

Risk and Returns of Technology Opportunities

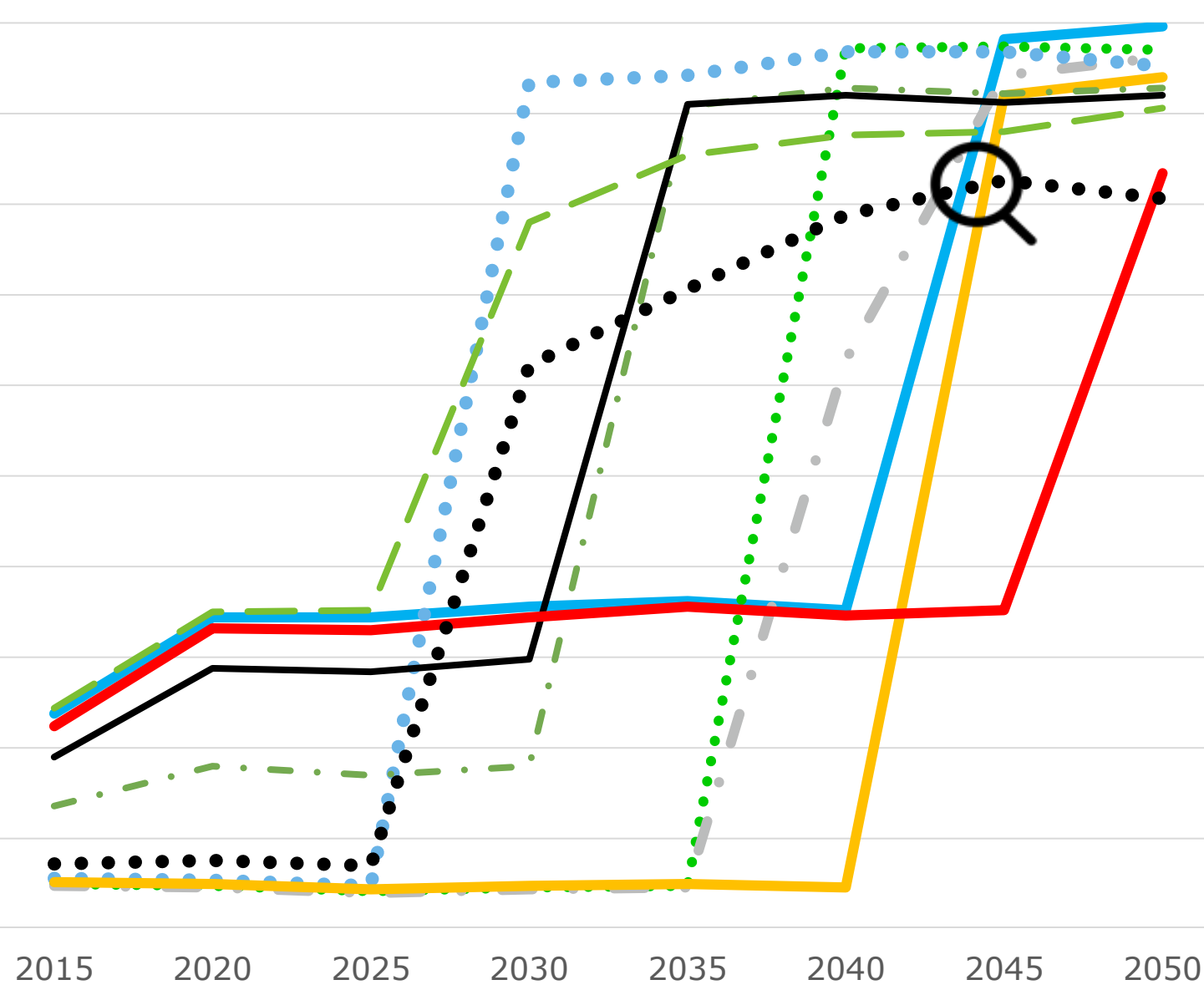
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Our 2050 – Final-Project Event, Fitzwilliam Hotel, Dublin | Dec 10th 2018



10 Prominent technologies in 2050 - 80% mitigation scenario

Rank based on energy consumption



- CCS Gas (ELC)
- .-●-.- HGV Ethanol E10 (TRA)
- .-●-.- HGV Biogas (TRA)
- .-●-.- Plug-in EV (TRA)
- HGV Biofuel DME (TRA)
- .-●-.- Gas Condense. Boiler (RES)
- CCS Coal (IND)
- PV (ELC)
- Biomass (ELC)
- .-●-.- Buses Ethanol (TRA)

Key Outcomes



EPMG

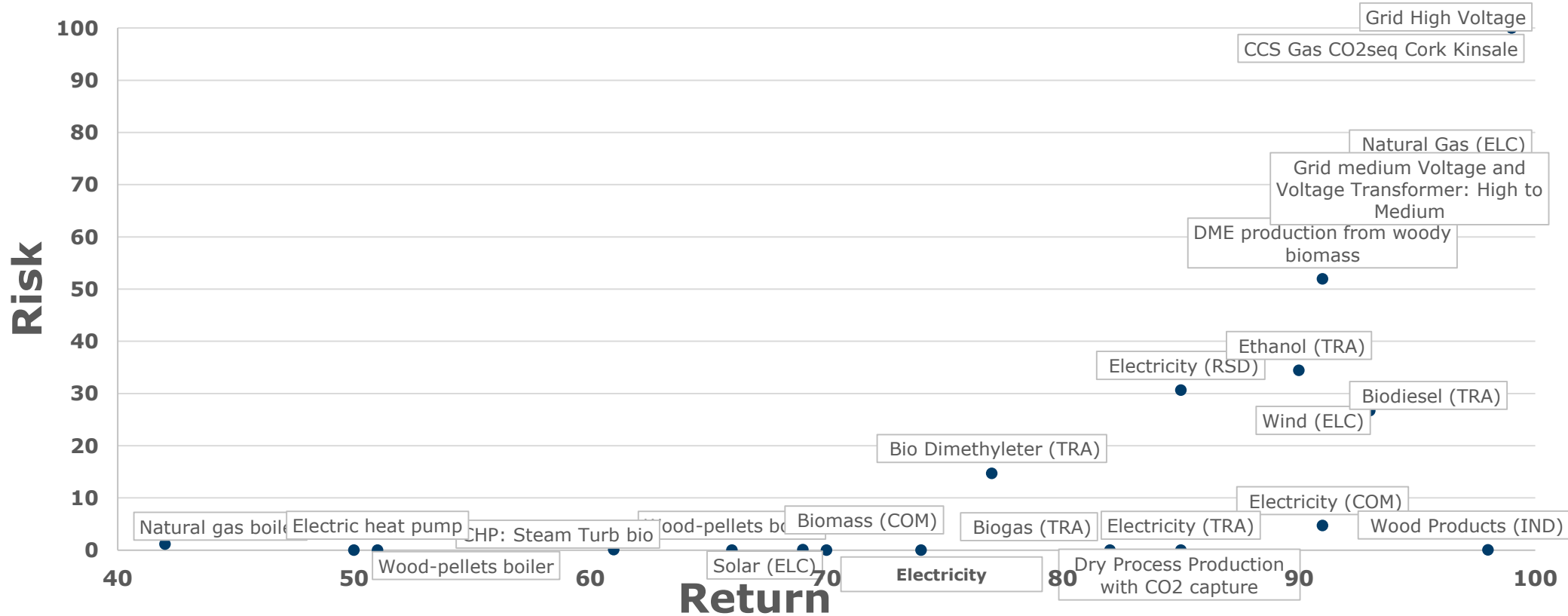
Quantified 2 return and 4 risk attributes for **62** identified technology opportunities:

- Return attributes:
 - Market size
 - Technology opportunity
- Risk attributes:
 - Biomass import
 - Carbon budget
 - CCS development
 - BECCS development

Select Results:



Risks and Returns – Map of Technology Opportunities



Insights



- **Substantial variation in risk–return profiles for technologies.**
- **Transdisciplinary approach**
- **Entrepreneurs/investors can rank these opportunities based on each of these six attributes**
- **Results should be seen in the context of trends in early stage investment, entrepreneurial activity, and industrial organization.**