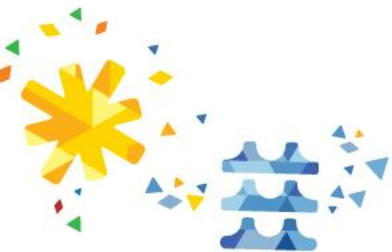




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## Solar PV Production in Portugal

IST | 3<sup>rd</sup> of May of 2018



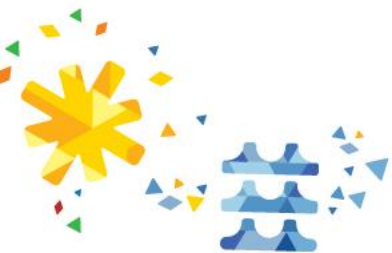


Marc Rechter

The role of Solar PV in the new energy models: Digitalization, P2P and Energy Storage.

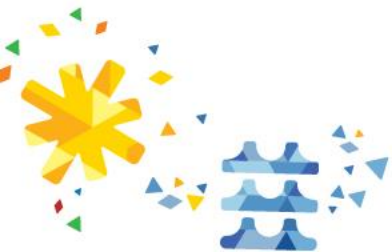


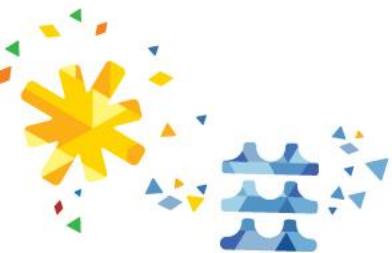
## Energy Transition





Clear Roadmap







# Decarbonise

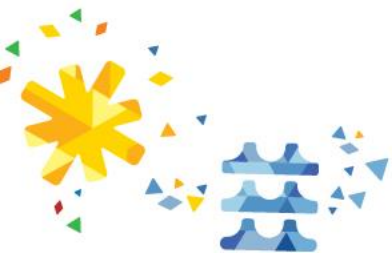
Reduce Cost

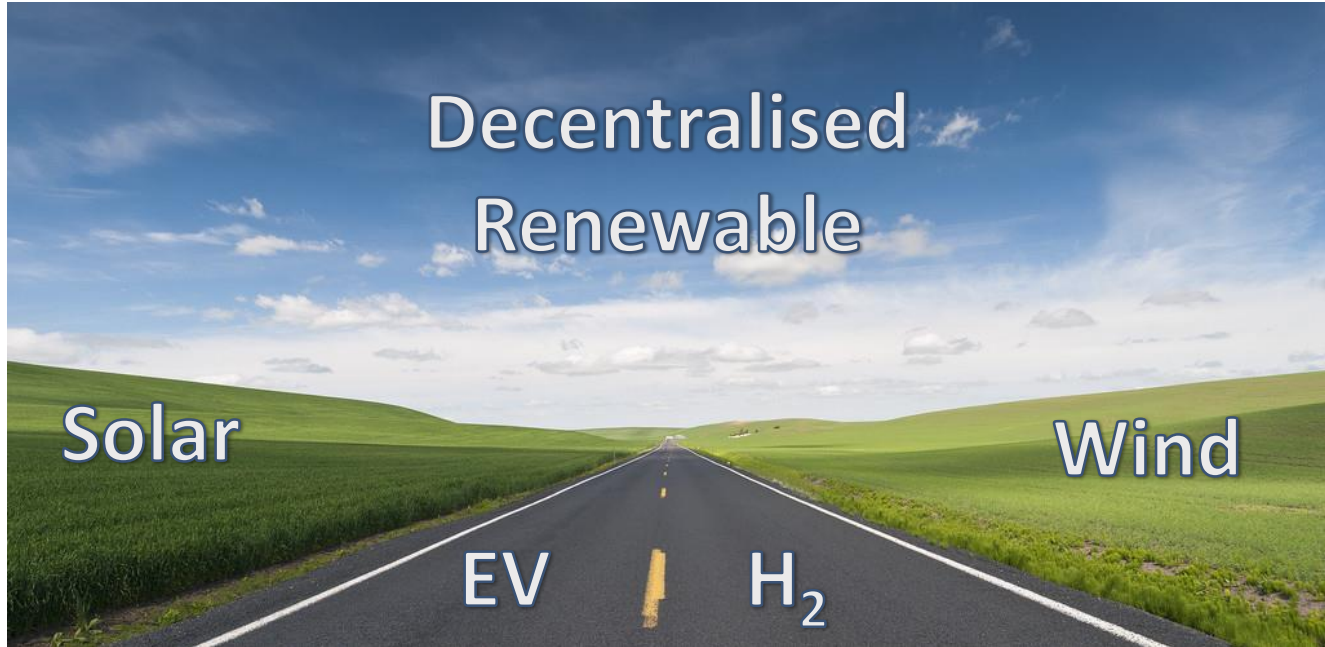
Innovate

Improve Security

Sustainable Growth

## Objectives





# Decentralised Renewable

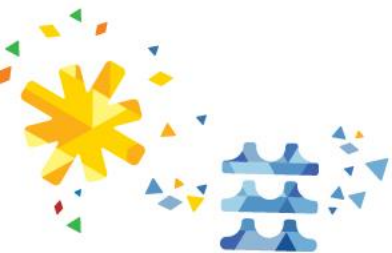
Solar

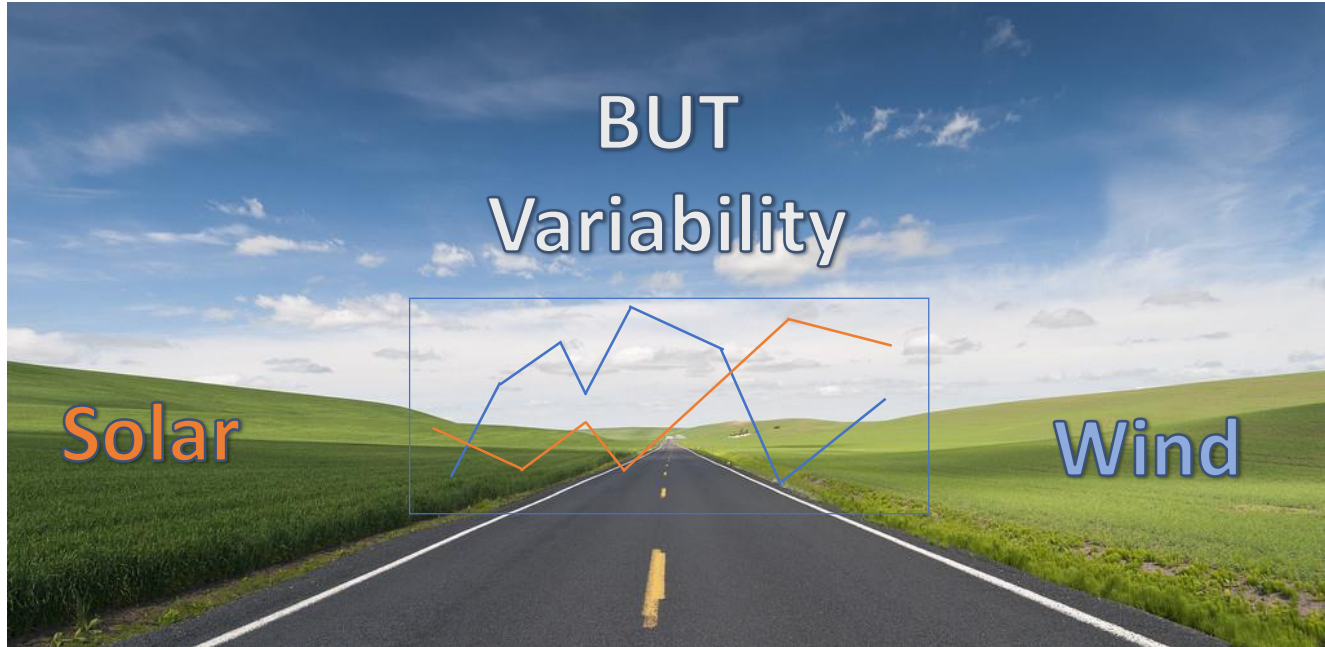
Wind

EV

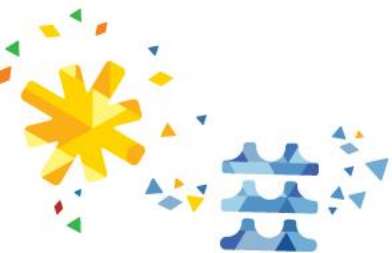
H<sub>2</sub>

Technologies





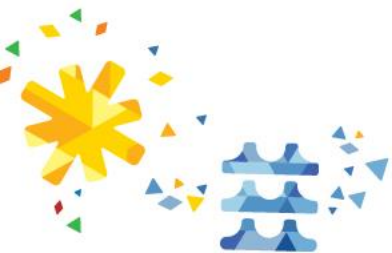
Need Balancing

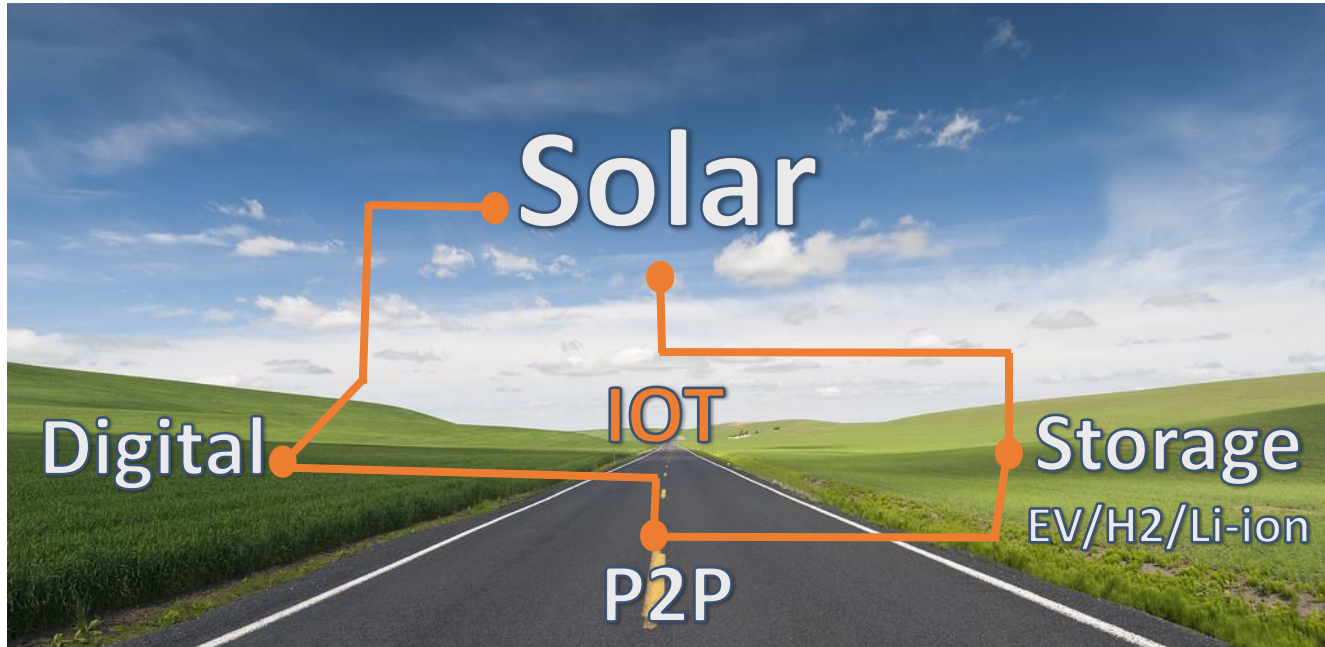




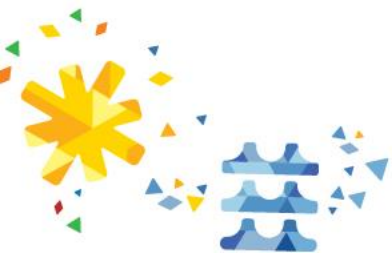


Solar = Cheapest Source of Energy

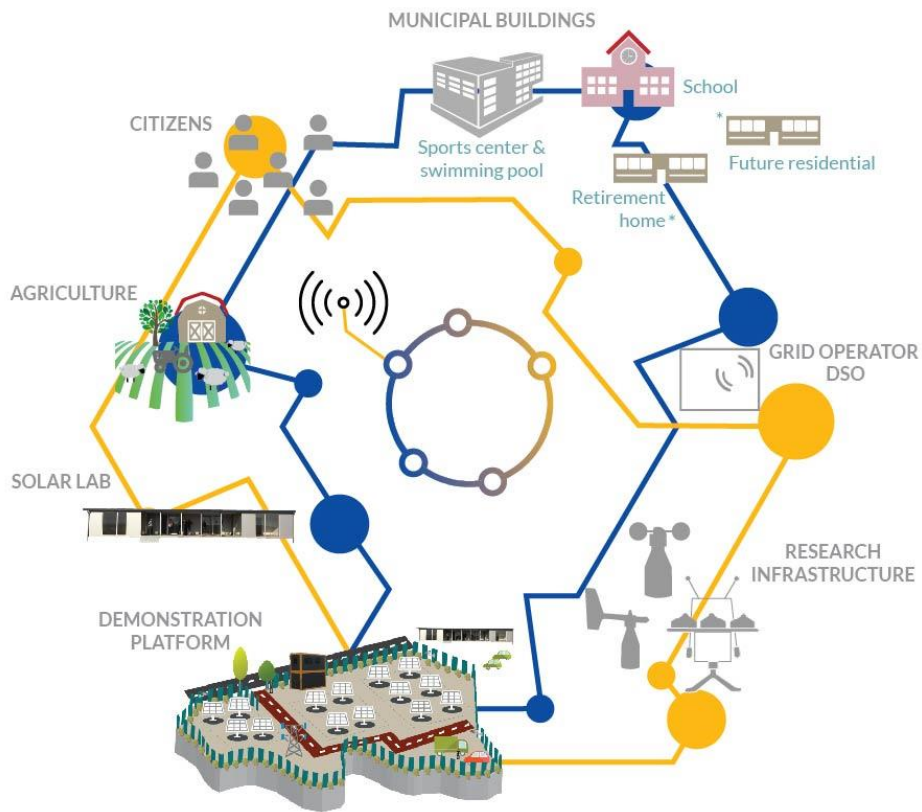




Real Time Energy Flow & Control  
Central & Distributed  
Integrate Gen/Storage/Loads  
Everything Connected  
Portfolios of DER



## SMART ENERGY ECOSYSTEM, PORTUGAL, ALCOUTIM



DEMONSTRATION  
PLATFORM  
Solar Generation

VICINITY  
2020  
IOT Interoperability

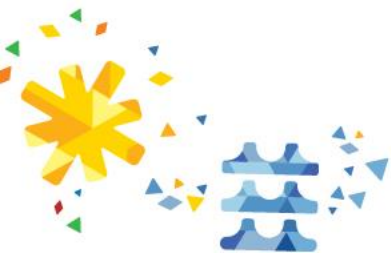
SHAR-Q  
P2P Energy Sharing

H<sub>2</sub> IBERIA  
H2 Storage, Mobility, Grid

ENERCOUTIM  
ALCOUTIM SOLAR ENERGY ASSOCIATION



- Zero Marginal Cost Distributed Solar
- Digitalise Devices & Systems
- Data Driven Energy Sharing
- Transactive Energy Control
- Energy “Packets” across Nodes
- Optimized Cost & Resilience
- Integrated Storage & Mobility





## Challenges:

- Regulatory Framework
- Business Models
- Market Adaptation
- Standardisation / Interoperability
- Big Data / Communications / Machine Learning



 DEMONSTRATION  
PLATFORM  
Solar Generation

VICINITY  
2020  
IOT Interoperability

 SHAR-Q  
P2P Energy Sharing

H<sub>2</sub> IBERIA  
H2 Storage, Mobility, Grid



 ENERCOUTIM  
ALCOUTIM SOLAR ENERGY ASSOCIATION



Thank you!



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