



HEAnet Response to DECC International Connectivity Consultation

26 November 2020

Question 1 “Is there sufficient capacity and diversity of routes available to meet current and future demand over the next 5 years (or over a longer timeframe if that information is available)?” Please provide current capacity of international links (in absolute terms and percentage of fibre cable used/free at present) and plans for future capacity over the next 5 years (or over a longer timeframe if available).

Based on recent engagement with the market, HEAnet find that there are only two existing submarine commercial fibre connectivity providers offering dark fibre connectivity to the UK (with one possible future option). Further, most sea-cable crossings between Ireland and the UK orient towards London, with few fibre options to Northern England and Scotland.

Moreover, there were no offers of dark fibre or transmission capacity between Ireland and mainland Europe that did not traverse the UK. This is increasingly concerning given the UK’s imminent withdrawal from the European Union. Very soon, Ireland will rely on a non-EU member country to provide all of Ireland’s connectivity to its fellow EU Member States on the European mainland.

HEAnet believe that this situation warrants strategic review by both the Irish Government and the European Commission, warranting consideration of targeted EC regional/digital inclusiveness funding (e.g. CEF, ERDF, RRF) to address this concern.

Question 2 “What are the key challenges and commercial barriers that exist in the development of international connectivity in Ireland?”

HEAnet market intelligence reports that the cost of fibre to the UK remains cost prohibitive. Further, there is little price differential across the current players in this marketplace. The anticipated costs to connect to mainland Europe, via new planned sea-cable routes, are even more cost-prohibitive.

Certain future technologies and research activities (e.g. quantum communications; time and frequency synchronisation) are envisaged to require dark fibre connectivity, where *access to the light* being transmitted across these fibre cables becomes a prerequisite. There is then an inherent strategic national need to ensure that fibre provision is assured in this regard.

There is also a concern re the age of sea-cables into Ireland, using publicly available information¹, at least eight such systems have end of service dates of 2025 or earlier. The Irish Government should ensure that investment in international infrastructure is sustained, whether by commercial incentives or State/EC investment.

Question 3 “What measures are required, including actions by the State, to alleviate the key challenges and commercial barriers in the development of international connectivity in Ireland?”

State intervention should be justified to stimulate new entrants into the market, to increase supply and diversification of routes across the full breadth of the UK (i.e. not just via London) but, more urgently, to stimulate cost-effective connectivity routes directly between Ireland and mainland Europe (reducing dependency on connectivity via the UK).

Any State intervention or subsidy should be viewed over an appropriate investment term, in the order of 10-20 years, to recognise the significant upfront commercial commitments needed to justify such infrastructure business cases.

The advent of Brexit, and the concerns this raises in relation to Ireland’s fundamental dependency on connectivity via the UK, a non-EU member state, can be viewed as a risk to Ireland’s international connectivity future. At the same time, however, Brexit can also be viewed as an opportunity for Ireland to displace the UK as a main trans-Atlantic conduit to and from Europe.

Question 4 “Given that the most recently deployed and planned submarine cables on transatlantic routes have landed on the west coast of Ireland, are there likely to be any issues with onward connectivity from the landing station to service provider hubs and data centres?”

The cost of national backhaul across Ireland to existing, and new, sea-cable landing points is a major concern. And this concern is not solely applicable to cable landings in the West of Ireland. Recent quotes in relation to a sea-cable route from the UK landing in the Southeast of Ireland, reflects that the backhaul element from that Southeast landing point to Dublin amounts to 40% of the total end-to-end Ireland-UK circuit cost. National backhaul should be a modest proportion of the overall international circuit cost total.

¹ <https://www.infrapedia.com/>

Question 5 “How do you think Ireland is positioned when compared to other countries with best practice international connectivity?”

Ireland being an island nation located on the most Westerly aspect of Europe, presents both opportunity and challenge.

Leveraging Ireland’s Westerly location as a first European landing ground for transatlantic cables via North America is an obvious opportunity. Ireland as a proven and growing location for data centre facilities, and world-leading Internet and technology companies, should enable Ireland to extract better value and diversity in terms of meeting a growing demand for international connectivity.

Concerns arising (be they political, foreign exchange related, or otherwise) from the UK decision to withdraw from the European Union can be viewed as an opportunity to be an alternative international connectivity route to/from the Americas.

HEAnet believe that there is also opportunity to position Ireland as a central leg in a *Western Atlantic sea-cable corridor* that connects from Scandinavia to Ireland to Iberia (which in turn connects to sea-cables to South America). Projects such as PISCES offer such opportunity.

Other European countries, such as Portugal, are evidently ahead in their international connectivity strategy.

Question 6 “How can Ireland position itself as the preferred location to land submarine fibre optic cables in Europe?”

Ireland can be a gateway for European traffic to North America, reducing European reliance on connectivity via the soon-to-be non-EU jurisdiction of the UK.

Ireland can be a central leg in a Western European sea-cable corridor interconnecting fibre running from Scandinavia to Iberia; this Western European corridor then linking to Ireland’s international connectivity to North America.

Submarine fibre optic cables are only one part of an ecosystem that is essential for the future development of the IT industry in Ireland. Ireland also needs to be the preferred location for future data centres for the West of Europe. While the IDA is actively promoting Ireland as a location to build data centres, which has generated financial benefits² to the Irish economy, none of this would have been possible without the existing submarine fibre optic cables landing in Ireland. Ensuring that Ireland is the preferred location for data centres in Western Europe warrants the continued development and expansion of future submarine cables to underpin data centre and other growth strategies.

The costs associated with submarine cable landing stations, foreshore licenses and backhaul terrestrial fibre are all additional costs that submarine fibre operators have to consider when

² <https://www.siliconrepublic.com/enterprise/data-centres-ireland-ida-leo-clancy>

planning submarine routes. State investment in neutral landing stations and backhaul terrestrial fibre could make Ireland a more attractive location for submarine fibre operators.

Question 7 “How can Ireland make it attractive for companies to build new submarine fibre routes from other European countries to Ireland?”

State intervention has been justified in progressing the expansion of broadband connectivity nationally via the *National Broadband Plan*. As an island nation, an argument can also be made to help address the greater challenge facing Ireland (over and above any other EU member state) in cost-effectively sustaining investment in international connectivity infrastructure. Connectivity to/from Ireland needs to keep pace with increasing commercial demand but also national demand in terms of servicing education, research activity, utilities supply, etc.

As an island EU member state, there is an argument that EC funding should be allocated to address a growing digital inclusiveness concern, that is particular to Ireland’s island status but also Ireland’s connectivity route to the rest of the EU.

