

An aerial photograph of a large concrete dam. A walkway with a metal railing runs along the top edge of the dam. Below the walkway, there are several large, rectangular panels in bright colors: yellow, blue, and green. The dam is situated in a deep, rocky gorge. The water level is visible on the right side of the image.

CONSTRUCTING VALUE – THE CASE FOR INFRASTRUCTURE DEBT IAPF – TRUSTEE NETWORK

Darryl Murphy

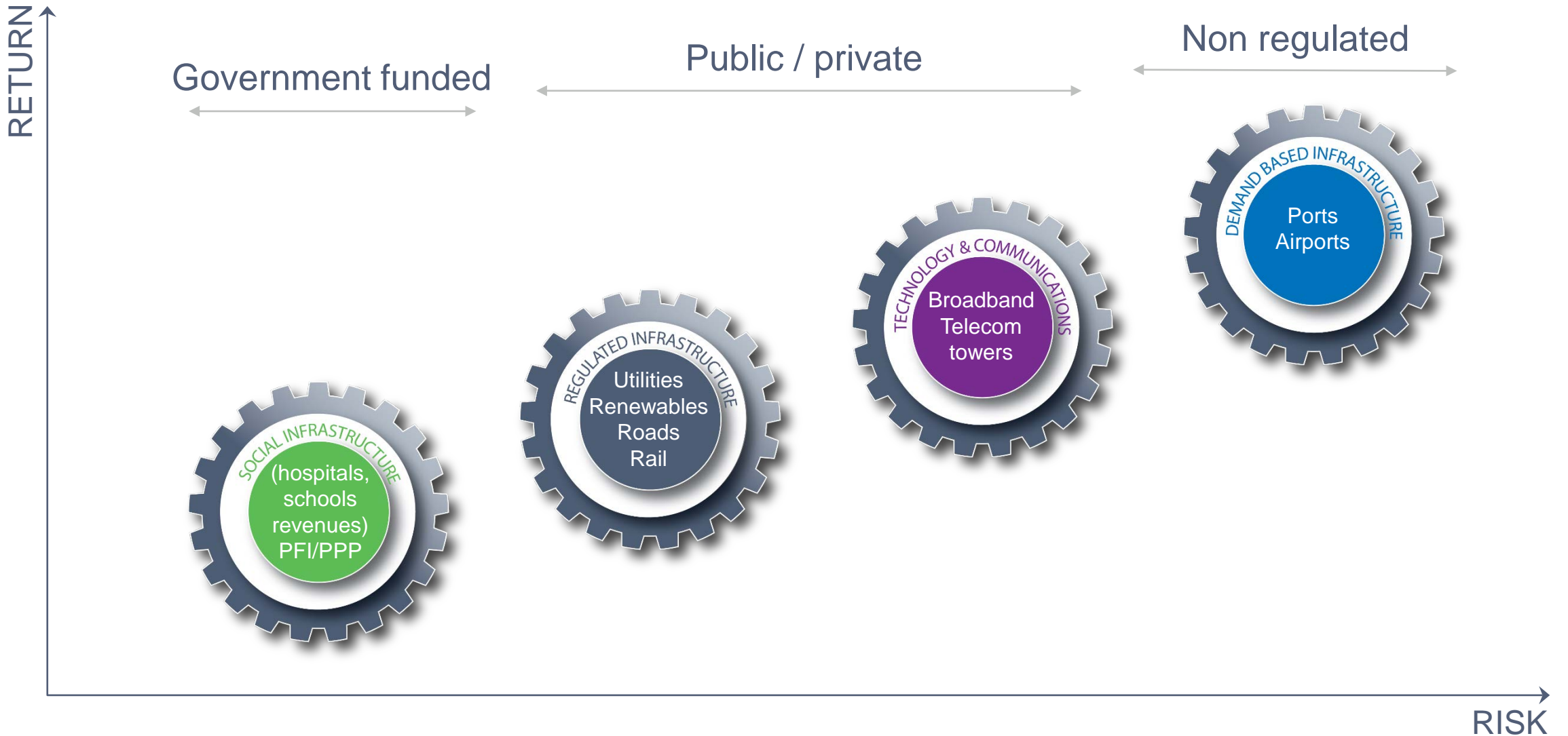
Head of Infrastructure Debt, Aviva Investors

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How do we define infrastructure?

Assets needed to deliver essential services to society



Source: Aviva Investors. For illustrative purpose only

Global infrastructure drivers

External factors drive the need for infrastructure

Global population – 9 billion by 2050



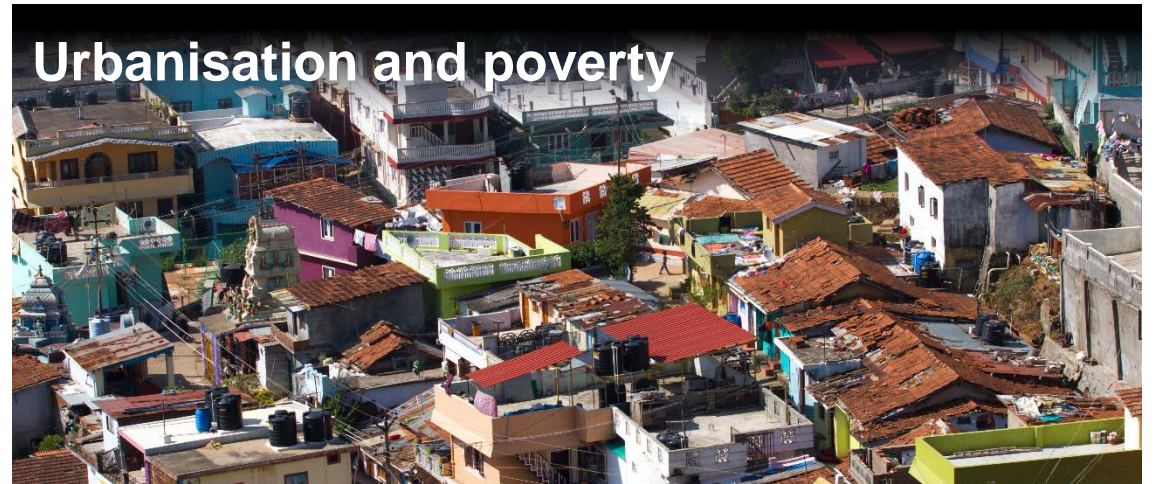
Low carbon



Supporting economic growth



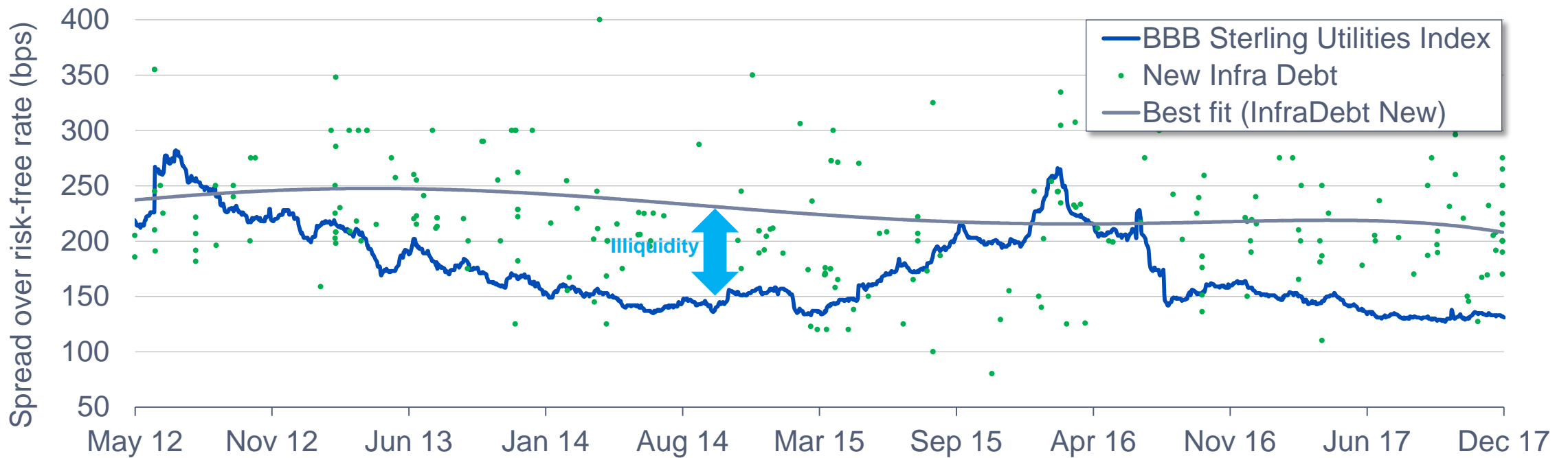
Urbanisation and poverty



The case for Infrastructure Debt

A defensive and diversifying investment for investors

Yield enhancement vs. sovereign and covered bonds in the current low yield environment



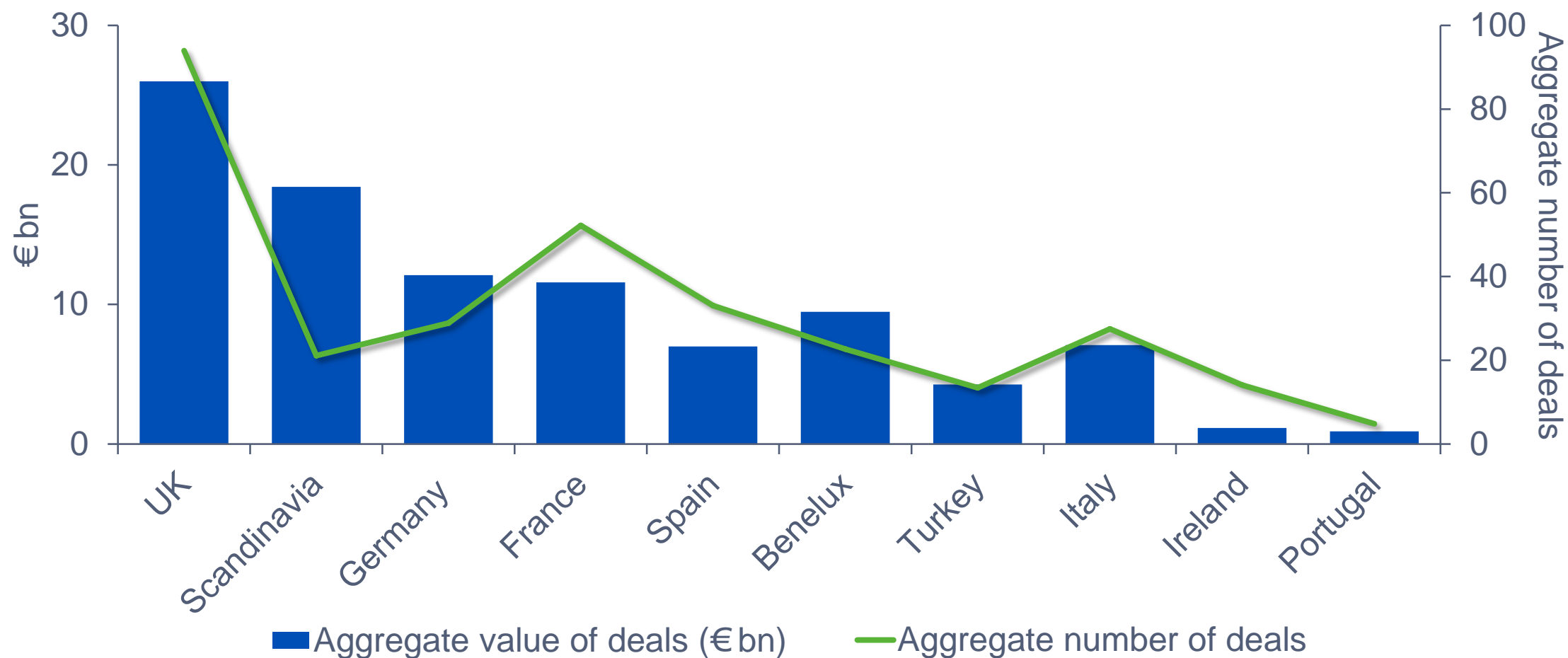
- Long term stable cashflow based credit – fixed, floating or index linked
- Limited downward rating migration
- Strong recovery rates substantially uncorrelated to economic cycles
- Potential liability matching characteristics
- Sustainable asset class with attractive ESG characteristics

Source: Aviva investors. IJ Global, Bloomberg as at 31 December 2017

2017 European debt market

Volumes and numbers of transactions

Number and value of European infrastructure debt transactions



PPPs

- The Irish government focussed on infrastructure development as a means to boosting jobs and economic growth. PPPs are central to project delivery, and a **27bn capital expenditure plan – called “Building on Recovery: Infrastructure and Capital Investment 2016-2021”** was announced.
- In September 2015 a third phase of the government PPP programme was launched: **many new health, justice and social housing PPPs are expected to be delivered over the next six years (2016-2021).**
- **The first bundle of social housing (EUR 100m) has been launched.**
- **1.5bn National Broadband Plan procured as PPP** is progressing to final bids stage.

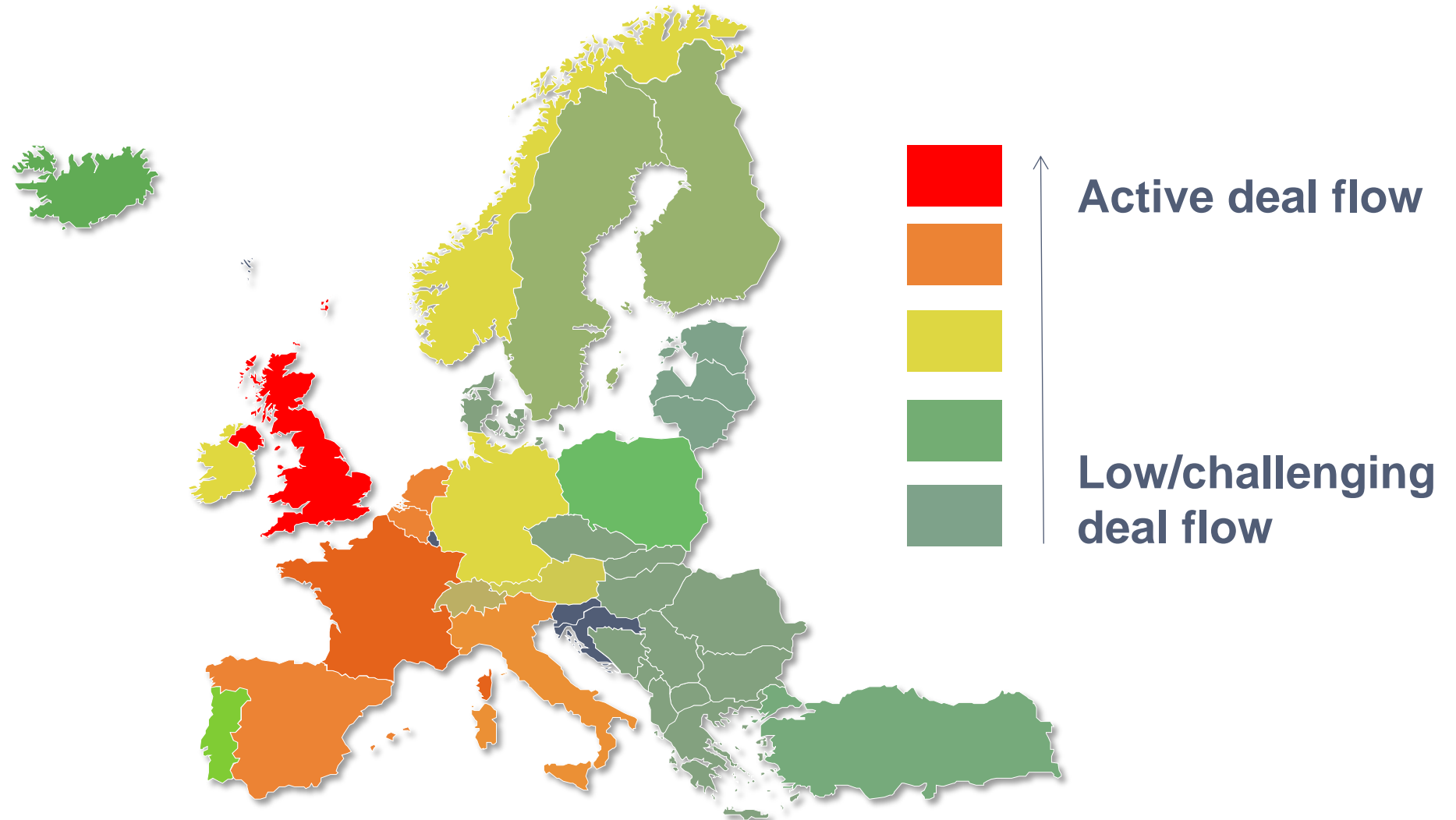
Renewables

- Irish government committed to ensure **40% renewables generation by 2020**. Attractive market and stable regulatory framework for both wind and solar
- 2015 Capital Plan allocated EUR 444m per year on energy efficiency and renewable energy programmes from 2016 to 2021.

Other

- **Student accommodation** may offer several opportunities

Europe infrastructure market heatmap



An aerial photograph of a large concrete dam. A walkway with a metal railing runs along the top edge of the dam. The face of the dam is painted with a vibrant rainbow, with colors transitioning from yellow at the bottom to purple at the top. The water level is visible on the right side of the dam.

CASE STUDIES

Deal overview

- N17 is a new greenfield 53km dual carriageway between Gort and Tuam on the West Coast of Ireland, replacing the existing N17 and N18 roads
- Construction works were undertaken by a construction joint venture ('CJV') consisting of highly experienced contractors consisting of Strabag AG, John Sisk & Son (Holdings) Ltd, Roadbridge Ltd and Lagan Construction
- Construction was completed two months early and the road was opened to traffic in September 2017

Deal highlights

- The new road will improve connectivity between the Western Region and Dublin and will significantly assist in the economic development of the BMW (Borders, Midlands and Western) regions
- The debt was refinanced part way through construction (in 2016)
- 100% of revenues are availability based
- Operation and maintenance will be undertaken by ALIS for a total of 30 years



Deal overview

- Old Mill is a 17MW six turbine wind farm in county Monaghan
- Construction was undertaken by GE for the Turbine Supply Agreement with Balance of Plant works undertaken by Noel Regan & Son, experienced in civil engineering works and turbine projects in the UK and Ireland.
- Old Mill sells the energy to Bord Gáis Energy, under a 15-year PPA agreement and is paid the REFIT 2 subsidy tariff

Deal highlights

- Old Mill powers approximately 12,250 homes
- The wind farm was energised at the beginning of September 2016 and has been exporting power since November 2016
- The site comprises six GE 2.85-103 turbines and is owned by Belgian company, Storm.



An aerial photograph of a large concrete dam. The spillway is painted with a vibrant rainbow, with colors transitioning from yellow at the bottom to purple at the top. A walkway with a metal railing runs along the top edge of the dam. The water behind the dam is dark and calm. A semi-transparent grey rectangle is overlaid on the center of the image, containing the text "Thank you".

Thank you

- Where funds are invested in infrastructure, investors may not be able to switch or cash in an investment when they want because infrastructure may not always be readily saleable. If this is the case we may defer a request to switch or cash in units. Investors should also bear in mind that the valuation of real assets is generally a matter of valuers' opinion rather than fact.
- The value of an investment and any income from it may go down as well as up and the investor may not get back the original amount invested.

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