

INNOVATIONS

2017



ENGIE develops its businesses (power, natural gas, energy services) around a model based on responsible growth to take on the major challenges of energy's transition to a low-carbon economy: access to sustainable energy, climate-change mitigation and adaptation, security of supply and the rational use of resources. The Group provides individuals, cities and businesses with highly efficient and innovative solutions largely based on its expertise in four key sectors: renewable energy, energy efficiency, liquefied natural gas and digital technology. ENGIE employs 153,090 people worldwide and achieved revenues of €66.6 billion in 2016.



KEY INNOVATION FIGURES

€ **115** m

budget of the ENGIE New Ventures corporate venture capital fund.

A network
of more than

50

innovation managers.

Over

1,700

by startups in response to

propositions submitted

60

calls for projects

launched since 2014.

13,000

employees are members of innov@ENGIE, the Group internal innovation hub.

700

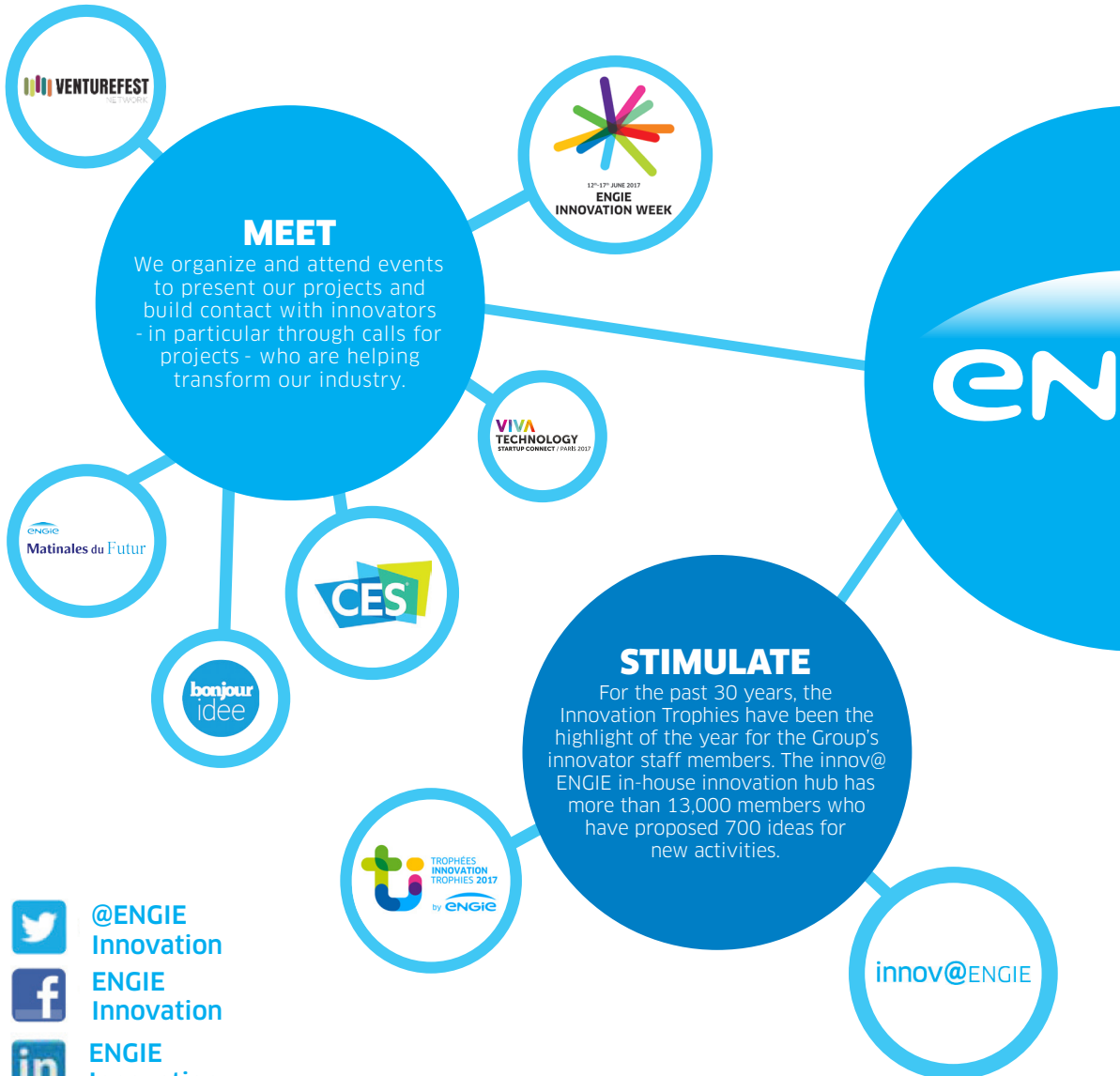
ideas of new business made by ENGIE employees.





AT THE HEART OF AN INNOVATIVE ECOSYSTEM

The energy transition challenge calls for a collective response. ENGIE collaborates with entrepreneurs, startups and experts to explore new fields together.



-  @ENGIE Innovation
-  ENGIE Innovation
-  ENGIE Innovation





INCUBATE

We work with 14 incubators in 5 different countries which provide a site, ecosystem and coaching for the «entrepreneur» employees we support.



INVEST

Our €115 million ENGIE New Ventures fund supports startups with solutions that transform the energy sector.



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GROWING

without mortgaging the future

Today, the challenge of climate change calls for us to re-think our modes of generation and consumption and invent a new world. Energy and digital technology play a vital role and will allow us to reconcile secure, competitive energy - a necessary condition for prosperity - with protection of the environment. A large proportion of the necessary elements for creating this new world are yet to be invented, and it is from this perspective that we understand innovation at ENGIE.

Our principal priority is to avoid and limit needless energy use. This concerns both energy efficiency and household comfort, for which the use of data plays an increasingly important role. Our second priority is for decentralized renewable energy generation in association with storage and demand response. Digital management of energy must also be enhanced to allow better control of production and provide our clients with the means to optimize their consumption.

We are also concentrating our efforts on cities, territories and mobility to improve uses in a world which has become largely urban.

ENGIE's employees, who are aware of our clients' needs, participate daily. 13,000 of them have already joined innov@ENGIE,

our in-house innovation hub. They have proposed over 700 innovation ideas and close to 100 of them have gone through this unique system.

It is within this context that we launched ENGIE Fab, a global platform to stimulate technological, commercial and managerial innovation in five priority domains. ENGIE Fab made its first investment in EV-Box, a leader in charging solutions for electric vehicles.

We also use the ENGIE New Ventures fund to invest in startups which share our objectives and support them in their commercial growth. Our portfolio already contains 14 companies.

Lastly, we offer innovators with specific skills the opportunity to respond to our calls for projects. We have already received more than 1,700 propositions from startups.

ENGIE has been accompanying the world's transformations for the past 150 years by providing essential services for development.

Join us in the adventure!

Isabelle Kocher
Chief Executive Officer

“Today, the challenge of climate change calls for us to invent a new world”





ECO- SYSTEM

#Workshops

#territories

#Pitch

#CALLS FOR PROJECTS

#synergies

#interactions

#CREATIVITY

#market place

#encounters





BUILDING AN ECOSYSTEM THAT FOSTERS OPEN INNOVATION

ENGIE builds partnerships with all the stakeholders in innovation. From public debates to operational collaboration, the Group is present in every channel to make energy transition tangible.

Hotspot : Innovation Week by ENGIE



Every year, ENGIE celebrates innovation through 100 or so events in more than 20 countries. It is a valuable time for exchanges for ENGIE staff members and their partners through calls for projects, conferences, creativity workshops and, above all, the Innovation Trophies.
(See page 13)

ENGIE@CES

CES is an opportunity to showcase ENGIE's innovations. In 2017, the Group presented seven in-house innovations and welcomed 16 partners at its stand, as well as thousands of visiting professionals.

REFLECTING TOGETHER ON ENERGY CHALLENGES

Through encounters open to the public, ENGIE regularly launches debates and invites stakeholders and experts from the energy sector to share their views on the impact of energy transition in various sectors of the economy and society.

bit.ly/matinalesENGIE



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Calls for projects: a new form of collaboration with ENGIE

When exploring a new sector or putting together a commercial offering or a bid for a call to tender, ENGIE sometimes lacks a specific type of expertise needed to enhance the quality and uniqueness of its offering. To locate the required skill, ENGIE regularly launches calls for projects on specific subjects to find partners able to provide specialized skills. This call can lead to one-off or recurring operational collaborations.

Over
1,700
propositions submitted
by startups

in response to the **60** calls
to projects launched
since 2014.

Over
100 events
in 20 or so countries during
ENGIE Innovation Week.

Thousands
of visitors welcomed
at **ENGIE's** stand at **CES.**

RESPOND TO OUR CALLS FOR PROJECTS AT
innovation.engie.com



IN- VESTMENTS

#ENGIE New Ventures

#100% renewable local areas

#Distributed energy & storage

#New business

#Sustainable mobility

#Energy communities

#Smart buildings

#ENGIE Fab

#Co-development

#Hydrogen







INVESTING IN NEW TERRITORIES

Based in Paris and San Francisco, ENGIE New Ventures acquires minority stakes in startups in the development phase with products or services able to contribute to ENGIE's development.

The decision to invest is made based on the quality of the team, the innovative and value-creating nature of the project, prospects for commercial development and the strategic alignment with ENGIE's priorities.



A LEADER IN ORGANIC PHOTOVOLTAICS

Heliatek manufactures organic solar films that hold the world record for efficiency (13.2%). Its technology uses organic materials positioned in a vacuum, roll by roll, using a specific, simple and economical process. ENGIE acquired stakes in Heliatek in September 2016.



LEADING INTERNET OF THINGS NETWORK

Founded in 2009, Sigfox develops narrow band and low cost communications networks for connected devices in approximately 20 countries. ENGIE invested capital in Sigfox in February 2015 and later launched ENGIE M2M, the first Internet of Things network in Belgium and the only one equipped with Sigfox technology. ENGIE Cofely has also entered into partnership with Sigfox to enhance its services offering for business and local government bodies. The target: to connect at least 100,000 devices and in particular temperature or meter readers.



100% GREEN HYDROGEN MOBILITY SOLUTIONS

Symbio proposes an integral fuel cell system compatible with different types of vehicles. E.g.: the Renault Kangoo ZE H2 hybrid which has achieved record autonomy with a driving range of 367 km (228 mi). ENGIE acquired a stake in Symbio in September 2016. In May 2017, ENGIE Cofely announced an order for 50 Kangoo ZE H2 from Symbio, thus becoming the first company in France to be equipped with a fleet of hydrogen-electric vehicles of this size.



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MICHÈLE BOURGEOIS ARCHITECTE DPLG

Priority fields of investment:

- Sustainable mobility;
- Energy communities;
- Smart buildings;
- Hydrogen;
- Distributed energy and storage;
- 100% renewable energy areas.

ACQUISITION OF EV-BOX

In March 2017, ENGIE announced the purchase of EV-Box, a European leader in charging solutions for electric vehicles. With more than 40,000 charging stations in service in 20 countries, EV-Box will allow ENGIE to adopt a unique positioning to offer innovative, all-inclusive and competitive electric vehicle charging solutions and associated services to clients in every field all over the world.

2014
creation of ENGIE
New Ventures
investment fund.

15
investments
in startups.

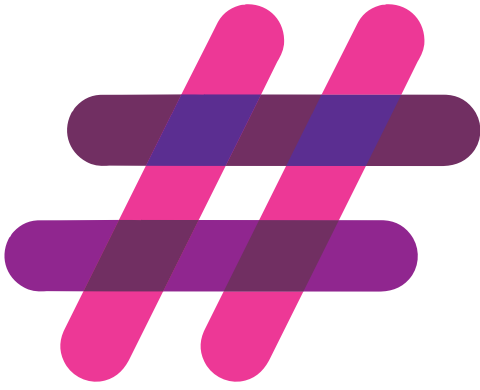
Over

1,200

startups reviewed
by ENGIE New Ventures
since its creation.

€115 m
budget of ENGIE
New Ventures.

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ENTRE- PRENEURS

#Employees

#new businesses

#Acceleration

#startup

#INCUBATORS

#first market

#ecosystem

#Ideas







STIMULATING IN-HOUSE INNOVATION

Several schemes have been implemented by ENGIE to stimulate and support innovations by the Group's staff members.

Overview of the options open to entrepreneurs.

The in-house innovation hub

ENGIE Innovation brings together more than 13,000 members who have submitted over 700 ideas in fields such as smart solutions for decentralized energy generation, alternative mobility and the use of data for energy efficiency.

ENGIE gives staff members the opportunity to submit their ideas or recommend an innovative company.





Innovation Trophies

For the past 30 years, this event has been the annual highlight for ENGIE's innovator staff members. In 2017, 670 innovation projects already at a fairly advanced implementation stage were proposed on the occasion of this in-house competition.

AN INNOVATIVE AND SCALABLE INCUBATION PROCESS

The ENGIE incubation process, initially launched in 2014, is being transformed:

ENGIE Incubation is for ENGIE BUs and their employees who demonstrate a strong entrepreneurial spirit. It is also open to the outside world, including independent entrepreneurs who want to provide solutions that meet ENGIE's goals.

They can join at any stage of their project, whether they're just formalizing an idea or already developing their product or service commercially.

The incubation team helps project leaders turn their ideas into startups, thanks to a complete package for them to use: RH, legal, residency in an incubator, professional coaching...

700

ideas submitted at innov@ENGIE.

Over

€5 million

turnover.

14 partner incubators in **5** different countries.

670

projects

from **40** different countries presented at the 2017 Innovation Trophies.

PROPOSE YOUR SKILLS AT

innovation.engie.com

IN PICTURES



**Innovation
is knowing
how to
share.**

ENGIE is in contact with project leaders and meets them at numerous events such as CES, Viva Technology, Matinales du Futur and Venture Fest.





Inauguration of ENGIE Fab,
February 2017

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ENGIE Innovation

The **Innovation** Hub

Innovations

Calls for projects

Collaborations

Startups

Expertise

Technologies

innovation.engie.com



ENGIE Innovation



ENGIE Innovation



ENGIE Innovation

constitutes a stepping stone between innovators and ENGIE to create the energy solutions of tomorrow. The platform allows startups, entrepreneurs and project leaders to propose their ideas and skills and respond to calls for projects launched regularly by ENGIE.

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