



How can a competitive market environment for renewables be improved ?

BP Biofuels a growing alternative

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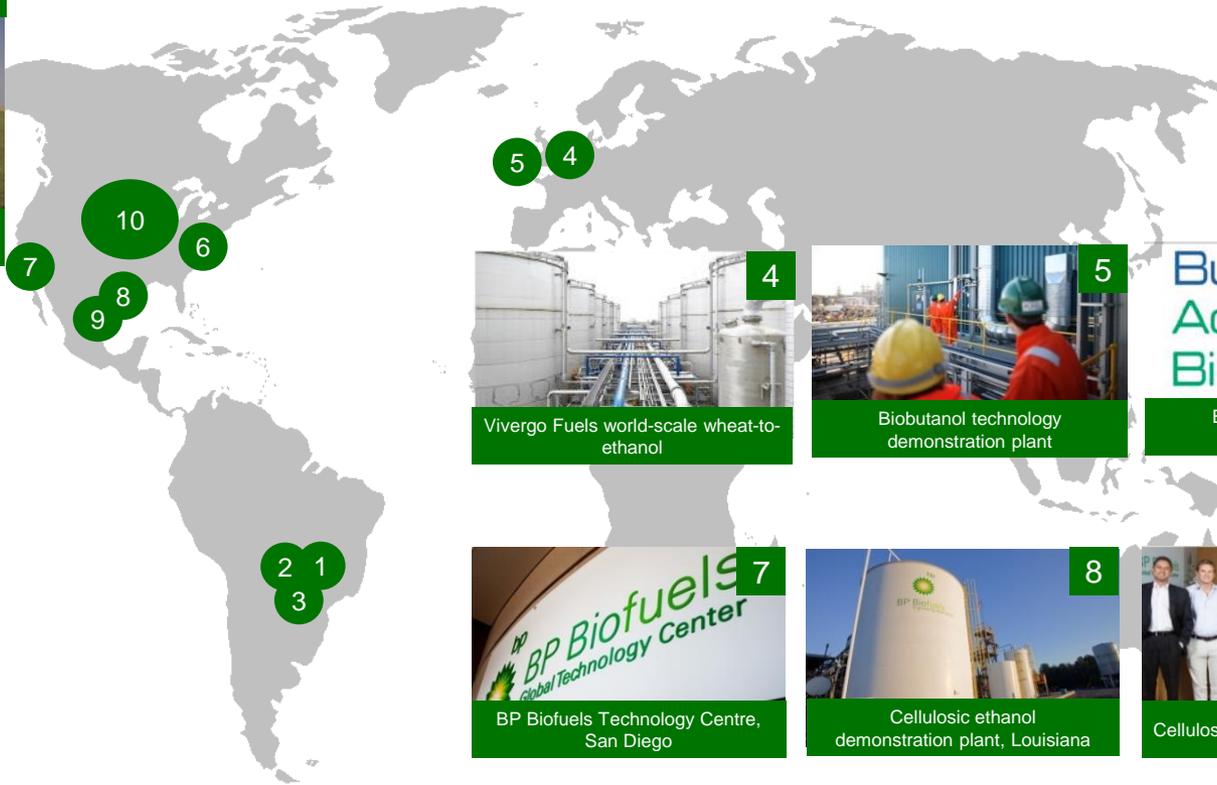
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Forward Looking Statements



This presentation contains forward-looking statements based on management's current expectations, estimates and projections. All statements that address expectations or projections about the future, including statements about the company's strategy for growth, product development, market position, expected expenditures and financial results are forward-looking statements. Some of the forward-looking statements may be identified by words like "expects," "anticipates," "plans," "intends," "projects," "indicates," and similar expressions. These statements are not guarantees of future performance and involve a number of risks, uncertainties and assumptions. Many factors could cause results to differ materially from those stated. These factors include, but are not limited to, changes in the laws, regulations, policies and economic conditions of countries in which the company does business; competitive pressures; successful integration of structural changes, including acquisitions, divestitures and alliances; research and development of new products, including regulatory approval and market acceptance, and seasonality of sales of agricultural products.

BP Alternative Energy – Global Activities

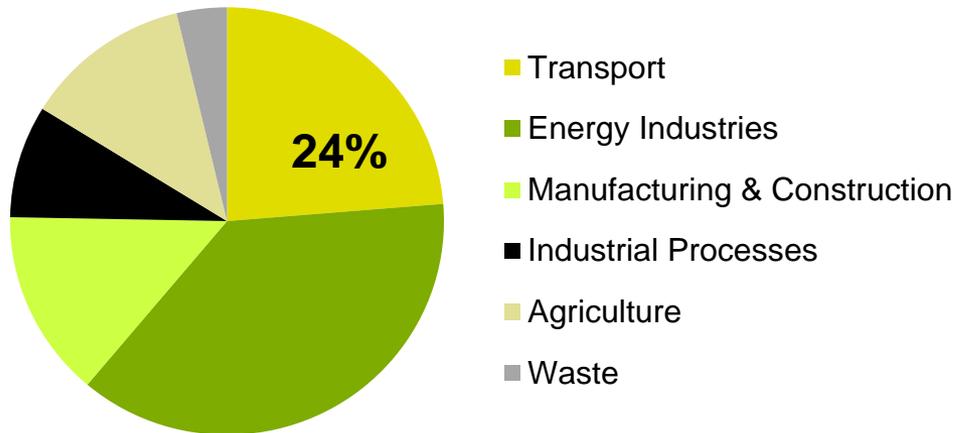


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The EU needs GHG savings from transport – including from fuels



Europe's GHG emissions in 2012



Source: Eurostat

- Transport was responsible for 24% of Europe's GHG emissions in 2012
- Transport needs to play a role in delivering Europe's emissions target – at least 12% carbon savings from transport by 2030

- Efficiency improvements and electric vehicles cannot happen fast enough in cars to make the savings we need. They have limited potential in heavy vehicles, aviation and shipping
- Low carbon fuels are needed - at least 12% of energy in transport will need to be renewable by 2030
- Low carbon, liquid biofuels will provide the majority of this energy

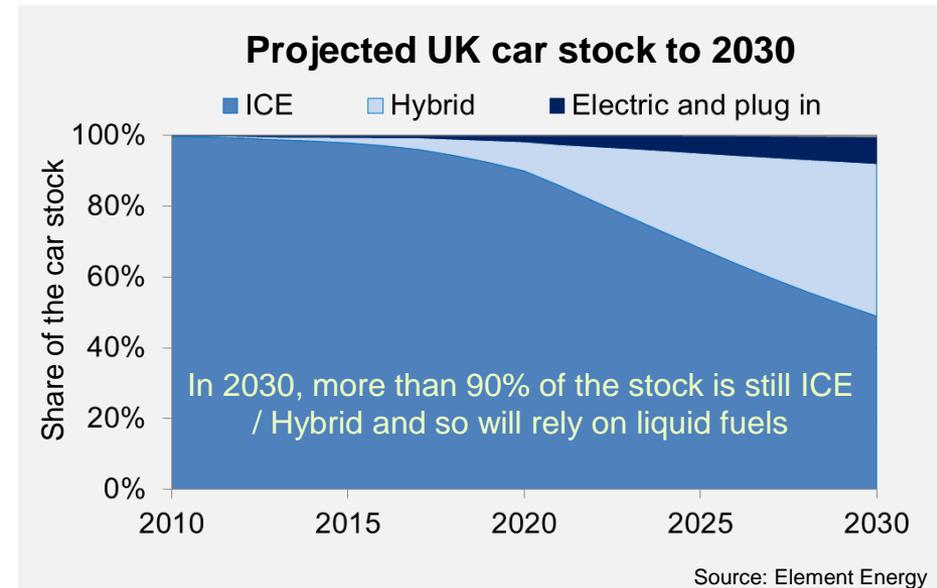
Road transport decarbonisation will not be delivered by electric vehicles alone



- Considerable time is needed for new vehicles to build significant penetrations
 - Average EU car life-time 12 years (US 18 years). Replacement rate ~ 5% pa.

- EVs can and will play a role, but challenges exist:

- Range
- Cost
- Battery reliability
- Recharging infrastructure
- Expanding and de-carbonising power



- Road transport will rely on liquid fuels for the foreseeable future - even the IEA's 'Electrifying Transport' scenario has only 4%BEV penetration in the global car parc by 2030.
- Low carbon liquid fuels (i.e. biofuels) will be required

The challenge is not merely the deployment of new technologies but the creation of new business models.



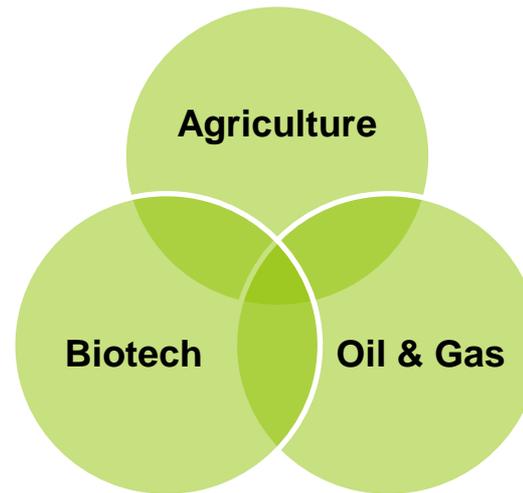
- **Complexity**

- **Multiple Risks**

- Market
- Technology
- Regulatory

- **High Cost / Long-term**

- Cost to first commercial gal: \$1- \$2 bill
- Technology Lead Times : 10yrs+
- Asset Economic Lifetime 30yrs
- Time to Sector Scale-Up 30 yrs +



The aim of policy is therefore to create an environment that is an investable proposition



Consistency

Transparency

Longevity

To conclude ...



- Markets are inherently risk adverse, with the incumbent as the default setting.
- Re-positioning systems/ developing platforms entails significant investment not just in terms of technologies, but also in new business models.
- Highly complex systems, with high levels of interdependence. Risk of unintended consequences.
- Private sector – increasing cost of capital.
- Regulation
 - Consistent
 - Transparent
 - Long-Lasting
 - Joined-Up



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