon, The New York Times, BBC, and the UK Government offline. An intentional cyberattack could do much more damage.

These examples show how intertwined ICT systems are globally. They also serve to demonstrate that cyber attacks can be part of the increasing threat of hybrid warfare, where malicious actors do much damage while stopping just short of actions that could lead to war.

Many attacks are aimed at corporations, making cyber threats an important economic and geopolitical phenomenon. For example, military contractors have been repeatedly probed for sensitive secrets, causing geopolitical and economic damage when adversaries benefit from expensive R&D they didn't pay for.

Cyber adversaries kill two birds with one stone by targeting companies in different countries. Ransom payments and stolen intellectual property are lucrative for the hackers. The loss of trust, business, and confidence is damaging for the victims.

Cyber criminals are also identified by NATO as one of the primary threats to the alliance. This makes cybersecurity a serious economic and geopolitical issue. In 2014, NATO acknowledged that a cyberattack could trigger Article 5, the alliance's collective self-defense clause. In short, a cyberattack on one NATO country could lead the entire alliance to respond with an array of measures, including going to war.

As a result of the geopolitical and economic stakes, hacking has never been more serious. Unfortunately, hacking has also never been easier. An affordable laptop computer using freely available software can guess 1,000 passwords per second (3.6 million passwords per hour). While a truly complex password can take years to crack, most people don't use complex passwords. In fact, even sophisticated corporations fall victim to seemingly unsophisticated attacks.

A 13-year-old Australian hacked into Apple's secure computer system to show off his skills in the hope the company would offer him a job. While he was caught and punished, state intelligence services are much more sophisticated than a teenager.

We can't look at an international problem in isolation. For example, most NATO countries use a single, pan-European energy grid. Many of them share weapons systems and intelligence. But cyberattacks are a global problem, and threats to companies have reverberations across NATO countries and Australia. As I have noted, even minor technical issues in one country can immediately spread worldwide.

As nations around the world grow and prosper and become increasingly service-oriented with large amounts of intellectual property, securing secrets matters more than ever. Although we often say Apple "makes" the iPhone, that's not really true. They design it and own the underlying intellectual property. Actually assembling the phone is a low-margin business they outsource to others. Apple is an intellectual property company.

Economic theory suggests that competition fostered by the market provides greater innovation and lowers costs. However, the diffuse nature of crucial infrastructure in NATO democracies makes cyberattacks on businesses a national security threat.

The bottom line here is that it is increasingly clear that the intertwined nature of ICT systems globally means that the only way of truly securing ICT systems in one country is to ensure that ICT systems globally are secure.

The call for global research

I recently conducted a thorough literature review of academic studies which examine the stock price declines of listed companies when they announce data breaches. Such studies are implicitly quantifying the cost foisted on companies by cyber attacks. The stock price is the value that a market places on the future cashflows generated by a company. Therefore, the fall in the stock price quantifies the damage to the future cashflows of a company.

The literature review I carried out unearthed more than 20 paper on this single topic alone. Notable from the literature review was that all but 3 of the studies examined companies listed on USA stock markets. This leaves significant gaps in the understanding of cyber attacks in countries other than the USA including NATO members and Australia.

While there is some debate in the literature, the prevailing trend is clear; Cyberattacks have serious costs. Even minor percentage moves can cost economies billions of dollars.

I call for research which will look at the financial and economic effects of cyberattacks across all NATO countries and Australia—a key ally and partner to the alliance. Right now, companies have no evidence-based estimates on how much to spend on cyber-defence, and no comprehensive picture for the costs of cyberattacks across NATO member countries. We need research that will fill-in these key gaps, enabling policymakers in government and the private sector to better understand and defend against cyber threats.

Such research will also help governments understand the baseline for cyberattacks against NATO and NATO-allied nations. Cyberattacks are here to stay, but not all attacks are equally dangerous. Such research could give policymakers a smart, nuanced, understanding of the threat and how to move forward.

The results of such research are not only important geopolitically, but also have implications for corporate policy in each jurisdiction. Companies will be able to better understand the costs of cyberattacks, and thus make optimal investment decisions in relation to cyber security. They will better understand spillover risks, as well as learn what attributes may make them more or less vulnerable to attacks.

Furthermore, such research will help financial market regulators in setting appropriate cyber-security policy and convincing companies to invest in cyber security. While no academic study can stop cyberattacks, such research could arm our companies and regulators with the knowledge they need to understand and fight back against this threat.

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The new missions of knowledge in an uncertain world



Ouided Bouchamaoui, Leader of the Tunisian Confederation of Industry, Trade and Handicrafts (UTICA); Nobel Peace Prize Laureate (2015)

"A success story is some knowledge, some know-how and a lot of getting known!"

Jean Nohain, Artist and public speaker

My topic may seem ambitious and, even arrogant to think that if we look at the Tunisian experience and apply it elsewhere, we might be able to save a country from decadence and failure. But if we look at one element which incarnates the Tunisian Journey to peace and stability it is certainly renewal. It was a new way of doing things at all levels: reorganizing our working methods, a new way of considering citizenship, a new way of working with our political and social institutions. This renewal remains crucial to our ongoing construction of our future.

It is this concept that I want to share with you.

Tunisia has been struggling for the last eight years to anchor its democratic system on firm ground, respond to the daily social pressures, fight against terrorism and relaunch an economy which has been asphyxiated by doubt and uncertainty.

Since 2011 Tunisian men and women have been demonstrating in the streets crying out for freedom in a country which for many years had an economic growth of 6%. In 2011, Tunisians decided to break the silence, break the chains of fear and set free to catch up with freedom and democracy. The Revolution of 2011 was surely a milestone in our history, yet as a nation it was difficult to make peace and reconcile with the painful truth of a long past of autocracy and dictatorship.

The Revolution involved several days of rioting by an angry population, a mostly young population that felt wronged by a pitiless greedy regime and by another part of the population that kept silent in front of different kinds of atrocities.

The 14th January 2011, marked the beginning of what was to be known as «the Arab Spring». This transition seemed to have every chance to succeed with most Tunisians behind it and with the support of the international community. However, history will tell, as the promises were not kept, world economic crisis and other reasons prevailed.

Let's look at the post-revolutionary period.

The first free and democratic elections were held on 23rd October 2011. A memorable bright sunny day, as if nature was celebrating our freedom.

Tunisians elected a National Constituent Assembly in October 2011 and conferred the deputies with drafting a new constitution, to be followed by legislative and presidential elections. In this first Assembly elections, we saw the rise of the Ennadha movement, a banned party under Ben Ali presidency. Ennadha movement led by Rashid Al Ghannouchi, describes itself to be a “moderate Islamist” party.

However, the ascent of Salafism in Tunisia with increasing militant activity, weapons smuggling from Libya, involvement in the political scene and the clashes at the American Embassy, weakened the position of Ennadha movement and the government formed by the three major parties at the Assembly, also named “the Troïka” (Ennadha/CPR/Ettakatol).

And suddenly, violence struck us with the assassination of Chokri Belaid, the secular opposition leader in February 2013. The event set apart the already fragile components of a political scene. The second assassination in July of the same year of MP Mohamed Brahmi, blocked all communications channels. The country found itself in the middle of a dangerous stand-still. This beginning of 2013 was a black year in the history of Tunisia as it was scarred with social tension, a deterioration of the economy, crises and those political murders which plunged the county into a hole. We had to save the country from a real collapse.

We had to re-invent codes, demand new ways of behaving and forge new ways of thinking politics - in the Greek sense of the term, meaning citizen actions in the interest of the group, the collective interest.

We therefore had to create a dialogue: This was the bricks and mortar of the democratic transition for Tunisia, faced for the first time with a multitude of political players, a strong and vibrant civil society, a wide political space searching for its marks, young people crying out for change and a population full of hope. Such a dialogue was difficult, long and perilous.

We had to construct an authentic dialogue between two completely opposed parties. We had to keep in mind that there was no competition, there was no question of being right or wrong or of imposing subjective views. We had to move forward in the discussions with the constant aim of finding a solution together.

The work method, original as it was, came from a simple idea. In fact, the civil society as we were, understood the sterility of the political debate, the social tensions, the morose economic situation and even more the lack of perspectives for the country. We had to give Tunisian men and women new hope and reassure them that their developing democracy, for which they had already paid a heavy tribute, would continue. It was crucial to get all the political forces to work together, we did this by getting them involved and committed to a roadmap with a clearly defined action plan and a clearly defined scheme of results.

Genuine dialogue creates opportunity for new information to surface and be considered thoughtfully. Instead of bringing conflicts to the table, participants in a dialogue are encouraged to question and to bring their genuine curiosity to the table.

Genuine dialogue builds relationships. Because dialogue gets people actively involved, it builds engagement. An authentic engagement that sows the seeds of trust over time; it creates real human connection.

Genuine dialogue leads to more informed decision making. Genuine dialogue isn't for show. It's not manipulative and it's not put on for the sake of an unspoken motive. It is honest and draws on what's best in us.

This totally unknown experience would not have gained world-wide recognition or the Nobel Prize for Peace had it not been for the coherence of the speeches by the four partners of the Tunisian National Dialogue and in particular the common vision of the future of the country shared by UTICA and UGTT.

This message was a powerful signal for all the different players and for public opinion. It reconciled Tunisians between each other and mobilized everyone around the top priority: the country first, political parties after!

Tunisia, still maintains the light of hope for the freedom which was heralded 8 years ago by the whole world and hopes the rest of the region and the world will follow.

Time constraints and the lack of resources are a constant challenge. The time for change appears too long for many and longer than we would have wished. However, it is perhaps only lucidity and serenity that will guide us in our long history which requires a profound reshaping of our institutions and a movement for the revolutionary values to the rhythm of a fabulous nation.

A whole nation that believes in taking its own destiny in hand for peace and freedom.

I express my sincerest wishes for the grains of dialogue and the spirit of solidarity to be planted and anchored into the historical commitment of our people, united by the common ambition of a collective destiny: to live in peace, to live with dignity and respect and furthermore, to be able to face today's challenges and to hand over a better future for the coming generations.

Prospects for the future of humanity post-Covid

**Prof. Emeritus Dr. Ernesto Kahan, School of Medicine. University of Tel Aviv, Israel;
Delegate to the Nobel Peace Prize Reception to International Physicians for the Prevention of Nuclear War- IPPNW (1985)**



Christos Staikouras, Greek Minister of Finance, commented in the Charlemagne Prize Academy Report 2020, “Europe is facing an unprecedented, multidimensional crisis, due to the COVID-19 pandemic. A crisis which is continuously rekindled and characterized by a great deal of uncertainty, and which has led the European economy and the national economies to a very deep recession”¹. Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus that until October 12, 2020 worldwide produced 623M cases and 6,52M death².

In the book entitled The Great Pause³, I make a comparative analysis between the Coronavirus pandemic, the Black Death pandemic in Europe in the 14th century, in which a third of the population died, and the so-called Spanish Flu in 1918, in which between 50 and 100 million died. In these pandemics, a serious economic, social and political crisis was generated. The population asked questions that were not answered; as a result, the people lost their confidence in the authorities.

Examples of this lost confidence in authorities during pandemics are plentiful throughout history. During the Black Plague, non-believers in the ruling religion were blamed for the appearance of the pandemic, but everyone died-religious and pagan, as well as rich and poor. Marco Polo wrote his report of the 17-year journey to the Mongol Empire, where there was religious tolerance, respect for autonomy in the cities, no taxes on doctors, freedom for women, and more. All of this was very different from the situation in Europe at the time, and they looked for answers in

classical philosophy. All of these factors gave rise to the greatest revolution in the 10,000 years since the Agrarian revolution, the Renaissance.

One common factor between pandemics is a desire to return to ‘normal.’ What is normal in today’s society? Some of the answers include: a) Money is more important than humanistic values and the care for the elderly and children; b) Today, when for the first time in 10,000 years, we have resources to lower infant mortality to less than 4 per thousand, to provide basic education, primary medical care and water to the entire world population, more than 3 trillions of dollars per year are provided for research and development of nuclear weapons and every 3.6 seconds a person dies of hunger, almost always a child under 3 years of age. c) There are conflicts between countries and terrorism around the world. Since the end of World War II, it is the first time that there is a high probability of a Third World War with the use of nuclear weapons. The World Press reported that, “In a dramatic escalation of tensions over Russia’s invasion of Ukraine, Russian president said in a meeting of top officials that the move was in response to leading NATO powers’ making what he called “aggressive statements.”⁴

In addition, during the COVID-19 pandemic, radical changes have occurred which are surely irreversible. These radical changes include: a) The development of vaccines in record time; b) Hospitalization of patients at home with nursing care, provision of controls and medications to that home; c) Distance work and teaching via the Internet; d) The development of efficient control and interaction between each person in the population

and the health authorities of all kinds. Perhaps in the case of the Coronavirus pandemic, there will be no such thing as a “return to normality.”

There are plans for the transformation of society, plans that are the result of the natural evolution of the economy. Among others, these plans include: a) The replacement of the money printed by the countries by virtual currencies issued by different questionable power factors⁵; b) Microchips implanted in people’s hands and brains⁶ to replace the use of passwords to enter computer programs and to be in permanent brain contact with computers and medical control systems 24 hours a day. Obviously, it will be under voluntary acceptance, but many will likely accept.

Many things have changed since Covid first began spreading around the world. Despite these changes, there are still areas of society that require our attention, based on the population and the humanist forces of society: a) The establishment of health, education, culture, and art as higher priorities in society than the power of money; b) Priority care of the elderly, children, those who are defenseless, handicapped, and the natural world; c) Greater appreciation of work and more tolerant treatment of cultures, ethnic groups, and religions among the variations of human populations; and d) The elimination of genocidal weapons, mainly nuclear, and the establishment of social contracts of peace and harmony between countries.

I have no doubt that in the near future, technological progress will continue to increase, but it is unclear how the total population, especially the elderly, will use the different types of technology and will be able to be adapt to the new realities without suffering too serious culture shocks in the process. I believe that the role of universities and other educational centers should include planning their programs with this in mind right now. That is going to be a great challenge to implement in societies around the world.

Despite all of the technological and scientific advancements our society has achieved, there is still much inequality of opportunities and terrible misery. Today, we write and publish books and articles, but we do not reach all of the population, since only a very small part of it can read and write and have access to the Internet. As I commented above, the risks of the use of nuclear weapons are still present, with the probability of a mass destruction completely different from destruction in the past from the use of the “conventional weapons”. Because of these threats, to achieve survival on Earth we must attain comprehensive peace in the world by creating a global agreement based on harmony. Worldwide implementation of the illegality of the initiation of wars by countries will be a new and revolutionary kind of instrument towards that objective. Can one of the results of the present pandemic generate the implementation of these proposals? We can be a positive factor in that.

I have no doubt that in the near future, technological progress will continue to increase, but it is unclear how the total population, especially the elderly, will use the different types of technology and will be able to be adapt to the new realities without suffering too serious culture shocks in the process.

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Outlook



Outlook for 2023

Prof. Dr. Thomas Prefi, Chairman of the Charlemagne Prize Foundation



In recent months, there has been a widespread perception that our society is simply jumping from crisis to crisis. The tranquillity of the economy, peace, and development appears to have vanished, giving once more way to problems that demand emergency-like responses.

This has advantages in terms of speed of action and decision-making processes but it also dismisses important issues that should not be underestimated.

Last year, hopes were raised that the lingering pandemic would now gradually come to an end, and that long-dormant issues might receive greater attention. This was followed in February by the imminent start of the war in Ukraine. Naturally, there was less time for conceptual and structural issues, which gave way to debates on security policy and technological developments, the distribution of forces and alliance policy in Europe and the world, as well as on questions of energy supply and greater independence from authoritarian regimes.

While research topics of the Charlemagne Prize Academy in previous years had already focused on security threats at the EU's external borders, the design of shorter supply chains, migration issues, and the promotion of intra-European cohesion, the projects of the current research year also adapted to the changing attentions. They are reflected in this report, which serves as a platform for the many social transformation processes.

We addressed aspects of future monetary policy, public communication of climate efforts, intra-European discourses on parity and intersectionality, and the regulation of AI. Explicitly, we dealt with the opportunities and risks of a digital euro, the framing of current climate policies against the fear of economic losses, the strengthening of European structures through the integration of diverse perspectives, and the military component within the European AI governance discourse.

All these issues will continue to be decisive for Europe's future as a confident player in the global arena. At the same time, they must continue to be supplemented with strategic aspects in order to ensure peace and prosperity across various times of crisis.



So, while in 2022 we focused on exploring how we can be sustainably successful in the context of various transformations, the coming research year will focus on analysing greater sovereignty in the wake of scientific and technological developments.

The European project, together with its international partners, is facing relevant changes. We are moving back from the euphoria of peace-keeping dependencies and partnerships to prioritizing individual expertise and independent developments.

In this spirit, we will support three projects in 2023 that deal with the global showdown and specifically illuminate individual fields of strategic sovereignty. On the one hand, this includes future energy diplomacy, which should look at the resilient safeguarding of European supply and, independent of current day-to-day politics, should develop an analysis of new possibilities and approaches.

In addition, the support for research and development will be examined more closely in a global comparison. While European research institutes are among the best in the world and there

is a clear mandate to commercialize their results for social, economic, and ecological input, it is important to find out how this process can be designed more effectively and how it can be politically promoted.

The third issue is how Europe should define and implement its role in space. In addition to the various technical and political initiatives of the EU bodies, it will be important to analyse how Europe can expand its capabilities in space and secure and link various interests.

The range of topics and exciting projects, talented personalities, and our network of young talent is growing from year to year. We are proud that we can continue our initiative in 2023.

Whether you refer to it as a "Zeitenwende", an upheaval, or a transformation period, priorities and approaches have changed the last year in every respect. We hope that by funding the relevant projects we can create a preview of a common, peaceful, and independent future and choose the right topics for successful progress.



"Particularly in times during which the future of the European Union is under scrutiny, the research projects of the Charlemagne Prize Academy provide an important contribution to the further development of the EU. Policy makers can find valuable inspiration for necessary decisions in the works of these researchers."

Karl-Heinz Lambertz,
Member of the Charlemagne Prize Academy's Advisory Committee



"In 2023 it is more important than ever for Europe to be a strong community that stands united and refuses to be divided. This cohesion is not only crucial to face the current geopolitical challenges and strengthen European sovereignty from security to energy, but also to shape our common future in a forward-looking and proactive way. Despite the multiple crises, Europe needs to foster progress towards a digital and sustainable future in order to remain a global leader in the long-term."

Angela Maas,
Board Member of the Charlemagne Prize Foundation



"I am confident that we will tackle the major challenges in the areas of climate, health, foreign policy, economy in 2023 in Europe together and in solidarity."

Katrin Boettger,
Member of the Charlemagne Prize Academy's Advisory Committee

New Fellows 2023

„Europe's Path to Strategic Sovereignty – How do we achieve an equitable and resilient reset?“



Lisa Becker
Research Topic: How can the EU leverage space to contribute to resilience, sustainability, and security on its path to strategic sovereignty?
Host Institution: Vrije Universiteit Brussel
Academic Mentor: Prof. Dr. Kai-Uwe Schrogl, Special Advisor for Political Affairs at the European Space Agency (ESA)



Sabine Kerssens
Research Topic: How can the EU leverage the scientific knowledge through deep tech start-ups, to strengthen its position in a changing world and achieve an equitable and resilient reset?
Host Institution: Techleap.nl
Academic Mentor: Prof. Dr. Erik Stam, Dean of the Utrecht University School of Economics



Christoph Erber
Research Topic: European Pipe(line) Dreams and Realities: Upgrading the EU's Energy Diplomacy Toolkit to Assess Future Partnerships
Host Institution: German Council on Foreign Relations (DGAP)
Academic Mentor: Guntram Wolff, Director of the German Council on Foreign Relations



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Initiators:

The idea of establishing the Charlemagne Prize Academy has been provided by Dr. Jürgen Linden, Chairman of the Charlemagne Prize Board of Directors and Prof. Dr. Thomas Prefi, Chairman of the Charlemagne Prize Foundation, comprising the the vision of bringing together young ideas on the future of Europe in the form of evidence-based research and policy analysis with the perspectives of decision-makers, providing solutions today for the challenges of tomorrow.

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Christine Dietrich (Conception and Management), Susanne Ziegler and Miriam Elze (Layout & Graphic Design)

Disclaimer:

This report includes the research findings of the projects implemented by independent researchers in course of a one-year Charlemagne Prize Fellowship, contributions of partners and supporters, as well as extracts from the Karlspreis Europa Summit, which took place 16 November 2022. The aim of this report is to illustrate possible challenges for Europe's future, as well as current proposals and approaches to solving them. The contents are based exclusively on the authors' thoughts, corresponding to the circumstances between October 2021 and December 2022 and have been formulated for public discussion on the relevant issues. We consequently do not endorse aspect of analysis in this report.

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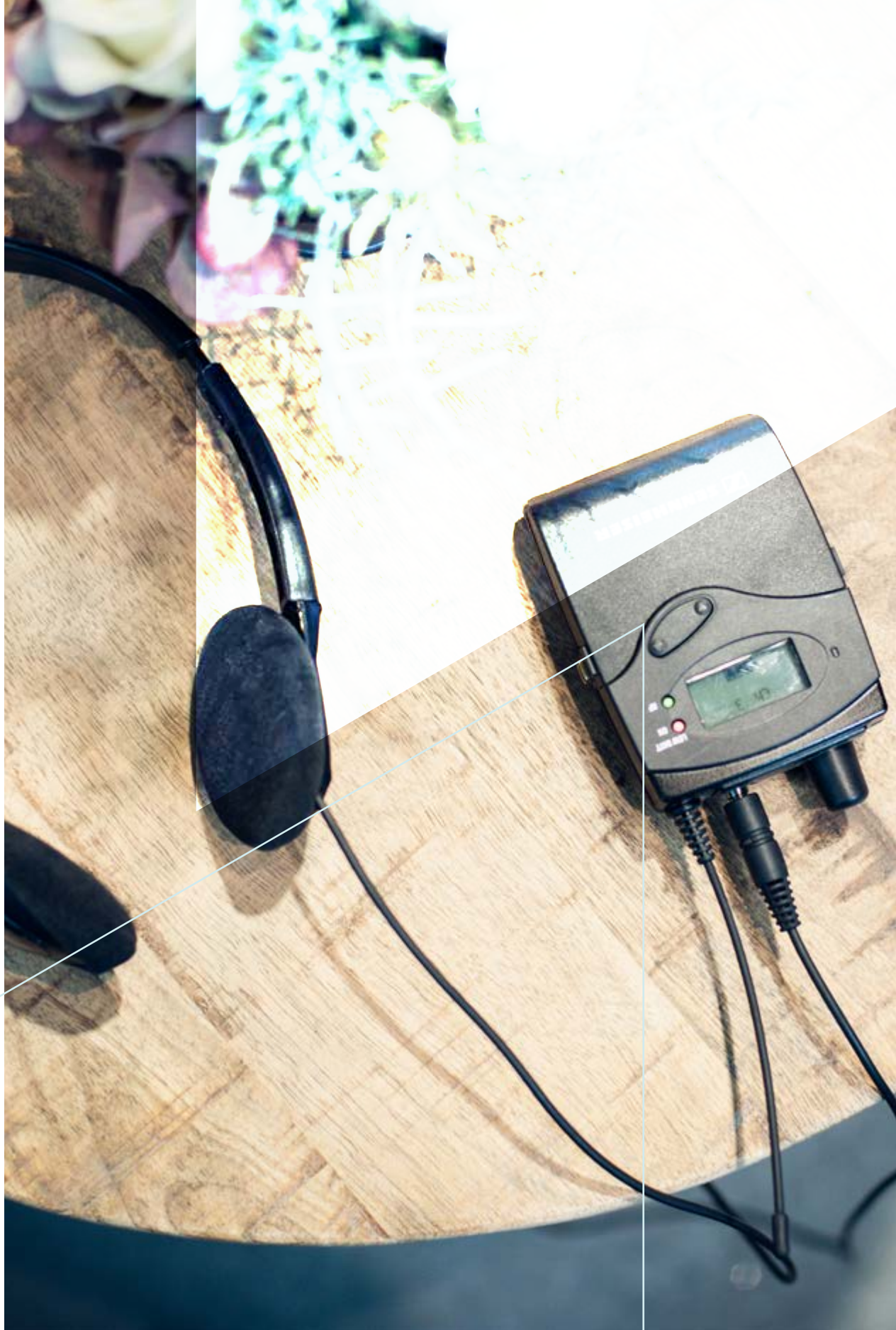
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