



a creative  
momentum  
project

# Creative Enterprise Index



Whitaker  
Institute



O'É Gaillimh  
NUI Galway

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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 and context

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 'Creative Enterprise Index' which measures the relative regional performance of the creative industries across *a creative momentum project* regions. It shows the comparative strengths and weaknesses of the creative industries sector in each of the partner regions. We also develop sub-indices to allow a more detailed picture to emerge, as well as assess change through time giving an insight on how performance is progressing.

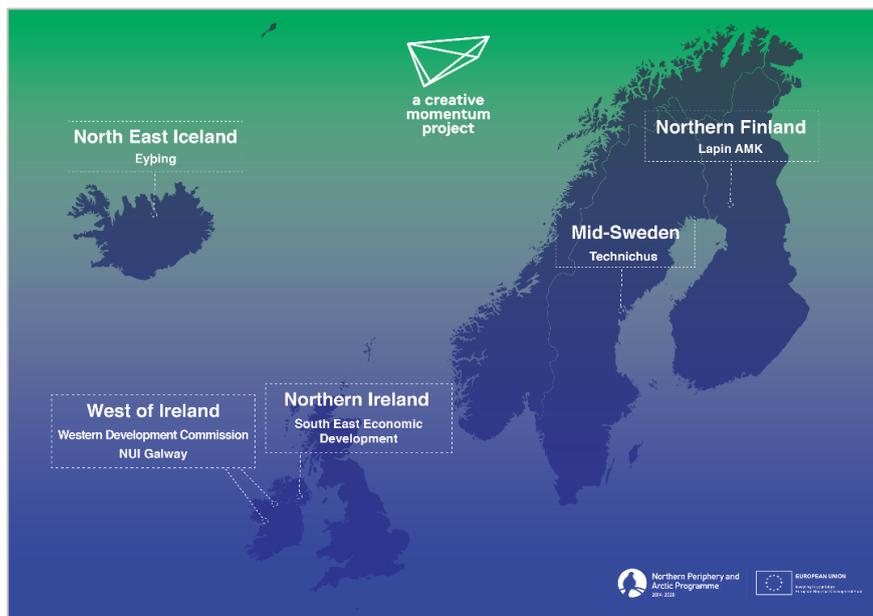
Indices are composed of indicators of certain types of activity. In our Creative Enterprise Index, we use data on the number of creative sector enterprises and employment in these enterprises as our core indicators (see Figure 1). These indicators provide important measures of creative sector development. A weighting is applied to enterprises and employment in the translation, engineering, research and development sub-sectors because they cannot be considered wholly creative but do have a creative element (see Appendix 1, Table 1b). The regions focused on are the five peripheral European partner regions part of *a creative momentum project* (see Figure 2 and Appendix 1, Table 1a).



**Figure 1: Creative Enterprise Index - Indicators**

1. Number of Software Publishing, Computer and Information Technology enterprises
2. Number of Media (news, PR, advertising, marketing) enterprises
3. Number of Architecture, Design and Photography enterprises
4. Number of Translation and other professional service enterprises
5. Number of Engineering, Research and Development enterprises
6. Number employed in Software Publishing, Computer and Information Technology enterprises
7. Number employed in Media (news, PR, advertising, marketing) enterprises
8. Number employed in Architecture, Design and Photography enterprises
9. Number employed in Translation and other professional service enterprises
10. Number employed in Engineering, Research and Development enterprises

**Figure 2: Creative Momentum Project Regions**



We distinguish ‘cultural’ and ‘creative’ enterprise because academic and policy debate has differentiated them and the distinction is argued to be important (e.g. see Smith and Warfield, 2008; Bakhshi and Cunningham, 2016; The Work Foundation, 2007). Informed by these debates, we use NACE codes to define the parameters of ‘creative enterprise’ (see Appendix 1, Table 1b). 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. This report presents summary tables for each index (see Figures 3 to 8) as well as summary results for each region (see Figures 9 to 13).

This index also comes with a number notes of caution. It should be understood as a pilot index testing how creative sector development in peripheral regions might be measured. The index can help to open debate on creative sector development and how to refine methods used to evaluate its development in peripheral contexts. The indicators chosen are important measures of creative sector development, but they are also one-dimensional statistical indicators. 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. However, 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 strengths and weaknesses of the creative enterprise sector in these five regions.

## 2. Results

### 2.1 Creative Enterprise Index

The Creative Enterprise Index combines all ten indicators listed in Figure 1. Mid Sweden emerges at the top of the Creative Enterprise Index showing a high level of development across the 2012 to 2015 period. North East Iceland emerges in second place with a medium to high level of development. Northern Finland and the West of Ireland also perform well. Northern Finland emerges with a medium to high development level in 2012, and this then decreases to a medium level from 2013 to 2015. The West of Ireland maintains a medium level of development on the Creative Enterprise Index from 2012 to 2015. South East Northern Ireland is ranked fifth, but the region does not fall into the bottom end of the scale. Results indicate it has a medium to low level of development (see Figure 3).



### 2.1.1 Software Publishing, Computer and Information Technology Sub Index

This Sub Index combines two indicators – the number of software publishing, computer and information technology enterprises, as well as employment in these enterprises. Mid Sweden emerges at the top of the Software Publishing, Computer and IT Sub Index showing a high level of development across the 2012 to 2015 period. The West of Ireland emerges in second place in 2014 and 2015. It emerged in third place in 2012 and 2013. Northern Finland maintains a medium level of development from 2012 to 2015, as does North East Iceland. South East Northern Ireland ranks fifth and emerges with a low level of development in 2012 and 2014, but moves up to medium/low in 2013 and 2015 (see Figure 4).

### 2.1.2 Media (news, PR, advertising, marketing) Sub Index

This Sub Index combines two indicators – the number of media (News, PR, advertising, marketing) enterprises, as well as employment in these enterprises. Mid Sweden emerges at the top of the Media Sub Index showing a high level of development across the 2012 to 2015 period. North East Iceland emerges in second place with a medium to high level of development. Northern Finland also performs well and emerges with a medium development level from 2012 to 2015. Both the West of Ireland and South East Northern Ireland fall into the bottom quarter of the development scale on the Media Sub Index showing a medium to low level of development and ranked fourth and fifth respectively (see Figure 5).

### 2.1.3 Architecture, Design and Photography Sub Index

This Sub Index combines two indicators – the number of architecture, design and photography enterprises, as well as employment in these enterprises. The West of Ireland emerges at the top of the Architecture, Design and Photography Sub Index showing a high level of development across the 2012 to 2015 period. North East Iceland also performs well and maintains second place from 2012 to 2015. It fluctuates slightly from a medium/high level of development (2012, 2013, 2015) to a high level of development (2014). Northern Finland emerges with a medium development level from 2012 to 2015. South East Northern Ireland emerges with a medium level of development in 2012 and 2013, but this falls into the medium to low category in 2014 and 2015 (see Figure 6).

### 2.1.4 Translation and other professional services Sub Index

This Sub Index combines two indicators – the number of translation and other professional service

7



enterprises, as well as employment in these enterprises. Mid Sweden emerges at the top of the Translation Sub Index showing a high level of development across the 2012 to 2015 period. Northern Finland also performs well in second place and shows a medium to high level of development. The three remaining regions emerge with a medium to low level of development (see Figure 7).

### 2.1.5 Engineering, Research and Development Sub Index

This Sub Index combines two indicators – the number of engineering, research and development enterprises, as well as employment in these enterprises. North East Iceland is the top performer on the Engineering, Research and Development Sub Index emerging in first place in 2013, 2014 and 2015 and ranks second in 2012. Northern Finland also performs well emerging as the second-ranked region in 2013, 2014 and 2015 and first in 2012. The West of Ireland also perform relatively well, showing a medium to high level of development in 2012, but a medium level of development for 2013 to 2015. South East Northern Ireland emerges with a low level of development across 2012 to 2015 (see Figure 8).

## 3. Conclusions and regional focus

Rather than comparing regions with each other, looking at each regions overall performance helps to indicate where strengths and weaknesses lie, pointing to areas of future research and policy debate. The West of Ireland's key strength emerging from the Creative Enterprise Indices is its performance on the Architecture, Design and Photography Sub Index. While scores did decline very slightly over the 2012 to 2015 period, this was a minor change, and the sector shows relative stability over the period. Future growth potential within this sector could be approached in terms of developing cross-sector synergies with other complementary, well-developed sectors. Our 'Cultural Enterprise Index' showed the region also performed well on the Film, TV, Music & Radio Sub-Index (Murtagh and Collins, 2018c). The region also performed well on the Software, Computer and IT Sub Index ranking second in 2015 and showing a medium to high level of development, as well an increasing score from 2012 to 2015. Creative media sectors such as PR, marketing and advertising do not appear well developed in the region, as well as translation/other professional services (see Figure 9).

Compared to the four other *a creative momentum project* regions South East Northern Ireland consistently

ranks fifth in the Creative Enterprise Indices. The region's best performance was on the Architecture, Design and Photography Sub Index; however, its score showed a decline over the 2012 to 2015 period. While the region showed a medium to low level of development on the Software Publishing Computer and IT Index its score increased overall from the 2012 to 2015 period indicating this is a growing sector. It is also perhaps a future strength of the region if the introduction of appropriate supports reduces development challenges (see Figure 10).

Mid Sweden performed well across the Creative Enterprise Development Indices (see Figure 11). Also, when its performance on the Creative Enterprise Index (score 81/100 in 2015, high level of development) and the Cultural Enterprise Index (score 59/100 in 2015, medium level of development, see Murtagh and Collins, 2018c) are compared creative enterprise development emerges as stronger. Sustaining this strength in the region is essential. Our supports assessment report for the region points to a number of future challenges to address (see Murtagh and Collins, 2018b).

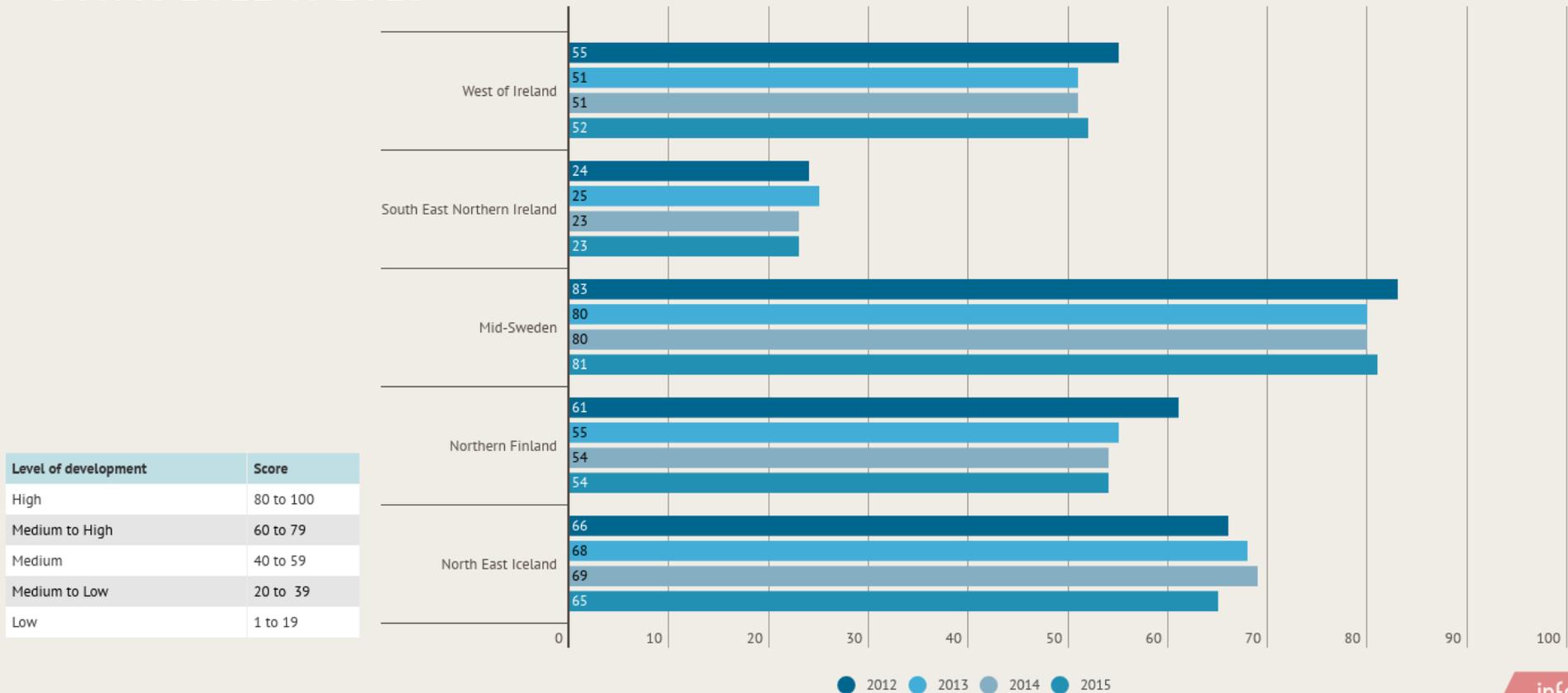
Northern Finland's performance on the Creative Enterprise Indices can be summarised broadly as a medium level of development (see Figure 12). Its highest performance was on the Engineering, Research and Development Sub Index. This is followed by its performance on the Translation Sub Index. Generally, however, scores show a pattern of decline over the 2012 to 2015 period (with the exception of the Software Publishing, Computer and IT Sub Index). The region has a significant creative sector in the peripheral regional context and supports that facilitate its future development are important to stem this decline. Our supports assessment report for the region also provides analysis of needs and recommendations to assist development (see Murtagh and Collins, 2018a)

North East Iceland's weakest performance was on the Translation Sub Index, followed by the Software Publishing, Computer and IT Sub Index (see Figure 13). It performed best in the Engineering Sub Index, followed by the Architecture, Design and Photography Sub Index. Both showed growth in their scores over the 2012 to 2015 period. The region's relative performance compared to the other four *a creative momentum project* regions is good indicating this is a region with a strong creative enterprise sector in the peripheral context.

Figure 3

# Creative Enterprise Index

Scores 2012 to 2015



Level of development	Score
High	80 to 100
Medium to High	60 to 79
Medium	40 to 59
Medium to Low	20 to 39
Low	1 to 19

Figure 4

# Software Publishing, Computer and Information Technology Sub-Index

Scores 2012 to 2015

Level of development	Score
High	80 to 100
Medium to High	60 to 79
Medium	40 to 59
Medium to Low	20 to 39
Low	1 to 19

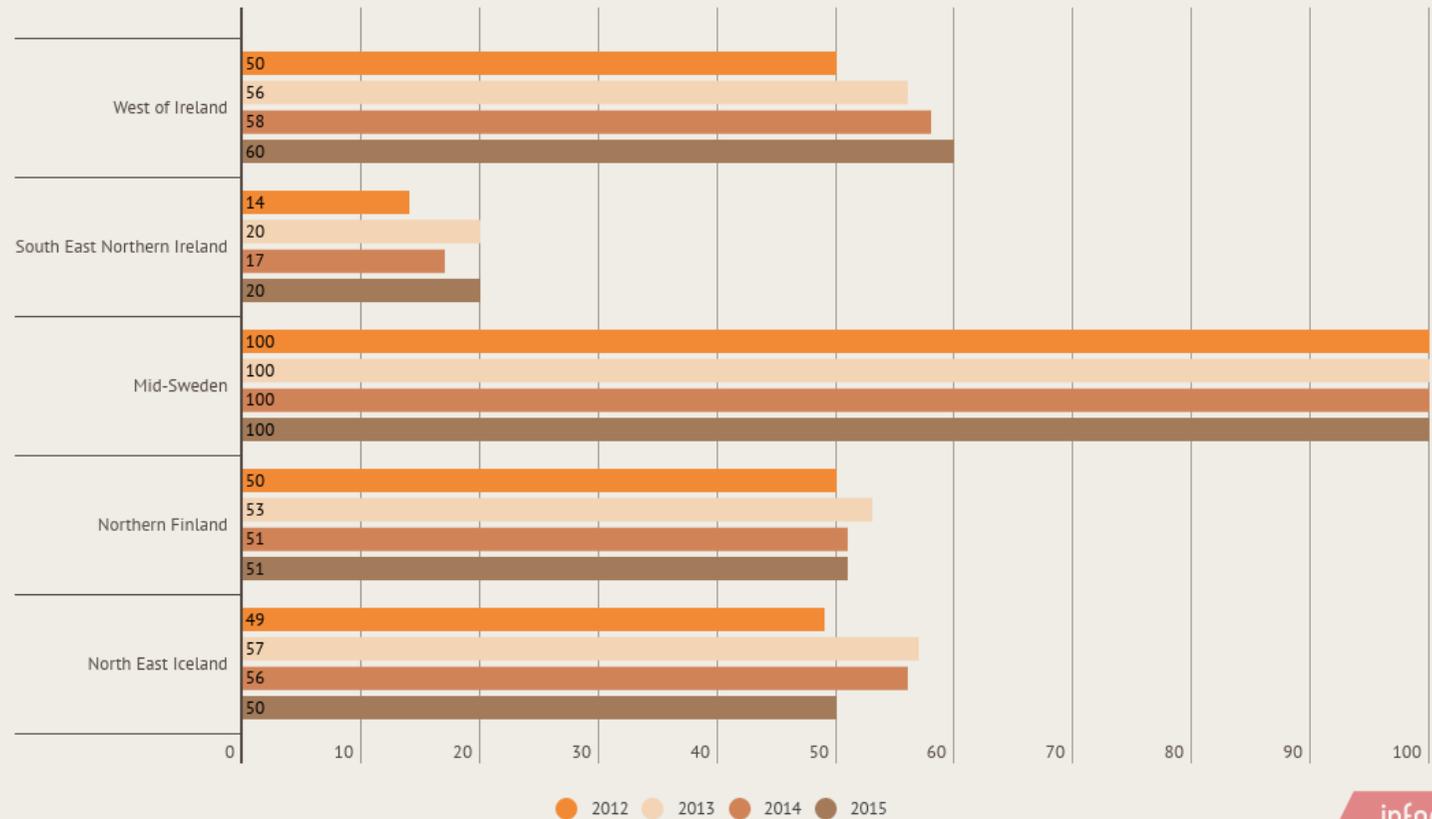
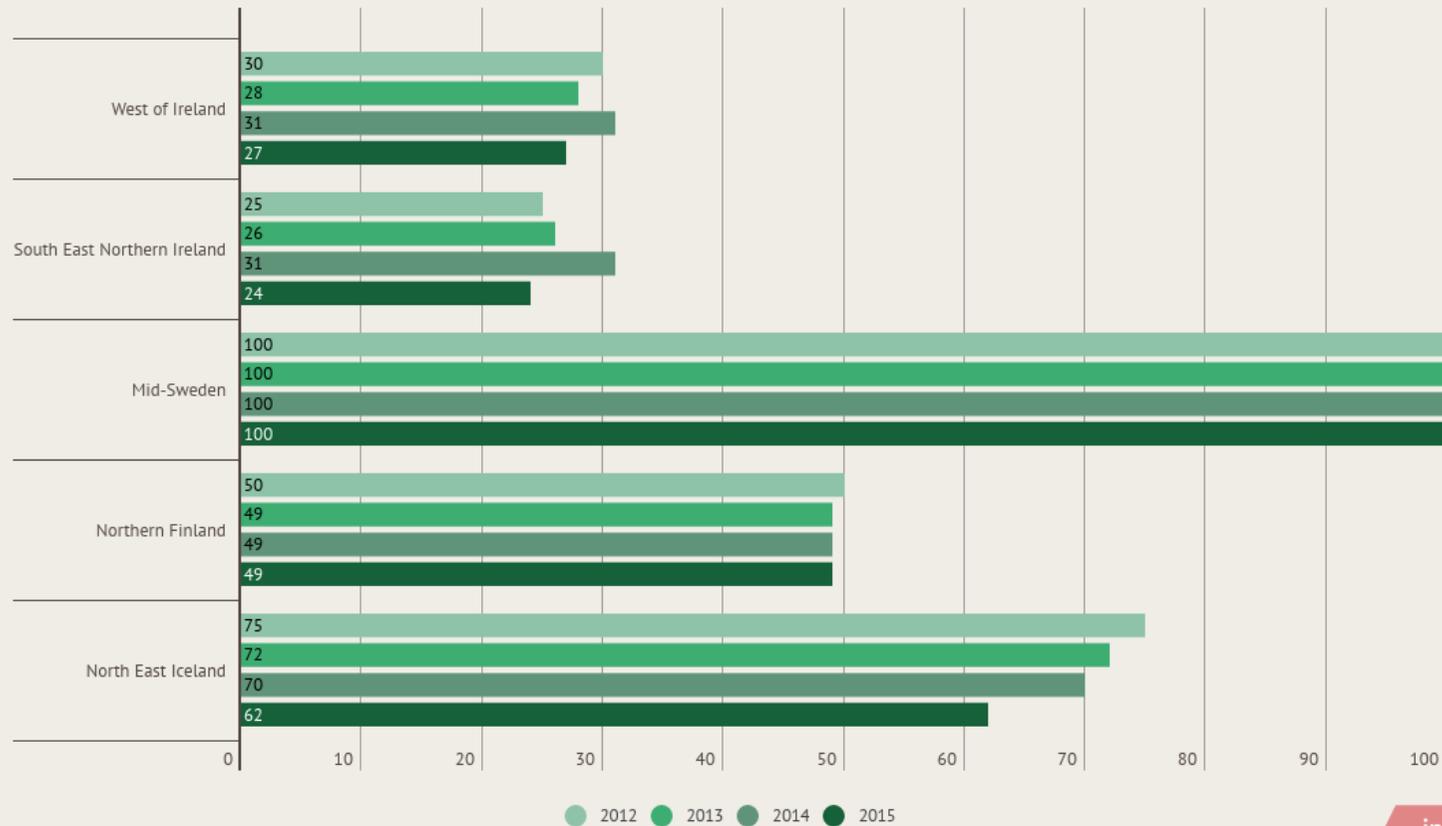


Figure 5

# Media (News, PR, advertising, marketing) Sub-Index

Scores 2012 to 2015

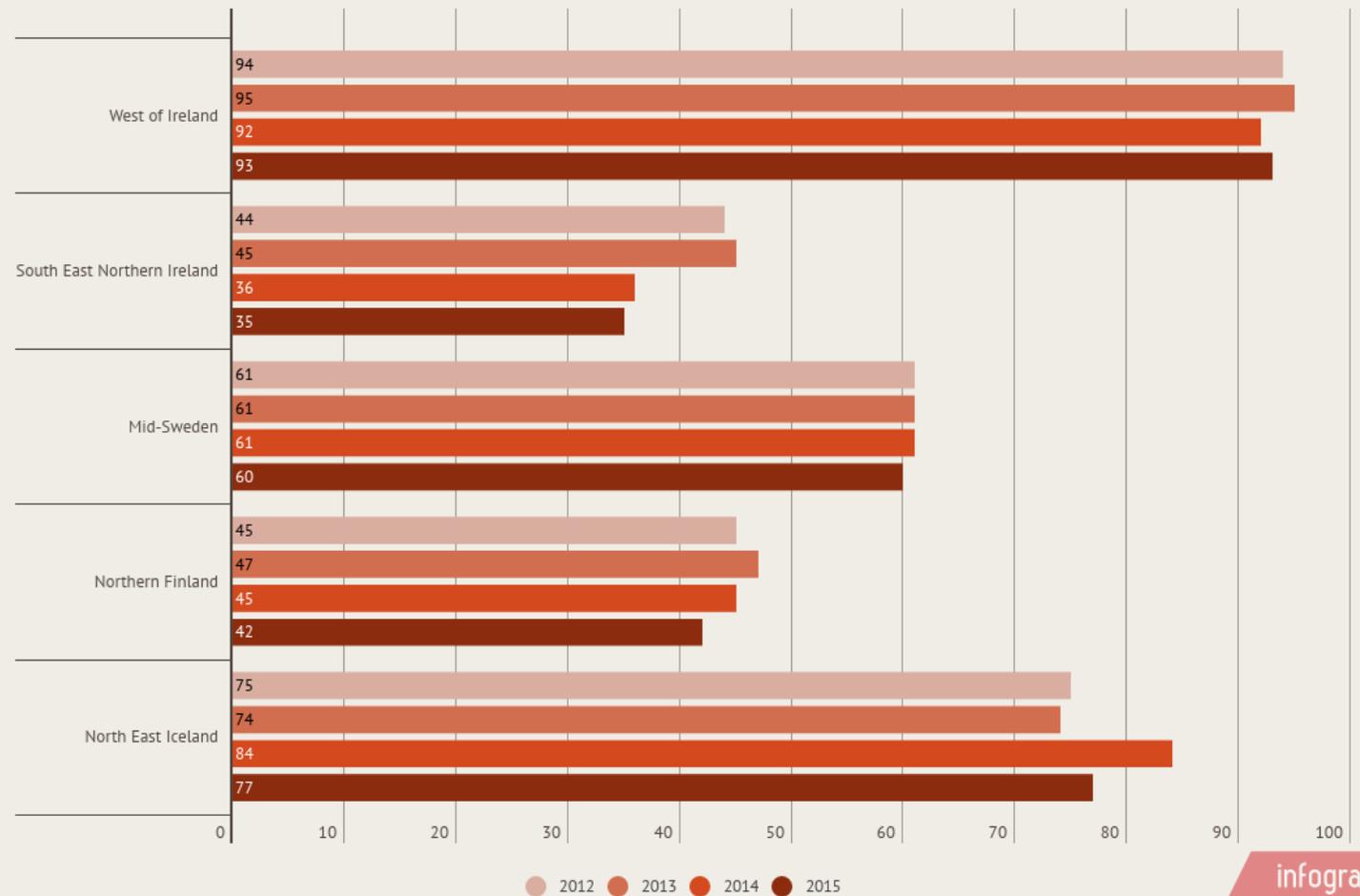


Level of development	Score
High	80 to 100
Medium to High	60 to 79
Medium	40 to 59
Medium to Low	20 to 39
Low	1 to 19

Figure 6

# Architecture, Design, Photography Sub-Index

Scores 2012 to 2015



Level of development	Score
High	80 to 100
Medium to High	60 to 79
Medium	40 to 59
Medium to Low	20 to 39
Low	1 to 19

Figure 7

# Translation and other professional services Sub-Index

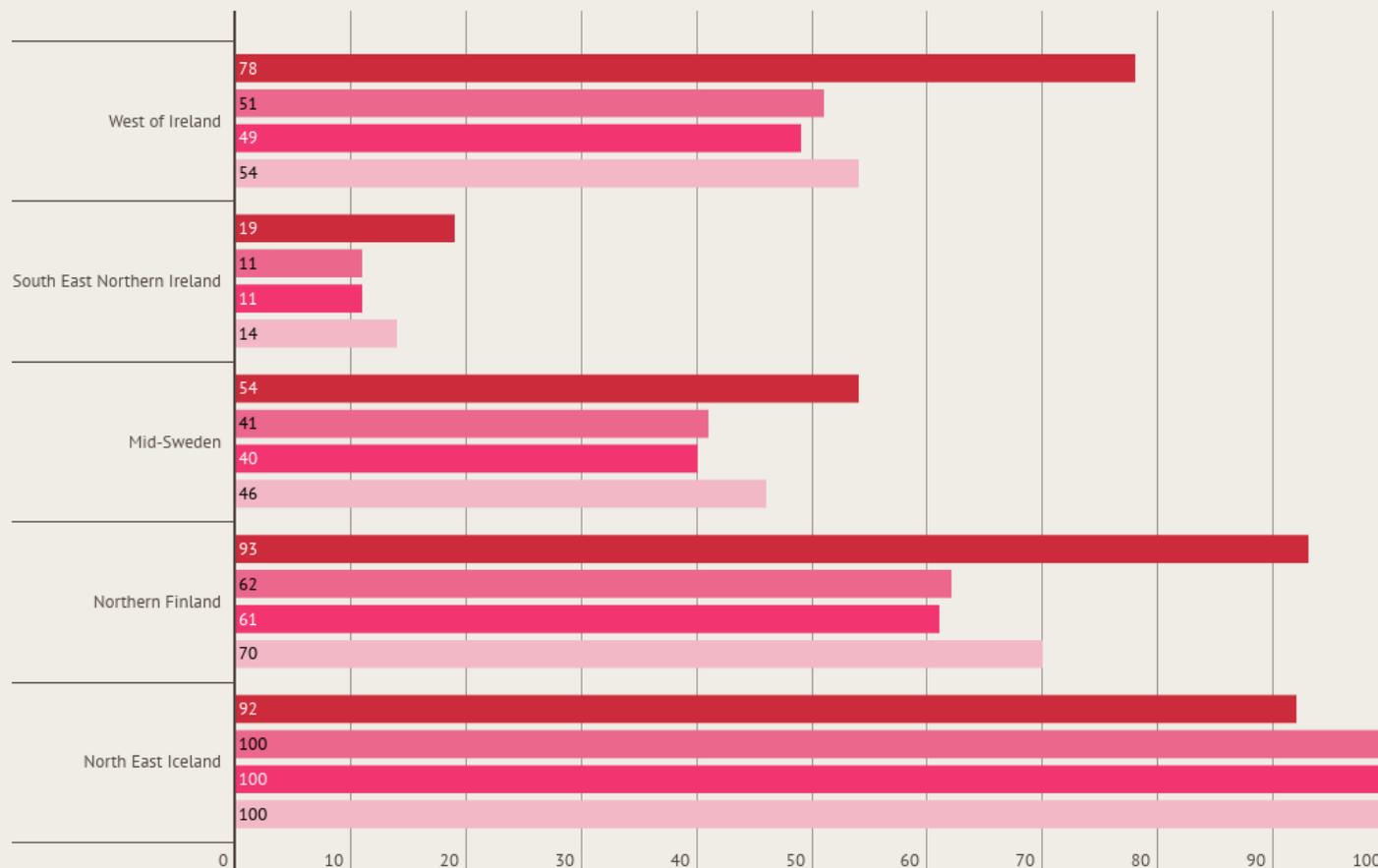
Scores 2012 to 2015



Figure 8

# Engineering, Research and Development Sub-Index

Scores 2012 to 2015



Level of development	Score
High	80 to 100
Medium to High	60 to 79
Medium	40 to 59
Medium to Low	20 to 39
Low	1 to 19

● 2012 ● 2013 ● 2014 ● 2015

Figure 9

# Creative Enterprise Development Indices

## WEST OF IRELAND

**2015 Creative Enterprise Index** | **52/100**

-5%



**Sub Index 1: Software Publishing, Computer & IT** | **60/100**

+21%



**Sub Index 2: Media (News, PR, advertising, marketing)** | **27/100**

-8%



**Sub Index 3: Architecture, Design, Photography** | **93/100**

-1%



**Sub Index 4: Translation and other professional services** | **28/100**

+7%



**Sub Index 5: Engineering, Research and Development** | **54/100**

-30%



### Comparative Performance: Creative Momentum Project Regions

2015 - Best performance in Architecture, Design, Photography Sub-Index



### CREATIVE ENTERPRISE INDEX 2015

**MEDIUM** | **4**  
LEVEL OF DEVELOPMENT | RANK

### SOFTWARE PUBLISHING, COMPUTER AND IT SUB INDEX 2015

**MEDIUM TO HIGH** | **2**  
LEVEL OF DEVELOPMENT | RANK

### MEDIA SUB INDEX 2015

**MEDIUM TO LOW** | **4**  
LEVEL OF DEVELOPMENT | RANK

Indices results: 2012 - 2015

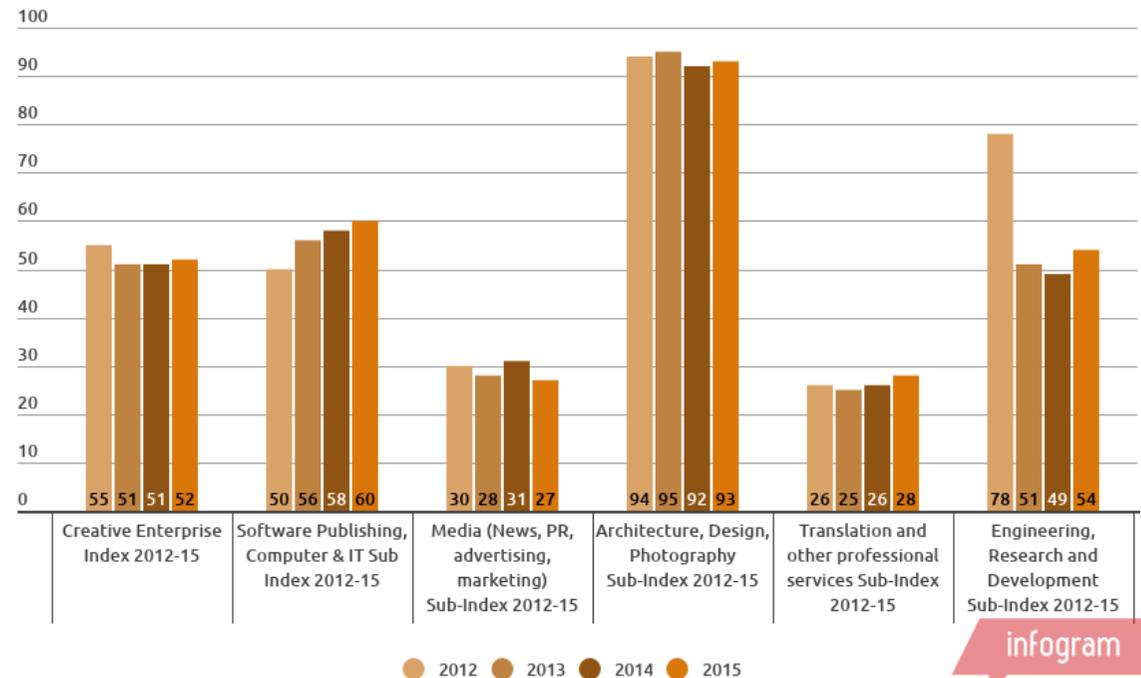
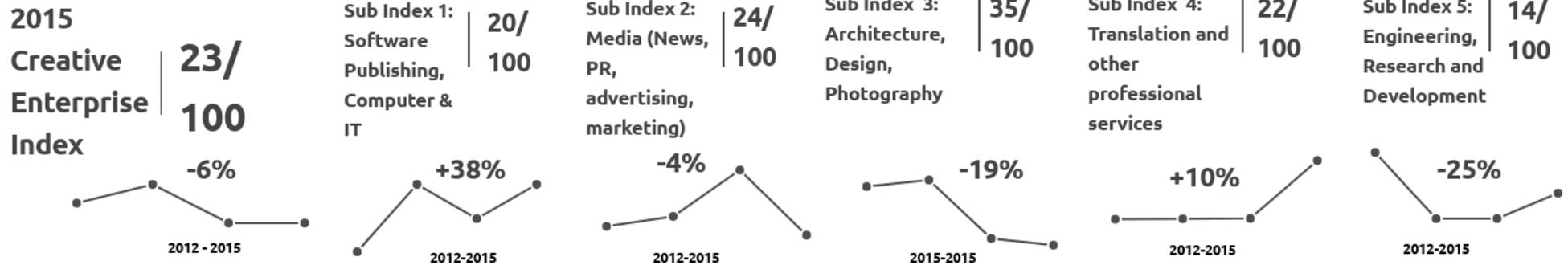


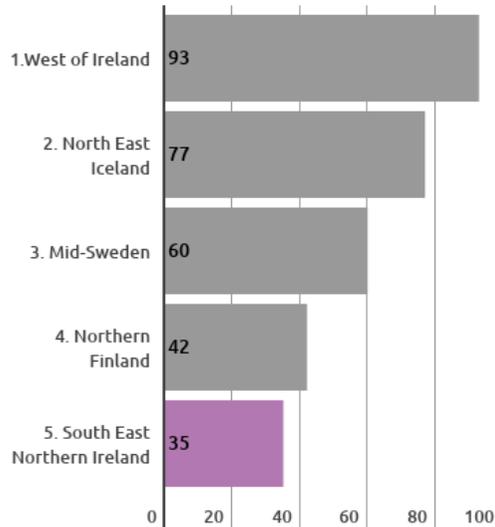
Figure 10

## Creative Enterprise Development Indices SOUTH EAST NORTHERN IRELAND



### Comparative Performance: Creative Momentum Project Regions

2015 - Best performance in Architecture, Design, Photography Sub-Index



**CREATIVE ENTERPRISE INDEX 2015**

**MEDIUM TO LOW**  
LEVEL OF DEVELOPMENT | **5**  
RANK

**SOFTWARE PUBLISHING, COMPUTER AND IT SUB INDEX 2015**

**MEDIUM TO LOW**  
LEVEL OF DEVELOPMENT | **5**  
RANK

**MEDIA SUB INDEX 2015**

**MEDIUM TO LOW**  
LEVEL OF DEVELOPMENT | **5**  
RANK

### Indices results: 2012 - 2015

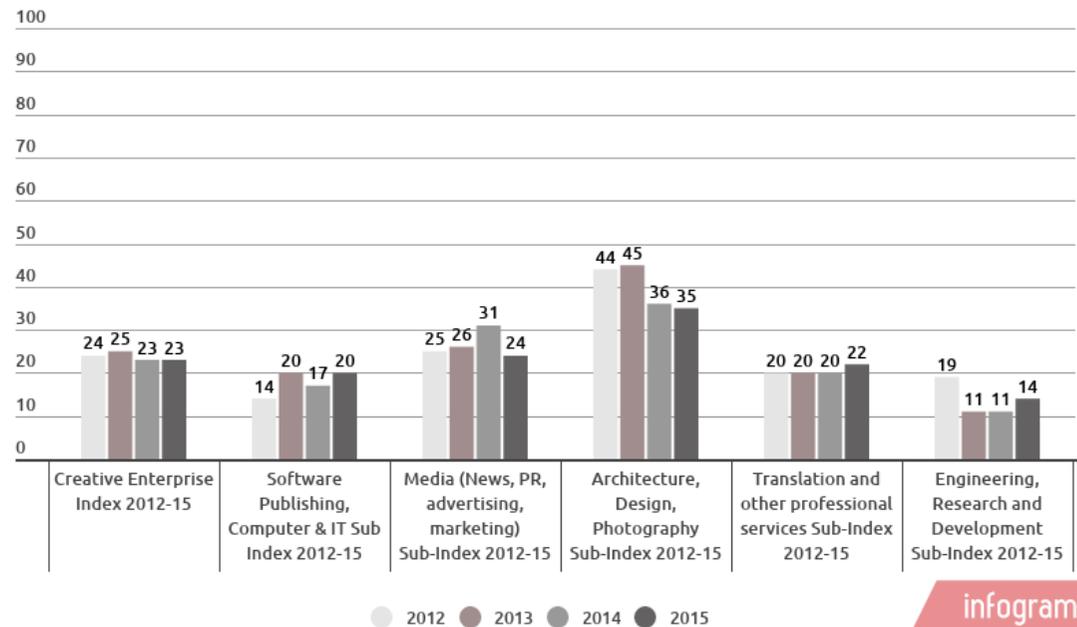
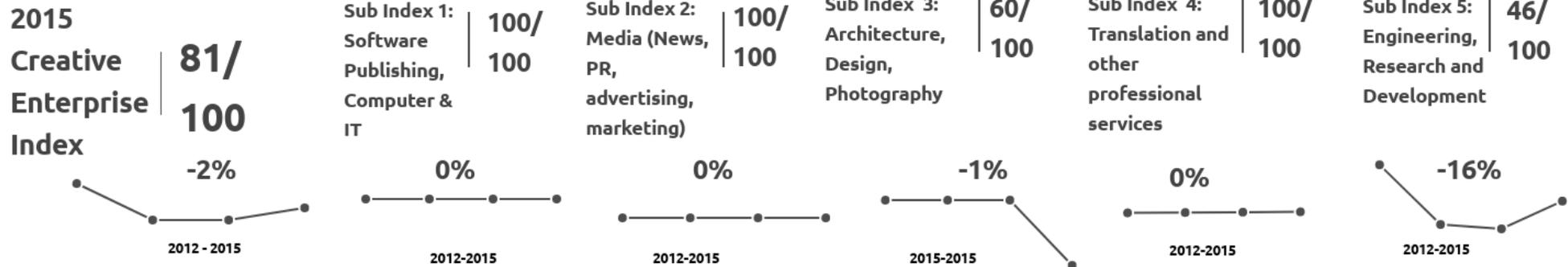


Figure 11

# Creative Enterprise Development Indices

## MID- SWEDEN (Västernorrland)



### Comparative Performance: Creative Momentum Project Regions

**TOP PERFORMANCE IN THREE SUB INDICES**

**SOFTWARE PUBLISHING, COMPUTER AND IT SUB INDEX 2015**

**MEDIA SUB INDEX 2015**

**TRANSLATION SUB INDEX 2015**

**HIGH LEVEL OF DEVELOPMENT** | **1 RANK**

**CREATIVE ENTERPRISE INDEX 2015**

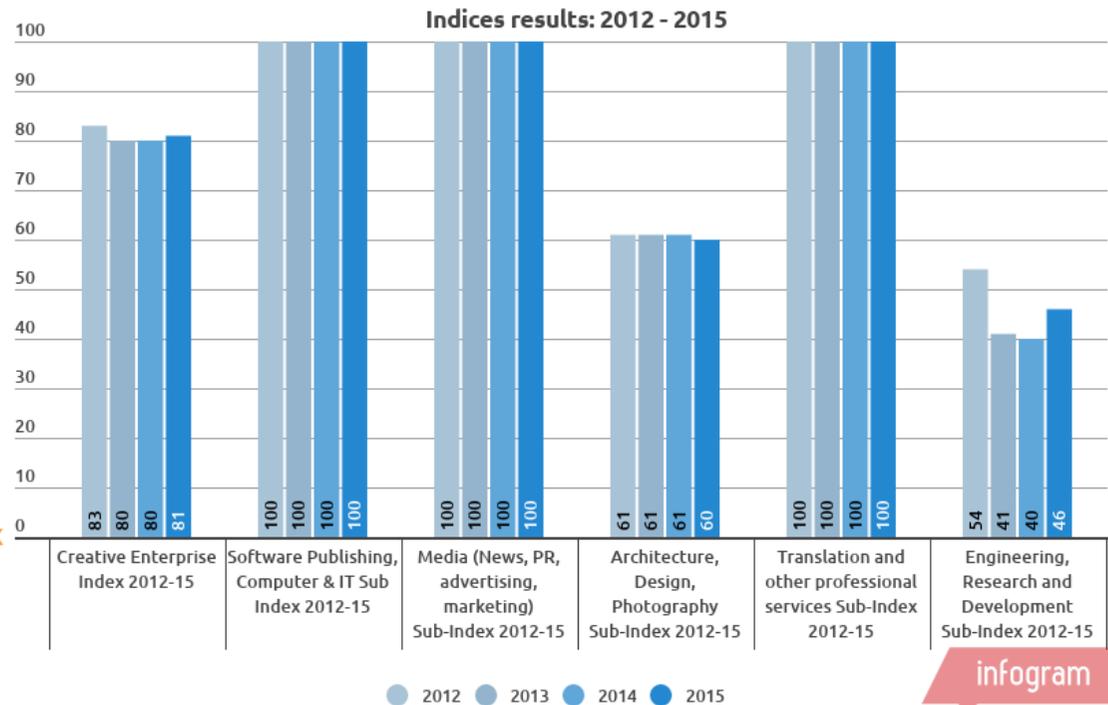
**HIGH LEVEL OF DEVELOPMENT** | **1 RANK**

**ARCHITECTURE, DESIGN & PHOTOGRAPHY SUB INDEX**

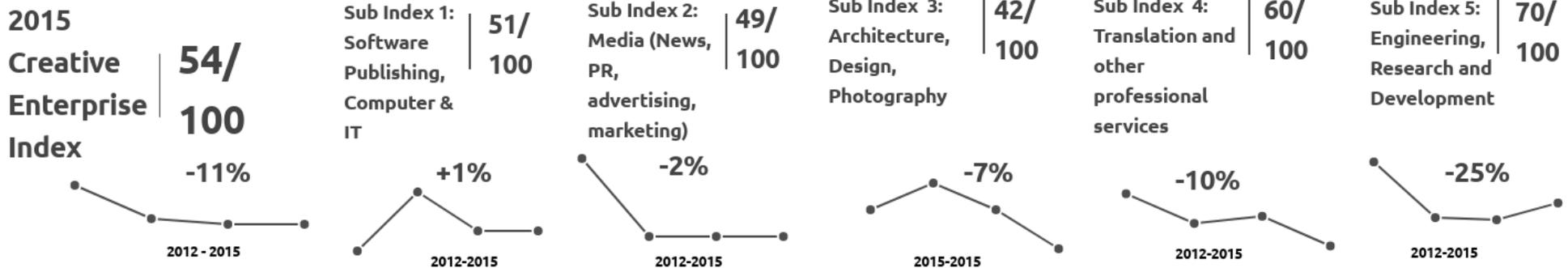
**MEDIUM TO HIGH LEVEL OF DEVELOPMENT** | **3 RANK**

**ENGINEERING, R&D SUB INDEX 2015**

**MEDIUM LEVEL OF DEVELOPMENT** | **4 RANK**



**Figure 12 Creative Enterprise Development Indices NORTHERN FINLAND**



**Comparative Performance: Creative Momentum Project Regions**

2015 - Best performance in Engineering, Research & Development Sub-Index



**CREATIVE ENTERPRISE INDEX 2015**

**MEDIUM** LEVEL OF DEVELOPMENT | **3** RANK

**SOFTWARE PUBLISHING, COMPUTER AND IT SUB INDEX 2015**

**MEDIUM** LEVEL OF DEVELOPMENT | **3** RANK

**MEDIA SUB INDEX 2015**

**MEDIUM** LEVEL OF DEVELOPMENT | **3** RANK

**Indices results: 2012 - 2015**

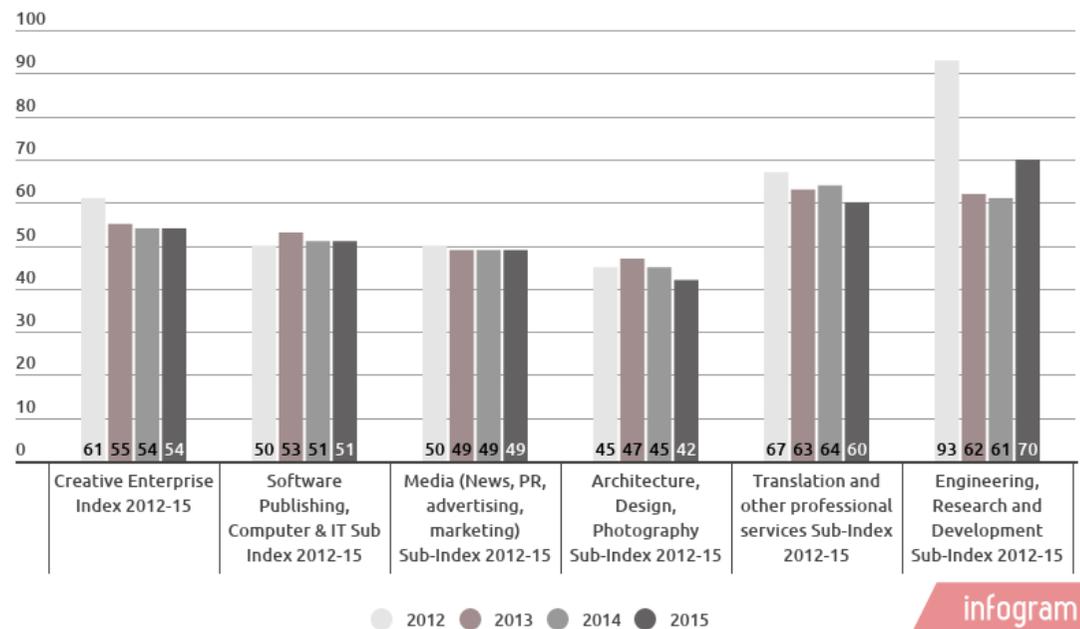


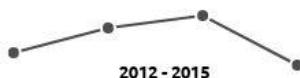
Figure 13

# Creative Enterprise Development Indices

## NORTH EAST ICELAND

2015 Creative Enterprise Index **65/100**

-2%



Sub Index 1: Software Publishing, Computer & IT **50/100**

+3%



Sub Index 2: Media (News, PR, advertising, marketing) **62/100**

-18%



Sub Index 3: Architecture, Design, Photography **77/100**

+2%



Sub Index 4: Translation and other professional services **35/100**

-11%



Sub Index 5: Engineering, Research and Development **100/100**

+8%



### Comparative Performance: Creative Momentum Project Regions

2015 - Best performance in Engineering, Research & Development Sub-Index



### CREATIVE ENTERPRISE INDEX 2015

MEDIUM TO HIGH LEVEL OF DEVELOPMENT | RANK 2

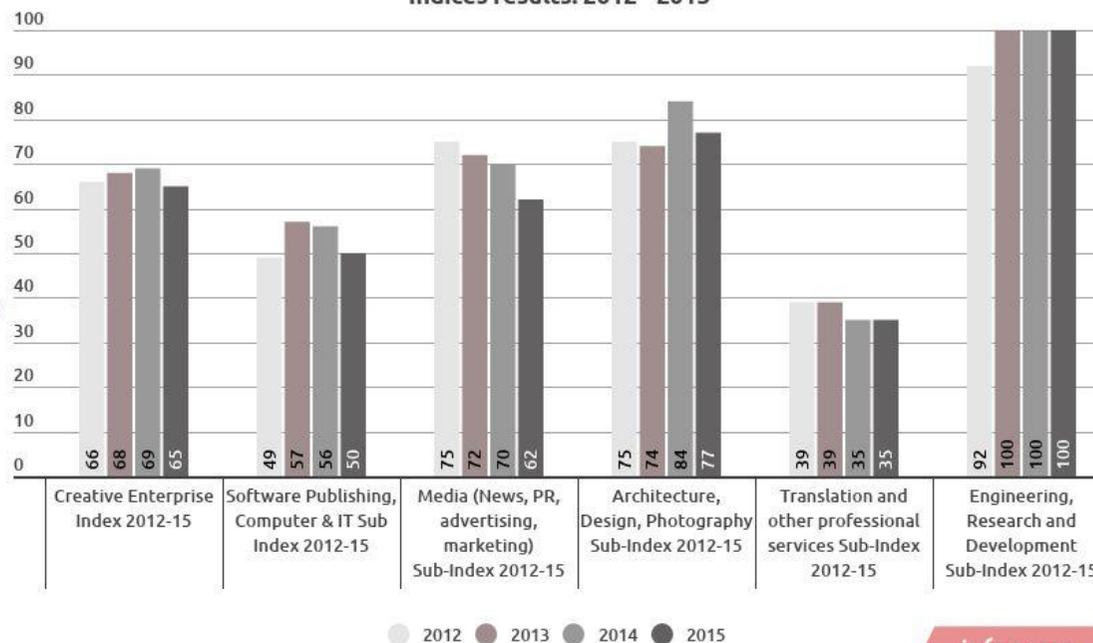
### SOFTWARE PUBLISHING, COMPUTER AND IT SUB INDEX 2015

MEDIUM LEVEL OF DEVELOPMENT | RANK 4

### MEDIA SUB INDEX 2015

MEDIUM TO HIGH LEVEL OF DEVELOPMENT | RANK 2

Indices results: 2012 - 2015



## Appendix 1: Additional tables

### 1a. 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

### 1b. Parameters used to define creative industries

NACE CODE	
	<b>Software Publishing, Computer and Information Technology</b>
58.21	Publishing of computer games
58.29	Other software publishing
62.01	Computer programming activities
62.02	Computer consultancy activities
62.03	Computer facilities management activities
62.09	Other information technology and computer service activities
63.11	Data processing, hosting and related activities
63.12	Web portals
	<b>Media (News, PR, advertising, marketing)</b>
63.91	News agency activities
63.99	Other information service activities n.e.c.
70.21	Public relations and communication activities
73.11	Advertising agencies
73.12	Media representation
73.20	Market research and public opinion polling

	<b>Architecture, design and photography</b>
71.11	Architectural activities
74.10	Specialised design activities
74.20	Photographic activities
	<b>Translation and other professional service activities (weighted at 0.35)</b>
74.30	Translation and interpretation activities
74.90	Other professional, scientific and technical activities n.e.c.
79.90	Other reservation service and related activities
	<b>Engineering, Research and Development (weighted at 0.5)</b>
71.12	Engineering activities and related technical
72.11	Research and experimental development on biotechnology
72.19	Other research and experimental development on natural sciences and engineering
72.20	Research and experimental development on social sciences and humanities

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