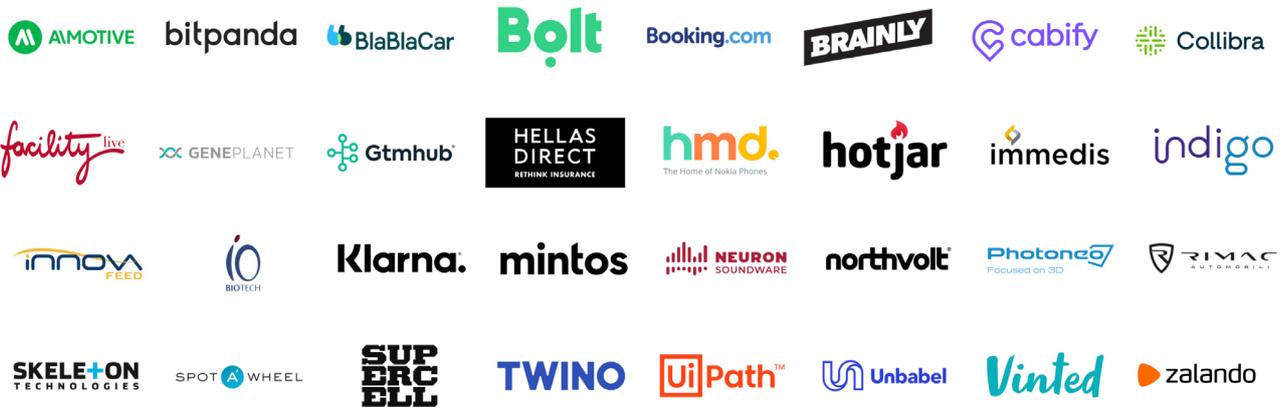


#NextInnovationEU

*EU Unicorns Call
on Europe
and Its Leaders*



The **Founders and CEOs of EU Unicorns** are **calling upon EU institutions (European Commission, Council and European Parliament)** and the **Member States** to come forward with a new **“European Moonshot”** in which the protagonists are the **new breed of innovators: software and hardware startups, deep tech and green tech startups.**

We call for a **“Next Innovation EU” plan with clear directions and ambitious flagships.** As successful Founders and CEOs of leading innovative ventures going global from across Europe, **we are sharing our experiences, our visions and our ideas to devise and co-create with EU Institutions together with the Member States the flagships** that will lead to the **rise of a European innovation ecosystem** to secure EU innovation and **tech leadership on a global scale.**

Where are we coming from?

The COVID-19 pandemic marks an epochal turning point, laying a new horizon full of new challenges adding up to many old ones. **All Europeans have finally woken up to the reality that:**

- **Europe is a follower in Digital that today is the de facto enabling technology.**
- **Green transformation is the new deal for a sustainable future.**
- **There will be neither a fully digital nor green transition without Research and Innovation and the proper funding for both.**
- **Europe needs to invest in talent and skills and the new generation of innovators.**
- **Innovation and technological adoption can be a source of divide, such as the Digital Divide and the Innovation Divide.**
- **The Public and Private sector need to work hand in hand, learning from each other.**

For the past three decades, within the institutional framework of the principle of subsidiarity, Industrial Policy, Research Programmes and Education and SME Strategies are the axes along which the EU has been investing significant effort and resources to various degrees. Financial Instruments have also been devised and tested, while competition policy and regulation have been used as a tool to try to rebalance a quasi-permanent status of market failure due to a **lack of European alternatives** - which ultimately is the reason for the current quasi-absolute **tech dependency of Europe in the Digital era**.

Technology is entering a new era, and new innovations have been emerging at an accelerated pace. Today's prominent example is the partly European moonshot leading to the first-ever mRNA-based vaccine, but software and hardware, deep and green tech are also areas where Europe cannot lag. After the manufacturing, the information and pharma, and the digital and biotech revolutions, deep tech takes the lion share in the new wave of innovation. Technologies such as synthetic biology, space tech, AI, quantum computing, nanotech, robotics, etc., are emerging and converging faster, though, to some extent, they are producing a tech hype we need to avoid. **This overall acceleration requires talents, skills, and an ecosystem connecting startups with investors, corporates, academia, and policymakers, SMEs, and citizens.**

A Lean Canvas for Next Innovation EU

The time has come for a Next Innovation EU, in which the protagonists are the new breed of innovators: software and hardware startups, deep tech and green tech startups.

Borrowing from the startup culture, we believe a lean canvas should inspire Next Innovation EU to be ready for execution: **What is the problem? What is the solution? For whom to execute? How to measure success? How to achieve critical mass? How to achieve impact?**

What is the problem?

The changing nature of innovation, along with the emergence of a multipolar world where strong actors have competing visions for society, presents several **key challenges for Europe's innovators**. These include **economic and regulatory fragmentation, the need to develop international partnerships, underdeveloped risk capital markets, deficits in larger funding rounds, lack of patient capital and a loss of leadership in several key industries**.

The EU is currently home to 7,2% of worldwide Unicorns. **The sum of the value of all EU Unicorns plus current EU tech and digital Champions already public is dwarfed by the value of today's non-EU Big Tech companies.** The emergence and leadership of private non-EU competitors, with unprecedented financial means, can obliterate the existing innovation dynamic and industrial position of the EU industry. The concentrated leadership and financial heft of companies based in the US and the Far East allow them to buy out potential disruptors, solidify industrial control, monopolise data, build scale, capture talent and ultimately control the global digital and tech agenda. **That presents a risk to growth, jobs, and Europe's influence in key strategic areas and Europe's (cyber) security.**

What is the solution?

We want a Europe leading the way in innovation on a global scale.

Next Innovation EU will have to **look at startups showing great execution, strong IP and deep science**, and a combination of these.

Innovation leadership needs a purpose. For instance, the digital and green transformation can create opportunities for a more inclusive growth. Digital is increasingly enabling smart working, but also “South working”, while green tech often requires production facilities that can be located in areas where economic underdevelopment and unemployment are the highest.

The Next Innovation EU moonshot will have to drive European innovation in **clear directions** to ensure that innovators' new generation **becomes the cornerstone to finding the solution to Europe's major challenges.**

These should be the main **directions**:

- A. Tech Sovereignty: ensuring Innovation produces a European Strategic Tech Autonomy via a “ScaleUp Europe” instrument nurturing European digital tech startups into EU global Tech Giants to realise the Digital Decade's objective.**
- B. Green Transformation: ensuring innovation contributes to a successful green transition. Ambitious objectives require discontinuity. Only startups have the mentality to cross the chasm.**
- C. Deep Tech Leadership: ensuring Europe's leadership in the next wave of innovation fuelled by deep science from “bits” to “atoms and bits”.**
- D. Innovation Cohesion: ensuring innovation becomes essential to territorial cohesion and growth in the EU. No one must be left behind, from cities to rural areas.**



These are the ambitious **flagships**, for each direction, for which we are calling upon Europe's leaders to execute:

1. **Tech sovereignty**
 - 1.1. **Sovereign EU Tech Fund**
 - 1.2. **Scaled Up Public Procurement**
2. **Green Transformation**
 - 2.1. **Sovereign EU Green Tech Fund**
 - 2.2. **Scaled Up Climate Partnership**
3. **Deep Tech Leadership**
 - 3.1. **Scaled Up IPCEI framework for deep tech**
 - 3.2. **EU Blue Card 2.0**
4. **Innovation Cohesion**
 - 4.1. **Small Valley**
 - 4.2. **Pan-EU Sandboxes**

For whom to execute?

The EU is the **world's largest trading block**.

The EU is the **world's largest trader of manufactured goods and services**.

The EU ranks **first in both inbound and outbound international investments**.

The EU is the **top trading partner for 80 countries**.

The EU is the **most open to developing countries**.

The EU is a **regulatory powerhouse** whose economic size allows it to become a **global standard setter**.

We are calling upon the **European Commission, Council, European Parliament and the Member States** to welcome and execute our lean canvas for the Next innovation EU moonshot.

How to measure success? How to achieve critical mass? How to achieve impact?

As Founders and CEOs of successful European ventures, we will **step up and become Europe's role model to inspire talents and skills development and attract more capital in Europe**. Under-represented **female founders have a huge role to play** to mobilise women, one of the most untapped resources we have.

Innovation is a culture. We must spread it via a **refreshed and clearly identifiable European storytelling on startups to enhance its reach** within academia, citizens, corporates, entrepreneurs, investors, and policymakers at **local, regional, national, European and international level**, like the US and the Far East are doing **on a global scale to promote their champions**.

Europe is not the US nor the Far East. We should take advantage of the strength of our diversity and strive to set up a network of **"Small Valleys"**, connecting the medium size creative cities built around a historical university (such as Pavia, Leuven, Varna, Salamanca, Uppsala, etc.) with efficient communication links, and with businesses tightly woven into the local fabric. One should be looking for places where the university, the city hall, and a startup cluster are all within walking distance from one another. **Such places offer the best opportunity to experiment** with new technologies, using the local community as a testing ground, especially if local authorities have an **open mindset about the innovation principle**.

We call on **EU Institutions** and the **Member States to cooperate more with each other**, exchange use cases and best practices to **plan, execute, measure and, monitor our proposed flagships**.

Public institutions play a fundamental role in determining a country's ranking in the worldwide race to innovation and technological leadership. Some public institutions are more prone to testing and implementing new technologies. Today, the US and the Far East are leading the pack also in terms of financial support to the development of homegrown innovation. Until recently, Silicon Valley was considered the example to follow worldwide because of Big Tech's success, which has become a **de-facto global standard in Digital**. China is now clearly trying to take the lead in deep tech areas such as AI.

National Recovery Plans offer a great opportunity to the Member States for digital and green transformation, to drive innovation and create future socio-economic growth opportunities. Governments should seize the opportunities offered by digital, deep and green tech **to develop in full the technological stack that would allow the EU to become a tech leader on the global scale**.

The public sector should act as a champion for innovation. **Reforming public procurement is critical**. Like in the US and the Far East, **the European public administration should lead by example, supporting the adoption of home-grown innovation**. Public funding and procurement should be made more "startup-friendly". More, new and innovative forms of international public-private partnerships are needed.

Flagship: Sovereign EU Tech Fund

What is the problem?

Europe is still a complex market, given its different cultures and consumer behaviours and languages and various degrees of difference in regulatory and legal frameworks. That has historically created a **very different mentality towards investments in Europe compared to the US and the Far East** - i.e., **a more conservative one**.

Startup founders aim to scale their business into a disruptive global company focusing on exponential growth and potential profit, relying on external funding - sharing profits and, at some levels, the control with investors. While **European investors tend to drip feed** their portfolio companies with financial means and link every new disbursement to stringent milestones, the US and Far East investors tend to be less conservative and disburse more significant amounts per deal for immediate use. European scaleups have to compete with non-EU scaleups, which receive a lot more funding and move faster. While funding for seed and early-stage companies is relatively easy (small rounds), **late-stage rounds in Europe are fewer and smaller. The total amount and the average per transaction are significantly lower**. Despite the myth of the young entrepreneur in a garage, the data suggests that **successful scaling requires ten years, a team of founders aged around 45 and hundreds of millions of patient capital**. In line with the EU's Digital Decade Communication, **ten years should then be the ideal time horizon** to ensure **Europe** can gear up while ensuring it can reach the target to grow scaleups and finance **to double EU Unicorns**.

What is the solution?

Europe should build a **strong vision** and **execute a plan** to lead on the global scale via digital and tech development, **embedding Europe's unique values**, like the respect of human rights, freedom, democracy, equality, and the rule of law. These values are the vital foundation **to build a vision strategically different** from the US and the Far East. The ultimate goal would be **to attract top breed entrepreneurs** setting up their ventures, **to crowd in international investors** to fund them, **to secure the best talent** to work for them and **to enable citizens to enjoy bespoke sovereign European digital and tech** in the continent offering the best standard of living worldwide.

A dedicated European Sovereign Tech Fund would pool EU-wide efforts to ensure Europe is

heading in the right direction to secure economic sovereignty, protect long-term prosperity and well-being, and maintain, safeguard and develop its strategic interest in particular in the industrial sectors of tomorrow. The fund should use European Public Funding to **leverage at least EUR 100 billion in public/private funding to anchor European champions** and so **crowd in private capital**. The fund's operating model should have a **long-term, equity-based focus with a commercial, profit-oriented model**. Philanthropists and tech Founders deciding to join and invest part of their wealth could play a pivotal role for innovation Made-in-Europe and create the **"Giving Back" effect** that is often **key to a thriving innovation ecosystem**. Allowing retail investors to chip in would play an essential role in promoting the fund and **stimulating the adoption** of the solutions funded, and creating a **greater sense of engagement of citizens towards Europe** and the importance of collectively contributing to its construction and goals.

The European Sovereign Tech Fund would also stimulate the emergence of an **adequate level of competent fund managers** with a sound knowledge of digital and tech, especially in deep tech. **Cutting the red tape** and shortening the time-to-cash (**maximum six months of funding cash-in**) would need to be tackled - including for other EU funding sources in the preceding growth stage such as the EIC and EIT. **Alternative funding models should also be explored**, such as revenue sharing models going beyond equity and loans. An example would be a convertible note converting into revenue or a grant if a project fails. To crowd in more investment, Europe needs high-quality IPOs. **The fund should also contribute to make Europe the best place for European digital, tech and deep tech companies' IPOs**. Exits should happen in Europe **to stop the current flow outside the EU**, especially towards the US.

For whom to execute?

The EU and the Member States must **deliver appropriate financial and investment conditions** to help **European digital and tech champions to scale up**. Such companies need fast and lean R&D funding, suitable and favourable conditions for investment in equity for the broadest audience, and the development of employee stock options and pension rights portability. Ultimately, the **government's role is to build an environment attracting entrepreneurs, investors and delivering on innovation leadership**. **National Recovery and Resilience Plans** offer a **unique opportunity** for an inspiring vision based on attractive and investment-friendly taxation, favourable regulation (e.g., for listing), tailored and robust education, and well-functioning capital markets across the EU to serve companies of different sizes and in all the various growth stages.

How to measure success? How to achieve critical mass? How to achieve impact?

The **Digital Decade** sets the **ambitious target** to grow scaleups and finance to **double EU Unicorns**. This target should serve as the primary metric. Nonetheless, **a target for unicorns with female founders should be included. Leading indicators would be essential** to monitor the roadmap towards the target. Good leading indicators would be government investment, equity investments, valuations and IP portfolio value, workforce income, and export value in digital and tech, especially deep tech.

Founders and CEOs would be the **role models** to increase the **appeal of the European investment scene**. Governments would **benefit from sector growth in the form of tax income**. Entrepreneurs would **benefit from the best business-friendly environment and access to funding**. European citizens would enjoy the **benefits of economic growth and opportunities to develop**.

Flagship: Scaled Up Public Procurement

What is the problem?

Europe is strong in R&D and deep tech in academia, but has **fallen behind** the US and the Far East due to **lack of commercialisation opportunities**. The **go-to-market strategy of deep tech startups** is usually **more complex** than that for other startups because their products are based on a **new technology that requires a longer development time**. Technology risk and complexity arise from the fact that **deep tech startups often use innovative technologies that require a lower technology readiness level**. Typically, after proving a technology in lab conditions, a startup still faces a long road in turning it into a demonstrated and tested solution.

However, different weights are to be put on technology risk versus market risk: **successfully resolving market risk does appear to generate more reward than resolving technical risk**. In addition, the products created by deep tech startups can develop new markets and **provide opportunities to solve challenges that couldn't be addressed in the past** with other technological means.

Innovation isn't linear, and what people might find useful, desirable, and eventually essential isn't known until the possibilities are explored. The **combined value of European-founded**

deep tech companies is around **EUR 700 billion and growing**. The BioNTech vaccine is the perfect example. Those years of research and perseverance from its founders to develop an ‘uncertain technology’, long before incumbents saw its value, ultimately enabled them to create the vaccine in record time.

What is the solution?

In addition to government funding, the **public sector** can support deep tech startups by **acting as a catalyst and champion for innovation**. **Public procurement offers an enormous potential market** for innovative products and services. Used strategically, it can help governments boost innovation at both the national and local levels and ultimately improve productivity, inclusiveness and progress.

Public procurement accounts for about 14% of the European Union’s (EU) gross domestic product - meaning it has enormous potential to guide new developments in a range of sectors, **help to stimulate future markets, and address key societal challenges**.

We need an innovation-oriented public sector procurement policy that would **include a platform, substantial funding to buy early-stage innovations, and a clear mandate to take risks**. The policy could take the shape of a public sector instrument that funds such innovative solutions, including AI-based solutions. **The public sector could also join forces with the industry and academia** to carry out a broad range of research, prototyping, and production activities. The partnership could imply buying the process or the outcome of the innovation, or both. In one case, it would mean the public buyer would describe its need, and procure businesses and researchers to develop innovative products, services or processes to meet the need. In the other case, the **public buyer** would act as an **early adopter**.

The public sector should play a stronger role, becoming a champion and an early, supportive adopter of frontier technology, **mobilizing and streamlining procurement processes** to help support the development of deep tech leadership in Europe. By following this approach, the public sector would **help mitigate the market risk** faced by deep tech startups and help suppliers transition towards lower-cost, scalable and reliable production.

For whom to execute?

The European Commission, in particular DG COMP, DG REGIO and DG GROW. But the Joint Research Center (JRC) would play a crucial role providing foresight and a roadmap for the deep tech solutions in the public sector that should be considered eligible under the program.

The Member States must ensure funding, plan strategic directions, share good practices. To help disseminate innovative solutions and the transfer of expertise across the EU, the European Commission should work with Member States on **setting up a platform for sharing best practices, use cases and success stories, based on the model used for emerging technologies in public procurement.**

How to measure success? How to achieve critical mass? How to achieve impact?

To achieve impact, **a large enough number of startups and scaleups must benefit** from this public procurement policy and we should also **evaluate numbers of innovations bought.** Governments should also **use this procurement policy to set up targets of modernization and digitization in all areas** of the public sector, such as health and education.

Flagship: Sovereign EU Green Tech Fund

What is the problem?

The **transition to a climate-neutral, climate-resilient and environmentally sustainable economy will require significant investments.** Achieving the current 2030 climate and energy targets requires **EUR 260 billion** additional investments annually. This figure mainly includes energy-related investments, buildings and part of the transport sector (vehicles), and other sectors like agriculture or the support to the circular and blue economy, as well as for human capital and social investments related to the transition.

The role of the **startups are key** considering that **digitalisation is a crucial enabler for the Green Deal.** Substantial investment in European strategic digital capacities, as well as in the development and wide deployment of top digital technologies and solutions will deliver smart, innovative and tailored solutions to tackle climate-related concerns in such fields as energy

savings and storage, shared mobility, agriculture, etc. On the other hand, this kind of green investment can **often be very capex intensive since the early stages**, and startups have unique funding needs related with fast growing innovative companies. Although there are many different instruments that will mobilize green investments in the near future, **startups will need specific considerations to be part of this plan and accelerate green innovation.**

What is the solution?

To establish a **Green Tech Fund** with the ambition to use European public funding to **leverage at least EUR 10 billion in public/private funding to anchor European champions** and so **crowd in private capital**. The operating model of the fund should have a **long-term focus**, as green-tech **startups and scaleups** can often be **very capex intensive** and have much **longer time-to-market and time-to-profit than average**. **Financing model** should be **diverse and tailored** against potential beneficiary's situation **related to technology maturity/readiness level**, including its first industrial deployment, and company's life stage (startup or scaleup) can include equity investments, grants, convertible loans, subsidized loans, revenue sharing models etc. **To grant access to the fund**, but most important to **give certainty that the goals are aligned with the European Green Deal**, it could be **necessary for the startups to meet certain conditions like justifying the potential positive impact on the environment at scale among others.**

For whom to execute?

The implementation has to be discussed and **executed at a EU level**, as the **European Investment Bank** will become the Union's climate bank according to the **Sustainable Europe Investment Plan** and the **European Green Deal**. It has announced it will gradually increase the share of its financing dedicated to climate action and environmental sustainability to reach 50% of its operations in 2025. **Also cooperation with other private financial institutions will be crucial** and it is very **important to attract private investment**. Considering that this investment needed for the transition entails more risk than the private sector can bear alone, this is where **public funds can be used in a targeted manner to de-risk projects and leverage private financing.**

How to measure success? How to achieve critical mass? How to achieve impact?

Number of startups and scaleups that have **access to this green fund**. Amount of **money invested by 2025** and by **2030**. Number of green tech startups that have benefited from this fund

and that have become a **unicorn by 2030**. Ratio money invested vs carbon savings.

Flagship: Scaled Up Climate Partnership

What is the problem?

Transitioning to a climate-neutral, climate-resilient and environmentally sustainable economy is one of the key challenges we currently face as a society. At the international level, **Europe shall be leading this change and pave the way towards a greener future.**

In this path, **startups have a key role to play**, by creating and developing the **innovations in technology or usage that will enable this necessary and urgent transition** to tackle climate change. However, this positive role should not hide the fact **digital** usage, while being a critical enabler for smart, innovative and tailored solutions to tackle climate-related concerns, are all **also part of the problem**: the production, use and data transfer of digital devices are **responsible for 2.3 – 3.7 percent of global CO₂ emissions.**

What is the solution?

Given those elements, we believe **European tech** companies shall embrace this challenge and **become leaders and models for other industries.** To do so, European startups should **commit to becoming fully carbon neutral by 2030**, whether through the carbon savings the product or service they developed enabled or by compensating their carbon footprint through the European carbon voluntary market.

Indeed, **such a commitment would bear an inherent financial cost** that might not be sustainable for the economic development of early stage startups. As a consequence, **only startups counting more than 50 employees** could be expected to have the financial health to implement such a policy.

Such an industry-wide commitment, one decade ahead of the objectives set by the Paris Agreement, would not only highlight the responsible behaviour of the European tech sector in the fight against climate change, its purpose is also to **set new standards that would have the potential to inspire other industries and other startups across the globe**, outside of Europe, and incentivize them to follow the same path.

For whom to execute?

The implementation has to be discussed and executed at the **private sector level, among startups.**

How to measure success? How to achieve critical mass? How to achieve impact?

Number of 50+ employee startups operating in Europe being **carbon neutral by 2030**. **Percentage of 250+ businesses** operating in Europe, **outside of the tech sector**, being carbon neutral by 2030

Flagship: Scaled Up IPCEI Framework for Deep Tech

What is the problem?

It takes more time and capital to build a deep tech startup and scale it up to serial/mass production because of long tech development & sales cycles, and high capital intensity of R&D and first industrial deployment phase. Also, technology might be well developed, but its application on the market (innovation) might be difficult due to different reasons, such as **underdeveloped value (supply) chain, no commercial viability, no social readiness** etc. Current **funding and financing options for large scale innovation projects important for development of European deep tech industry are inadequate** because they cannot tackle all of those problems at the same time or with desired impact. Scaleups can either turn to **equity financing** which is **at a certain point not a strategically preferred option**; or to **commercial banks** where there is a **high information asymmetry** which **affects negatively on lending conditions** (if any given). In some countries, there are cohesion policy **grant schemes available which are mostly too low in value** to boost real scaling. At EU level, **Horizon 2020** (Europe) is very competitive and thus is an **unreliable source of financing for scaleups**, and also intended only for the RDI phase of the project. **EIT** (KICs) innovation financing schemes don't reflect EU open research/innovation/market principles since **access to funding depends on paying rather high memberships fees**, which perpetuates the **innovation divide**, not only between EU Member States, but also between already established industrial players and startups/scaleups.

In essence, **current funding options** have at least one, and some of them several of these features:

- **fragmented** in terms of supporting only one part or phase of the project
- **substantially lower in value**, insufficient to boost real growth
- **limited access**
- **lack integrative elements in connecting partners** in collaborative projects and supply chain that can have positive effect on the overall industry development

Since 2017, the EU (DG COMP) has **approved three different IPCEI** projects (microelectronics and battery innovation) worth **EUR 7.85 billion**. This shows that **the EU has a good instrument at hand** that tackles many of the mentioned flaws of other existing schemes, and that can be further used to support large scale deep tech scaleup and really make an impact. However, there are **two problematic aspects of IPCEI**. First is that **capex investment costs are not deemed as eligible** project costs. First industrial deployment (FID) is regarded as an eligible project phase, up until the start of mass production. However, the eligible cost in both R&D and FID phase don't include covering CAPEX investment, **i.e., the IPCEI regulation does not cover CAPEX investment necessary in such projects to provide for infrastructure for innovation project realization**. And the second comes from the fact that **IPCEI funding for each participant depends on their respective Member State financing rules** and decisions causing discrepancies in national procedures that follow the EC notification. For a Member State that plans to use **structural funds there is yet another lengthy assessment needed**, for which another set of project application documentation needs to be prepared to be approved by DG REGIO. **Needless to say, such a procedure can last 1-2 years, making the initial project application irrelevant**. This in turn has negative impact not only on the direct partner in stake, but on the overall IPCEI project since it should have an integrative, value-chain character, assuming realization of planned partnerships amongst project participants.

What is the solution?

Use the **European Battery Alliance's blueprint** for other deep tech verticals: quantum computing, 6G and hydrogen. **Change the regulation** (EC Communication on IPCEI) **so that CAPEX investment costs** (not just depreciation costs) for high CAPEX intensive projects **should also be supported**. Having in mind the market failure concept and adequacy of policy mix for each phase (e.g. different aid intensity). **Financing mechanisms for each project partner should be harmonized and synchronized** enabling equal project start date and successful project

implementation, based on the EC (DG COMP) notification sufficient for awarding the contract at Member State level. **Interservice policy coordination needs to be done before and not after notification.**

For whom to execute?

Regulation and policy integration at **EU level** (DG COMP, DG REGIO, etc.), while **Member States ensure funding, plan strategic directions, engage scaleups in deep tech.**

How to measure success? How to achieve critical mass? How to achieve impact?

Number of new IPCEI projects in deep tech approved. Number of project partners awarded the aid contract – total and in line with the planned project start. More transparency on how to get involved in an IPCEI project.

Flagship: EU Blue Card 2.0

What is the problem?

To develop world-class innovation in Europe, to compete with other global actors and to spur global economic success, companies and EU Member States are highly dependent on **talent.** The access to talent can be secured either by **ensuring the availability of “homegrown” talent through education** in Europe or by **being able to attract talented individuals** from outside of the EU. In practice **you need both to succeed.**

A major and long-standing bottleneck for European companies and countries **to attract talent outside of the EEA is the outdated, cumbersome and lengthy immigration process** in the EU Member States. Acknowledging these difficulties, **the EU Blue Card program (2009/50/EC) was introduced** by the EU in order **to offer a “fast-track” entry** for highly-skilled workers to the market. Under the current EU Blue Card program, the **“fast-track” applications should not take more than 90 days** to process. If we are truly serious about attracting top global talent to Europe; **we need to be much more ambitious.**

What is the solution?

The EU should upgrade the EU Blue Card program with procedural safeguards ensuring that Blue Card **applications** for talent (and their families) **are processed within a week** from submission. To make it possible, the EU should **ear-mark funding for supporting EU Member States in the upgrade of their immigration processes** to enable them to comply with the proposed application deadlines. Whilst upgrading the application processing safeguards, **some of the current EU Blue Card admission criteria should also be revisited**. For example, the requirement for a **higher education degree may not be relevant in some professions**, such as in **programming**, based on previous professional experience and as long as the Blue Card salary requirements are met. Generally, **easing unnecessary visa restrictions for non-EU nationals would facilitate the recruitment of the best worldwide talents**.

This flagship would make the **EU a global leader in being able to welcome top talent** in Europe smoothly and it would send a powerful message that Europe is an attractive opportunity for the world's best talent.

For whom to execute?

The EU together with the Member States should update the directive. The **Member States implement subsequent national legislation** where needed. **Member States should upgrade their immigration process** in order to comply with the directive. The EU Should provide **funding to support implementation efforts where needed**.

How to measure success? How to achieve critical mass? How to achieve impact?

Number of top talent entering the market annually, application processing times achieved, etc.

Flagship: Small Valleys

What is the problem?

Digital and tech innovation tends to be **concentrated mainly in few leading hubs**. That usual-

ly offers a competitive advantage over other smaller or less developed hubs. **Smaller or rural regions often lag in digital** transformation. In these regions, **local businesses**, mainly SMEs, could benefit the most from an enabling environment to support them **fully tapping their digital and innovation potential**. Europe is not the US, nor the Far East. Despite the young entrepreneur's stereotype in a garage, the data suggests that successful scaling requires ten years, a team of founders aged around 45 and hundreds of millions of patient capital. In line with the EU's Digital Decade Communication, **ten years should then be the ideal time horizon** to ensure Europe can gear up while providing **no one is left behind**.

What is the solution?

Europe's strength lies in its diversity. One should be looking for **places where the university, the city hall, and a startup cluster are all within walking distance from one another**, with efficient communication links and with businesses tightly woven into the local fabric. **Such places offer the best opportunity to experiment with new technologies**, using the local community as a testing ground, especially if local authorities have an **open mindset about the innovation principle**. Places where academia, startups, SMEs, corporates, investors, public institutions and citizens work collaboratively offer the best opportunity to create an enabling innovation environment. That provides **fertile ground for startups and supports improving local SMEs' competitiveness, including acquiring more easily the digital skills** (e.g., data analytics) and tools (e.g., digital marketing) necessary to go digital and tap on all the opportunities it offers. SMEs are the backbone of Europe's economy. They represent 99% of all business in the EU. Supporting them open up to a global audience, be it **offering local goods for sale globally, accommodation or transport services online, etc.**, can **boost the economy of a region** - and, by extension, of the EU, since for instance, tourism accounts for 10% of Europe's GDP and one in ten Europeans lives on tourism. **To achieve this, however, the underlying full tech stack (connectivity, hardware and software) must exist, be fully available and adequately regulated, and easy to use.**

We should then take advantage of our strength and strive to **set up a "Small Valleys" network, connecting the medium-sized creative cities built around a historical university**. Small Valleys are the missing and most crucial link to bridge between rural areas and "Scaleup cities" (Berlin, Amsterdam, Paris, Barcelona, Stockholm, etc.), and so tackle the digital and innovation divides. **Some of Europe's most prime examples of Small Valleys include Pavia, Leuven, Salamanca, Varna and Uppsala, but others exist.** Building a thriving innovation ecosystem requires a **change of mentality towards failure**. Small Valleys are the perfect place for that. Each and everyone would provide the best local platform for citizens, academia, entrepre-

neurs of any size and public institutions to tap into the knowledge and experience of Founders, CEOs and former executives of successful startups. Overall Small Valleys could represent the “Big Bang” to push European digital and tech entrepreneurs **to join forces for a European interoperable platform for apps and services made in Europe**. Such a marketplace should be open to all apps and services developed and hosted in Europe and certified as fully respectful of Europe’s unique values, such as human rights, freedom, democracy, equality, and the rule of law. A fairer revenue level would be granted to app and services developers, with preferred EU-based payment solutions - another area where Europe needs to do better - while **ensuring appropriate tariffs on data usage**.

For whom to execute?

The EU, together with the Member States, should design a **framework based on the innovation principle** enabling the **emergence of local “Pacts for Small Valleys”**, which would allow public institutions, citizens, academia, startups, SMEs, corporates and investors to test innovative solutions, but also to co-design and co-create new ones. **National Recovery and Resilience Plans offer a unique opportunity for the Member States to channel an increased level of resources to Small Valleys**, and so tackling SMEs digitisation and skills development too, but also to design tax schemes allowing institutional, corporate and retail investors to invest significantly and thus co-participate in the selection and the scaling-up of the best solutions developed by a Small Valley. Ultimately improving collaboration between academia, citizens, corporates, investors, startups, and SMEs within a Small Valley model is a must to design the best training for students and companies.

How to measure success? How to achieve critical mass? How to achieve impact?

The Digital Decade sets some ambitious targets. Those targets should serve as the primary metric. **Sub-targets, e.g., employed ICT specialists in critical sectors** of the European economy - including tourism and retail - should also be set, **acknowledging digital marketing skills as an essential skill**. Nonetheless, a target for unicorns with female founders should be included, emphasising an **EU alignment of incentives for home/work balance and parental sabbaticals**. **Within a year, each Member State in agreement with the European Commission, European Parliament and Committee of the Regions, should nominate its first Small Valley spearheading the model and acting as a champion at the national and EU level**.

To make change, **role models are essential**. Local “TED-style” events and startup/innovation competitions organised by public authorities would offer the solution to many local challenges that could eventually scale at regional, national, European and even global level. A Small Valley “Eurovision-style” annual event broadcasted across all media (online and on national TVs and radios) would offer a great EU stage to showcase them. An EU permanent Council of Small Valleys should be set up to meet regularly with the relevant European Commissioners, report on results, best practices and problems, and propose, discuss, and co-design solutions.

Flagship: Pan-EU Sandboxes

What is the problem?

Europe would be the third largest market by population if it was one country. In reality today it is often a very fragmented market with various regulations across each country, which creates artificial obstacles for companies to test out new products on a larger audience and scale efficiently. That leaves companies in the EU behind their peers in the US and the Far East, who can test the products much faster, gain momentum and size, and with more experience come and buy up European companies or compete more aggressively in similar fields. Europe needs a frictionless way for innovative companies to access the EU market as one common market.

What is the solution?

We need to achieve that **new product ideas can be tested throughout Europe irrespective of where the company is located within the EU** and do it really fast - waiting for months or often more than a year to get approvals or feedback from a number of various regulators scattered in different countries in many cases might be a death sentence to innovative ideas.

Pan-EU sandbox would mean a one stop-shop for any company, as it would be automatically eligible to offer its products and services throughout the entire EU (subject to conditions) once accepted into the regime.

For whom to execute?

European Commission and Member States should agree on the areas and industries in

which innovative companies should have **access to the pan-EU sandbox**. As a minimum these should be companies operating in the financial, technology, and transportation sectors. From the EU there should also **be applicable legislation** to the effect that individual EU Member States' regulatory bodies do not have barriers for services provided by the company if a particular company is accepted in the pan-EU sandbox.

Relevant **trade associations** should be both actively **promoting** this opportunity and **assisting** with **helping the companies** to apply for the pan-EU sandbox.

How to measure success? How to achieve critical mass? How to achieve impact?

Consumers in the EU, both businesses and individuals, will enjoy **much faster and unrestricted adoption of new innovative solutions**. Companies in the EU who are providing these services can **grow and scale much faster**, in such a way making a much stronger foothold in their respective area and be more **resilient towards external (non-EU) competition**. **EU Member States' legislators and regulators** should **monitor and assess the adequacy** of regulatory requirements in light of new business models and technologies in a controlled testing environment and learn much faster about new services being offered.

At EU level we should **identify five strategically and economically important sectors/industries** for implementation of a pan-EU (supranational) sandbox and assess feasibility, within a timeframe of three months. **Test and develop five ideas** in the pan-EU sandbox that are passported to other countries **within 6 months** since the launch of the sandbox. **Set fundraising volumes by pan-EU sandbox companies**. **Aim for a minimum of 3 new patents filed within the first 6-12 months** of the pan-EU sandbox existence.

There are **two options to reach the goal** and these could vary by industry, depending on what is already existing and working to avoid excessive red tape or forming of extra institutions. The first option would be that there is **a central EU institution for each industry that accepts the company in the pan-EU sandbox**. This would mean identical treatment for each company applying, as well as avoid possibility for different interpretations of the sandbox guidelines by each Member State. The downside would be that such an institution might be less or unevenly accessible to different companies from different member states. The other option would be that each **Member States' regulator could make the decision for acceptance**, which would then be applicable for other Member States. The upside for such an approach would be the



speed and accessibility, while the downside would be different, potentially overly conservative approaches by some of the Member States.

Whatever the approach, we are optimistic that this can be done fast and in an effective manner. Fast because **we can use much of the already existing infrastructure or approaches developed**. For example, **in the financial sector there are a number of sandbox guidelines already** provided by some Member States, there are supranational bodies (such as EBA, ESMA, EIOPA) that could be the single entity responsible for this, or if we go the other way of each Member state approving participants - **we can use the examples of the Regulation (EU) 2020/1503 of the European Parliament and of the Council of 7 October 2020 on European crowdfunding service providers** for business, where each Member state regulator can accept a company while ensuring it is registered in the common crowdfunding service provider register, in order to be able to provide services throughout the European Union.