



TEC thematic dialogue: Boosting climate technology incubators in developing countries

Accelerating climate innovation in Europe



Climate-KIC is supported by the
EIT, a body of the European Union



Andrea Karpati | Bonn | 14 March 2018

EIT Climate-KIC

ICELAND



Urban Transitions



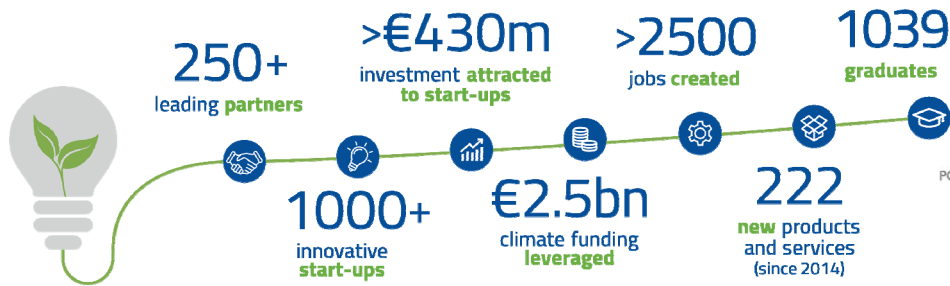
Sustainable Production Systems



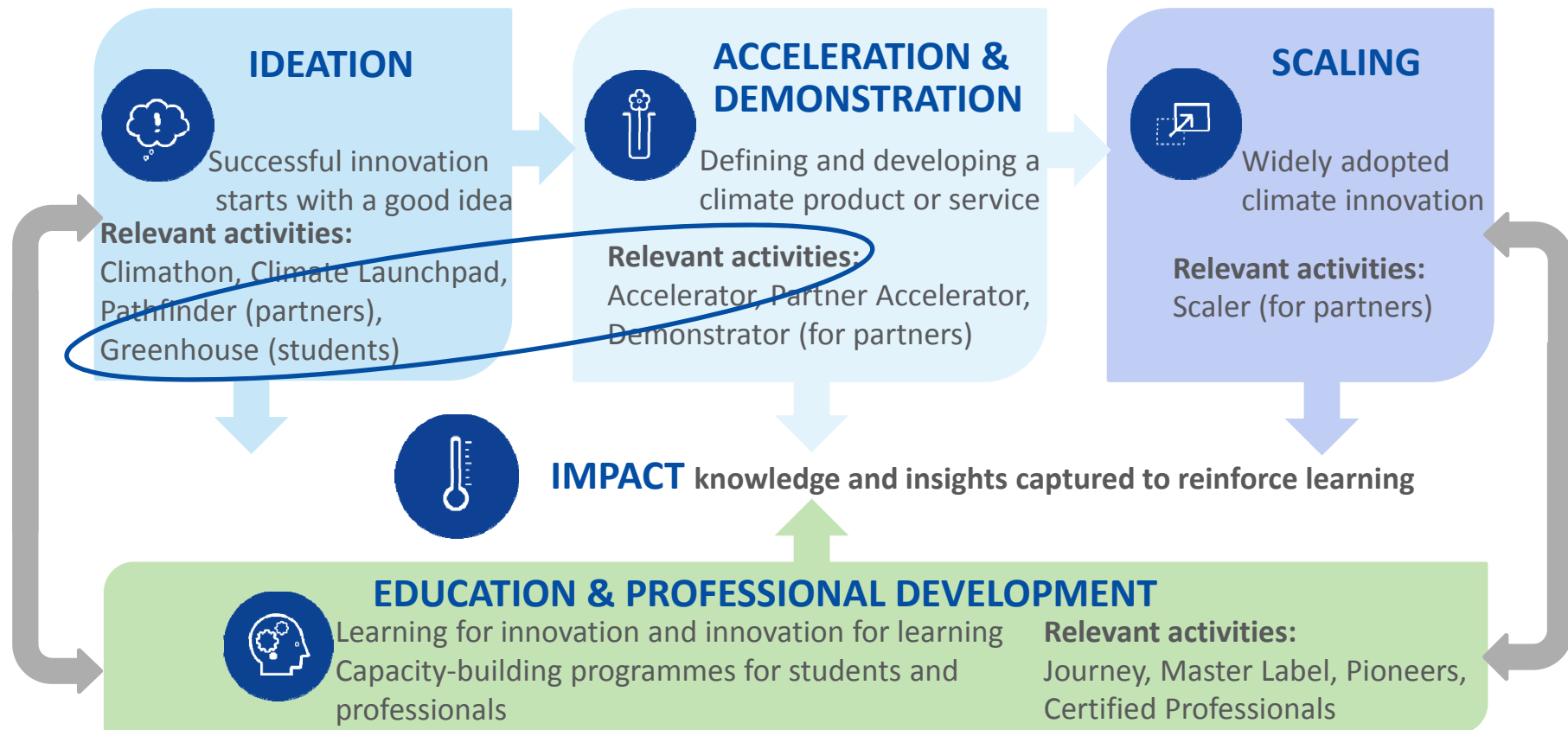
Sustainable Land Use



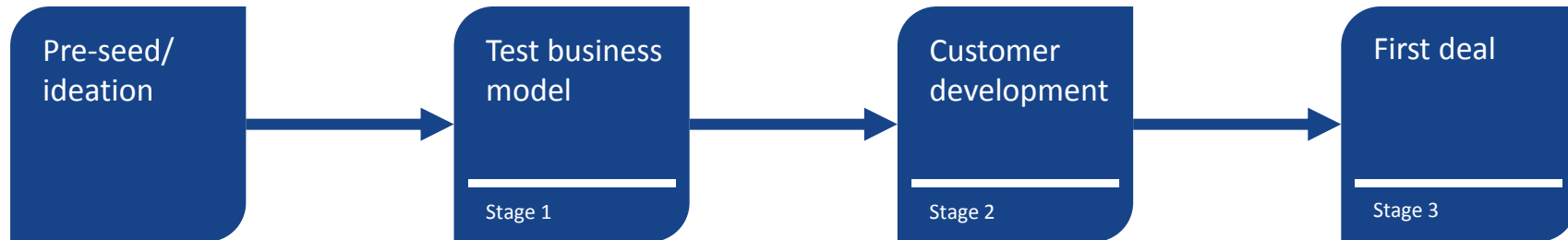
Decision Metrics and Finance



EIT Climate-KIC: End-to-end innovation



Entrepreneurship Programme



Climate Launchpad

Greenhouse

Climate-KIC Accelerator



Expert coaching and workshops



Pitch stage



Mentoring and networking



Working space



Access to Climate-KIC partners



Financial support

Accelerator

Our unique Accelerator programme offers **structured business and commercial support** to European start-ups in the new climate economy:



A **real-world business school** for entrepreneurs;



Rapid development for maximum climate impact;



It helps to turn great ideas into **successful climate-positive businesses**.

Accelerator programme offering



Financial support up to €95k



No equity taken



Coaching, training, technology validation, office space and more



Exposure to customers, partners and investors



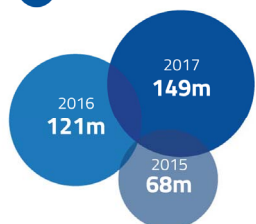
Support locations in 27 European countries



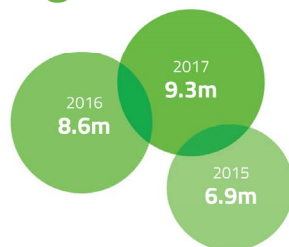
Access to an extensive relevant international network

Accelerator programme impacts

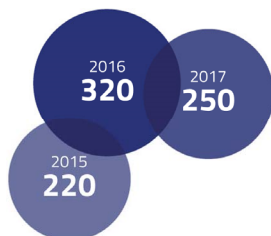
Capital attracted



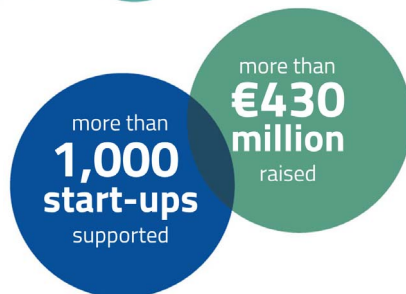
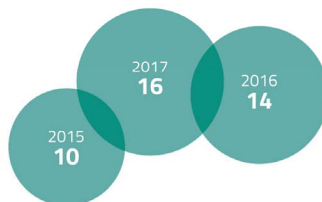
Spend by CKIC



Ideas incubated



Leverage ratio



Social Impact Potential

Programme quality

- Climate-KIC social entrepreneurs featured in Forbes 30 Under 30 Europe List every year



Climate Impact Potential

Climate Impact Assessments

- We assess the **potential to avoid emissions** through **scaling innovation**.
- Coaching for start-ups supported
- Model with robust, flexible method that will enable project-to-project comparisons

Developing new offer: Investor Marketplace

Climate-KIC

INVESTOR MARKETPLACE

Connecting investors with climate change start-ups across Europe

Lilium - The world's first electric vertical take-off and landing jet.

Filter start-ups by

CAPITAL REQUIREMENT (€)
0 to 40,000,000

TECHNOLOGY READINESS LEVEL (TRL)
Level 1 to 9

PROFILE DATA RATING (PDR)
1 to 10

COUNTRY

MARKET SECTOR

ROUND TYPE

- Seed
- Series A
- Series B
- Series C

FUNDRAISING FROM

- Now
- 3-6 months
- 6-9 months
- 9-12 months

Sort start-ups by

A-Z

ADAPTIVE
Balancing Power

Adaptive
<http://adaptive-balancing.de/>
Enabling Renewables - Adaptive offers unique energy storage solutions

MARKET SECTOR
Energy Storage, Mechanical Storage

CITY, COUNTRY
Darmstadt, Germany

FUNDRAISING FROM
December 2017

| ROUND/SIZE € | TRL | PDR |
|---------------------|-----|-----|
| Series A €2,000,000 | 6 | 10 |

AEROPOWDER
<http://www.aerpowder.com>
Rethinking waste feathers

MARKET SECTOR
Clean Industry, Materials Innovation

CITY, COUNTRY
London, UK

FUNDRAISING FROM
June 2018

| ROUND/SIZE € | TRL | PDR |
|---------------|-----|-----|
| Seed €300,000 | 5 | 10 |

AQUA ROBUR
<http://www.aquarobur.se/>
Self-powered sensor platform to detect water leakages and support renewal of public water pipeline networks

MARKET SECTOR
Water, Transmission

CITY, COUNTRY
Gothenburg, Sweden

FUNDRAISING FROM
December 2017

| ROUND/SIZE € | TRL | PDR |
|-------------------|-----|-----|
| Series A €700,000 | 6 | 10 |

Find out more: www.climate-kic.org/marketplace/



Thank you!

www.climate-kic.org
www.climate-kic.org/start-up-accelerator
www.climate-kic.org/marketplace/



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SUCCESS STORIES

City Trees, Green City Solutions

A moss-culture technology that scrubs pollution from city street air where flow is poor and pollution is heavy, **controlled and supplied by Internet-of-Things (IoT) technology**

IMPACT: each unit has the potential effect of **up to 275 average urban trees binding up to 240t of CO2 equivalents annually.**

STAGE: The company has already generated more than **€1 million turnover with over 30 CityTrees sold.** Starting in spring **2017, six CityTrees be will installed in the polluted street of Modena.**

SCALE: Units sold in both Asia and Europe

<https://greencitysolutions.de/en/>



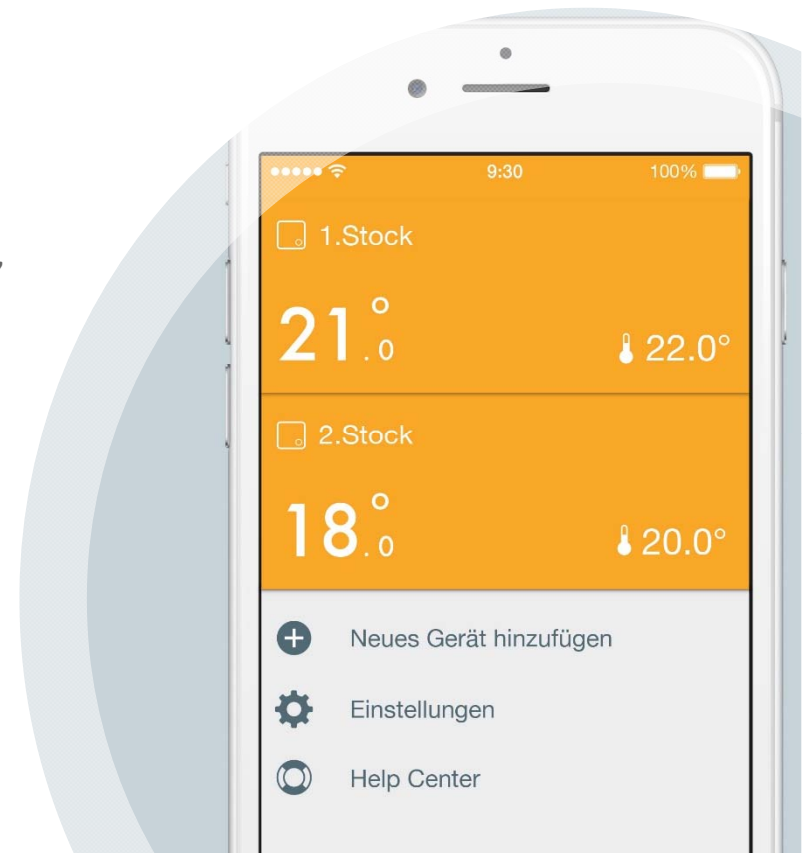
Tado

Smart home climate control, contributing to energy efficient homes

IMPACT: To date, as a result of initial investment from Climate-KIC, the company has raised a total to **€50 million in funding**.

SCALE: Tado° is using this capital to drive **continued global expansion where it can gain critical mass, especially in the US market**, where the company recently listed its product range at Amazon, Best Buy and Home Depot, and secured a number of connected home partnerships, including AT&T Digital Life.

www.tado.com



Solease

Revolutionises the solar market by eliminating cost, risk and hassle. They offer solar panels for a fixed monthly fee, making solar power more affordable than conventional electricity – from day one.

IMPACT: **Annual savings of 1 milliard of CO2 emissions** and lower energy costs per households

STAGE: Installing solar panels by leasing parties

SCALE: Scaling up to install solar panels by 5000 house holds.

Solease fetched **€ 8.5 million through three energy funds**, which made it possible place solar panels on 5000 households



Evolution Energie

Management software that has reduced European gas and electricity consumption by 1.2% in 2014, and a finalist in the 2014 edition of Climate-KIC's Venture Competition.

IMPACT: "Our energy management software, developed for so-called electro-intensive industries (Arcelor, BASF, Total, ADP...), manages 6% of energy consumption in Europe. Our tool has reduced CO2 emissions by 1.2% in 2014, with savings ranging from 10 to 30%."

STAGE: In 2017, Evolution Energie have integrated other amenities, such as water and they address blockchain.

SCALE: They are turning to French and Chinese local authorities

<http://www.evolutionenergie.com/>



Naked Energy

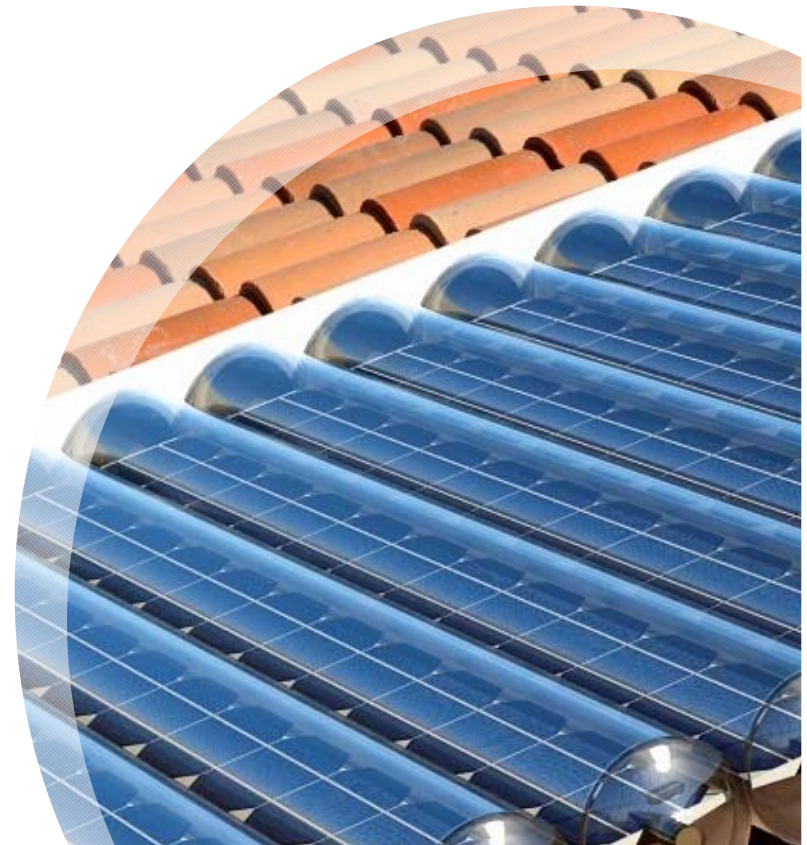
Naked Energy's Virtu technology combines photovoltaic cells and a heat exchanger to produce power and heat, boosting financial returns and carbon savings

IMPACT: Solar technology, energy conservation

STAGE: Start-up founded in 2009, **the technology is now on the market**

SCALE: Manufacturing for customers in the UK, Europe and North America. End of last year the start-up signed an agreement with **US-based manufacturing giant Jabil to scale up the production of its Virtu technology**

<http://www.nakedenergy.co.uk/>



Lilium

The world's first electric jet, which takes off and lands vertically

IMPACT: The jet consumes around **90 per cent less energy** than other drone-style aircraft, comparable to an electric car, enabling it to achieve a range of more than **300 km and a maximum speed of 300 km/h.**

STAGE: Has **raised \$90 million in its latest funding round**, enabling rapid development towards commercialisation of its electric vertical take-off and landing jet.

SCALE: Lilium team is now developing a larger, five-seater version of the Jet, designed for on-demand air taxi and ride-sharing services. **The first manned flight is expected in 2019.**

<https://lilium.com/>



SimGas

Domestic biogas systems that convert livestock manure into smokeless energy and crop fertilizer for millions of rural households

IMPACT: Replacing wood fuel, charcoal and kerosene with biogas **improves health from indoor air pollution & avoids deforestation.** It saves farmers both time (2-4 hrs/day) & money.

STAGE: **SimGas now has 1,500 customers with operations in Kenya, Tanzania and Rwanda**

SCALE: Developing biogas-powered stoves, milk chillers & new financing models to scale biogas across African and Asian markets

<http://www.simgas.com/>





aQysta

A sustainable, low-maintenance, low-cost irrigation pump to enable rural communities in developing countries to increase crop yields.

IMPACT: Hydro-powered irrigation system that can **increase crop yields by up to five times.**

SCALE: Developing countries. 40+ pumps are running in Nepal, Indonesia, Spain, Turkey and Zambia

<http://www.aqysta.com/>



Carbon Delta

Fintech that analyses climate change resilience of publicly listed companies based on a Big Data methodology. Estimated financial losses from climate change range from \$2.5 to 72 trillion by 2060

IMPACT: Aims to establish the **climate value-at-risk standard** as the de facto global standard for climate risk assessment.

IMPACT: Analysis includes three core risk factors: **Regulations, Extreme Weather Events, and the Paris Agreement 2oC Target.**

SCALE: Global

<https://www.carbon-delta.com/>



CaffeInk

Student founded start-up, CaffeInk gives a second life to coffee waste, extracting pigments from coffee waste and using them to produce ink

IMPACT: Students created idea during **Journey summer school**, completed **EIT Master Label**, entered **Greenhouse** to develop the idea further, and is now nominated for **EIT Change Award 2017**

STAGE: Start-up is now technological testing, optimize our product, convince a manufacturing partner and partner with a coffee chain in the Netherlands to secure the supply of the resource

<https://caffeink.net/>



Elemental Water Makers

Elemental Water Makers use a pump and gravity to provide the pressure needed for reverse osmosis.

Start-up first prize in the prestigious Mohammed bin Rashid Al Maktoum Global Water Award - a \$1 million (€0.9 million) prize.

IMPACT: Provides 3,300 gallons of fresh water from seawater on a daily basis

STAGE: Projects in Cape Verde, Virgin Islands, Belize, Mozambique

SCALE: Possible expansion over 150 countries including Australia, China the US.

<http://www.elementalwatermakers.com/>



Lumo

A crowdfunding platform dedicated to renewable energy projects.

IMPACT: Increase sustainable energy production, create jobs

STAGE: Lumo also contributed to the **development of a Green Growth Participatory Label recognized by the Ministry of the Environment**, launched in April 2017. Participatory financing platforms that will engage under this label will benefit from an increase in credibility with savers and will have KPIs about the environmental impact of their investment.

SCALE: They carried out in May 2017, a **capital increase of €400,000** provided by a dozen of contributors

<https://www.lumo-france.com/>



AEROX

AEROX designs and produces coating systems for the protection of wind turbine blades

IMPACT: **Significant cost reduction** for wind turbine blade manufacturers that spend up to 300 hours, in finishing operations on the surface protection of the blade during their process, **reducing of the cost per blade**. Technology validated by 2 of top 10 manufacturers, in more than 400 blades.

Created up to 10 direct new jobs in the area of R&D and business development and at least 15 new indirect jobs until 2016

SCALE: **Annual turnover > 2 M €**

<http://www.aerox.es/>



Skipping Rocks Lab – Ooho!

Novel uses of alginate, an extract from brown seaweed, to create sustainable packaging and products

IMPACT: Ooho provides the convenience of plastic bottles while limiting the environmental impact. **It is 100% made of Plants & Seaweed, Biodegradable in 4-6 weeks**

STAGE: Completed Climate-KIC Accelerator, 2017 saw them crowdfunding for investment

SCALE: In April 2017 they **waged one of the most successful Crowdcube campaigns ever for their first product**. The campaign achieved over **double their target in just a few days** with a video that went viral.

<http://www.skippingrockslab.com/>

