



Energy from Drones and Altitude Winds



our mission

Accelerating energy transition to renewables



Ambition and especially ACTION is needed The required growth of Renewable Energy



WE HAVE



WE NEED

+80%
energy delivered by
renewable sources
required to limit
the temperature
increase to **2°C**



How do we achieve this ambitious goal?



by tapping into....

**The Resource - strong and consistent
winds at 200m altitude and above**



And by....

Bringing to market **a drone** capable to
convert **high altitude wind** forces into
low-cost electricity in almost **any**
location around the globe

The Optimal Solution

Skypull's VTOL drone represents a revolutionary boxed wing design providing maximum efficiency and power generation combined with highest safety and reliability, for distributed and utility scale (MW) energy generation.

1 Integrated system control
SOFTWARE

2 TETHER
Ultra high resistance
and lightweight

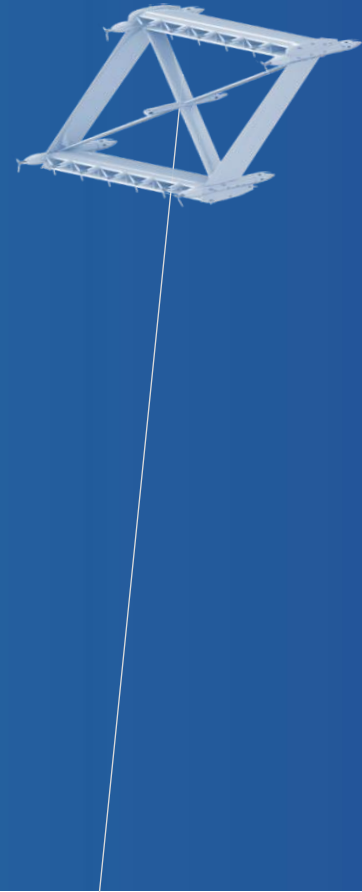
3 GROUND STATION
Generator, Power
Converter and Grid
Connection



SEE THE DRONE IN ACTION

Key System Advantages

- PATENTED DRONE, vertical take-off and landing
- Aerodynamics specifically designed for AWE
- Advanced safety features
- Power generation on the ground
- Low-cost production technology to scale
- Simple and cost-efficient transportation
- Movable system



Major Achievements

on a restrained budget

- Proof of Concept – December 2019
- Technical Demonstrator – June 2020
- Designed, constructed and tested 5 drones with continued progress of software and controls, aerodynamic efficiency and safety
- Developed and implemented an autonomous flight control system
- Achieved positive energy generation during multi cycle flight
- On board battery regeneration ensuring safety during 24/7 operation
- Flight authorization obtained by aviation authorities (FOCA)



Technical Demonstrator TD1



Improved Aerodynamic Wingprofile

Value Proposition vs Traditional Wind

Lower cost of electricity (LCoE).....	40% - 50%
Greater power production / revenues.....	+80-100%
Wider deployability.....	+++
Easier logistics.....	+++
Less components/weight (tower, foundations, etc).....	-90%

Results in substantial lower CO2 emission per MWh produced

Estimated* LCOE 30 \$/MWh
Lower than fossil fuels



*Wind turbine
comparison
(same rated
power)*

Intellectual Property Rights

Patent ITUD2015000038 1 **Granted 2017**

"Traction air device for a wind plant & wind plant for electric power production, ship provided with a traction air device"

Extensions: PCT/EP2016/000479 - WO2016150561A1

National phases: EUROPE - USA - CHINA - INDIA)

Patent IT102018000007202 1 **Granted 2020**

"Velivolo senza pilota, metodo di controllo, piattaforma associata e turbina ad alta quota"

PCT/IB2019/055959 - WO2020012430

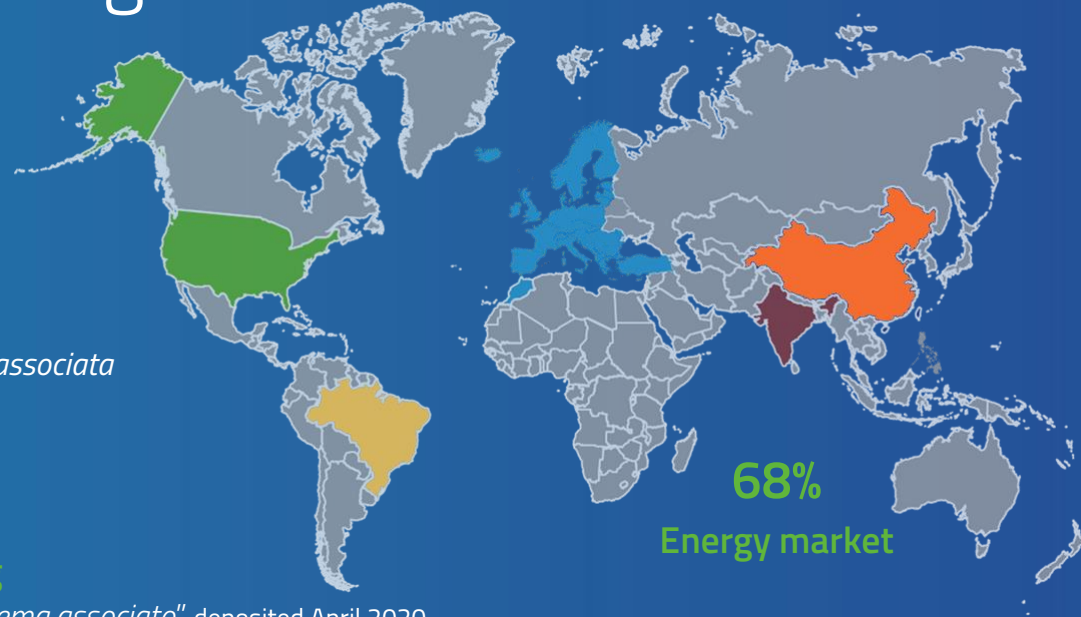
National phases: EUROPE - USA - CHINA - INDIA - BRASIL

Divisional Patent No. 102018000007202 **Pending**

"Cavo di ritenuta per un velivolo senza pilota, base e sistema associato" deposited April 2020

Patent IT102020000009307 **Pending**

"Velivolo senza pilota, metodo di controllo, piattaforma associata e turbina ad alta quota" deposited April 2020



Trade Mark ("Skypull") - Freedom To Operate analysis

Skypull equals Sustainability

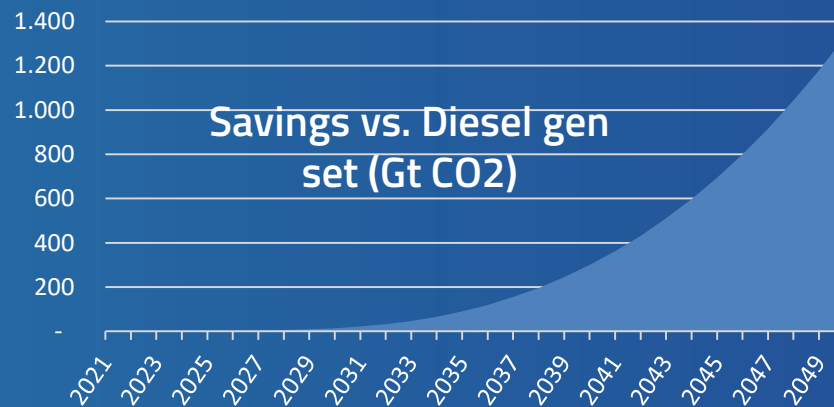
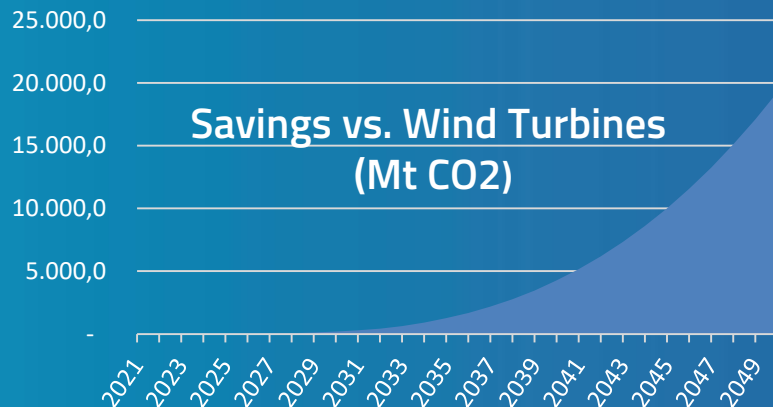


CO2 projected savings

	2030	2050
Fossil fuel based gensets* (800 gCO2/kWh)	14'400 Mt	1'327 Gt
Traditional wind turbines* (13 gCO2/kWh)	184 Mt	19'200 Mt

* same energy yield

Skypull
SP generator
emissions:
**1,2g
CO2/kWh**



Market Opportunity

Skypull SP600 market applications

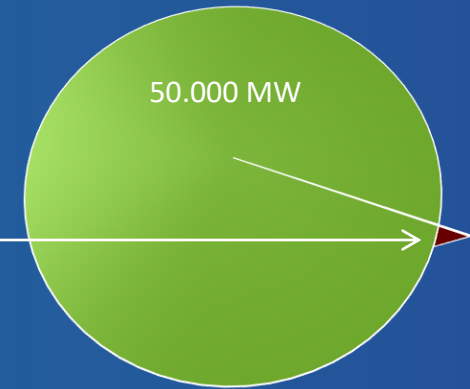


Market Forecast

Skypull SP600 – Diesel Gen-set Market



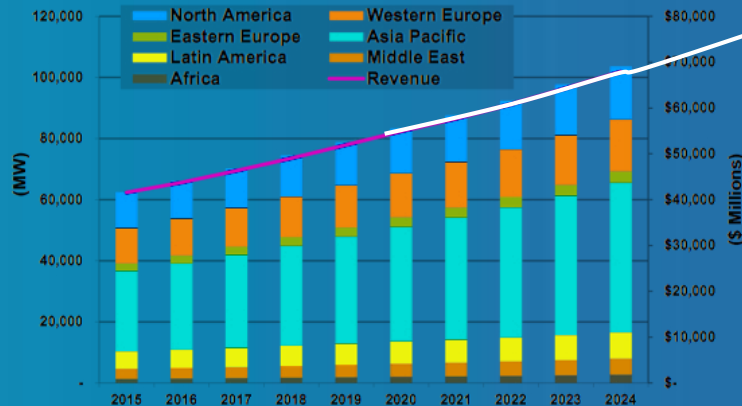
Forecasted Market
Growth 2020-2030



■ Skypull SP600 sales

■ New gen-set sales

16,4 bln USD market value in 2019



ca. 50 GW new Gen-set
sales by 2030

Skypull targets 42 MW
over 10 years
i.e. < 0,001%
of the new capacity

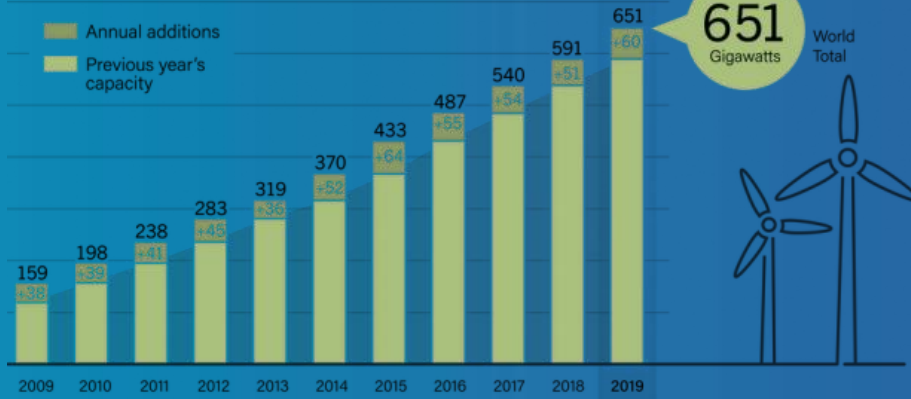
Market Opportunity & Forecast

Skypull SP1700 – Utility Wind Turbine Market



Power Global Capacity and Annual Additions, 2009-2019

atts



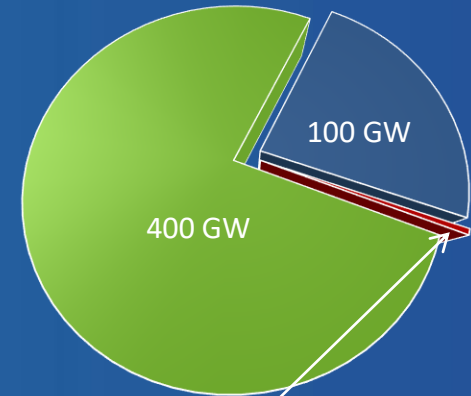
Totals may not add up due to rounding.

Source: GWEC.

EN21 RENEWABLES 2020 GLOBAL STATUS REPORT

USD 49,9 bln market value in 2019

Forecasted Market Growth 2020-2030



- Skypull BP
- New capacity
- Repowering

Skypull targets 2.1 GW over 10 years
i.e. 0,004% of the added capacity

Product roadmap



SP 300



- UAV Wingspan: 3,2 m
- System Power: 25 kW
- UAV mass: 50 kg



SP 600



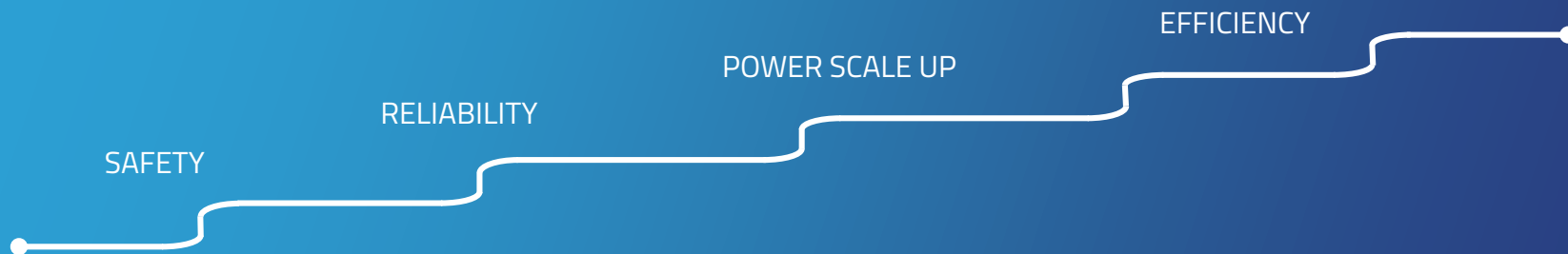
- UAV Wingspan: 5,9 m
- System Power: 100 kW
- UAV mass: 150 kg



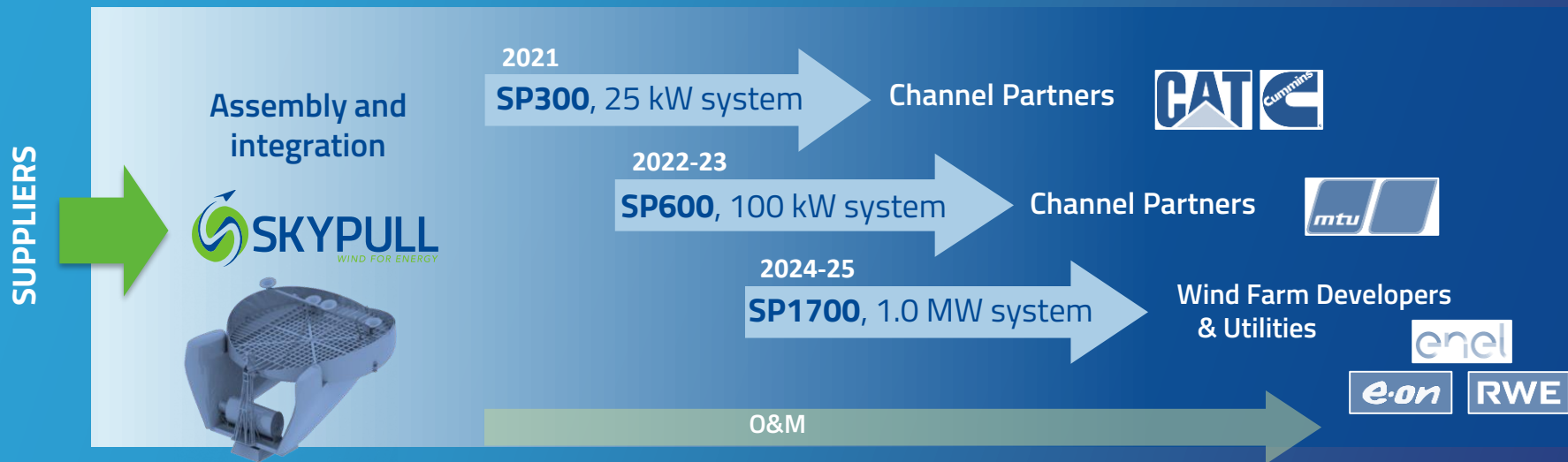
SP 1700



- UAV Wingspan: 17 m
- System Power: 1 MW
- UAV mass: 1500 kg



Business model, Target Markets and Timeline



Skypull SP300 / SP600 – Replacing Diesel Gen-sets
Target: 42 MW over 10 years i.e. < 0,001% of new added capacity

Applications: Remote / off-grid locations such as islands, mining, agriculture, disaster relief & defense

Skypull SP1700 – Utility Wind Turbine Market
Target: 2.1 GW over 10 years i.e. 0,004% of new installs & retrofit

Applications: Civil /grid connected (on grid electricity generation plants)

Commercialization / Marketing Strategy

Product
timeline

SP300

Test with
pilot partners



SP600

Test with
pilot partners



SP600

Commercial
Product

SP1700

Prototype

SP300 Pilot
Series sales

SP600 Pilot
Series sales

SP600 market
introduction,
channel partners

SP600 Global
expansion

Business
Development

2021 PILOT CUSTOMERS

2022 PRE LAUNCH

2023 MARKET LAUNCH

2024 MARKET SCALE UP

Management – Unique Combined Skills, 360° coverage



Reinout Oussoren

CEO

**WIND SECTOR
EXECUTIVE**
and serial
entrepreneur
more than
25 years of
experience



Nicola Mona

Co-founder
Chairman & CCO

Entrepreneur
more than
15 years of
experience in the
**AEROSPACE
INDUSTRY &
various startups**



Marcello Corongiu

Co-founder
COO

**Managing
international
ALTITUDE
WIND ENERGY
projects since
2008**



Aldo Cattano

Co-founder
CTO

**Aerospace
Engineer
specialized in
design and
construction of
AERONAUTICAL
COMPOSITE
STRUCTURES**



Max Gramaglia

CFO

**Deep hands-on
experience in
FINANCE, M&A
AND COMMERCIAL
operations**

Investment Proposal

Currently raising for 2021

CHF 1.1m

+ CHF 440k already secured

+ CHF 1,5m Total round

Previously raised

CHF 660k Equity

CHF 1.2m Grants & prizes

Use of proceeds

78%



SP300 Eng. & Product dev., IP protection

10%



Prototype production

12%

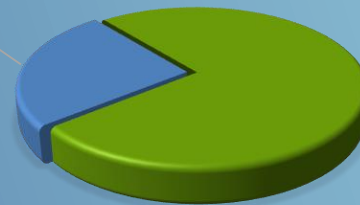


Business Development

Cap table

Investors

30%



Management & Employees

70%

Summary Financials

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Sales, # of units										
SP300	1	10	0	0	0	0	0	0	0	0
SP600	0	1	10	25	40	50	60	60	60	60
SP1700	0	0	0	1	10	40	100	200	300	400
FTEs	12	22	30	40	53	65	80	95	107	134
Revenue	71.000	1.208.000	2.892.000	9.407.000	24.793.800	65.871.800	143.143.800	267.363.800	395.263.800	526.843.800
COGS	62.351	1.002.207	2.024.620	5.202.138	14.592.600	34.470.209	74.477.089	140.397.707	207.124.262	275.546.754
Gross margin	8.649	205.793	867.380	4.204.862	10.201.200	31.401.591	68.666.711	126.966.093	188.139.538	251.297.046
OPEX	1.094.000	2.140.000	2.822.000	4.012.000	5.122.000	6.922.000	10.242.000	12.330.000	14.070.000	16.730.000
EBITDA	-1.085.351	-1.934.207	-1.954.620	192.862	5.079.200	24.479.591	58.424.711	114.636.093	174.069.538	234.567.046
					20%	37%	41%	43%	44%	45%
Cumulative	-2.105.351	-4.039.557	-5.994.177	-5.801.315	-722.114	23.757.476	82.182.187	196.818.281	370.887.819	605.454.864

This presentation has been prepared by Skypull SA ("Skypull" or the "Company") solely for informational purposes. The information contained herein has been prepared to assist you in making your own evaluation of the Company and does not purport to be all-inclusive or to contain all of the information you may desire. In all cases, interested parties should conduct their own investigation and analysis of Skypull and the data set forth in this information. Skypull makes no representation or warranty as to the accuracy or completeness of this information and shall not have any liability for any representations (expressed or implied) regarding information contained in, or for any omissions from, this information or any other written or oral communications transmitted to the recipient in the course of its evaluation of Skypull. This presentation may contain statements that are not historical facts, referred to as "forward looking statements." Skypull's actual future results may differ materially from those suggested.

Acknowledgement

SEAL of EXCELLENCE delivered by the European Commission

The project **Energy from drones & altitude winds** submitted under the Horizon 2020's SME Instrument Phase 2 by **SKYPULL SA** Switzerland

Following evaluation by an international panel of independent experts it was rated as a **HIGH-QUALITY PROJECT PROPOSAL** passing all assessment thresholds for the 3 award criteria: excellence, impact, quality and efficiency of implementation.

This proposal is **recommended for funding** by other sources, since Horizon 2020 resources available for the specific call were already allocated.



*Certificate delivered by the European Commission,
as the institution managing Horizon 2020,
the EU Framework Programme for Research and Innovation 2014-2020*

The project proposal
101009109, Skypull

Energy from drones & altitude winds

submitted under the Horizon 2020's **SME Instrument (grant only and blended finance)**
call **H2020-EIC-SMEInst-2018-2020 (H2020-EIC-SMEInst-2018-2020-4)** of 19 May 2020
in the area of **H2020-EIC-SMEInst-2020-4**

H2020-EIC Accelerator pilot –SME Instrument – Green Deal

by
SKYPULL SA
VIA ALLA STAMPA 49
6967 DINO
Switzerland

following evaluation by an international panel of independent experts

**WAS SCORED AS A HIGH-QUALITY PROJECT PROPOSAL
IN A HIGHLY COMPETITIVE EVALUATION PROCESS***

This proposal is recommended for funding by other sources, since Horizon 2020 resources available for this specific Call were already allocated following a competitive ranking.

* This means passing all stringent Horizon 2020 assessment thresholds for the 3 award criteria (excellence, impact, quality and efficiency of implementation) required to receive funding from the EU budget Horizon 2020.

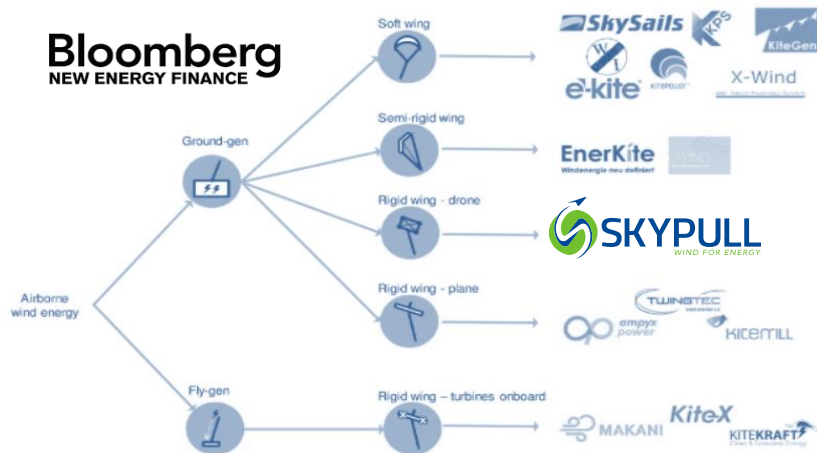
Elisa Ferreira,
Commissioner for
Cohesion and Reforms

Mariya Gabriel,
Commissioner for Innovation, Research,
Culture, Education and Youth

A handwritten signature in blue ink, appearing to read "Elisa Ferreira".

A handwritten signature in blue ink, appearing to read "Mariya Gabriel".

Acknowledgement and media



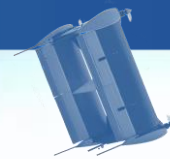
Acknowledgement

Statements

"Based on market screening and specific due diligence, **Vestas®** view **Skypull** to have **one of the most promising technologies in the Airborne Wind Industry** and particularly notice Skypull's approach to product design and certification strategy, driven by a strong leadership team"

Airborne Wind Energy "**can be a potential game-changing technology**"





Join the excitement,
be part of our venture!

www.skypull.technology
info@skypull.com