EU Heroes

Connecting Communities

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Energy Saving Trust

Energy communities in NL/UK

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Vilnius, Lithuania

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 764805

Status quo of energy communities

1995 -2010

- Very few projects
- First project started with help from Sweden
- Large wind projects, no generation tariff, significant stakes from combination of individual investors and banks
- 10-30% of the wind turbines owned by a co-operative
- Membership >1000 people

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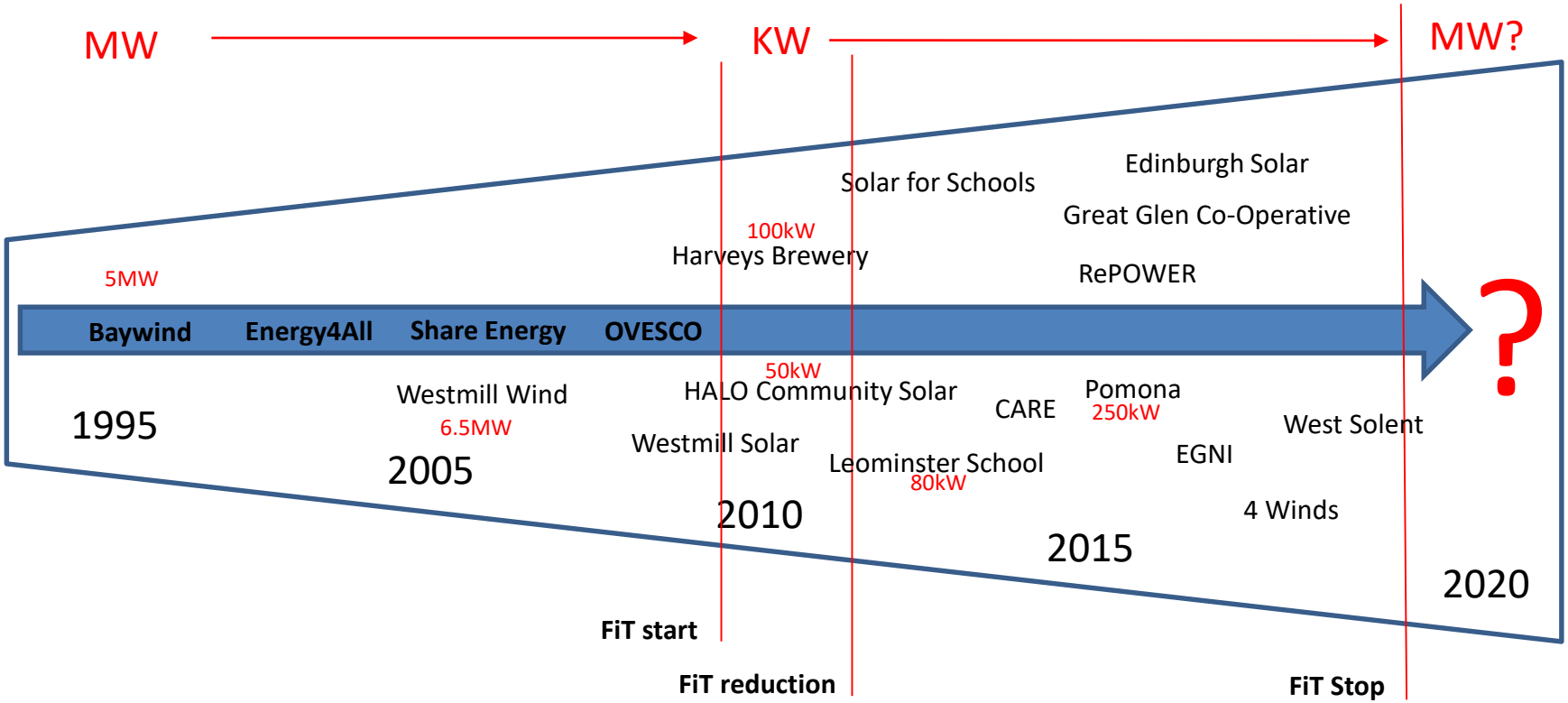
History of energy communities in the UK

1996 Baywind 5MW wind farm, 1200 members
Baywind then created Energy4All who created the Westmill Co-Ops
They then helped create Share Energy who have started over 30 more co-ops
OVESCO have also helped create many more small schemes



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Status quo of energy communities – last 8 years

2010 – 2018

- Small Co-ops started by a “parent” organisation
- Solar becomes viable for the first time with the start of feed in and generation tariffs
- Self consumption is not an important part of the profitability
- Mostly owned by local people: <150
- Typically run with volunteers with administrative assistance provided by specialist charities
- Offering a small return on investment: 4-6%
- Many small co-operatives own a single asset on one building or in one location: 50 – 250kW

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Future energy communities in the UK

2019 – onwards

- Smaller Co-Ops no longer financially viable without generation tariff
- New build PV only viable tariff free at scales greater than 10MW with very low install costs
- Private wire / good PPA contracts essential

- Aggregator models starting where multiple assets are owned by a single co-operative
- Aggregators are buying assets and merging with existing co-operatives – not building
- Larger scales planned for multiple buildings, not single buildings

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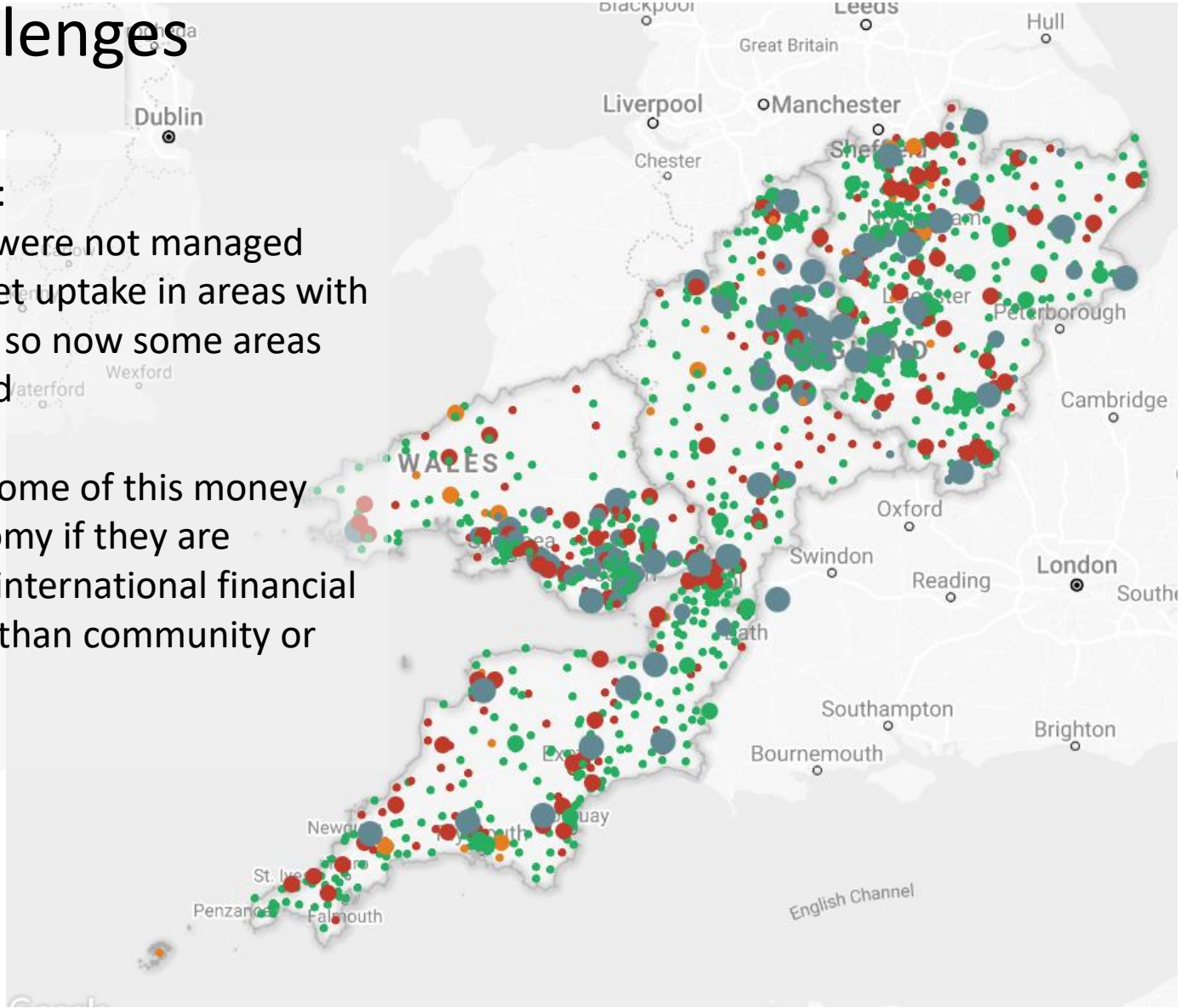
Main Challenges

For solar in the UK:
Generation tariffs were not managed proactively to target uptake in areas with the best resources so now some areas are too constrained

Developers drain some of this money from the UK economy if they are managed by large international financial institutions rather than community or national assets



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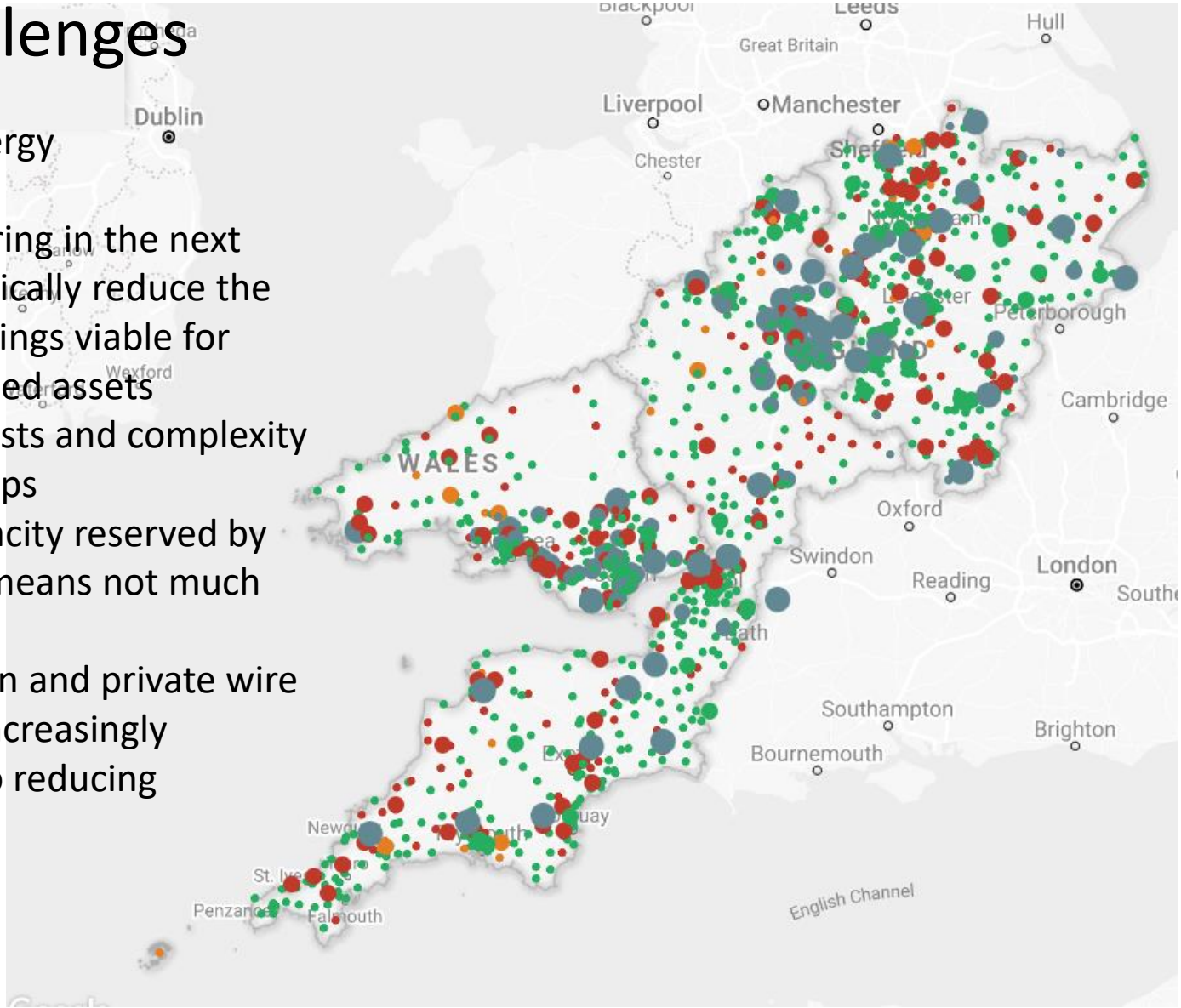
Main Challenges

For community energy

- Tariffs disappearing in the next year will dramatically reduce the number of buildings viable for community owned assets
- Greater Legal costs and complexity with bigger co-ops
- Generation capacity reserved by big developers means not much land is available
- Self consumption and private wire arrangements increasingly important – also reducing available sites



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Positive outcomes of change

+ Future co-operatives are likely to be better organised, stronger institutions
+ Community organisations will have more political and economic influence

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Negative outcomes

- Significantly lower growth of new build solar
- Less volunteer / local community involvement – maybe this is a +?

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Conclusions

The government should enter into conversations with the electricity network management teams at the highest level, as early as possible, to plan where solar development occurs. Incentive schemes and electrical infrastructure improvements should be managed in a way that will suit everyone.

Self-consumption is key to getting the best financial and electrical performance from solar installations, so they should be planned with this in mind.

Heating and Cooling buildings is often a larger carbon impact than electricity usage, so building regulations should encourage low heating/cooling demands which can be managed with local solar generation where possible

If community ownership is a desirable outcome, incentives should be better than for commercial ownership. Incentives should be planned with flexibility so that they can be changed gradually in a managed way. Good communication and engagement with service providers is essential.

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