

ETIPWind a common forum with common goals and a common message

EERA DeepWind 2017, Trondheim

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Structure

The importance of collaboration

Progress to date

Current ETIPWind aspirations



What are ETIPs?

European Technology and Innovation Platforms are industry-led stakeholder fora recognised by the European Commission

Goals

- Drive innovation, knowledge transfer and European competitiveness
- Develop research and innovation agendas and roadmaps for action at EU and national levels



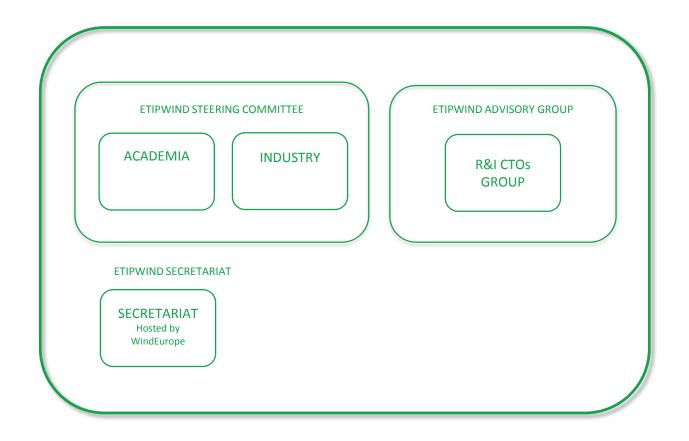
What are ETIPs?

Advanced Fossil Fuel Power Generation	1	Bioenergy	,Ø	Biofuels	
Carbon Capture Utilisation and Storage	\$	Cogeneration of Heat and Power	æ.	Concentrated Solar Power	s
Electricity Storage in the Power Sector	i m	Energy Efficiency in the Cement Industry	6	Energy Efficiency in the Iron and Steel Industry	ia.
Energy Efficiency in the Pulp and Paper Industry	6	 Fuel Cells and Hydrogen 		Geothermal Power	A
Heating and Cooling Technologies	湘水	 Hydropower 	.	 Nuclear Fission Power 	
Nuclear Fusion Power		Ocean Energy	×r-	 Road Transport Efficiency 	Ä
Smart Electricity Grids	R	Solar Photovoltaic	-	Wind Energy	仲



ETIPWind Structure

27 steering committee members 1/3 academia remainder industrials









Objectives



Reduce Costs



Facilitate System Integration



Reinforce European Technological Leadership



Ensure First-Class Human Resources



How does ETIPWind work?

A two years cycle...

Align on priorities

- **Define** the next challenges for the wind energy sector
- Align on priorities relevant for both industry and academia
- Write a Strategic Research and Innovation Agenda

Push to policymakers

- Make sure the EC and member states are aware of our priorities
- Help and provide advice in the writing of calls for projects



SET-Plan



ETIP	Wind

Energy Union Research, Innovation and Competitiveness Priorities		SET-Plan 10 Key Actions
No1 in Renewables		 Performant renewable technologies integrated in the system Reduce costs of technologies
Consumers in the Energy System	(Oth	3 New technologies & services for consumers 4 Resilience & security of energy system
Efficient Energy Systems	ઽૼૣૺૢૼઽ	5 New materials & technologies for buildings 6 Energy efficiency for industry
Sustainable Transport	(C) B	 7 Competitive in global battery sector and e-mobility 8 Renewable fuels and bioenergy
Carbon Capture Utilisation and Storage		9 Carbon Capture Storage / Use
Nuclear Safety	*	10 Nuclear safety

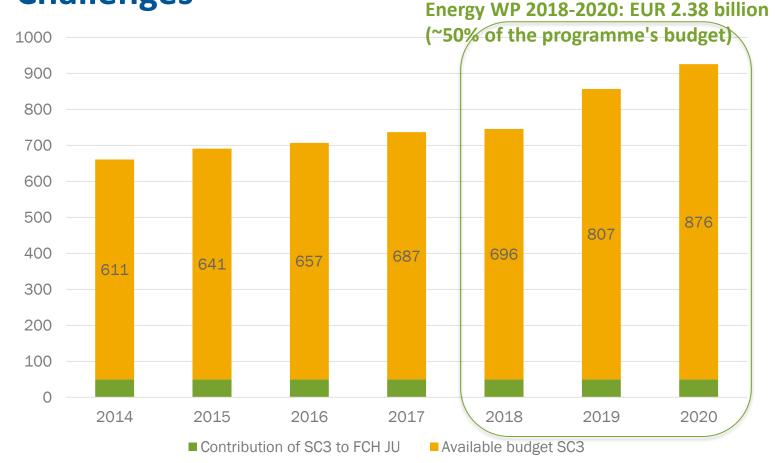
Example of policy push, Horizon2020 timeline

2019 2020 2014 2015 2016 2017 2018 Strategic Programme Work Programme 1 (plus tentative information for **Strategic Programme** 2016) Work Programme 2 (plus tentative information for Strategic Programme 2018) Work Programme 3 (plus tentative information for 2020) Work Programme 4

Calendar for adoptation of Work Programmes during Horizon 2020



Available budget of the H2020 Energy Challenges



ETIP

Millions

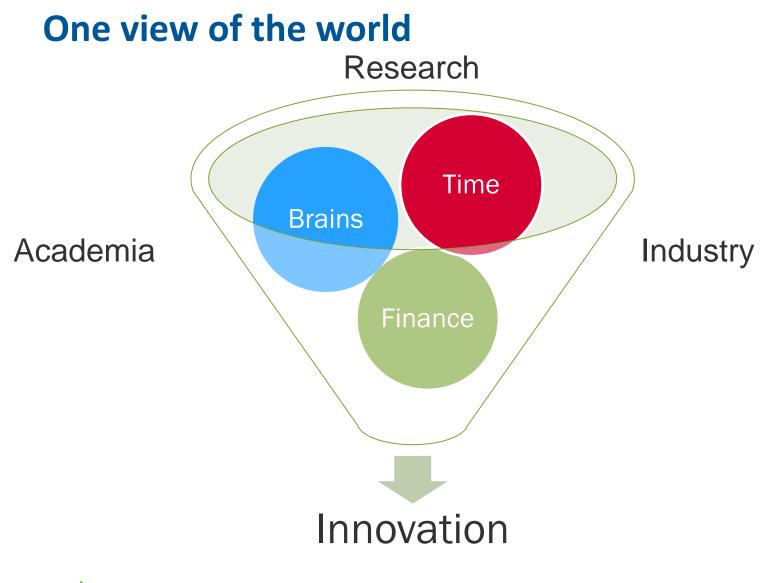
etipwind.eu

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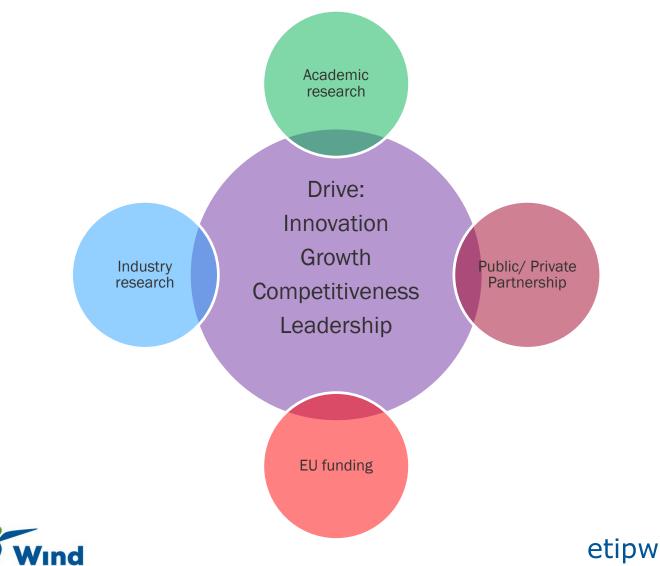
The importance of collaboration "Whats in it for all of us"





A second view of the world

ETIP



Pitfalls to be avoided

- The messiah complex
- Pre-concieved opinions
- Two worlds apart how many companies are here?
- Avoid being divided by ST policy makers
- Specific not to yield to the fuzzy general
- Divorces are messy parties are fun





Progress to date

etipwind.eu

November, 2016

Chairmen are nasty people

- Race against the clock
- Passionate discussions
- Frayed tempers
 - Consensus reached in the SRIA
 - Submitted on time and professionally
 - Submitted 30 project areas to Commission
 - Cooked 30 projects down to 15

Perfect process no - but a really good result ③





etipwind.eu/sria



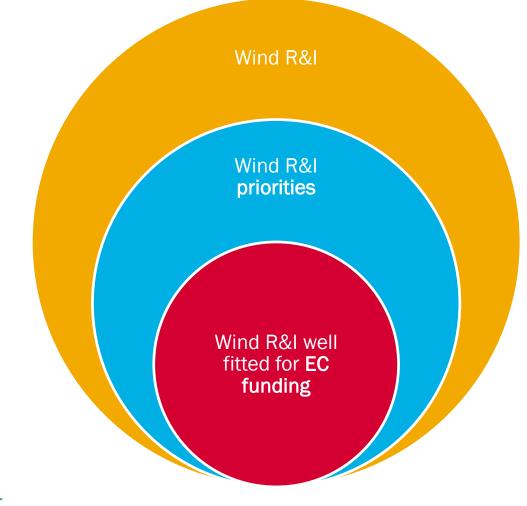
5 Pillars of research and innovation for wind energy



From R&I to deployment

Adapting markets and policies for optimal integration of renewables, integrating wind turbines into their natural surroundings, ensuring public engagement and acceptance and deploying human resources.

Scope of the discussion







Current ETIPWind Aspirations

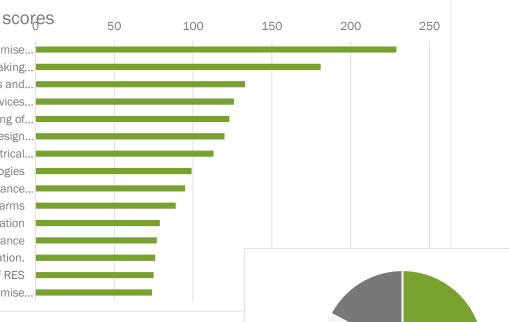
Projects proposal for the European Commission

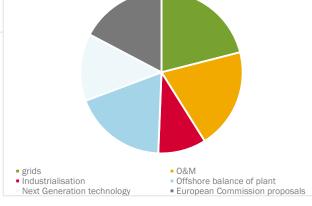
- **Definition** of more than 30 projects of interest for the academia and the industry
- Submission to the European Commission for feedback
- **Reception** of EC's feed back, including proposition of new topics
- **Survey** of the wind energy community on which are the most attractive projects (~15)
- Analysis of the best topics to fulfil our objectives
- Final submission to the EC

Creation of a common future vision with PV and other renewable technologies. ETIP Wind

Projects proposal for the European Commission

1.6 Energy Management Systems (EMS) with high RES penetration to optimise...
2.4 Improved operation and maintenance planning and decision-making...
2.2 Applied real-time analytics to improve reliability of components and...
1.2 In depth technical and economic study for delivery of ancillary services...
5.1 Better testing of current composite material and development, testing of...
4.1 Floating offshore wind farms – solutions for the biggest cost and design...
4.3 Development of next generation low loss and reliable electrical...
EC.9 Demonstration of innovative onshore wind technologies
2.3 Enhanced intelligent sensor systems for improved performance...
EC.3 Demonstration of floating wind farms
4.7 Offshore wind farm of research and innovation
4.6 Operational control and maintenance
1.5 Develop Modular offshore grid infrastructure enabling lower cost installation.
EC.1 Adapting policies and markets for higher shares of RES
1.3 Integration of offshore meshed grids in the power markets to optimise...

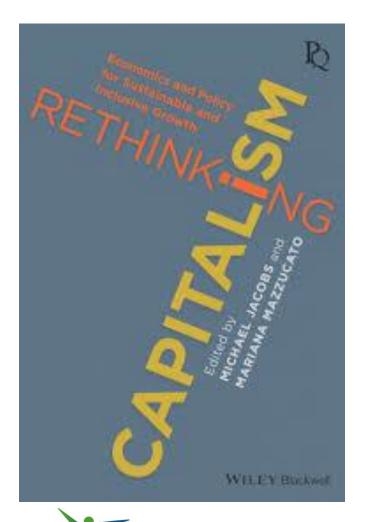








The life cycle of a progressive society



ETII

Specifically chapters

- 1. Introduction
- 4. Costs of Short-termism
- 5. The Innovative Enterprise

6. Innovation, the State and Patient Capital



Thank you for listening & a special thank you to my hard working Steering Committee & Secretariat



