## The RESILIENCE Climate Service

# Predicting Renewable Power over Future Monthly to Annual Timescales

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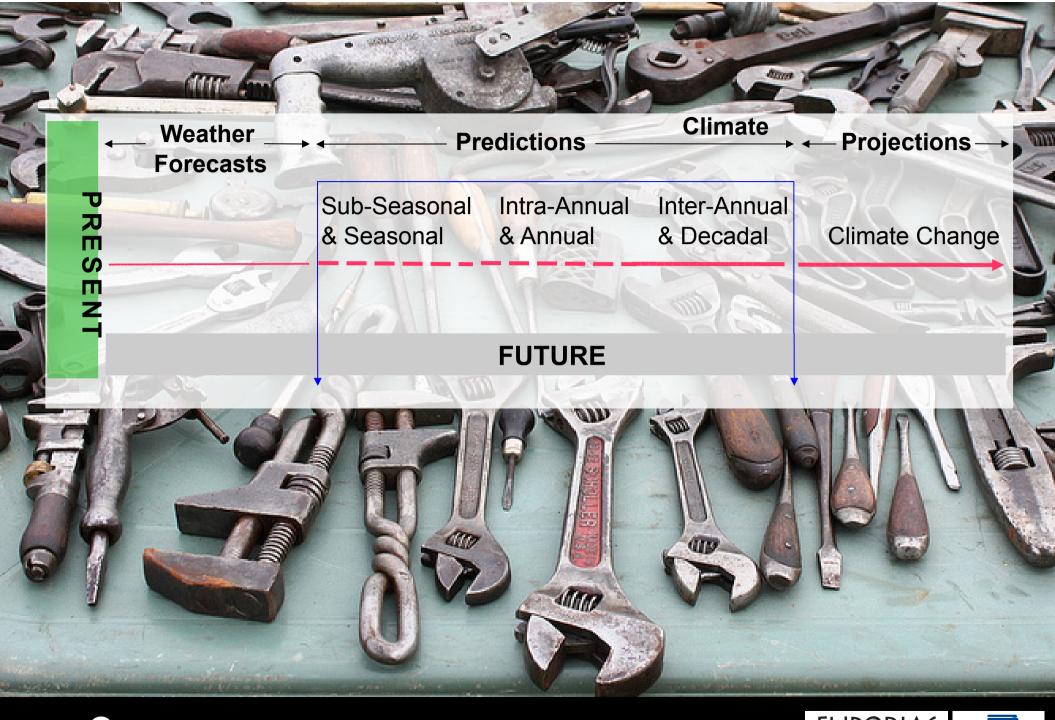


#### "The development of any business requires the ability to predict market movements over which it operates."

Ignacio Lainez Aracama, Professor of Wind Energy, EOI and Director of Energy Assessments, EDP Renewables. El País Article: 4th March 2014: Mix energético: las renovables y su predictibilidad

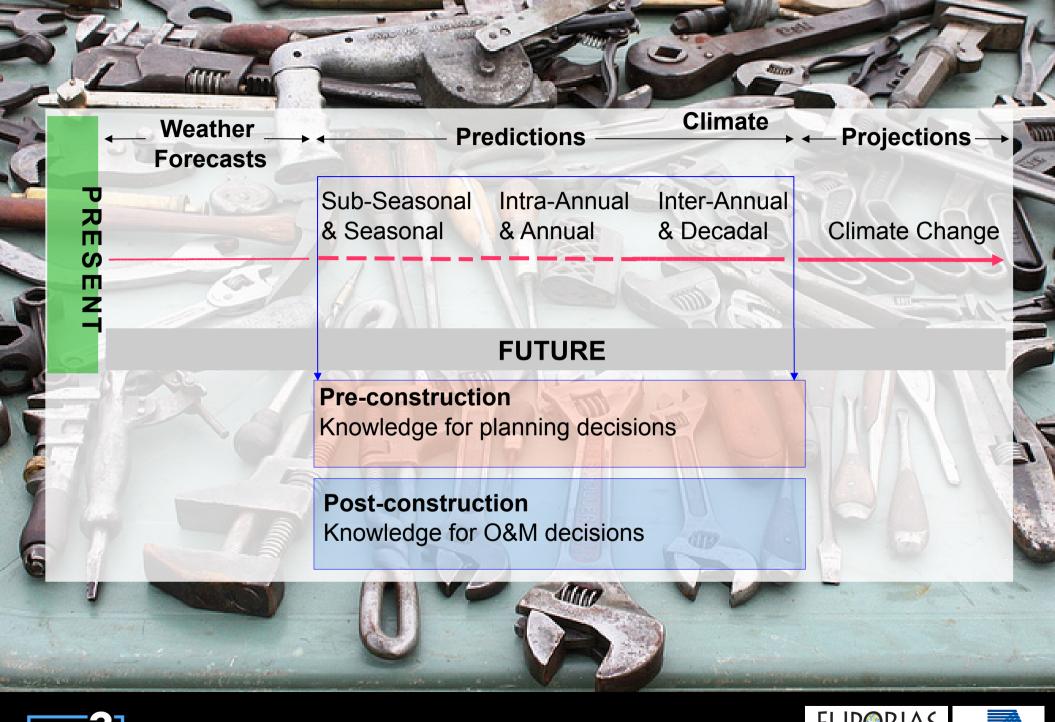
















"Energy decision makers now have a new set of climate risk management tools that can strengthen their decision making, but are they ready to use them?"

Melanie Davis, EMS 2014 Abstract





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### RESILIENCE Climate Service Improve predictability of wind power generation

RESILIENCE
Climate Service

SERVICE: Climate predictions
from 1 month to 1 year, for wind
speed, wind power and
temperature

Wind Farm
Operator,
Owner or Investor

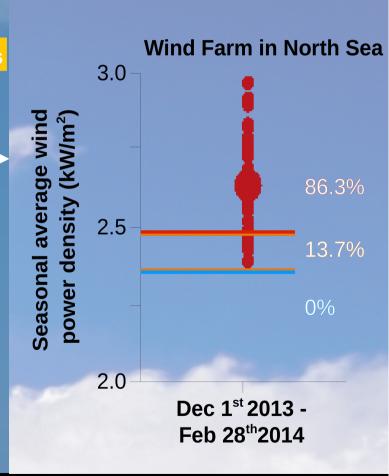




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RESILIENCE
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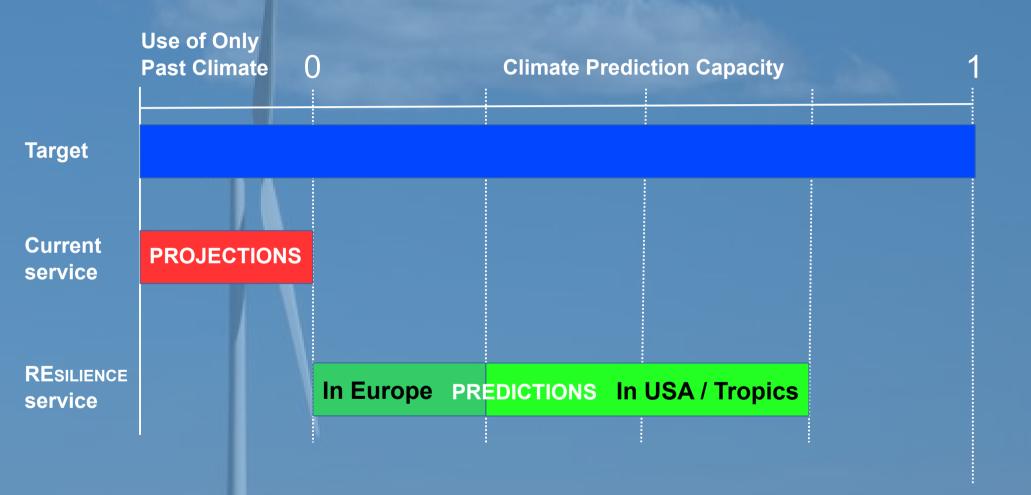
SERVICE: Climate predictions from 1 month to 1 year, for wind speed, wind power and temperature







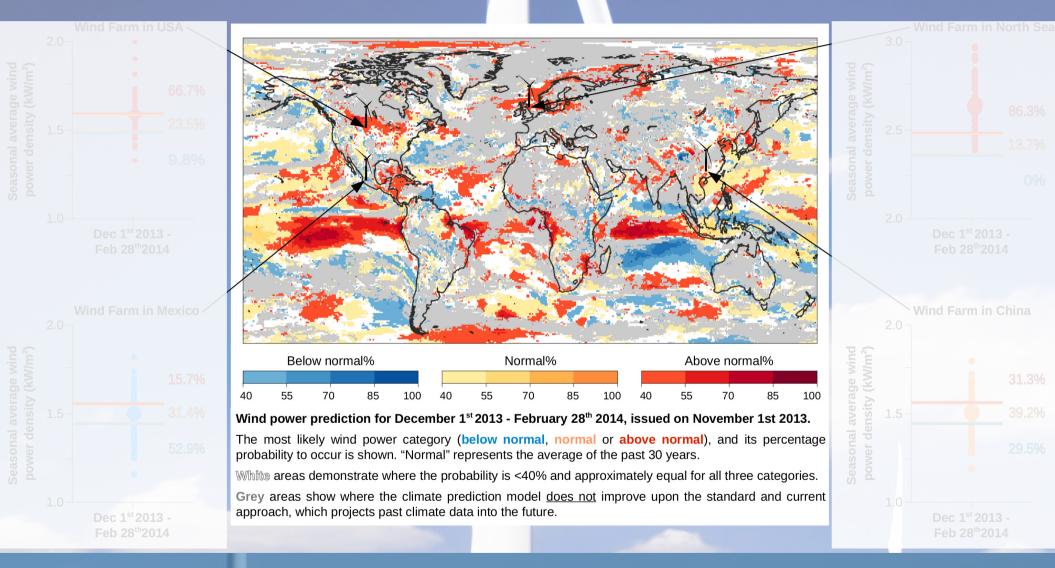
#### **INDEX: WIND POWER ESTIMATION**







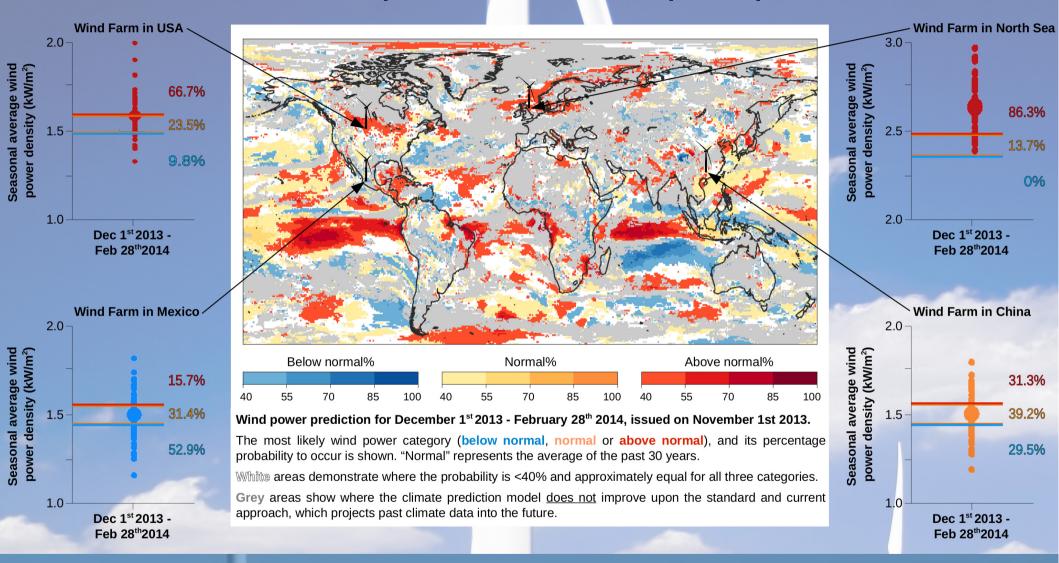
#### Illustrative examples of seasonal wind power predictions







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#### RESILIENCE Applications

**Anticipate market changes:** 

Identify vulnerabilities and risks

Facilitate strategic climate adaptation action





#### RESILIENCE Benefits

Anticipate market changes:

Ability to make decisions earlier

Avoid subjective decision making

Take calculated precautionary action

Potential cost saving





"[Renewable] energy provision may be anticipated, not only in the short and long term as it is today, but also at intermediate horizons, where a huge market niche appears."

Ignacio Lainez Aracama, Professor of Wind Energy, EOI and Director of Energy Assessments, EDP Renewables. El País Article: 4th March 2014: Mix energético: las renovables y su predictibilidad







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