GREEN STARTUP ECOSYSTEM

Overview Report 2022



ClimAccelerator BLACK SEA

eit Climate-KIC Co-funded by the European Union

IMPACT HUB Bucharest

Raiffeisen BANK

OMV Petrom Energia pentru o viață mai bună.

INNOVATION STARTER

TABLE OF CONTENTS

01 PARTNERS

02 INTRODUCTION

03 CLIMATE VENTURES IN EUROPE

04 INNOVATIVE TRENDS IN EUROPE

05 ECOSYSTEM OVERVIEW: ROMANIA

06 ECOSYSTEM OVERVIEW: BULGARIA

07 CONCLUSIONS

PARTNERS

EIT Climate-KIC is a Knowledge and Innovation Community (KIC), working to accelerate the transition to a zero-carbon, climate-resilient society.

Supported by the European Institute of Innovation and Technology, we identify and support innovation that helps society mitigate and adapt to climate change.

We believe that a decarbonised, sustainable economy is not only necessary to prevent catastrophic climate change but presents a wealth of opportunities for business and society.

Launched in 2012, Impact Hub Bucharest supports the development of entrepreneurial and innovative initiatives with positive impact through coworking spaces, growth and incubation programs, conferences and events and an online platform to digitize our support for entrepreneurs and make it available nationwide.

Impact Hub Bucharest is part of the global Impact Hub network that has over 100 locations on 5 continents.

Innovation Starter is the first specialized innovation agency in Bulgaria, founded by Leona Aslanova in 2014.

It collaborates with the business (corporates and startups), the public sector, the academic sector and the non-government sector to design a long-term culture of innovation.

The company's mission is for Bulgaria to become a leading European country in the field of innovation.

INTRODUCTION

INTRODUCTION IMPACT HUB BUCHAREST

For the last 10 years, we at Impact Hub Bucharest have been an active supporter of local entrepreneurs and their initiatives. Since 2012, we are building programs and networks to support start-ups innovating the most challenging issues of the world we live in. Climate change is, most likely, the most complex yet.

For the second year in a row, we are part of the consortium organizing Black Sea ClimAccelerator, the place where green, scalable solutions gain the traction, know-how and visibility they need to create a significant impact in their communities. And for the second year in a row, we are proud to be part of a diverse network of local stakeholders all willing to contribute to this purpose – from public authorities, private companies and corporations, to NGOs, scientists and researchers, civic groups and entrepreneurs.

Green innovation is just making its first important steps in the Romanian Ecosystem. This is why the results of the second edition of the Green Start-up Ecosystem Overview Report are relevant to the future development of this vertical in our region. The information we have compiled offers an overview of the current state of the ecosystem, along with trends and initiatives that can reverse and manage the negative impact of human action on the environment. Additionally, it is a useful tool for anyone aiming to develop solutions using sustainable business models that produce value while protecting the planet.

INTRODUCTION INNOVATION STARTER

Innovation Starter is the first specialised innovation Agency in Bulgaria that runs one of the most successful accelerations programs since 2014. Investing in a sustainable future is one of our main goals. Following this goal Innovation Starter is a member of Green Finance and Energy Cluster in Bulgaria, RIC Gabrovo, Global UN Contract, etc.

We believe that the impact of eco-innovation solutions could bring significant value to society, EU and our stakeholders. Environmental performance in sustainable firms and the relation between environmental management and financial performance have been widely analysed and, in the firm context, sustainability appears to be an opportunity to improve the competitiveness.

Eco-innovation, defined as “any form of innovation resulting in or aiming at significant and demonstrable progress towards the goal of sustainable development, through reducing impacts on the environment, enhancing resilience to environmental pressures, or achieving a more efficient and responsible use of natural resources” has not ceased to receive enough attention in Bulgaria.

Innovation Starter`s ambitious is to support more than a 100+ eco-innovation solutions in Bulgaria for the next investment period of 5 year and to build strong green ecosystem community.

INTRODUCTION RALUCA NICOLESCU, SME DIRECTOR RAIFFEISEN BANK



When we think of entrepreneurship, we think of things like bravery, innovation, agility, and creativity. The start-ups' small size, flexibility in operating and resource reallocation, ability to quickly adapt their strategy, strong link with their local community and r infrastructure and business environment, all become critical factors in discovering and implementing solutions that could improve our relationship with the planet.

Examples of innovation and success are countless and diverse, all related to sustainability goals: circular and small-scale food industry chains, food waste reduction, water efficiency, linking carbon dioxide storage in agricultural soil, infrastructure for electric vehicles, "industrialization" of old local techniques or crafts, and use of residues associated with various crops as energy sources.

Of course, all of this is possible if such early-stage entrepreneurial ideas can find funding, talent, support in the form of government and local policies, mentors to help them keep the culture of innovation alive, and a desire to do good beyond the personal one. And this is where those willing and able to support, create alliances, and connect these ideas to have as a result sustainable and successful businesses.

What are we, Raiffeisen Bank, doing to carry out our responsibilities?

Raiffeisen Bank has built factory, a hub of opportunities for entrepreneurs that supports each stage of their development, whether it is entrepreneurial education, financing, consulting, or scaling support. This year marks the program's fifth anniversary, and it is where we have educated over 150 entrepreneurs, funded over 300 start-up businesses, and most importantly, built a community eager to support them.

Raiffeisen Bank is known as a banking school with a strong agricultural tradition, so we combined the two by participating in two educational programs for farmers with partners who share our goals and passions. One program focuses on management and business in agriculture (MBAG), and another on sustainable agriculture (Greenfields Academy), whereby we learn together how to grow farms and simultaneously take care of the 3Ps – profit, planet, and people.

There is also energy, particularly its source and cost. With the support of the RBI group and our clients, who are also our partners, we launched the first module of a sustainability platform focusing on solar energy for small businesses and potential prosumers. They can find financing and partners to assist them in identifying and implementing the best solution and a wealth of information from the energy sector.

These are just a few of the initiatives we have, and with every step we have taken, we have grown more confident that innovation exists and that it comes mainly from the bold and those who have a passion or a goal to contribute to build a better society for tomorrow.



OMV Petrom
The energy for a better life.

CLIMATE VENTURES IN EUROPE

In PwC's most recent report, **The State of Climate Tech 2021,** climate tech is defined as ***technologies that are explicitly focused on reducing GHG emissions or addressing the impacts of climate change. Climate tech applications can be grouped into three broad, sector-agnostic groups:***

1. ***Those that directly mitigate or remove emissions.***
2. ***Those that help us adapt to the impacts of climate change.***
3. ***Those that enhance our understanding of the climate.***

HOW INVESTIBLE ARE CLIMATE TECH STARTUPS?

Prominent investors, such as Bill Gates and Larry Fink, firmly believe in the power of technology to change the future and mitigate the climate crisis. Moreover, according to the same report, investment in climate tech is continuing to show strong growth as an emerging asset class, with a 210% increase in 2021 compared to 2020.

The Rise of European Climate Tech, a report by DealRoom and Talis, indicates that the European climate tech startup ecosystem is now worth over $100 bn, doubling its value since 2020. Since 2017, climate tech is Europe's fastest-growing sector in Europe, second only to fintech overall.

However, despite these promising figures, the number of early VC, seed and Series A investments has remained largely stagnant since 2018 according to PwC. Early-stage startups have a hard time finding investment for their solutions due to risk aversion. Another problem is represented by the gap in terms of founders who understand the deep climate tech challenges and how these can be solved. The interdisciplinary nature of climate tech across industries means that it depends on several different talent pipelines, unlike more defined investment areas such as biotech.

The time to act is now, no matter how skeptical today's founders, technologists, industry leaders and investors may be: the world has less than 10 years to halve global greenhouse gas emissions before we reach 1.5°C of global warming. After that point, it might be impossible to fight the irreversible damage caused by climate change. To achieve this, every sector of the global economy needs to transform and radically decarbonize in just over two business cycles. Acknowledging the urgency, The European Commission has joined the European Climate Pact in April 2022, pledging to make its operations climate neutral by 2030. Many of the technologies and solutions critical to enable this 'net zero' transformation need rapid commercialization, with many more needing to be accelerated out of the lab or even conceptualized.

The EU is setting increasingly ambitious climate targets, with emissions reductions of 55% by 2030 and climate neutrality by 2050. Cleantech innovation is essential for achieving these targets and securing continued competitiveness.



THE EUROPEAN POTENTIAL FOR CLEANTECH

Technological innovations in the form of AI, synthetic biology, advanced sensors, and more, are transforming the unit economics of climate solutions. And political capital has never been more focused on policy innovation around climate change. Together, these are creating ideal conditions for climate entrepreneurship.

Through the European Green Deal, Europe is aiming to become the first climate-neutral continent by 2030. One-fifth of the world's largest corporates have made "net zero before 2050" pledges. Consumers are demanding climate responsibility from brands, and sustainable products are seeing higher growth rates than their non-sustainable alternatives. (Dealroom.co)

The EU already has at its disposal a large and high-quality supply of cleantech innovation waiting to be scaled across all sectors of the economy, a recent report by **Cleantech Group** showed. The same document also pointed out that amounts invested have grown by a factor of 7.5x over the last decade, driven by extraordinary progress in seed funding for early-stage cleantech innovation.

So where does the European potential lie?

Well, the EU **is known** to have a path to leadership in the following sectors: Green Hydrogen, Sustainable Aviation, Soil Carbon, Low-carbon Construction materials, Green Steel.

Moreover, according to Sifted, ***European sustainability startups raised nearly €11bn last year — and that momentum has continued into 2022 for Europe's planet positive companies.***

€2.8bn was thrown at green startups in the first quarter of 2022, just slightly less than the €2.9bn raised in Q4 2021, according to data from Dealroom. 163 startups raised funding this quarter — just a tad lower than the 190 startups raising the quarter before.

€11BN
2021 | Q1-Q4

€2.9BN
2021 | Q4

€2.8BN
2022 | Q1

The most investible sectors in Europe have been the **energy** sector, followed closely by **refurbished electronics**, and **transport**. Also, the most promising sectors apart from those mentioned before seem to be the **agritech** and the **food** industries. Dealroom has also identified in their **latest report** **carbon removal** as a promising yet nascent segment:

Carbon removal startups are companies that are engineering the removal of CO2 from the atmosphere and waste streams. They include direct air capture (DAC), biochar, mineralization, enhanced weathering, and more.

CLIMATE TECH VCS IN EUROPE

There are **62** active European investors in climate startups

30 invest in early-stage start-ups

10 invest in growth start-ups

32 are corporate investors

MOST ACTIVE CLIMATE VCS IN EUROPE

- Climate KIC Europe
- Bethnal Green Ventures
- Inven Capital
- VNT Management
- Future Positive Capital
- Demeter
- Schneider Electric Ventures
- Breakthrough Energy Ventures
- Total Carbon Neutrality Ventures
- BayWa r.e. Energy Ventures
- Statkraft Ventures
- Wi Ventures
- Contrarian Ventures
- SET Ventures
- Convexa
- Equinor Energy Ventures
- Nysno Climate Investments
- The Zero Carbon Fund
- Carbon13
- Atlantic Labs
- Ecapital
- Munich Venture Partners
- Breakthrough Energy
- WorldFund
- Norrsken VC
- 2150
- LightRock

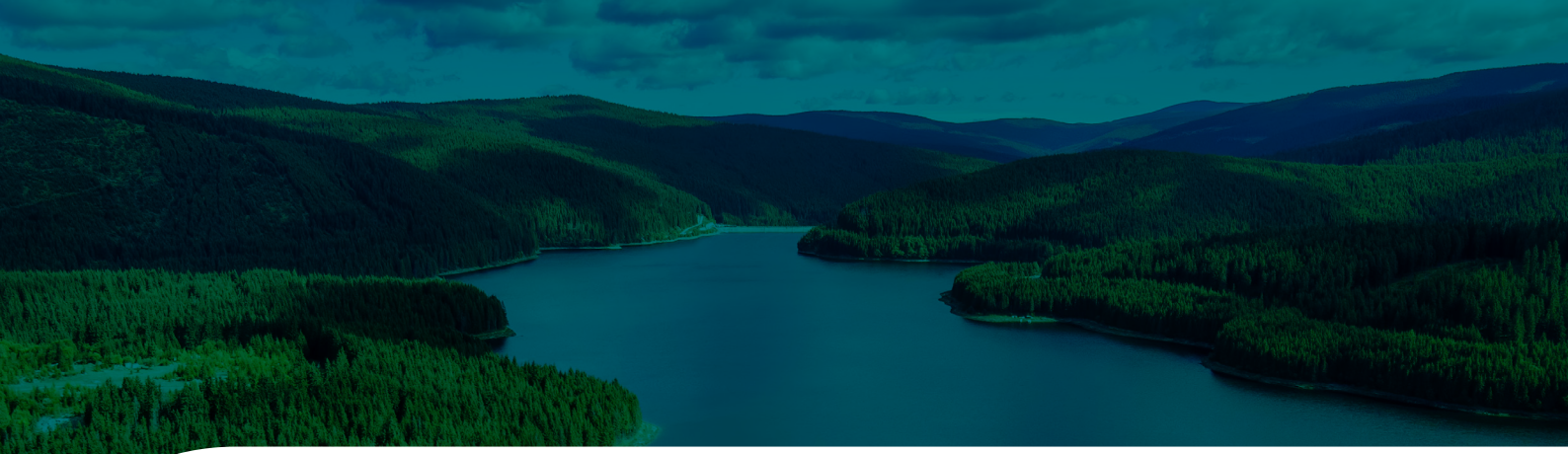
Sources:
Sifted.eu https://sifted.eu/articles/europe-climate-vcs-cop26/,
Climate50 (https://climate50.com/)

ACCELERATORS DEDICATED TO GREEN INNOVATION

Mappings of acceleration and incubation programs for climate startups in Europe available in this **AirTable** running list created by **NetZero Insights** or in the **database provided by Ward.VC.**

- Shake-Up Factory
- Katapult Accelerator
- Rockstart
- Nordic Innovation Accelerator
- Forest Valley
- ClimAccelerator

Source: ClimateScape.org.
Sifted & Climate Technology Incubators and Accelerators Report



ROMANIA'S POSITION IN THE ECOSYSTEM

As Ashoka's Report on **Climate Innovators Mapping in Central and Eastern Europe** showed, *Romania and Bulgaria occupy notoriously low places on the European Innovation Scoreboard, followed by the cluster of Visegrad countries (Czech Republic, Poland, Slovakia, Hungary). This trend, while not field-specific, obviously permeates the state of play in climate innovation.* The same source also notes that the two countries have been identified the fewest policymakers as part of the network.

In the **Global Cleantech Innovation Index**, Romania ranks right above Bulgaria among all European countries for cleantech-specific drivers.

This highlights a particular weakness that inhibits emerging cleantech innovation.

- No evidence of early-stage funding was recorded and there are very few successful climate tech start-ups.
- The lack of late-stage financing in cleantech and very low scores for cleantech commodity trade set make the local innovation score low.
- Romania shows relative strength in the proportion of renewable energy consumption by total primary consumption (ranking 11th), highlighting the establishment of clean energy technology in the country.

According to the European Commission's most recent **Eco-Innovation Index** report, Romania occupies the 25th position out of the 27 EU states. The country fares better and is closer to the European average in terms of socio-economic outcomes and resource efficiency outcomes, but unfortunately performance has decreased since the last report period. The eco-innovative inputs and activities are at relatively half of the EU average level.

Among the identified factors that prevent Romania from ranking higher among the EU countries when it comes to the transition towards a circular economy are the low demand and low environmental awareness in businesses and the general population, the burdensome policy framework, the lack of policy vision and proper incentives in this field.

Moreover, Romania has been one of the latest to jump on the environmental bandwagon: in 2021, the Romanian authorities **were still drafting a Sustainability Code** meant to keep in check the economic activities of the largest companies operating on the local market. 2021 is also the year when the **Department for Sustainable Development** has been created within the Romanian Government.



EU SUPPORT POLICY

In recent years, we have seen a series of consistent normative acts and frameworks for new European policies in terms of sustainability and climate change. They are also supported by funding & support mechanisms for innovation, cross-country, and cross-disciplinary cooperation. Through the **European Green Deal,** the European Commission has pledged to achieve climate neutrality by 2050. In order to support such an ambitious goal, the European Commission i*s mobilizing one third of the 1.8 trillion-euro investments from the NextGenerationEU Recovery Plan, and the EU's seven-year budget to finance the European Green Deal.*

The European Green Deal will improve the well-being and health of citizens and future generations by providing:

- Fresh air, clean water, healthy soil and biodiversity
- Renovated, energy efficient buildings
- Healthy and affordable food
- Cleaner energy and cutting-edge clean technological innovation
- More public transport
- Longer lasting products that can be repaired, recycled and re-used
- Future-proof jobs and skills training for the transition
- Globally competitive and resilient industry

These objectives are also in line with the **United Nations' Sustainable Development Goals**, a list that is rather a manifesto, *a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity. The 17 SDGs are integrated—they recognize that action in one area will affect outcomes in others, and that development must balance social, economic and environmental sustainability.*

Another project directly linked to the European Green Deal is the **New European Bauhaus**, an initiative that is *bringing a cultural and creative dimension to the European Green Deal, a creative and interdisciplinary initiative that connects the European Green Deal to our living spaces and experiences. The New European Bauhaus initiative calls on all of us to imagine and build together a sustainable and inclusive future that is beautiful for our eyes, minds, and souls.* You can follow the opportunities, such as the events happening under the New European Bauhaus umbrella, or the funding options here.

One of the most important components of the Union's strategy for the transition to a net-zero economy is Horizon Europe, is the EU's key funding program for research and innovation. With a budget of €95.5 billion, it tackles climate change, helps to achieve the UN's Sustainable Development Goals and boosts the EU's competitiveness and growth. The program facilitates collaboration and strengthens the impact of research and innovation in developing, supporting and implementing EU policies while tackling global challenges. It supports creating and better dispersing of excellent knowledge and technologies.

Other key pillars of this ongoing transformation are the KICs – the European Institute of Innovation and Technology's Knowledge and Innovation Communities, which are domain-specific and receive funding for projects pertaining to their area of expertise. Among them, the most prominent are the Climate KIC, EIT Food, EIT Health, and EIT InnoEnergy.

Apart from all the programs and support policies, a partnership was established between the Commission, European Investment Bank and Bill Gates-backed Breakthrough Energy Catalyst, which will mobilize up to €820 million ($1 billion) between 2022-2026 to accelerate the deployment and rapidly commercialize innovative technologies that will help deliver European Green Deal ambitions and the EU's 2030 climate targets.

Each euro of public funds is expected to leverage three euros of private funds. Investments will be directed towards a portfolio of EU-based projects with high potential in four sectors:

- clean hydrogen
- sustainable aviation fuels
- direct air capture
- long-duration energy storage





INNOVATIVE TRENDS IN EUROPE

Innovative trends in Europe are connected to the most pressing challenges in our world today and they aim to find alternatives to less sustainable practices and materials.

Some of the most important include:

- Alternative fuels (like carbon-neutral hydrogen) and renewable energy sources
- Sustainable fashion and fiber collection, recycling, repurposing
- Product design regulation (for longer periods of use and ways to recycle them after they are no longer functional), along with producing plastics more sustainably
- Carbon capture
- Electric vehicle infrastructure
- Artificial intelligence (for optimizing the resources used)
- Space technology (for gathering data on the state of our planet and climate)

INNOVATIVE TRENDS | ROMANIA

A 2019 report by Ashoka Romania and EIT Climate-KIC mapped the network of climate innovators in Central and Eastern European countries. In Romania, the report identified 189 climate innovators, who are generally strongly inter-connected, in the following fields: climate-smart agriculture, energy efficiency, socio-economic transformation in post-coal regions, air pollution.

The document highlights a number of sectors that require special attention in the following years:

- Climate-smart agriculture
- Energy efficiency: Romania's building sector shows high energy consumption and low performance in terms of energy efficiency, with a high prevalence of residential buildings
- Circular economy
- Air pollution is one of the key environmental challenges in Romania, with increasing levels, especially in urban areas

This year's ecosystem mapping showed, similarly to the previous edition, a growing interest for Circular Economy and Zero-Waste initiatives, aimed both at mass production practices and at consumer education and acquisition habits.

The second fastest growing vertical is represented by solutions in Agriculture, Food and Beverages, featuring both alternatives to traditional products and initiatives to support farmers in growing their crops more sustainably and with a higher predictability.

INNOVATION TRENDS IN THE BULGARIAN GREEN SECTOR

One of the country-specific recommendations made by the European Council for Bulgaria was to focus investment-related policy on energy efficiency and energy infrastructure in order to contribute to a progressive decarbonization of the economy. Thus, Bulgarian policy makers have laid out an initiative in the Plan to establish a National Decarbonization Fund, which will offer grants and financial instruments through a one-stop-shop mechanism in order to finance low-carbon energy projects.

Trends in low-carbon energy development in Bulgaria are visible. Bu for year 2022 the most significant green trend is the digitalisation of agro-sector and search of an innovative eco-solutions for agriculture. 50% of the startup ideas that applied in ClimAccelerator Black Sea (Bulgaria) program 2022 obtain agro eco-solutions for disturbing local problems.

ECOSYSTEM OVERVIEW: ROMANIA

START-UP OVERVIEW

NUMBER OF STARTUPS INCLUDED IN THE MAPPING: 150

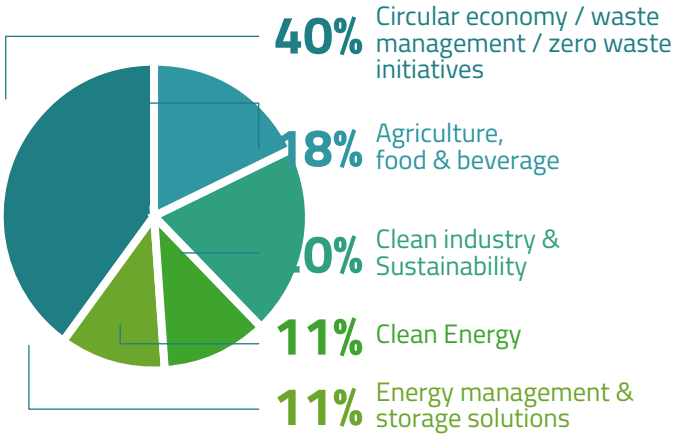
Start-ups based in more than 1 city 8

Start-ups with an international office 7

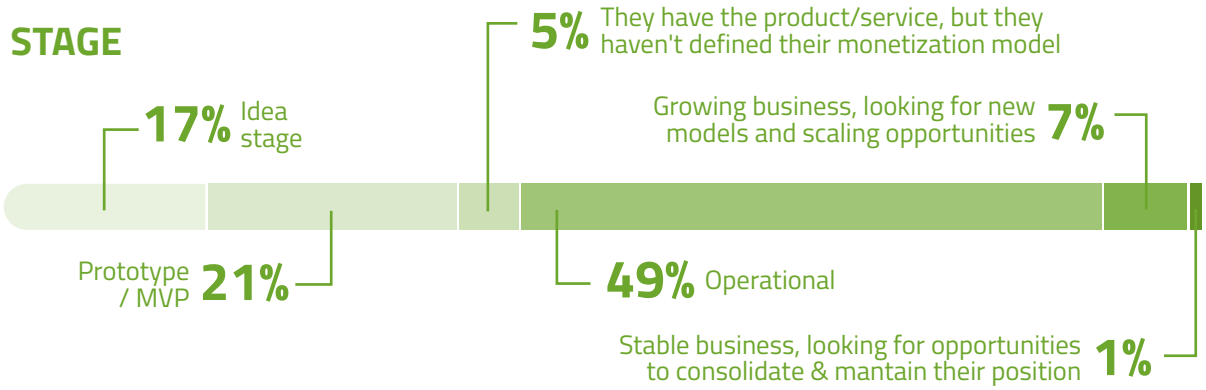
CITIES



INDUSTRIES & VERTICALS THEY ADDRESS



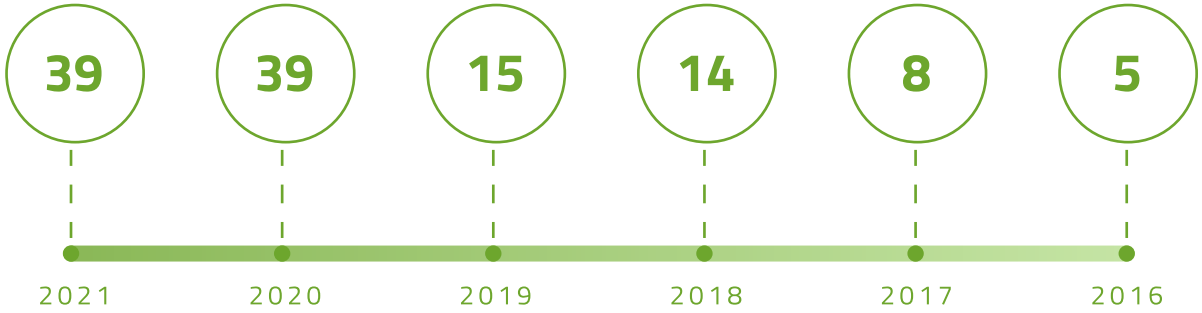
STAGE



TYPES



FOUNDING YEAR



Starting 2020, there was a significant rise in the number of such initiatives in Romania – after 2019, their number has more than doubled.

GREEN STARTUP ECOSYSTEM OVERVIEW ROMANIA

Agriculture, Food & Beverage

Agramonia
Rural Romanian Experiences
Clevereat
TOPCROP
AGROGPS
Pukka Food
peelhy
NUCIM.RO
CARBON TWIN
biodeck
BLUANA
aeroponix robotics
THE PERMINATOR
OGOR
FOOD FOR EARTH
AGROKULTURA
MobileControl
econ
Verde
LEAFBY
CBN agro.tech
ENTEN SYSTEMS
AGRICLOUD
Pukka food
Ferma de Păsări Păşunate
nextfarm
ELPIDA RESEARCH INC
bonapp.eco
FERMIERUL 4.0
COMPOGO
SERA AQUAPONICĂ BIO

Circular Economy / Waste Management / Zero Waste Initiatives

Green WEEE
FOLDO
GI
Technology Artizans
vintello
toboro
URBAN MIRROR
rongo
MUNCH ROMANIA
obloj
Terrawell
estiverde
ECOCYCLING
VELTRA
PAI DIN STUF
ORIGIN natural
AER
BIOMASS
PERPETOO
Clean Recycle
ØNO
wastebill
Naked Shop
BILLIT
Be Involved
Centru de Economie Circulară
SVIPT
econ
BIOCONVERSIA
BAMBOODA
biodeck
podish
3WLABEL
EASYPEASY
esenca
R-CREATE
e-Troc
PolyMore
ECOSOSETE
CASEROLE COMESTIBILE
evertoys
my straw
ALL RIGHT
ECOTREE
renti.
DROP PLASTIC
The Climate Change Company
flip

Clean Energy

EVOLTA
SLICK
eVT
WATTO CHARGING STATIONS
SUNSTREAM
greenspots
SOLAR CHAIR
SMARTBUGGY
TELEPORT
SUSTENCITY
NIDUS

Clean industry & Sustainability

uRADMonitor
global environmental monitoring network
URBAN MINING SOLUTIONS
SINAPSERIA BIKE COURIER
caminota
TREEBEE
HARDWIRED
SPOTFire
PARKITNOW
SKULPTOR
UP TERRA
Grădina din Siriului
SUPERPĂMÂNT
ZANUMI
Box2Ev.com
PARKING BUDDIES
Vehicool
CREATIVE MOTION
CRUZE
BEELOG
UPTERRA
MINODORA
RASTEL.IO
2030 BUILDERS
DENDRO IT
Happy Treds
ALTRNTV
VASK

Energy Management & Storage Solutions

charger.ro
MOTUM
sensix
Ogre
HYDROGEN PVC
EV-SPOTS DRIVE
EVconnect
KFactory
RF METERS
VOLTA
TAPOHUB
Polyfazer
MaMd
GreenTAGS
RONIN

LOCAL STARTUPS SUPPORTED BY EIT CLIMATE KIC

2030 Builders is a digital tool for companies to integrate sustainability into their business strategy, from sustainability onboarding and aligning with employees to creating sustainable business models.

Agro GPS – A precision agriculture company dedicated to developing intelligent solutions for farmers that are both cost efficient and nature friendly.

Agrokultura is an online platform that helps farmers better interact with the agricultural processes in order to reduce costs and increase the crop's productivity. They offer smart IoT solutions for precision agriculture, allowing farmers to monitor their fleet and correctly estimate the costs of operation for the vehicles they use.

ALTRNTV - A sustainable items shop with clothing, footwear, accessories, cosmetics, and home-deco products created from sustainable materials, with production techniques friendly to the environment and skin, made in Romania.

Bioconversia is Turning polluting organic supbroducts into proteins with the help of insects.

BioMass is a biotech company that creates natural products which are also high-performing, safe, durable, and tightly linked to nature, made from agricultural waste and ecological mycelium.

Bluana makes plant-based products with all the benefits of fish meat meant to replace it.

Caminota makes natural clay-based plaster, used to cover the walls of the home in a sustainable way.

Carbon Twin is a climate tech startup that offers farmers soil carbon monitoring solutions. Our mission is to democratize the way these deposits are currently measured and monetized, on the Voluntary Carbon Market.

Caserole Comestibile produces 100% edible containers, biodegradable and transportation-safe for takeaway food.

Charger.ro is the first one-stop-shop marketplace that brings together solutions, products & equipment, starting with the green urban mobility market. □□ We make green energy more accessible!

LOCAL STARTUPS SUPPORTED BY EIT CLIMATE KIC

CompoGO - The platform that connects businesses in the food industry with farms, creating organic fertilizer from food waste. Thus, the food surplus from restaurants, supermarkets, and other companies goes back to nature, closing the economic loop.

EasyPeasy is a platform that allows restaurants, cafes, stores, bakeries, farmers, and small producers to sell the products that have not been sold by the end of the day at a reduced price. E-Car Concept is the first Romanian electric car.

Eco Cool Socks is a startup that proposes an ecological solution for the production of socks by using recyclable cotton by robots.

EcoTree is an innovative B2B digital platform that fundamentally accelerates the way waste collection and recycling are carried out, regardless of typology, quantity or provenance and is due to be launched in the coming months.

Elpida Research INC – A start-up specialized in the micro-production of cancer and plant vaccines, in Pharma, health, biotechnology, and agri-food market.

EV SPOTS Drive is the app for the 1 st network of fast charging EV stations 100% solar-powered.

EVConnect focuses on a netork of charging stations for electric cars.

Foldo is an environmentally friendly project meant to bring to the design and interior decorations market new types of furniture made from recyclable cardboard.

Happy Treats is the first manufacturer of natural treats for dogs, without additives, with mealworms and not only. They are also developing a Tenebrio Molitor farm, to offer agricultural and poultry farms healthy ingredients.

Laura and Wine creates the sustainable wine glass, designed and manufactured in Bucharest, entirely out of recycled glass. The sustainable glass is dedicated to the people who love design and are sustainability promoters.

LOOMescu is a weaving studio that transforms used textiles into new, unique items. By using a loom, weaving skills and creativity, we transform your old T-shirt into a rug or a decorative wall hanging.

Mall Taranesc is the platform connecting families living in the big cities with small producers from the countryside.

LOCAL STARTUPS SUPPORTED BY EIT CLIMATE KIC

MOTUM is an integrated platform that makes use of Bucharest's digital skin to empower and incentivize drivers towards transport means alternative to the private vehicle by rewarding them according to their choices. With this app-concept, we are representing Europe at ERTICO's Global Innovation Competition.

Nucim.ro offers healthy snacks made with nuts, dried fruits, and seeds. The snacks are 100% natural and created after a nutritionist's recipe.

Pimp My Garden focuses on ecological urban agriculture, composting and vermicomposting, additives and fertilizers for the Eco zone.

Polymore - Automatic detection of wrongly sorted waste. The solution addresses the sorting problem at its root, making the process more efficient and less costly in waste management facilities.

R-CREATE offers environmentally-friendly packaging solutions, integrating their packaging-as-a-service solution in their logistic chain, by using digital instruments.

Re-Centru de Economie Circulară is the first integrated center for circular economy.

Renti is a marketplace where women can rent fashion items for short-term uses. Using a circular economy model, Rent it. allows you to monetize your wardrobe by renting out your own pieces.

Sera Aquaponica Bio offers a new way of practicing agriculture, without using artificial fertilizers or other chemical substances, and minimal quantities of water and energy.

Spot the Fire is a project that aims to detect wildfires that are close to our homes and monitors in real time, on the platform, the active arsons and their dimensions.

Tech Artizans Biodigestor Modular is a Modular Micro biodigester that can work for cold climate countries.

The Climate Change Company has developed Littar®, a road construction material made from plastic and glass waste

The Perminator is an app that allows you to create a food forest design.

UpTerra merges the ambient space and nature through a terrarium. The terrarium includes plants and 3D printed elements that have been created using recycled plastic from used plastic bottles.

LOCAL STARTUPS SUPPORTED BY EIT CLIMATE KIC

Urban Mining Solutions focuses on the recycling of plastic and rubber waste into an energy source (Eco-oil and synthetic gas).

Verde is the B2B Marketplace with logistics management where all local produce is being traded.

Verdoo is a free tree planting platform to help shoppers offset the CO2 footprint of online shopping and find the best price reductions.

WasteBill is an environmentally friendly app that eases up the work of those in charge of monitoring the environmental practices through an automated platform that preserves the legally defined format.

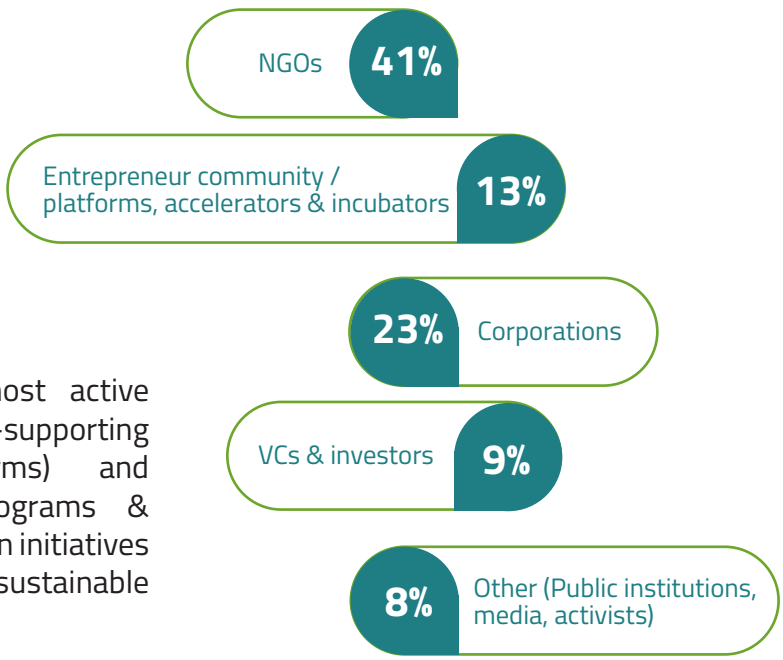
STAKEHOLDER OVERVIEW

NUMBER: 115

More than half support other initiatives and do not have initiatives of their own.

Apart from the NGO environment, most active stakeholders include the entrepreneur-supporting ecosystem (programs and platforms) and corporations (either by financing programs & hackathons or competitions or through own initiatives aimed to accelerate green innovation and sustainable business processes).

TYPES:



ECOSYSTEM OVERVIEW: BULGARIA

Around 2200 start-ups were created in the country between 2013-2021, and about half of the start-ups that received funding still exist today, according to data from the Bulgarian Ministry of Economy. An overwhelming percentage of the start-ups were created in Sofia. And 25% of them are operating in the area of circle economy.

There are 25+ co-working space in Sofia and more than 120+ in the country. Since 2016 operates Sofi Tech Park - the first tech park in Bulgaria that supports startups, investors and eco-systems players in their journey.

52 universities, 300 000+ students, 63 research centres and independent software schools. Highly-skilled workforce and abundance of talent – Bulgaria has a competitive human capital of well-educated and experienced professionals, especially engineers and IT specialists 3rd in Europe and 10th worldwide in terms of the absolute number of certified IT professionals 72%+ of the IT specialists in Bulgaria work in Sofia 90% of the ICT and technological companies are situated in Sofia.





There are 20+ active investment funds, accelerators and ecosystem of business angels and banking investments that support early stage and growth stage entrepreneurs.

As of 2018, the local ecosystem has its first start-up association representing the interests of the start-up founders. The Bulgarian Startup Association (BESCO) is a non-governmental organisation that acts as a bridge between start-ups, private and institutional investors, the government and other stakeholders in the innovation industry.

Other notable organisations supporting the start-up ecosystem include (and are not limited to):

- Bulgarian Association of Business Angels
- Bulgarian Outsourcing Association (BOA)
- Bulgarian Private Equity and Venture Capital Association (BVCA)
- StartUP Foundation
- Bulgarian Association of Software Companies (BASSCOM)
- Bulgarian Chamber of Commerce and Industry (BCCI)
- Bulgarian Fintech Association
- Bulgarian Industrial Association (BIA), and many more

There are 20+ Green Circles and Specialized Clusters such as:

- Green Finance & Energy Centre
- RIC
- Green Restart Coalition of Move.bg
- Gorichka
- Green Transpor Cluster

Sources:
Green Restart Coalition Report Mission Green Bulgaria
Green Finance & Energy Centre - https://gfecentre.org/bg/
https://www.innovasjonnorge.no/en/start-page/eea-norway-grants/success-stories/bulgaria-green-monitor-4.0/
Sofia Invest Agency

GREEN STARTUP ECOSYSTEM OVERVIEW BULGARIA





ROMANIA CONCLUSIONS

Ecosystem evolution

While still in its early stage, the Romanian ecosystem is showing a significant growth compared to the pre-pandemic period – starting 2020, the yearly number of green initiatives has doubled.

This trend can be analyzed through two perspectives:

On one hand, the appetite for entrepreneurship and the individual need of creating impact triggered by the pandemic and subsequent lockdowns

On the other hand, in recent years there has been a growing number of funding options for cleantech and green initiatives, supported by the public debate and calls to action (from both private and public organizations) concerning climate and the future of our planet.

Funding

Even though the VC-funding for start-ups in Romania is off to a shy start, data shows that the overall European ecosystem has an accelerated trajectory. As a Sifted report shows, European sustainability startups raised nearly €11bn in 2021.

Most green initiatives in Romania are mostly funded through grants and VC funding is less common.

Verticals and locations

This year's ecosystem mapping showed, similarly to the previous edition, a growing interest for Circular Economy and Zero-Waste initiatives, aimed both at mass production practices and at consumer education and acquisition habits.

The second fastest growing vertical is represented by solutions in Agriculture, Food and Beverages, featuring both alternatives to traditional products and initiatives to support farmers in growing their crops more sustainably and with a higher predictability.

Almost half of the green startups are concentrated in Bucharest, while others operate in regional capital cities such as Cluj or Timișoara.

Stakeholders and supporters

NGOs and non-profit initiatives are very active in the local ecosystem, also acting like catalysts & partners or advisors for the private sector

Dedicated programs for green entrepreneurs are still scarce, but most incubators or accelerators show an interest in green scalable solutions

There are just a few Romanian Impact investment funds who are just beginning to consolidate their presence in the ecosystem.



BULGARIA CONCLUSIONS

Bulgaria is last in the EU27 in terms of eco-innovation performance by a large margin and with a score of 34. Bulgaria has the potential to move from a modest to a moderate eco-innovator only if it manages to fill in structural gaps in the eco-innovation system starting from the inputs but also working on different related systems such as science and innovation; support to SMEs and the energy system. The policy landscape is extremely important and besides formally including eco-innovation and circular economy in strategic documents, it needs to enforce radical measures for improving environmental performance and triggering eco-innovations.

The reasons for this low performance are to be further explored mainly in the less tangible aspects of social capital; availability of support structures and business intermediaries; and the overall structure of the economy. Only some elements of the circular economy have been integrated in the Bulgarian strategic and policy landscape. The potential of new circular business models has not been explored yet despite certain successes with some waste streams such as plastic packaging and WEEE. A lot of progress is yet to be made in terms of water savings and water reuse. Green Public Procurement is not playing the role it should in terms of triggering the offer of green products and services. Despite the relatively high number of companies certified with environmental management systems, this has not led to significant uptake in terms of green product offer and eco-innovation. Nevertheless, it has to be mentioned that there are promising new start-ups in the area of the collaborative economy and the bio-economy.

The green sector in Bulgaria needs to be constantly developed in close connection with economic and social development policies integrated with the living environment.

Bulgaria needs to evaluate the ecological status of ecosystems, monetise the value of ecosystem services and assess the economic value of natural capital in order to make informed management decisions for the conservation and restoration of nature for the benefit of society and sustainable economic and social development. Involve all economic sectors in nature restoration actions through economic incentives and financial mechanisms for public and private payments for ecosystem services and natural capital. Contribute to the EU Green Pact and help businesses to implement the principle of 'no significant harm' to the environment and climate.

Encouraging the participation of scientific communities, land and forest users and owners, businesses and NGOs in implementing measures to improve and conserve ecosystems, natural habitats and species of European importance. Actions to achieve the objectives of the EU Biodiversity Strategy, including improving the conservation status of species and natural habitats in the Natura 2000 network, increasing the proportion of sites with strict protection and helping local communities to use natural capital for economic development and prosperity. Inclusion in the EU taxonomy.

The country needs to secure clean air, water and environment for all Bulgarian citizens and transition to a circular economy to achieve resource efficiency in waste management.

Source:
https://ec.europa.eu/environment/ecoap/bulgaria_en