

### Business Creation **Creating impact for a sustainable world** *Impact report 2017*



### Foreword

### Elena Bou Innovation Director, InnoEnergy



Since 2011, we have been working towards strengthening the culture of innovation in the sustainable energy field, by accelerating the creation of high-growth companies and bringing innovative products and services to life.

The 200+ high potential start-ups that we have supported have not only envisioned, but brought to life, innovative technologies that are meeting the energy challenges of

our changing society. Whether it is by reducing greenhouse emissions by contributing to our global demand for energy security, or by creating jobs, **these companies are creating impact.** 

However, sustainable energy innovators are faced with a much longer list of hurdles than start-ups in any other industry. And these hurdles, such as longer time to market, regulatory issues and the need of high capital, to name a few, can make it difficult to achieve market potential. InnoEnergy is the trusted partner and smart investor to accompany start-ups and SMEs on this innovation journey throughout the energy sector. Our mission is to help start-ups overcome their challenges. Our position in the industry and our unique collaborative approach helps shorten time to market, mitigate risks, increase the impact of new technologies, and multiply their value.



I am proud to share with you the impact indicators of our business creation activity, which are the results of seven years work. They show how our supported start-ups are creating a more sustainable world.

With more than 200 clean-tech start-ups, and our network of investors and large energy industry players, we at InnoEnergy are already creating the conditions for genuine change.

### What they say about us...

### **External endorsements**



InnoEnergy has a decisive role as an enabler of the energy union through innovation. I appreciate their tailor-made support to help entrepreneurs develop promising and efficient energy solutions, while always being mindful that they have to conquer markets."

Maroš Šefčovič, Vice President of the European Commission in charge of the Energy Union



It is important that the community, with different players from the ecosystem, whether they are entrepreneurs, venture capital firms or corporates, come together and learn how we can do business together."

**Gina Domanig,** *Managing Partner, Emerald Technology Ventures* 



InnoEnergy has a rich network of partners and innovative technologies across Europe's clean energy ecosystem. We believe this can add significant value to our efforts to fasttrack the implementation of solutions that are profitable to protect the environment – and vice versa. This is a truly exciting collaboration that has the potential to accelerate our progress."

**Dr. Bertrand Piccard**, Founder and Chairman, Solar Impulse Foundation



You've really built an ecosystem and a community, made up of large and small organisations, as well as academics and researchers. Our energy future is going to require these kinds of communities and ecosystems... I think it is an exciting time, and it's great to see all the progress you have made in the last years."

Henry Chesbrough, father of Open Innovation. InnoEnergy Advisor

# Impact framework



InnoEnergy's trusted ecosystem generates value and impact through transactions. The impact goes beyond our core business, National to our extended network of partners and players of the energy governments MULTIANNUAL FINANCIAL FRAMEWORK TAXES sphere and ultimately to society as a whole. PUBLIC FUNDING market JOB CREATION TAXES EQUITY / ROI Energy challenges INNOVATIONS TRAKS **V**Cost of energy PUBLIC FUNDING Start-up **InnoEnergy** PRODUCT / SERVICES EIT SNOLTENONNI ▼Greenhouse emissions Availability / security B SERVICES "CREASED COMPETITIVENESS COLLABORATI EQUITY FUNDING ATFORM Corporates, EXPERTI SMEs, InnoEnergy partners Core business VC Comunity IE Ecosystem and other Social/Macro Ecosystem investors

### Business creation key numbers 2011-2017



2,796 start-ups applicants

200 supported



60 graduated

### Start-ups supported by thematic (%)

0,6

4.1 📕

7.6

9,4

Nuclear instrumentation Clean coal technologies Energy storage Energy efficiency 15.3 Energy from chemical fuels **4,1** Renewable energy 30,6 Smart buildings and cities 28,2 Smart electric grid



### Performance

47 patents filed

15%

vs 2% of average in VC industry

16 months to market

% acceptance rate

survival rate vs 80% of MIT alumni start-ups

# The power of the InnoEnergy network





Examples of start-ups and their impact



### C-Green www.c-green.se

#### Impact

# Reduction of greenhouse gas emissions

### 150,000t of CO<sub>2</sub> reduced in factories per year

25kg CO<sub>2</sub> per capita reduced in municipalities

> ZERO HYDROTHERMAL ENERGY CARBONIZATION

#### Solution

C-Green's hydro-thermal carbonisation-based solution separates phosphorous and heavy metals from sludge, degenerates toxins, deactivates pharmaceuticals and transforms the remaining sludge into solid biofuel.

> InnoEnergy has provided the most valuable support to C-Green in all important dimensions: technology, creation of the team, access to finance and to the market. We look forward of moving together towards commercial success, and creating a great environmental impact around the globe.

Erik Odén, CEO, C-Green

### RVE.Sol www.rvesol.com

#### Impact

Energy access increased Energy costs reduced Renewable energy installed

7kWp hybrid solar installation

50 families with access to renewable energy

72% reduction in kerosene use

180% increase in female students attending school because of financial saving

47% improvement in grades because of night-time study with light

#### Solution

Implementing renewable energy-based technologies, within locally sustainable community-led business models, to create opportunity for jobs, increased income and ultimately, eradicating rural poverty. Projects have been completed in Kenya and Mozambique.



We embraced the mission of participating in the eradication of poverty through renewable energy. In developed countries, we no longer appreciate to what extent energy access effects our most basic needs. Renewable energies have matured to provide energy services in developing countries at a reasonable cost

Vivian Vendeirinho, CEO, RVE.Sol

### Solaris Offgrid www.solarisoffgrid.com

#### Impact

Energy access Renewable energy installed Job creation

15,000 people gained access to energy

80 kW Solar PV installed

60 jobs created

#### Solution

Solaris Offgrid develops a Pay-As-You-Go (PAYG) solar home system solution, to quickly scale affordable energy access in off-grid areas.



We're proud to have brought clean and safe electricity to 15,000 people, across six countries, since we began operations in 2014. But that's just the beginning. Our ambition is to provide power to 10 million people by 2022.

Siten Mandalia, CEO, Solaris Offgrid

### CorPower www.corpowerocean.com

#### Impact

**Renewable energy installed** 

Reduction of greenhouse gas emissions

**30GW** installed wave power in 2050

25M tons of CO<sub>2</sub> reduced per year



#### Solution

CorPower Ocean has developed a compact high-efficiency Wave Energy Converter, inspired by the pumping principles of the human heart.



The effective harvesting of nature's vast resource of energy harnessed in ocean waves could potentially produce 2000-4000 TWh of electricity per year – some 10-20% of the world's electricity – propelling us towards a more sustainable future fuelled by clean and economical energy.

Patrik Möller, CEO, CorPower



### Pro-Drone www.pro-drone.eu

### Impact Energy costs reduced

# €400,000

saved in wind turbine inspection costs

400 inspections, €1000 saved on average per inspection

#### Solution

Pro-class UAVs (unmanned aerial vehicle) to service the inspection needs of the energy sector, namely of on-shore and off-shore wind turbines and solar PV.





We are passionate about renewable energy, and hope that our product will go some way to help wind energy gain price parity with non-renewable sources.

André Moura, CEO, Pro-Drone



### Beon www.beonenergy.com

#### Impact

### **Renewable energy installed**

## 270GWh

# of renewable energy capacity installed

30,000 units of 250wp solar systems, 25yr warranty, 4h peak generation per day

#### Solution

The BeON microinverter is a device that allows any PV panel to be connected directly to an ordinary wall socket, safely and easily. This means solar systems can be sold anywhere and as cheaply as "do it yourself" kits, lowering the cost per watt significantly, and engaging people directly in renewable technologies.



We aim at turning the sun into a common house appliance and hope that every new home in the world can produce their own energy from solar using BeON plug & play solar kits. **Rui Rodrigues,** *CEO, Beon* 

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### Atawey www.atawey.com

#### Impact

### Reduction of greenhouse gas emissions

#### Solution

Decentralised energy solutions based on renewable hydrogen, including refueling stations for cars and bikes.

# **3,900t** of CO<sub>2</sub> avoided in 10 years

This is how we calculated the number: by adding 60 bikes for tourists we have taken 2 tourist buses off the road that drive 500km per day at 1180g/km. And by supplying 20 corporate bikes we have replaced 20 cars that drive 50km per day, 118g/km.



We are grateful to have InnoEnergy as a partner on the journey to commercial success. Jean-Michel Amaré, *CEO*, Atawey

### Ecoligo www.ecoligo.com

#### Impact

Renewable energy installed Reduce GHG Energy costs reduced

### 17GWh of renewable capacity installed

15,000 tons of CO<sub>2</sub> avoided

€840,000 of energy costs savings

#### Solution

Ecoligo closes financing gaps for solar projects in developing and emerging countries. On their platform, they offer crowd investors the opportunity to invest in sustainable solar projects with an attractive return.



Ecoligo is a complete digital solution for financing and delivering solar projects for businesses in emerging markets. By removing the barriers that prevent such projects from being realised, ecoligo brings low-cost electricity to these businesses, helping them to grow and boost the local economy.

Martin Baart, CEO, Ecoligo

# A sample of our portfolio of supported start-ups



Check the whole portfolio at www.innoenergy.com/venture

# Thank you

The strength of InnoEnergy is our trusted ecosystem. We would like to thank all the members of the network for their contribution. Without them this wouldn't have been possible.





Venture Capital Community members Our partners in strategic alliances: EBAN, Incubatenergy, Iresen, Solar Impulse Foundation



Business creation team



European Institute of Innovation and Technology and other European stakeholders

And of course, all the supported start-ups for their commitment in making an impact



# About InnoEnergy

InnoEnergy is the innovation engine for sustainable energy across Europe.

Business Creation boosts the success rate of start ups, powers the growth of SMEs, and helps corporates de-risk their open innovation strategies.

With our global network of partners, we connect entrepreneurs, investors and industry, knowledge, businesses and markets. We help maximise their impact, accelerate the development of market ready solutions, and create an environment in which innovation and entrepreneurship can succeed.

InnoEnergy was established in 2010 and is supported by the European Institute of Innovation and Technology (EIT).





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