



a creative  
momentum  
project

# Digital Culture Index: Population Production of Photo and Video



Whitaker  
Institute



O'É Gaillimh  
NUI Galway

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Northern Periphery and  
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Principal Investigator: Dr Patrick Collins

Post-Doctoral Researcher: Dr Aisling Murtagh

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## About *a creative momentum project*

A three year (2015-2018), transnational project co-funded by the EU Interreg Northern Periphery and Arctic Programme, *a creative momentum project* focused on the development of the creative industries sector in regions across Europe's Northern Edge. This report emerged from the 'Intelligence and Influence' aspect of *a creative momentum project*. For information more visit: <https://mycreativeedge.eu/>

*Disclaimer: This report is prepared on behalf of a creative momentum project partnership. Every effort has been made to ensure the information it contains is correct. We cannot assume responsibility or have liability to third parties arising out of or in connection with this information being inaccurate, incomplete or misleading.*



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## 1. Introduction

Indices bring together a range of data to assist evaluation of complex concepts and phenomena, facilitating the measurement of progress over time (OECD, 2008). The creative and cultural sector is diverse and multifaceted, which has led researchers and policymakers to use indices as an assessment and analysis tool. For example, Richard Florida's Creativity Index was published in 2002. The Creative City Index developed by Charles Landry and Johnathan Hyams was published in 2012. However creativity indices are rare in peripheral contexts. As part of *a creative momentum project* we have developed a series of indices assessing different aspects of creative and cultural sector development in the partner regions. This report presents the 'Digital Culture Index: Population Production of Photo and Video' which measures levels of publication of video and photo content on digital platforms in the partner regions. This index helps provide preliminary insights into how the region, and not just the creative industries in it, engages with digital cultural content.

## 2. The Digital Culture Index

From computer programming to hacking, from digital downloads to file sharing, there is a recognisable appetite for active participation in the formation of cultural produce. We argue that technology affects the way we interact with culture in a wholly unique way. We see the active consumption of culture through the use of these technologies as blurring the lines between consumption and production. Similarly, we recognise a different kind of market structure emerging through this new form of consumption - one that has an ethos of sharing at its heart.

Rapid advancements in technology are characterised as key protagonists of growth in the creative economy. Within this broad category, digital technologies, the evolution of Web 2.0 and its consequential upsurge in the abundance of user generated content are highly conducive towards growth in creative industries. They represent a vital component in abating traditional barriers and in democratising creative and cultural production (Collins and Cunningham, 2017). Moreover, an equally pivotal component in this progress has been the emergence of improved mobile infrastructure, including smartphones, tablets and e-readers, devices which demand quasi-ubiquitous quality internet provision. The ability to capture this growth potential is determined by the state of technological infrastructure in these regions. As noted



elsewhere, broadband provision in more peripheral regions lags behind that of more central ones (Collins, Mahon and Murtagh, 2018).

Embedded in this broader context of technological change and the new avenues it opens for creative content production and consumption, the Digital Culture Index follows Hartley et al. (2012) who introduce measures of what they term creative 'microproductivity' into their Creative City Index. They argue that user generated digital content has growing importance: "The nonprofessional creative productivity of ordinary citizens in digitally linked social networks, should be regarded as part of the innovation system of complex cultural economies" (Hartley et al., 2012: 12).

The Digital Culture Index provides a measure of population-wide user-created digital content. We use data on the number of videos uploaded to YouTube and images uploaded to Flickr as our core indicators (see Figure 1). The regions focused on are the five peripheral European partner regions part of *a creative momentum project* (see Figure 2 and Appendix 1). To arrive at our index results we first standardised our data by population levels in each region and then used the 'distance to reference' method to arrive at a score. This method measures the distance between each indicator and the highest value for that indicator across the five regions. Indicators are weighted equally.

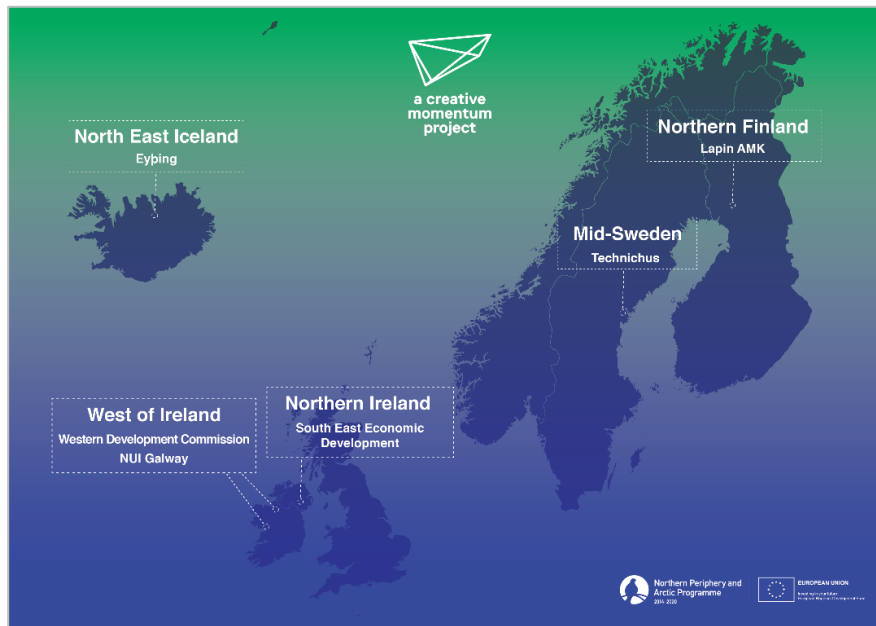
The Digital Culture Index also comes with a number of notes of caution. It should be understood as a pilot index testing how engagement with digital cultural content in peripheral regions might be measured. It is based around just two indicators of microproductivity. Data from other platforms and types of cultural context could be introduced to future approaches. The index aims to help open debate on how to refine methods used to evaluate the creative sector in peripheral contexts. The results should be used as one part of a wider evidence base evaluating creative sector development in the five peripheral regions. Comparative analysis of performance helps us identify similarities and differences across the regions. But the index only compares the five partner regions which is a narrow range of comparison. Nevertheless, this index acts as a helpful tool to understand the relative differences in relation to the publication of video and photo content on digital platforms in the five partner regions.



**Figure 1: Digital Culture Index - Indicators**

- |   |
|---|
| 1. Number of videos uploaded to YouTube from within the geographic region |
| 2. Number of images uploaded to Flickr from within the geographic region  |

**Figure 2: Creative Momentum Project Regions**



### 3. Results

Digital Culture Index results by year (2012 to 2016) and by quarter (Q1 2012 to Q2 2017) are presented in Figure 5 and 6 (see p.10 and p.11). While the extent varies, all of the regions show a strong active participation in the production and sharing of creative digital content online. For example, uploads to YouTube and Flickr in 2016 per 10,000 population are shown in Figure 3 and 4 (see p.8). In 2016 per 10,000 of population, the West of Ireland had the most uploads to YouTube, while North East Iceland had the most Flickr uploads.

North East Iceland emerges at the top of the Digital Culture Index. The results do not indicate this region is a leader in the production and sharing of online creative digital content, but that it is most active on these

two platforms comparatively across the five *a creative momentum project* regions. Based on annual data, it maintains a high level of development from 2012 to 2016. When quarterly data is used to calculate scores the region also predominantly maintains a score indicating a high level of development, but falls to a medium to high level in Q2 2013, 2016 and 2017.

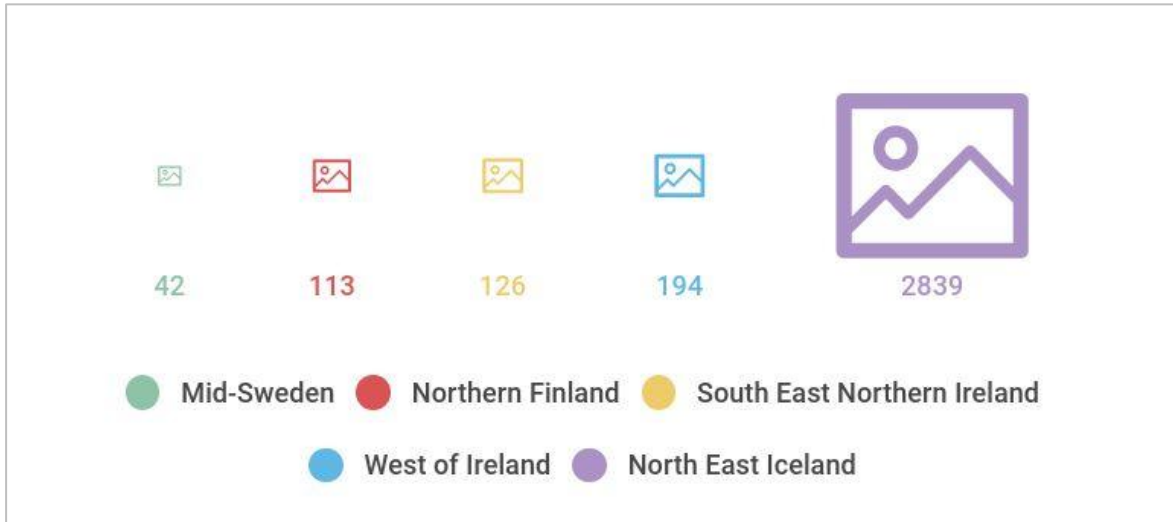
The West of Ireland emerges as the second best performing region overall. Based on annual data, it maintains a medium level of development from 2012 to 2016. When quarterly data is used to calculate scores the region also predominantly maintains a score indicating a medium level of development, but it also moves up to a medium to high level in 2012 (Q2 and Q4), 2013 (Q4), 2016 (Q1 and Q4) and 2017 (Q2).

South East Northern Ireland emerges as the third best performing region. Based on annual data, it maintains a medium to low level of development in 2012, 2013, 2015 and 2016, and falls to a low level in 2014. When quarterly data is used to calculate scores more variability emerges. For example, the region achieves a medium to high level of development in Q1 2012, medium to low in Q2 and Q3, and medium in Q4, while in 2014 scores fluctuate between low (Q1 and Q3) and medium to low (Q2 and Q4).

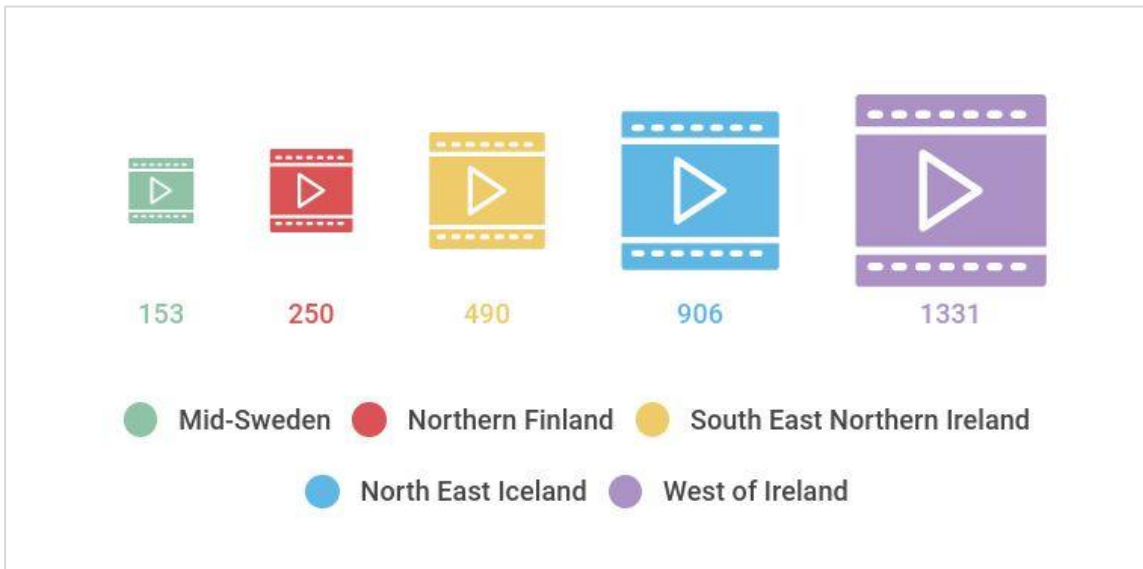
Both Mid Sweden and Northern Finland achieve scores indicating a low level of development from 2012 to 2016. The results do not indicate this regions lag in the production and sharing of online creative digital content, but that they are least active on these two platforms comparatively across the five *a creative momentum project* regions. In Northern Finland when quarterly data is used to calculate scores more variability emerges. For example, in Q1 2012 the region achieves a score that places it in the medium development category while it moves down to low in Q2 and Q3, but then up to medium to low in Q4.

Overall, the Digital Culture Index results show variability over time and a downward trajectory. Based on annual results from 2012 to 2016 scores decreased by 7% in the West of Ireland, 34% in South East Northern Ireland, 39% in Mid Sweden, 31% in Northern Finland and 13% in North East Iceland. Rather than indicating a reduction in digital content production and online sharing this perhaps points to the use of a wider range of digital content platforms by producers of online photo and video content.

**Figure 3: Number of images uploaded to Flickr from within the regions per 10,000 of population - 2016**



**Figure 4: Number of videos uploaded to YouTube from within the regions per 10,000 of population - 2016**





## 4. Conclusion

Digital uploads provide an indicator of how each *a creative momentum project* region is engaging with the production and sharing of creative content online. While far from extensive, it does provide some insight into how the region (and not just the creative industries within it) engages with digital cultural content. We highlight two sites in particular as reflective of this new form of engagement that encourage us to share and distribute our own creativity. Flickr and YouTube are two of the world's biggest platforms for the sharing of cultural content. The Digital Culture Index shows the relative performance across the regions in relation to these two platforms. Overall we find significant use of these platforms in the partner regions. We also find variability over time and broadly decreasing upload numbers. This points to varied levels of use through time, and perhaps also the use of a wider range of digital content platforms by producers of online photo and video content.



Figure 5

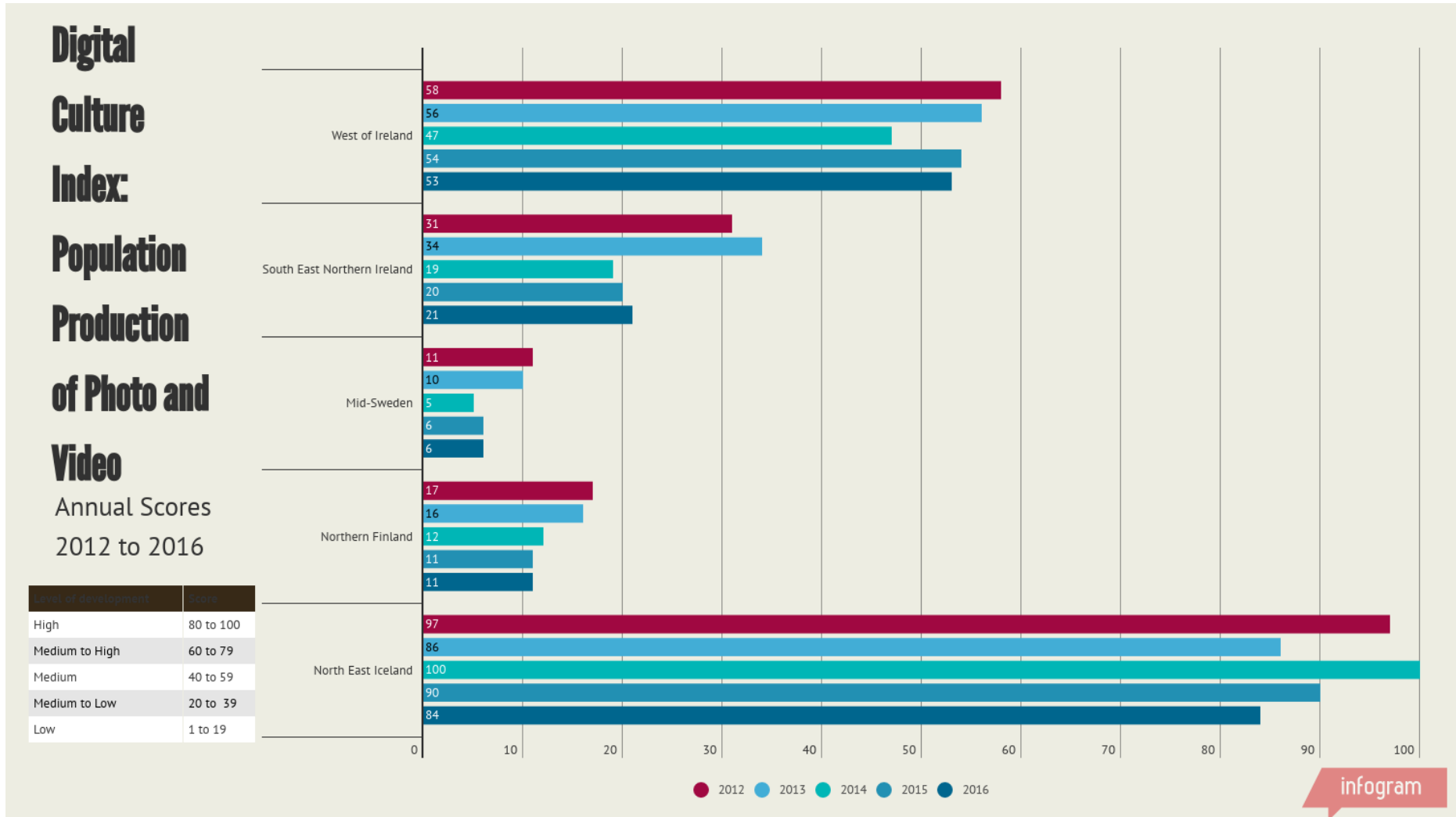
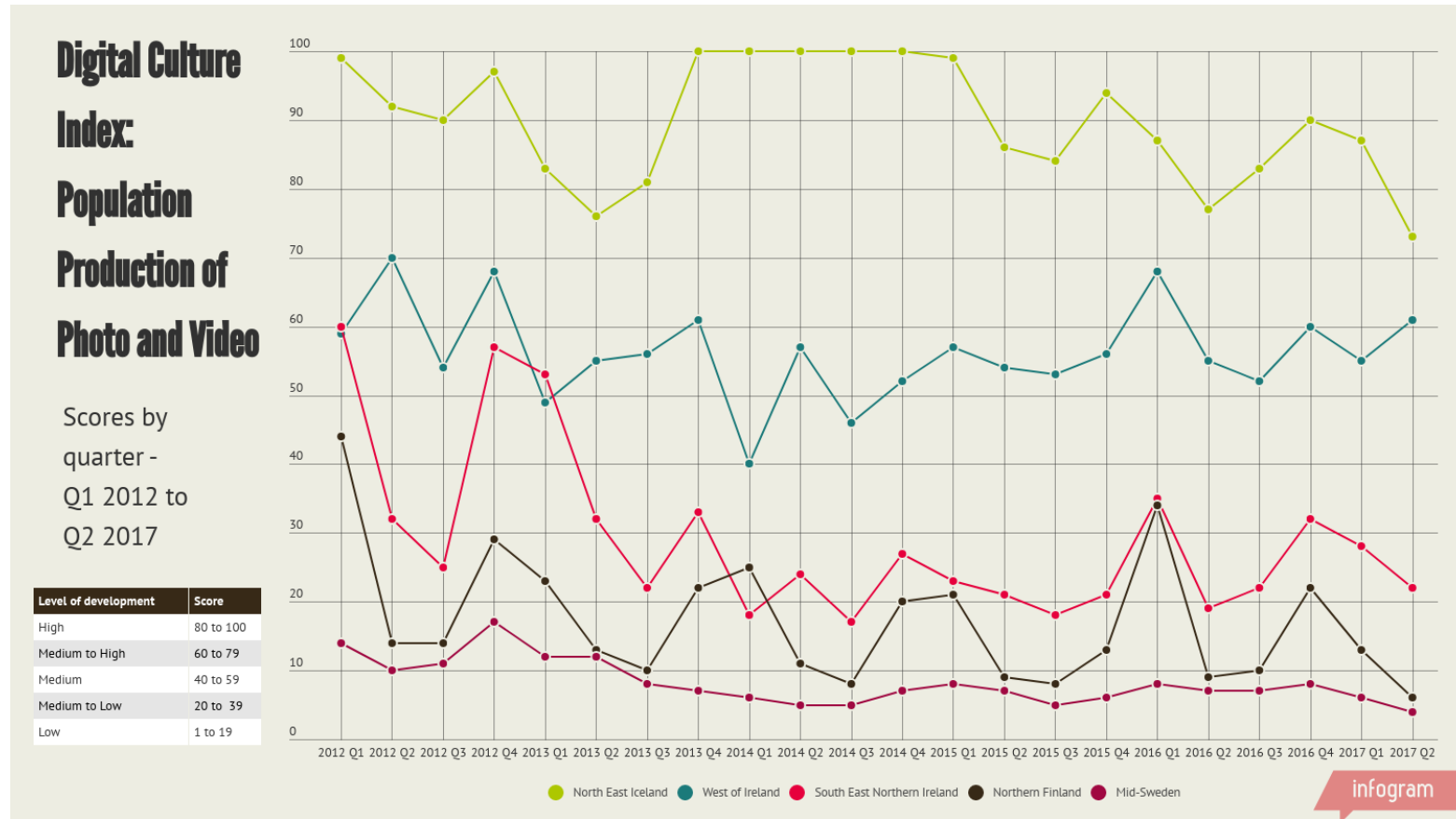


Figure 6





## Appendix 1: The Creative Momentum regions

Region	Specific area covered
North East Iceland	<u>13 municipalities:</u> Akureyri, Norðurþing, Fjallabyggð, Dalvíkurbyggð, Eyjafjarðarsveit, Hörgársveit, Svalbarðsstrandarhreppur, Grýtubakkahreppur, Skútustaðahreppur, Tjörneshreppur, Þingeyjarsveit, Svalbarðshreppur, Langanesbyggð
Mid Sweden	<u>1 county:</u> Västernorrland (Härnösand, Kramfors, Sollefteå, Sundsvall, Timrå, Ånge, Örnsköldsvik)
Northern Finland	<u>2 regions:</u> Lapland, North Ostrobothnia
South East of Northern Ireland	<u>3 Local Government Districts:</u> Armagh City, Banbridge & Craigavon Borough Council; Ards & North Down Borough Council; Newry, Mourne & Down District Council areas
West of Ireland	<u>7 Counties:</u> Donegal, Sligo, Leitrim, Roscommon, Mayo, Galway and Clare

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