HACK THE WIND

INNOVATE FOR A GREENER GLOBE

POWERED BY

eit InnoEnergy
Knowledge Innovation Community

Wind EUROPE

Wind Energy Hackathon

The principle of a hackathon is to develop ideas into proof of concepts around a theme in 48 hours. Projects are developed based on ideas expressed on day one by participants.

Objectives

IMPACT

Generate high value **brand positioning** and **innovative content** during the EU most important wind energy event.

CREATIVITY

Foster creativity to solve current wind energy challenges.

COLLABORATION

Promote **networking** and animate the **wind energy ecosystem**.

SUPPORT

Provide **reward** and **support** to the best innovative **concepts** and most promising **talent**.

HACK THE WIND 2017 - Amsterdam

- ✓ **2-DAY** Hackathon 28-29 Nov 2017
- ✓ In parallel to the **WINDEUROPE EXHIBITION & CONFERENCE 2017** in Amsterdam
- ✓ Developed **POCs** around wind energy challenges
- ✓ ON-SITE **SUPPORT** to teams
- ✓ Motivating atmosphere

CHALLENGE PARTNER

edp renewables powered by nature

TECHNICAL PARTNER

ENVISION

Methodology

1 Ideation Platform

2 Hack the Wind

3 DEMO

4 Follow up workshops

Opening and Networking

Idea Pitching

Hacking

Support and Mentoring

Final Demos

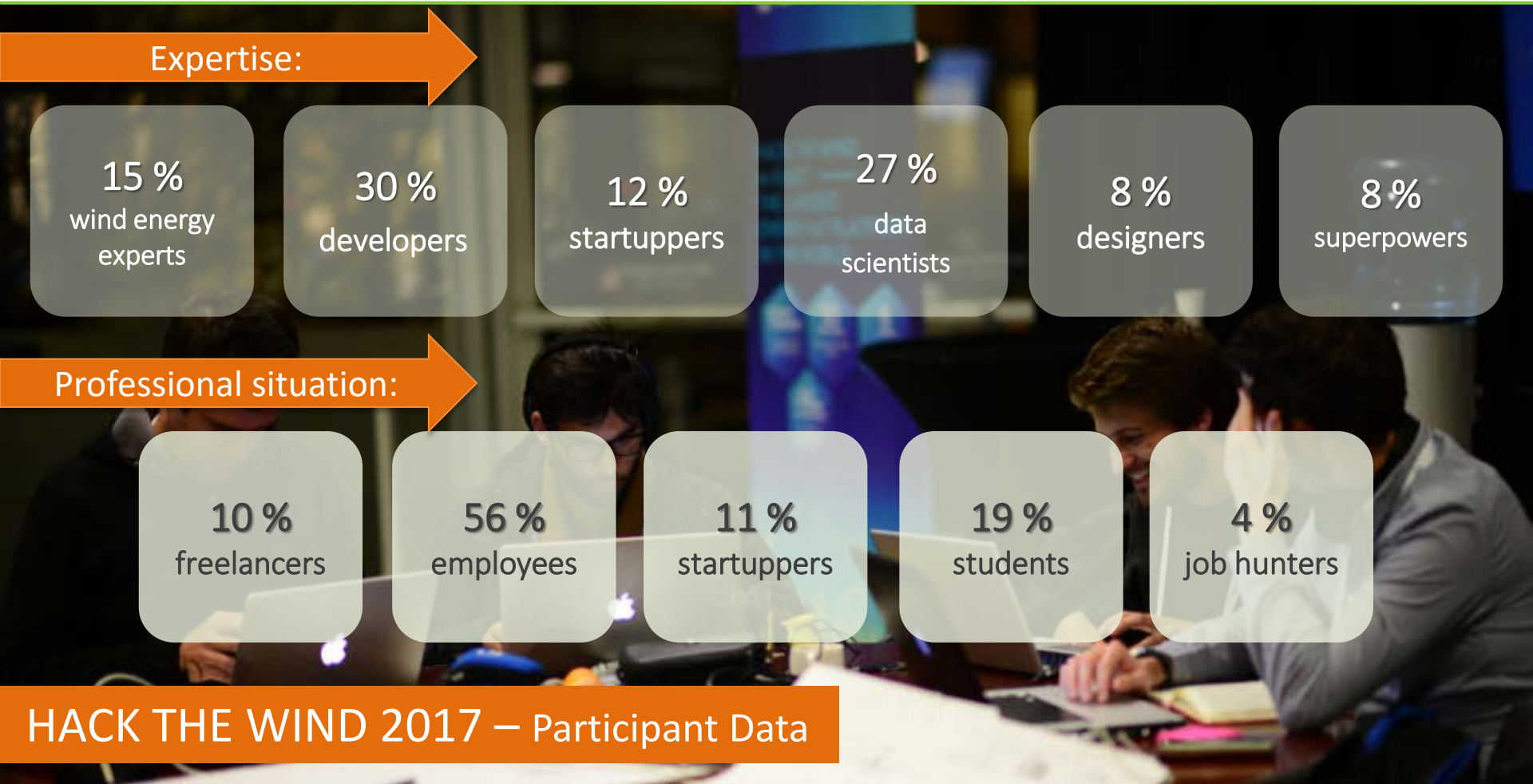
- ✓ Connected to the conference and exhibition
- ✓ Prize award ceremony
- ✓ Media coverage

182 registrants	83 attendees	12 mentors	20K€ Prize pool
16 ideas	14 projects	6 prizes	4 winners

HACK THE WIND 2017 - Amsterdam

Check the video!

HACK THE WIND 2017 - Amsterdam



Expertise:

- 15 % wind energy experts
- 30 % developers
- 12 % startuppers
- 27 % data scientists
- 8 % designers
- 8 % superpowers

Professional situation:

- 10 % freelancers
- 56 % employees
- 11 % startuppers
- 19 % students
- 4 % job hunters

HACK THE WIND 2017 – Participant Data

CHALLENGE 1
Wind Turbine Fault Reduction

Material:
2 years of data from a wind farm.

Challenge:
- Built a diagnostic algorithm (Tech) for major components.
- Link to operations and costs (Biz).

Winner:
9.3 % Reduction in OPEX.

CHALLENGE 2
Wind Speed Forecast

Material:
1 year of data from a wind farm + Met stations data

Challenge:
- Build a predictive algorithm for the next 24 hours, for each WTG.
- Business model approach.

Winner:
Mean sq error: **1.54 m/s**

HACK THE WIND 2017 – Challenges & technical outcomes

Hack the Wind® 2018

Innovate for a greener globe

25-27 September, Hamburg

€20.000 PRIZEPOOL

ORGANISED BY

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Hack the Wind 2018 in a nutshell

Who?
100-120 participants

What?
48 hours non stop coding
3 challenges

When?
Start 11:00 on 25th until afternoon 27th

Where?
Hamburg Messe Hall B4 – Lounge, East Entrance

How
Co-organised by WindEurope and InnoEnergy

Timeline


Sep 25th-27th
Hack the Wind 2018
Aug 28th
Online ideation
Platform opens
November
Follow up Workshops

CHALLENGE 1

Wind Turbine Fault Reduction

Material:

Data from the sensors of the wind turbines and list of detected damages.

Challenge:

Develop a global solution not only focusing on prediction capabilities: the approach and focus given to each component, the UI/UX of the proposed solution and the way you present your idea are equally important!

CHALLENGE 2

Hamburg Harbour Microgrid

Material:

Data sets (Time series data for production, consumption, energy prices, etc.), Ethereum Network, Ethereum Client for smart contract development, Client for Front End.

Challenge:

Using Blockchain technology in **Microgrid** environment with the Objective is to demonstrate the value of such a solution.

HACK THE WIND 2018 – Challenges

Thank you, any questions?

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Hack
the Wind®
2018

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