



Climate KIC response to EU Startup and Scaleup Strategy

Call for evidence, March 2025

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1. Introduction

As a leading European initiative committed to driving climate innovation across cities, regions, countries in Europe and globally, Climate KIC is responding to the European Commission call for evidence for the upcoming EU Startup and Scaleup Strategy. This document presents our response, grounded in 15 years of experience in venture building and ecosystem development. In this document, we concentrate on the call's questions (2) 'Are there any additional hurdles faced by startups and/or scaleups'? and (3) 'What actions do you think the EU and/or its Member States should take to address these hurdles?' We also confirm that the fragmented single market poses major challenges to scaling innovation.

In particular, Climate KIC would like to offer insights and evidence on the **pivotal role of startups, scaleups and** innovative SMEs in Climate Adaptation and Mitigation in Europe; how 'competitive sustainability'¹ helps to achieve resilience², security and strategic autonomy of the EU; and how consciously directional funding will contribute to scaling-up of startups across the Single Market with the aim of creating lead markets and transforming systems.

At the heart of our response is the following message: scaling up startups in Europe should not be an isolated pursuit focused solely on rapid economic growth but rather a structured and integrated process that aligns with solving pressing societal challenges – most notably, social cohesion, climate and environmental changes – in order to achieve prosperity and resilience. Furthermore, success depends not only on access to venture capital but also on the ability to scale within the EU Single Market, on leveraging demand from cities and regions, integrating into value chains, and benefiting from coherent regulatory and financial frameworks.

Realising the full potential of climate solutions requires a concerted global effort, a shift in mindsets, and a stronger focus on demand-driven initiatives. At Climate KIC, we prioritise **bridging the gap between the supply of climate innovation and the demand for them, thereby accelerating this change across the EU and globally.**

Climate KIC works towards realising a world where innovation is not just about breakthrough ideas but about integrating solutions that collectively address the climate and resources crisis – **demonstrating how competitiveness is based on sustainable solutions that constitute Europe's unique competitive advantage.**

The EU's ambition for **competitive sustainability cannot be realized solely by nurturing individual tech unicorns**. The European Innovation Council is already, usefully, playing the role of a public VC. The EIT Community of KICs creates the fertile soil that can enable European startups and scaleups to form around critical societal challenges and transformation needs and achieve the critical mass necessary to create lead markets in the EU. The EIT's unique value proposition lies in **orchestrated innovation ecosystems** that function as multi-dimensional networks, inherently interdisciplinary, diverse, densely connected, responding to the need for social as well as economic transformation. What this makes possible is a combination of early stage solutions, nurtured through high technology uncertainty; development of social innovation and social change approaches that are necessary components for behavioural change and solutions adoption; blending of research, innovation and policy shaping in order to address

² Sustainability principles and guidance (e.g. the ESRSs underpinning the CSRD directive) allow companies to identify their financial and operational risks, which will affect them in medium to long term (WEF Global Risks Report 2025 <u>https://reports.weforum.org/docs/WEF_Global_Risks_Report_2025.pdf</u>)





¹ 'Competitive sustainability' is not the same as 'sustainable competitiveness'. By developing a competitiveness model that incorporates value from green, social, and public investment, the EU can adopt a more forward-looking, integrated, and resilient approach, potentially outperforming competitors. <u>https://www.bruegel.org/opinion-piece/going-beyond-draghi-secure-sustainable-eu-competitiveness-deal</u>



systems change design and integration; orchestration of interdependencies that are fundamental to infrastructural change but not discrete enough to be a single investable product or service; investment in skills, capabilities and mindset that are not yet mainstream; and above all **nurturing cross-border collaborations and interregional partnership building to ensure that Europe is able to consolidate innovation excellence into true competitiveness.** Start-ups, no matter how brilliant, are not sufficient to achieve effective structural and systemic change outcomes without the work needed to integrate solutions with infrastructure, policy, capabilities and finance. The KICs are uniquely positioned in Europe to do that.

Based on our experience developing startups and scaleup in service of both impact and competitiveness, **a broadbased approach is needed - one that stems from place-based innovations, looks into already existing industries, and supply chains to accelerate the deployment of climate solutions across Europe**. One that uses the power of technology, including Al³, to analyse, model and accelerate the complex transitions. Systems change means that a good solution for one challenge can be detrimental in other system or context. This requires a shift from focusing on a few high-profile startup success stories toward fostering a "fleet strategy," where startups scale in the context of and to the benefit of the transforming cities, regions, industries, and systems.

Turning them into resilient, secure, strategically autonomous and globally competitive places, is the goal which will also help close the gap between citizens' actual expectations⁴ and what economy delivers today.

This document explores:

- 1. **Climate-KIC approach** to building ventures and impact through working with place-based innovation (cities, regions, countries); public and private entities and innovation for changing systems
- 2. The key structural hurdles that startups and scaleups face in the EU, including financing, regulatory fragmentation, and single market inefficiencies.
- 3. The demand-side pull of climate innovation, emphasizing the role of cities, regions, and public procurement as major drivers for lead markets in sustainable solutions.
- 4. How a redefined success metric, focused on 'impact unicorns' can deliver on Europe's objectives for thriving economy and citizens⁵ the European values based model.

Scaling climate-focused startups should not be left solely to venture capital markets; it must be a strategic, coordinated effort between entrepreneurs, policymakers, public institutions, industry, and financial actors across the EU Single Market. By leveraging systemic transformation, policy innovation, and cross-border collaboration, Europe can build a startup and scaleup strategy that does not just compete globally—but leads in delivering sustainable, mission-driven change.

https://www.systemstransformationhub.org/#current-activities



³ According to the World Economic Forum, solutions like AI – can have an immense positive impact in accelerating the needed solutions but only if they are strategically directed (<u>https://www.weforum.org/stories/2024/02/ai-combat-climate-change</u>). Scarce resources mean their application must be strategic and directional (e.g. dual use). Climate KIC has developed tools to assess such directionality in innovation ventures.

⁴ Support for Climate Policies: 88% of respondents in the EU Eurobarometer agree that greenhouse gas emissions should be minimized to achieve a climate-neutral EU economy by 2050. Additionally, 87% believe their national governments should increase renewable energy use, and 86% support actions to improve energy efficiency by 2030.

⁵ Systems Transformation Hub 2nd Policy Brief 'Building a secure and thriving Europe'



Climate KIC's experience, venture-building tools, and impact-driven investment models offer valuable insights into how this can be achieved. This document outlines concrete recommendations, specific examples, and a vision for an EU startup ecosystem that is truly fit for the future.

2. Context and relevance of Climate KIC operations

Europe aims to maintain its global competitiveness, and a crucial part of that effort lies in building on our unique **European model**, committed to a thriving economy serving people and operating within planetary boundaries. We have all the necessary elements to achieve this vision: public authorities, particularly in cities and regions, are engaging to deliver on a climate neutral vision; industry has a regulatory landscape that is comprehensively signposted in the direction needed; and through **innovators** (startups and SMEs, as well as incumbents) Europe has access to the necessary solutions and capabilities to adapt and evolve so that sustainability becomes better and better for business.

The answer to the current global shakeup is not to abandon this path, but to **deepen and accelerate** the collaboration between all these parts if we want to achieve a **competitive**, **secure**, **autonomous**, **and resilient Europe**.

How so? As they work towards climate and environmental neutrality, public authorities, such as cities and regions are identifying concrete needs to achieve their climate mitigation, adaptation, environmental circularity and resources objectives and management efforts. These needs are significant. When taken in the round, they constitute an aggregated demand (across the Single Market) for products, services and innovations with which to build European lead markets in sustainability and planetary regeneration. Meeting these needs in a timely and effective way would support European leadership and competitiveness, and provide the frame for effective strategies to guide European startups and scaleups.

The EIC is an important element in scaling up innovation in Europe; equally, the 'mycelium structures' of innovation clusters, ecosystems and the EIT Knowledge Innovation Communities (KICs) provide the fertile soil for locally relevant solutions development and for systemic approaches to implementation of those solutions. We would also recommend using existing, tangible and quantified demand to foster blended finance instruments for realising place-based, public-private partnerships, leveraging areas where Europe already has its strengths (existing industry, skills, strong innovations). In this way, we can ensure that social, environmental and digital innovations are pulled together as an integrated part of Europe's transformation.

2.1 Climate KIC credibility as a venture and innovation ecosystem builder

Our expertise stems from the fact that for over **15 years**, Climate KIC has played a key role in developing a **climate innovation ecosystem** across Europe and globally. Through its **venture support programs**, **impact-driven investment**, **and innovation ecosystems**, it has helped scale over **6,000 start-ups** and supported the development of **over 10,000 climate solutions**.

Working alongside partners, Climate KIC currently has active venture and solutions development initiatives running across 81 countries (with work across more countries expected in 2025):









Redefining entrepreneurship to power a just, climate resilient and sustainable future - in a leading Europe

While supporting start-ups and technology-based innovation remains crucial, **individual solutions –** no matter how brilliant – **do not automatically lead to deep, structural change** needed to stop emissions and biodiversity loss, or adapt to the effects of a warming world. The real challenge lies **not only in creating, identifying and scaling innovations but also, in joining them up and connecting them into larger socioeconomic and political systems of transformation.**

Climate KIC works towards realizing a world where innovation is not just about breakthrough ideas but about integrating solutions that collectively address the climate crisis – **demonstrating how competitiveness and resilience stems from sustainable solutions and how they constitute Europe's competitive advantage.**

Climate KIC leverages 15 years of experience in climate entrepreneurship, applying a suite of developed approaches, services, and assets. These are strategically deployed to drive **impact** across four primary target areas, while learning from their application through diverse partnerships and global contexts.

- 1. Scaling Climate Ventures: Climate KIC continues to scale start-ups that contribute to a just, climateresilient and sustainable future, while also assisting in the early assessment of their climate and social impact potential.
- 2. Partnering with Entrepreneurship Support Organisations (ESOs): Climate KIC provides ESOs (e.g. incubators, accelerators, university innovation labs etc) with technical and financial support to deliver programs that address and accelerate local climate ambitions, globally. Climate KIC nurtures relationships of deep trust and partnership with the organisations we support, implement with and learn from. All activities are realized through collaborations with local partners, underscoring a strong commitment to leverage and learn from local expertise to accelerate place-based change.
- 3. **Strengthening place-based innovation ecosystems:** We build the foundations for stronger (entrepreneurial) ecosystems bringing together dynamic, interconnected groups for collaboration, dialogue, learning and innovation to build next generation economies (towards circularity and resilience). By supporting new business models, fostering networks, promoting skill development and mobilizing capital, we shape the way for a more sustainable, just future, including for disadvantaged communities.



4. **Strategic matchmaking & investment:** We partner with governments, investors, and corporations to cocreate entrepreneurship programs to identify, and match solutions that serve their strategic goals and climate agendas.

While the four areas are presented separately, they ultimately build on one another, combining to **accelerate the adoption of climate innovations and close the gap between climate commitments and current reality.**

Scaling Climate Ventures

Climate KIC has built a structured pipeline for climate entrepreneurs, starting from early-stage ideation (<u>Climathon</u>), business model validation (<u>Launchpad</u>), and venture scaling (<u>Climate Accelerator</u>). These programs ensure entrepreneurs receive financial, strategic, and technical support to bring impactful solutions to market (please see further down and in the Annex 1).

2.2 Capital and Investment

As part of its commitment to driving climate innovation and systems transformation, Climate KIC has been pioneering **new investment models that mobilize capital for systemic change.** We have strategically expanded its investment portfolio beyond traditional grant-based funding to **include venture capital, blended finance, and catalytic investments, ensuring that climate-positive solutions can scale effectively.**

Investment innovation is a key part of Climate KIC's portfolio approach to enabling system change. The Capital & Investment team oversee four major initiatives that are all designed to increase the amount of private sector investment going into climate action. The team apply systems thinking to identify strong investment opportunities and use public funding to de-risk investments to crowd-in additional capital. The initiatives are:

1. Climate-SAFE – where Climate KIC invests its own capital (circa 7 million EUR).

Climate KIC uses **SAFE (Simple Agreement for Future Equity**) investments as a simplified investment tool for climate startups at their earliest stages. The SAFE programme started just three years ago but has already made 112 investments that combined are projected to generate 18.4 million tonnes of C02 impact. The initial €6m of investment capital has generated 579 new jobs in portfolio companies that so far have created 353 million EUR of value.

2. **Investing for 1.5C** - where Climate KIC advises partner funds on investing their capital (circa 200 million EUR when fundraising targets are reached).

Investing for 1.5C is the fund collaboration initiative of Climate KIC. Climate KIC has partnered closely with two VC funds:

- The UnaTerra Circular Economy Transition Fund, and
- <u>Almanac Ventures</u> DeepTech Fund.

Climate KIC provides full-service investment advisory support to these partner funds as part of a strategic collaboration and services agreement. This allows each fund to leverage the insights arising from Climate KIC's unique vantage point in the market while the additional capital these funds provide to our start-ups provides a much needed source of early-stage growth capital. Climate KIC is supporting the fundraising campaigns of both funds currently.



3. **Finance Mobilisation** – where Climate KIC supports city municipal governments via NetZeroCities to seek private sector capital for their climate action plans (circa 650 billion EUR needed)

Members of the Climate KIC investment team are embedded within projects from across our portfoliio to deliver finance mobilisation support. This include identifying investment opportunities, providing capacity building support to project propents and engaging with investors on novel structures that can unlock additional private capital for innovative project concepts. The NetZeroCities Capital Hub is a strong example of the work we do supporting cities to develop investable project concepts with the support of team of City Finance Specialists.

4. **TransCap** – where Climate KIC spin out the Systemic Investing Initiative seeks to create a collaborative innovation space for building the field of systemic investing.

Recognizing the limitations of conventional funding mechanisms in addressing complex climate challenges, Climate KIC established the <u>Transformational Capital (TransCap) initiative</u>. TransCap was designed as a groundbreaking approach to mobilizing capital at scale, integrating systems thinking into investment strategies and promoting the field of systemic investing. As part of its evolution, TransCap transitioned into an independent entity, the Systemic Investing Initiative (SII). This spinoff allows for greater agility in structuring high-impact investment vehicles while maintaining close collaboration with Climate KIC. SII is focused on blended finance models, aligning public, private, and philanthropic capital to de-risk investments in climate solutions.

Future of Climate KIC's Investment Approach

As Climate KIC continues to expand its role in climate finance, the organization remains committed to:

- Expanding the Climate SAFE progamme to Latin America and the Caribbean.
- Launching a new Carbon Removal Fund partner under Investing for 1.5C.
- Designing a **blue economy investment** strategy.
- Expanding our 1.5 Pipeline deal flow database to cover more investment instruments and asset classes.
- Strengthening **partnerships** with institutional investors, banks, and governments to mobilize billions in climate finance.

Through these efforts, Climate KIC is solidifying its position as a key orchestrator of climate capital, ensuring that finance flows to the most impactful climate solutions.

Climate KIC stands ready to share further reflections, including by organising relevant stakeholders workshop(s) to identify particular challenges to investing, especially in terms of cross-border PPP projects aimed at deploying innovations for systems change across cities, regions and countries.

2.3 Cities and Regions – the demand side for lead markets and scaling up

Our experience stems from concrete implementations of place-based initiatives, working hands-on with national, regional and local governments and in close cooperation with a wide variety of stakeholders: businesses large and small, especially startups and scale-ups, research organisations and academia, civil society, citizens. We work both







with the **demand side (buyers of solutions) as well as supply (solutions providers)** – across various industry sectors, programmes and projects supporting the development and scaling up of competitive 'green' solutions and climate services.

Through our work in three EU Horizon Europe Missions: 112 Climate Neutral and Smart Cities⁶. Adaptation to Climate Change⁷ and A Soil Deal for Europe, we are working closely with cities, regions, businesses and other key stakeholders across Europe to implement solutions that can make our economy and society 'fit for 2025, 2030, 2040, 2050' targets. As part of the Mission Adaptation, we have been working with 69 regions communities. We work with national governments in large-scale Deep Demonstrations⁸ aimed at transforming industrial and agricultural systems, for example in Ireland⁹ - in partnership with the Department of Agriculture, Food and the Marine on the transformation of the agri-food sector to sustainable bioeconomy – and across several ministries in the Government of Slovenia¹⁰ to enable transition to a circular, regenerative and low-carbon economy.

Early estimates suggest the Mission Cities alone will need to mobilize and deploy more than €600 Billion to achieve climate neutrality.

For urban transformation to succeed, however, cities require ready solutions and new business models, able to scale, fit for purpose for local contexts, systemically related and coherent, and interoperable across multiple contexts. Large scale city decarbonisation and climate resilience efforts constitute a significant demand-driver for new materials, products and services, and innovative solutions for infrastructure and logistics and therefore are a major driver for business transformation and leapfrogging a clean industrial strategy in an increasingly competitive geo-political context.

This context demonstrates a clear direction and opportunity for creating and leveraging lead markets that will scale up innovations. To this end, Climate KIC has initiated a dialogue process at EU Member State level, that entails bringing cities in the EU Mission together with European industry related to urban transformation (across the built environment, energy sector, transport, water, waste and logistics), and with financial institutions, to map out and make sense together of the 'demand' and 'supply' opportunities and challenges that the Cities Mission represents.

The process began last year in Spain, with a national dialogue that brought together three government ministries and industry representatives, more than 100 representatives in total. Through 2025, Climate KIC will lead collaborative efforts in several more EU countries: Poland, Germany, France, The Netherlands, Finland, Austria, and Portugal.

While the Cities Mission has had a profound effect on helping cities elevate their climate work, we also know that **policy innovations among Europe's national governments and at the EU level** are going to be critical to enabling the Mission Cities to achieve climate neutrality. Even with strong political commitment and financial resources, cities often find that existing regulations hinder the implementation of ambitious climate measures. Many municipalities face constraints imposed by outdated policies, slow permitting processes, and rigid financial structures, which restrict their ability to accelerate climate action. Achieving climate neutrality requires a fundamental shift in policy and regulatory frameworks, enabling cities to overcome these barriers.

Climate KIC was initiated by the EIT – European Institute of Innovation & Technology.



⁶ <u>https://www.climate-kic.org/programmes/europe-2030-missions/netzerocities/</u>

⁷ 100 European regions on a transformative climate resilience journey | Climate KIC

⁸ Place-based transformations | Climate KIC

⁹ Ireland: Systems innovation for the transition to a climate-neutral agri-food sector | Climate KIC

¹⁰ Climate KIC joins EU Mission Soil as implementation partner | Climate KIC



To this end policy labs and regulatory sandboxes are being co-created with the cities in order to rapidly test new policies or different regulatory approaches. This work will create new ways to advance performance improvements in our buildings, accelerate infrastructure upgrades, and more rapidly deploy and integrate new and emerging clean technologies critical to climate neutrality. The importance of this work cannot be overstated, as innovation needs policy drivers, in order to get to scaled impacts, in a timely manner.

Example: In the Netherlands, **energy market regulations** have posed a significant obstacle to cities transitioning away from natural gas. Amsterdam and Rotterdam, both committed to district heating systems as a low-carbon alternative, encountered legal constraints that limited their ability to scale these solutions. A key obstacle has been the Dutch Heat Law, which governs energy market structures and restricts local authorities' ability to control and expand district heating networks. Through regulatory sandboxes, these cities have been able to test **alternative and innovative** district heating models, gathering evidence to support policy reform discussions at the national level.

Climate KIC stands ready to organize or facilitate a process with relevant stakeholders to deepen challenges relevant to the upcoming startup-scaleup strategy found while deploying climate innovations, stemming from place based needs and requiring deployment across the Single Market.

2.4 Value chains – the supply side for systems change and scaling up

Industry 'dialogues' can only come to fruition if they include innovators (they are able to change old systems) and in the case of climate innovation – deploy 'measures of success' which go beyond classical financial cost-benefit analysis. European sustainable finance framework, including CSRD (Corporate Social Responsibility Directive) provides not only a clear guideline to the investors how to avoid stranded assets but also a clear risk/opportunity guidance to companies and sectors. Which climate and environmental changes affect my operations and financial condition and are there opportunities from addressing it.

To this end, Climate KIC work spans the **mapping and analysis of complex industrial systems and possible scenarios**, the assessment of resource flows along value chains and the evaluation of innovation systems of industries and territories they are based in. **Climate KIC investigates possible paths for systemic transformation and identifies innovations that enable sustainability.**

Climate KIC is growing its practice of transforming various industrial systems and value chains. Until now we had been engaging with such systems as **food & agriculture, built environment, transport & mobility, ports and maritime, bioeconomy, critical raw materials, energy.** The systems that we now have on our radar for transformations are **creative industries, textile & fashion, automotive, mining and extraction-related sectors.**

Example: The **Slovenia Deep Demonstration of a Circular, Regenerative and Low Carbon Economy**, orchestrated by Climate KIC, is a multi-year (2019-2026) partnership with the Slovenian government with a pragmatic, transformative intent: it aims to reinforce, systemically link and accelerate ongoing decarbonisation and climate adaptation efforts in Slovenia. In the whole-of-government approach, it brings together **a multitude of Slovenian stakeholders** and applies a system-based approach to decarbonizing Slovenia's socio-economic system through behavioural change, innovation in technologies, materials use and business models, sustainable, equitable development, education, and policy reform, all based on circular, regenerative economy principles.

Overarching programmes focus on unlocking finance and creating value in selected key value chains: **built environment, food systems, mobility and critical raw materials.**







In this unique **cross-sectoral and cross-disciplinary** approach, Slovenia's Deep Demonstration already developed **Portfolios of innovation actions** in two value chains, the built environment and agri-food sector, offering policy advice and intelligence gathered through engaging different government ministries and institutions, industry sectors, projects, diverse innovation and policy initiatives. Work is starting on another two value chains, **transport & mobility and critical raw materials** are ongoing and planned to close by end of 2025.

Climate KIC stands ready to gear our planned work below to include issues relevant to the upcoming startup/scaleup strategy.

Upcoming Industry-Government Climate Neutrality Partnership

Climate KIC's efforts onwards will be focused on **creating a shared**, **ptractical space where industries and governments can exchange knowledge**, **anticipate regulatory and market trends**, **and co-design effective transition strategies**.

Sensemaking Through Cross-Industry Insights

With industries facing common challenges—decarbonization, digital transformation, and evolving regulatory landscapes—we will generate a learning journey to facilitate structured discussions where businesses can interpret key shifts collectively. Through shared intelligence, participants will gain a clearer view of where their industry is headed and how to prepare for future disruptions.

Scenario Planning and Peer-Led Adaptation

Industry associations and value chain leaders must enable their partners and collaborators to proactively navigate uncertainty. This journey will incorporate scenario planning workshops and real-time peer insights, supporting businesses in making informed strategic choices. By working collaboratively across sectors, participants can develop robust, future-proof transition pathways.

Policy Influence Through Collective Industry Engagement

Rather than responding individually to regulatory changes, businesses and their industry alliances can maximize their impact by engaging policymakers as a united voice. This learning journey will provide a structured framework for multisector dialogue, ensuring that industry perspectives are integrated into policy discussions and that regulations support both sustainability and competitiveness.

Leading Circular Value Chain movements

Industrial Value Chains require shifts in how they strategize and operate. Securing supply chains for a regenerative future has become the challenge of our era. Climate KIC will reinforce its efforts to build diverse partnerships to lead the transformative systemic change. An example of the direction we are undertaking is represented by <u>Circular Supply</u> <u>Chain Coalition</u> initiative, aiming to transform how critical minerals and materials are sourced, reused, and reintegrated into the economy.

Climate-KIC is now positioned at the centre of value chain transformation efforts as an enabler of the innovation needed and above all the integration of innovation needed to achieve systemic change. Our systems innovation call to action and positioning has taken us to the heart of game changing initiatives. Now we are making them happen.

While more remains to be done on the EU market in terms of the 'classical' scaling up through the instruments like the EIC, what needs to also be addressed is the **support for 'broad-based growth':** across and between Europe's **ecosystems** (mostly regional and local) **so that they can help scaling up of the local and regional companies (both startups and innovative SMEs and Midcaps)** to generate positive spillover effects in the localities they are in, where



citizens live. It is about spreading the success beyond the hubs, building a 'fleet' and thus complementing the current focus of looking for just one 'flagship' - large unicorn/ champion¹¹. This would help addressing the increasing disenchantment of citizens experiencing a growing distance between the real economy, environmental and societal needs and the financial and global markets.

2.5 Structural considerations related to Single Market failures

Based on the work above, apart from the already highlighted elements, we can confirm that addressing the following Single Market elements will help Europe to scaleup 'change making' companies and transform systems, where it matters.

The enumeration is not exhaustive, and Climate KIC stands ready to provide further evidence, if needed.

Fragmentation

The European **investment landscape** could benefit from greater standardisation and simplification (through streamlining not necessarily deregulating). For example, while Simple Agreements for Future Equity (SAFE) are a widely used investment instrument in the US and UK, many EU countries do not have a clear legal framework to enable early stage investments via SAFE instruments. Overall, the EU lacks a single, unified capital market, making it harder for startups to raise large-scale funding. Northvolt and other such companies – especially those wishing to respond to 'cross-city' demand for services - have to secure financing from multiple sources across different jurisdictions, making the process slow and complex.

Furthermore, it will be important to act on the learnings from the examples of Northvolt and two of Climate KIC backed startups <u>Volocopter</u> and <u>Lilium</u> (further details in the section 4.2 below), in practice, **different countries have varying regulations on industrial projects, state aid, environmental permits, and labour laws,** which makes scaling across (EU) borders to slow and costly, especially when also trying to build factories//infrastructure.

This includes some **basic administrative business processes** that are (in many markets) handled by costly and slow legal notaries. Further harmonisation of new business registration and investment processes across the single market could provide a basis for retaining more EU start-ups within the EU market as they begin their scaling journey. This would also allow **international investors** who show strong interest in EU climate innovation, particularly Japan (but also other global players), to learn how to interface with one standard EU-wide venture investment scheme and increase their asset allocations to this market. European start-ups are attractive to international investors as they leverage the advanced research of EU universities, have access to strong talent pool and often / increasingly have sustainability principles engraved into their business models. The recurring idea of **28th regime or broadening the**

https://www.researchgate.net/publication/309328841_Fostering_Scaleup_Ecosystems_for_Regional_Economic_Growth_Inn ovations_Case_Narrative_Manizales-Mas_and_Scale_Up_Milwaukee\



¹¹ Dan Isenberg: it is better socio-economically when firm-level scale up is spread across a broad base of firms. All else being equal, 10 ventures growing to 100 (in headcount, for example) is better for a local economy than one local venture growing to 1,000, especially since some of the 10 will naturally continue growing toward 1,000. A remarkably significant minority (10%-20%) of local companies can enter into new growth trajectories. The historical records of entrepreneurship in Israel, India, Boulder, Boston, and Silicon Valley suggest that large companies were essential early elements in the later emergence of entrepreneurship ecosystems.

concept of the Societas Europea to facilitate scaling-up of startups (notably via facilitating taxation, employment et al across Member States).

The concept of a "28th regime" has been discussed for a long time (since the 2016 EC Startup and scaleup strategy¹²) **but todays geopolitical climate yields itself to such bolder moves on the part of the Members States.** It refers to an optional, harmonized legal framework within the European Union (EU) that would allow startups and scaleups to operate under a single set of rules across all member states. The initiative is supported by the stakeholders¹³ proposing:

- A standardized company structure with harmonized corporate governance.
- A digital-first approach, including a fully digital registry and standardized investment documents.
- An EU-wide employee share option scheme (EU-ESOP) with standardized rules.
- A low minimum share capital to facilitate market entry.

Clearly the utility of the "28th regime" hinges on its ability to provide an attractive alternative to existing national regulations without adding another layer of compliance, possibly though building **on innovative elements from existing efficient systems** (e.g. distributed profits tax models in Estonia and Latvia).

It is crucial to – not just 'cut burden' by deregulating, as this may have precarious effect also on what gets funded and how it is implemented (e.g. to the detriment of communities and environment around) but to try and streamline and align and create standardised rules e.g. on industrial permitting, public procurement and other regulatory processes across member states, **creating a fast-track, cross-border system for strategic projects** like clean and bio-tech or broader climate innovations. It is crucial that it is done for technologies and innovations that solve 'societal challenges' and industries that are crucial for delivering on human needs (e.g. energy, food, built environment, mobility¹⁴), where Europe already has a competitive edge, also due to the 'way' products and services are delivered (sustainability principles) as well as the more recent defence focus, especially when **dual-use** is possible.

Public procurement, including pre-commercial procurement

Aggregated 'demand' side and public spending (both directly and as a leverage for private investment) are crucial for ensuring procurement can play a more effective, catalytic role to enable lead markets for sustainable reindustrialisation and sustainable transformation to form in Europe by unlocking single market benefits and scalup opportunities for startups. Climate KIC has responded to the recently closed EC Call for evidence on how the Directives 2014/23/EU, 2014/24/EU and 2014/25/EU performed.

Startup visa / skills

While it is too early to call it a trend, (very) recent articles suggest that considering political developments in the US, innovators may be interested to increasingly come to Europe as a stable system, with many structural advantages. This should be kept in mind.

¹⁴ 'Provisioning systems' – explained further in the Systems Transformation Hub 2nd Policy brief <u>https://cdn.prod.website-files.com/66784e9ddf36e901caefb84d/67a4c78944d6ce16a68c6620_STH%20Policy%20Brief%20N02.pdf</u>



¹² <u>https://media.nesta.org.uk/documents/plan_i_for_europe.pdf</u>

¹³ France Digitale; EU Inc <u>https://www.eu-startups.com/2024/12/eu-inc-calls-on-new-commission-turn-the-idea-of-a-single-pan-european-startup-entity-into-reality/</u>





3. 'Climate innovation' startups and innovative SMEs

In this document, as the first step, Climate KIC has gathered concrete examples of innovative startups and SMEs (from our own and some of our partners' portfolios) providing solutions for various types of climate and environmental challenges and demand, as well as links to websites/databases aggregating such solutions.

Broadly speaking, startups/innovative SMEs provide various types of innovations in areas such as emissions reduction, carbon removal, resource efficiency, climate resilience, circularity (...) often leveraging digital technologies like artificial intelligence (AI), blockchain, and the Internet of Things (IoT). In fact, in the dual transition, the two elements ('green' and 'digital') are catalytic for one another, accelerating each other's advancement (from smart agriculture to digital twins).

Al-driven tools are also crucial for streamlining regulatory compliance, making it accessible and efficient - hence helping the simplification efforts of the EU. **'Regtech'** supporting CSRD compliance, for example, enhances transparency and helps strategic decision-making by identifying financial and operational risks for companies, as well as opportunities where innovations can reduce emissions, minimise environmental damage, and improve the overall process efficiency that contributes to company resilience and long-term competitiveness.

Startups and SMEs with solutions to climate and environmental issues operate in and across multiple sectors. Often, they help address systemic issues (rather than one problem in one system) **with multiple impacts, trade-offs and co-benefits.** Climate KIC looks at start-ups and scale-ups in relation to two vectors: key sectors and key technologies.

3.1 Key sectors

Below are some examples (non-exhaustive) in terms of the sector they may operate/have impact in:

- Energy:
 - Renewable energy solar, wind, hydro, wave, bioenergy, geothermal and innovative storage solutions;
 - o Energy efficiency smart grids, energy management, green buildings, and retrofitting;
- **Built environment** bio-based materials and infrastructure; green cement; green glass; urban farming and (re)wilding;
- **Sustainable mobility and transport** electric vehicles, including bi-directional charging, hydrogen fuel, lastmile and smart logistics, multi-modal mobility, green shipping;
- **Circular economy, resources optimisation and waste management** recycling innovations, waste-toenergy, product lifecycle optimisation, bio-based plastics;
- **Sustainable agriculture, food systems and soils** precision farming and vertical farming, alternative proteins, 'carbon farming', regenerative agriculture;
- Water and climate resilience drought-resistant solutions, flood prevention, smart water management, green roofs, hurricane resistant solutions, water collection and treatment;
- **Carbon capture & storage; carbon credits** Direct Air Capture with Carbon Storage (DACCS), Afforestation, Reforestation & Revegetation (ARR), Bioenergy with Carbon Capture and Storage (BECCS), Direct Ocean Capture, Enhanced Rock Weathering (ERW), Ocean Alkalinity Enhancement, etc.



Several **dual-use technologies** can create synergies and serve both **defense and climate change mitigation**, particularly in areas like energy efficiency, resource management, and advanced materials. These technologies can be developed by startups working in **cleantech**, **aerospace**, **advanced manufacturing**, **carbon capture**, **and Al-driven solutions**. For example:

• Energy & Battery Technologies:

- Use in Climate Tech (CT): Sustainable energy storage for renewables (solar/wind farms); Grid stabilization and microgrid development
- Use in Defense (D): Energy storage for military bases in remote areas; Electrification of military vehicles, drones, and naval vessels

• AI & Machine Learning for Resource Optimization

- o CT: Smart grids and energy-efficient operations, predictive maintenance for wind & solar farms
- D: Al-driven logistics and supply chain optimization, autonomous decision-making for battlefield resource management

• Carbon Capture & Utilization (CCU)

- CT: Capturing CO₂ emissions from industrial plants, converting CO₂ into fuels or construction materials
- \circ D: Reducing military carbon footprint, developing synthetic fuels from captured CO₂ for aircraft and naval fleets

• Water Purification & Desalination

- o CT: Providing clean drinking water in drought-prone regions, reducing energy use in water treatment
- D: Mobile desalination for military operations in arid regions, emergency water supply for disaster response

Advanced Materials & Lightweight Composites

- CT: Lighter materials for EVs and wind turbines, high-performance insulation for buildings
- D: Lightweight armour for soldiers and vehicles, heat-resistant materials for aerospace applications

Satellite & Remote Sensing Tech

- CT: Tracking deforestation, carbon emissions, and ocean health, predicting extreme weather and climate disaster
- o D: Satellite-based surveillance and reconnaissance. Early warning systems for natural disasters

3.2 Key technologies

Startups can also be categorised based on their primary technology or innovation focus:

• Al and data-driven climate solutions – companies using big data, AI, and digital twins for climate modelling, emissions tracking, risk assessment.



- **Nature-based Solutions (NbS)** startups focusing on the protection, sustainable management and restoration of mangroves, wetlands, forests, and marine gardens, as well as those pioneering regenerative agriculture practices or implementing urban green roofs and walls.
- Advanced materials & chemistry innovations in biodegradable materials, carbon-negative construction, sustainable chemicals.
- Web3 Innovations:
 - Blockchain-based platforms for faster, more transparent and secure carbon credit registration, verification and trading.
 - Peer-to-Peer (P2P) trading and Decentralised Autonomous Energy Networks (DAENs) for communityowned renewable energy grids, both enabled through blockchain technology
 - o Tokenising impact to raise funds for climate-positive projects.
 - Decentralized and smart energy systems blockchain for peer-to-peer energy trading, grid flexibility, energy storage innovations.
- **Climate fintech & carbon markets** platforms enabling carbon credits trading, green investments, sustainable finance.
- **Bioengineering and synthetic biology** companies developing algae-based biofuels, mycelium-based household products or construction materials, climate-resilient crops, and bioremediation solutions.

4. Climate KIC portfolio and contribution

In the 15 years of Climate KIC financing by the EU/EIT, we have supported over 6,000 climate-positive companies to scale and attract over €3 billion in follow-on investments. This is a noteworthy achievement given the Climate KIC focus on early-stage, market-creating innovation in a highly diffused climate market. The Financial Times and Statista has ranked Climate KIC 14th in the list of best companies for accelerator and incubator programmes out of several thousand companies and programmes across Europe.⁴ Climate KIC channels €100 million a year into climate innovation, giving us extensive experience in identifying and setting up for success high-impact solutions.

Climate KIC is currently actively following around 2,700 alumni start-ups – visible through the <u>EIT Dealroom database</u> – which, combined, have created circa 20,000 new jobs. In terms of total valuation achieved, the 'top' companies (see more data here <u>link</u>) are <u>Climeworks</u> (carbon removal combining nature-based solutions with engineered technologies), <u>Tado</u> (smart heating and cooling systems) and <u>Ynsect</u> (alternative foods). In terms of interesting start-ups from our investment portfolio, we would highlight <u>Latitudo40</u> and <u>Everimpact</u> – both of whom use **EU satellite data** to provide real-time information to decision-makers. From women founders, two good examples are Agrosustain, which makes natural food coatings to reduce food waste, and <u>Bound4Blue</u>, which make rigid sails to reduce fuel use in the shipping industry. We would also highlight <u>Ampeco</u>, which creates software for EV charging infrastructure.







4.1 Impact 'Unicorns'

In addition to Climeworks, Climate KIC has also worked with other start-up unicorns – both 'impact' unicorns and 'economic' unicorns. Impact is measured in tonnes of GHG emissions avoided, and the following 6 start-ups have achieved a proven impact of over 100,000 tonnes of potential GHG emissions avoided:

- <u>MIXTERESTING</u> GmbH -Their software integrates mathematical **optimisation**, physical models, and AI to generate innovative concrete mix designs with just a single click. This approach accelerates innovation cycles, lowers costs, and significantly reduces the need for extensive laboratory experiments.
- <u>Concrete4Change</u> -C4C is developing a range of technologies aimed at producing **net-zero concrete** at a lower cost by minimising the use of expensive materials and maximising concrete's natural ability to permanently store CO₂.
- <u>SeaO2</u> -Giga-ton scalable Carbon Dioxide Removal Technology. The company processes a flow of ocean water through a facility, where the water is treated to remove its carbon dioxide. The **decarbonised water** is then returned to the ocean's surface, where it reacts with atmospheric CO₂, absorbing an amount of CO₂ equivalent to what was initially removed.
- <u>Circularise</u> Product traceability platform for supply chain compliance. The company enables supply chain actors to share sensitive data without risking privacy and confidentiality. This improves resources use, verifies provenance, and enables the calculation of **carbon footprints and impact assessments to unlock circular economy business models.**

There are also several startups facilitating companies' compliance with European ESG regulations, such as <u>Greenomy</u> or <u>Ecovadis</u>.

- <u>NUOTWO</u> Producing smart active panels that capture CO₂, methane, and pollutants, including pathogens and allergens, from the surrounding environment.
- <u>Clever Solar Devices</u> The company enables real-time, automatic diagnosis of PV plants, identifying 100% of issues with precise data. It pinpoints the location of defective modules, the specific problems they face, and their level of degradation all accessible from a mobile device.

Why are impact unicorns important in the climate conversation, in addition to smaller companies, making the difference more locally?

This is due to a wide range of impacts generated by such companies. For example, impact unicorns produce positive effects up to 10,000 times greater than mid-range companies, thus contributing to much of the impact within their category. To maximise change, **impact funding should be focused on these highly impactful companies**.

Climate KIC provides Impact Assessment Services, providing a **comprehensive suite of** solutions **designed to measure, project, and communicate climate impacts,** such as avoided GHG emissions, adaptation and resilience, and circularity. These services are tailored for early-stage startups and SMEs, as well as the accelerator programs and the investors that support them. We help generate the insights needed for startups to design their products and business models with maximum impact, while also aiding accelerators and investors in scouting and selecting **best-in-class climate impact innovations (see Annex 2 for more details).**

Systems Paradigm - Climate KIC is currently developing a service that helps startups and SMEs evolve their business models by identifying opportunities to expand their impact within the larger systems they operate in.







Through practical systems-thinking exercises, we help entrepreneurs establish a baseline and develop action plans to deepen their contribution to systemic change, while also enhancing their business's sustainability.

Climate KIC stands ready to support relevant programmes and projects across the EC in **introducing such capabilities into the funding and support programs**. We already had a pilot project with the EIC (EIC-RACE), and at that time, there was interest in introducing the successfully realised impact assessments more broadly.

- By definition, unicorns operate at significant **scales**, e.g. a NUOTWO caters to 60,000 homes; Circularise targets supply chain actors that are handling hundreds of thousands of tonnes of materials; Clever Solar Devices have whole solar PV farms as their clients; and Concrete4Change delivers million cubic meters of material. These scales create more impact than working with smaller units or amounts, and this also creates more impact than catering to individual consumers or operating in niche markets (e.g., the artisanal soap or gourmet ingredient markets).
- Innovation effectively reduces greenhouse gas (GHG) emissions by addressing major climate impact sources. For instance, it cuts fossil fuel use through renewable energy production (NUOTWO and Clever Solar Devices) or diminishes the need for high-impact materials and high-volume production, such as concrete, fertilizer (Concrete4Change and MIXTERESTING), or nylon (Circularise). This approach delivers greater environmental benefits compared to focusing on items with minor climate impact, like switching from plastic to paper packaging (where the impact difference may be minimal) or replacing palm oil with olive oil (where calculations may show palm oil to be more carbon-efficient). Impact unicorns' innovation could include other areas like GHG sequestration, resulting in not just a relative climate benefit compared to the baseline, but also a positive impact in absolute terms. This is evident in companies such as SeaO2, which remove carbon from the oceans.

4.2 Economic 'Unicorns'

In terms of 'classical' unicorns, Climate KIC has supported fourt with a fifth one on the way: <u>Climeworks</u>, <u>Vaisala</u> (devices and data to improve resource efficiency, drive energy transition, and care for the safety and well-being of people and societies worldwide), <u>Volocopter</u> and <u>Lilium</u>, and the latest, with <u>Ynsect</u>.

Volocopter and Lilium were both cited as examples of economic unicorns until recently. Both are currently on the verge of bankruptcy, though Lilium is being stabilised. Similar to the case of Northvolt, they represent **a structural market failure of the single market**. In their current shape, they were not able to find a viable business model to survive current market volatility. Although their solutions are today insufficiently sustainable financially, socially, and environmentally, the technologies they have developed, could be crucial for Europe (including in terms of **dual-use** technologies) and represent important steps in exploring potential pathways for electrifying the aviation sector and automative sector respectively.

4.3 Later stage startups

For later-stage startups, we operate the <u>Climate SAFE</u> (Simple Agreement for Future Equity) programme and the portfolio includes:



- Vlinder Climate (<u>https://vlinderclimate.com/</u>) restoring **mangroves** to combat **climate change**, enhance **biodiversity**, and empower communities through fair **carbon sharing (carbon credits) and sustainable livelihoods**.
- Point2Hectare (https://www.point2hectare.com/) innovating **agriculture** by using biochar-based products tailored for soil enhancement and crop nourishment. Biochar boosts soil fertility, improves crop yields, enhances water retention, and amplifies fertilizer efficiency. In addition to enhancing agricultural productivity, it also sequesters carbon.
- Carbon Neutral Initiative (<u>https://carbon-neutral-initiative.com/</u>) aiming to **remove** megatons of CO₂ from the atmosphere by 2030 by using Enhanced Rock Weathering.
- Latitudo40 (https://www.latitudo40.com/) Latitudo 40's Geospatial Insight uses artificial intelligence and high-resolution satellite imagery to continuously monitor urban environments, real estate and critical infrastructure. It provides actionable insights by analysing data on land surface temperature, vegetation cover, and urban heat islands. This technology enables cities, investor, banks and insurances to proactively manage climate impacts and optimise decisions for enhanced resilience and sustainability.

4.4 Further examples of impactful innovations from Climate KIC

Energy-related:

- <u>Naked Energy</u> specialises in **hybrid solar technology** that combines photovoltaic (PV) and thermal (PVT) systems. Their product, Virtu, is a patented hybrid solar collector designed for commercial and industrial applications. Virtu generates **both electricity and heat** from the same collector, offering a compact and efficient solution for energy generation.
- <u>Thermondo</u> onestop shop for heat-pumps, photovoltaics and energy management.
- <u>nuventura</u> pioneers in designing and developing SF6-free (greenhouse gas much more potent than CO₂) technology to minimise the use of greenhouse gases in the energy sector.
- ZOLAR a rapidly growing company in the PV panel installation sector, now one of the market leaders.
- EnergyShift platform that enables citizens to jointly invest in and co-own solar parks.
- <u>Biosphere Solar</u> modular and sustainable solar panels.
- Boldr smart technology for lower domestic energy use.

Decision-making/modelling-related:

- Oasis Loss Modelling Framework (Oasis LMF) open-source platform designed for the **insurance and reinsurance industry**. It focuses on **catastrophe risk modelling**, enabling organisations to assess and manage risks from natural and man-made disasters, such as floods, earthquakes, hurricanes, and cyberattacks. Oasis LMF provides a collaborative environment where users can build, share, and access models to enhance transparency and reduce the cost and complexity of risk management.
 - Oasis LMF is closely connected to Oasis Hub, a company that provides access to data sets, modeling tools, and services related to catastrophe risk management. Oasis Hub operates as a marketplace for environmental, climate, and catastrophe data, supporting users who need highquality data for risk modelling and decision-making.





Earth Observation-related:

- <u>GECOSistema</u> including simulations and digital twins, mostly on mapping/forecasting floods.
- <u>Terranis</u> agriculture, urban and vineyards monitoring and forecasting.
- <u>Lobelia</u> visualisation tools and evidence-based **analyses for decision-makers** in the face of climate challenges.

General Climate mitigation-related: carbon capture, sequestration and carbon credits:

- <u>Rep-Air</u> **CO**₂ **capture** technology from gas mixtures.
- Establishing Traceable Carbon Sequestration Sustainable Scale-Up Foundation

Agri-food-related, for various uses:

- <u>SpaceCrop</u> Improving farming using satellite data and artificial intelligence.
- Bluana Food-tech start-up creating a plant-based seafood alternative.
- <u>Remonda</u> **Creating bioplastics** using the waste products of fruit.
- <u>Oleago</u> Plant-based **next generation material** that is 100% vegan, and offers sustainable innovation for the textile industry.
- <u>AgroSustain</u> a one-stop shop for **natural plant protection**, offering a range of products, such as edible coatings that keep fruits, flowers and vegetables fresher for longer.
- <u>Vexxel</u> non-toxic bio capsules.

Water-related:

- <u>Maygia</u> producing electricity and treating water using air and hydrogen.
- <u>Waisense</u> set of physical and digital solutions to **save water** across sectors.
- <u>Agua de Sol</u> solar and water panel autonomously **transforming air moisture** into carbon-free, fresh, drinkable water, thanks to solar heat.

Construction-related:

- ToGatherHomes next-generation housing that reduces cost, time and carbon footprint.
- <u>Ekotekt</u> robotic 3D printing system to produce precast **concrete** elements.
- <u>MycoLutions</u> developing **circular and healthy materials** using mycelium.
- <u>Hempstatic renewable building elements made from high-quality agricultural residues.</u>

Sector-related:

• <u>Open Connector Alliance</u> – infrastructure for digitising textile value chains. Enabling circularity, cutting emissions and costs, all whilst ensuring competitiveness.

Mobility-related:

• <u>Bound4Blue</u> - automated wind-assisted propulsion systems harnessing renewable energy. A turnkey solution to shipowners and operators looking at the environmental and economic performance of their fleet.



- IONA Creating efficient delivery networks with drones and robotics.
- <u>Lilium –</u> sustainable, high-speed regional air mobility.
- <u>Volocopter</u> develops electric aircraft solutions.

5. Other Databases & Platforms Listing Climate-related Startups

Europe does not currently have a comprehensive tracking platform for relevant start-ups and SMEs in climate action and nature action. We are in conversation with Eric Berlow of Vibrant Data Labs in the U.S. who has built a comprehensive tracker for the U.S., the <u>CLIMATE FINANCE TRACKER</u> using direct and third-party data sources, to create a rich visualisation of the climate investment landscape. This includes data from Crunchbase, the EU dealroom's U.S. competitor, along with additional data from non-profits like the Climate Policy Initiative. It is the first visually searchable ecosystem of over \$230B in private investment and philanthropic grants to over 6,000 US-based companies and nonprofits whose descriptions mention terms relating to climate mitigation or climate adaptation. To ensure that the 'climate funding' is distributed where it matters, climate funders need to consider the big picture, spot gaps, redundancies and opportunities, and work together to secure our future. In addition, Vibrant Data Labs have built a co-investment tracker, which will become more and more useful over time as the need for blended finance increases.

A similar EU-based database would help optimise investment decisions and direct public as well as private capital. We have been seeking funding to support a partnership with Vibrant Data Labs to do something similar for Europe, but the challenge will also be access to data in Europe for philanthropic investments. In order to lay the foundations for data visibility and access, Climate KIC is moving our data from Dealroom into <u>Net Zero Insights</u>, based out of Portugal, as they are the most comprehensive, specialised platform tracking ClimateTech startups across Europe. Besides tracking, they provide insights on emerging trends, industry reports, and dedicated events, among other features. The following databases and platforms listed below provide aggregated listings:

- Climate KIC startups portfolio <u>https://startups.climate-kic.org/</u>. It is currently offline as we are changing databases; therefore a placeholder in the interim can be found here: <u>https://climaccelerator.climate-kic.org/our-community/climaccelerator-start-ups/</u>
- <u>EIT Dealroom database</u> (based on dealroom.co)
- European Innovation Council (EIC) datahub (based on dealroom.co)
- <u>EIC Fund Startups</u> (based on dealroom.co)
- Innovation Radar/ Dealflow.eu
- Net Zero Insights a database tracking startups and scaleups in the sustainability sector across Europe
- EU Startups ClimateTech covers European climate-focused startups and innovations.
- <u>Slush | Most Founder-Focused Event On Earth | Nov 19–20, 2025</u> the biggest startup event in Europe, with strands on sustainability.
- <u>Startup Network Europe Conferences for European Startups</u>
- <u>Clusters</u> as part of the EU policy for innovative SMEs, Clusters offer a favourable ecosystem, which encourages competition and cooperation among firms with different industrial backgrounds, technological and business expertise. This, in turn, helps to reconfigure industrial value chains, leading to the development of emerging industries.





- <u>Crunchbase</u> allows filtering for sustainability and climate-focused startups in Europe.
- EUSPA's marker report

6. Annexes

Annex 6.1 - Details on Climate KIC venture building services

Climate Accelerator: Scaling Climate Ventures

The <u>ClimAccelerator</u> is **Europe's largest start-up accelerator** for climate-positive entrepreneurship, currently operating in **31 locations across 29 countries within and outside of Europe**. The program focuses on **scaling early-stage ventures** by providing:

- **Business model validation**, supporting start-ups through commercial and technological challenges.
- **Investor matchmaking**, connecting start-ups with venture capital and corporate partners.
- Venture growth strategies, ensuring that innovations are commercially and environmentally viable.

Start-ups progressing through the **ClimAccelerator** have secured **over €6.2 billion in follow-on investment**, with a combined Enterprise value of EUR 19,5 billion as of Q1 2025. Total grants from Climate KIC to start-ups have totaled EUR 38 million.

Notable alumni of the program include:

- **Climeworks** (€1.7B valuation) Pioneering **direct air capture** technology to remove CO₂ from the atmosphere.
- Volocopter (\$1.7B) Developing electric air mobility solutions for urban environments.
- **YNSECT** (€636-955M) Leading in **insect-based protein for sustainable food systems**.

The **ClimAccelerator** plays a key role in ensuring that **climate ventures transition from concept to market-ready solutions**, making it one of the **most impactful climate-tech acceleration programs globally**.

45 Climate KIC social entrepreneurs featured in Forbes 30 Under 30 Europe List since 2015

ClimateLaunchpad: The World's Largest Green Business Idea Competition

<u>ClimateLaunchpad</u> is the world's largest green business ideas competition, dedicated to discovering and nurturing innovative climate solutions that can address the global climate crisis. The competition provides a platform for green innovators to turn their ideas into scalable businesses, offering them exposure, mentorship, and the opportunity to pitch to global investors and stakeholders.

Operating in over 40 countries worldwide, ClimateLaunchpad works with a vast network of local and international partners to deliver impactful programs that support climate-positive entrepreneurship.

ClimateLaunchpad celebrated its 10th birthday in 2024. Since inception, the program has received 15,000+ applications and has incubated 5,000 start-ups. Alumni from ClimateLaunchpad have raised over **500 million Euros**. It currently runs across four regions globally – Africa, Americas, Asia Pacific and Europe.

In 2024, the ClimateLaunchpad was honoured with a "Rising Star" Award (for the second year in a row) at the <u>Startup</u> <u>Ecosystem Stars (SES) Awards</u>, organised by the International Chamber of Commerce (ICC) and Mind the Bridge in







collaboration with the Organisation for Economic Co-operation and Development (OECD) and the European Commission, with support from Microsoft.

Climathon: The Global Climate Hackathon

Climathon is the world's largest climate innovation hackathon, bringing together citizens, entrepreneurs, and policymakers to develop place-based solutions to climate challenges. Since its launch in 2015, Climathon has expanded to:

- 900+ cities, 35,000+ participants, and 600+ organizers globally.
- Generating climate solutions in urban planning, circular economy, and renewable energy sectors.
- Acting as an **entry point for start-ups**, with successful projects transitioning into Climate Launchpad and the Climate Accelerator.
- In 2020, over 4,500 participants took part in Climathon across five continents, with key themes including:
- Post-COVID sustainable recovery strategies.
- Urban planning for climate resilience.
- Nature-based solutions for pollution control.

Annex 6.2 - Details on Climate impact assessment scope offered

Climate impact is at the core of Climate KIC's entrepreneurship activities supporting start-ups. Climate KIC applies a science-based approach to impact assessment to guide early-stage start-ups in their journey to understand the social and environmental impact of their product or service.

Climate KIC's impact assessment services team provide a comprehensive suite of services designed to measure, project, and communicate climate impacts. These services are tailored to meet the needs of startups, SMEs, and the programs and investors that support them.

The services offer start-ups a competitive advantage, helping them provide transparency and trust, aiding their efforts with supply chain and procurement considerations such as supplier sustainability assessments and assisting with their overall value proposition via offering continuous improvements and business model adaptation to strengthen impact potential. Here are the measures:

- **Potential Avoided GHG Emissions -** we help startups and SMEs quantify the potential greenhouse gas (GHG) emissions products or services can avoid, using a streamlined comparative Life Cycle Assessment (LCA) approach. The results are validated by third-party climate impact experts and compiled into detailed reports that investors highly value.
- Adaptation & Resilience we equip startups and SMEs with the tools to measure the effectiveness of their solutions in adapting to and withstanding climate change. Through key performance indicators (KPIs) and a tailored approach, we help them gather both quantitative and qualitative data to assess vulnerabilities, identify risks, and develop strategies to strengthen their resilience and adaptability.
 - **Circularity** we help startups and SMEs measure the impact of their innovations within the context of the circular economy, with a focus on minimizing waste and maximizing resource efficiency. The results provide narratives, data points, and KPIs that clearly articulate their circularity efforts. By collecting and





analysing both qualitative and quantitative data, the service turns insights into actionable strategies for improving circularity.

- Social Impact in a world of diverse needs and perspectives, women bring distinctive leadership qualities, social change capabilities and entrepreneurial skills that are essential to innovation. While we see youth stepping-up to lead climate action globally. Climate KIC sees investing in women and youth entrepreneurship as an opportunity to accelerate an inclusive, green transition.
 - We work on a range of activities to help partners identify gaps in their understanding of inequity and implement concrete actions to embed inclusive innovation principles into their everyday work using our range of gender-smart and inclusive climate innovation toolkits. Integrating equity and inclusion principles into climate innovation, we blend expert guidance, tailored educational efforts, and insightful assessments to cultivate an inclusive and impactful sector.
 - Our DEI and gender measurement services support ESOs, startups and SMEs in evaluating their diversity, equity, and inclusion (DEI) practices. Through thorough analysis, tailored workshops, and one-on-one training, we help businesses assess their current DEI standing and develop actionable strategies to create a more diverse and inclusive work environment.
 - Through this work, Climate KIC is recognized as leader in gender-inclusive entrepreneurship, cochairing the 2X Global Climate & Gender Finance Community of Practice.
- Systems Paradigm Climate KIC is currently developing a service that helps startups and SMEs evolve their business models by identifying opportunities to expand their impact within the larger systems they operate in. Through practical systems-thinking exercises, we help entrepreneurs establish a baseline and develop action plans to deepen their contribution to systemic change, while also enhancing their business's sustainability.



