



IMP³rove

European Innovation Management Academy

Analysis of NICHE-specific Macro- and Micro-Economic Data from 7 selected European Regions

- CONFIDENTIAL -



May 2017

Dr. Eva Diedrichs, Dr. Nils Dülfer,
Marius Müller, Carina Pietsch



IMP³rove

academy



Disclaimer

This document is exclusively intended for the addressee who received the document directly from the IMP³rove – European Innovation Management Academy. Distribution, quotations and duplications – even in the form of extracts – for third parties is only permitted upon prior written consent of the IMP³rove – European Innovation Management Academy.

The IMP³rove – European Innovation Management Academy used the text and charts compiled in this document in a presentation; they do not represent a complete documentation of the presentation.



Content

- NICHE: Project Overview
- Macro-Economic Analysis (based on EuroStat database)
 - Executive Summary
 - Sample Description
 - Agri-food Industry of Selected Countries & Regions
- Micro-Economic Analysis (based on IMP³rove database)
 - Executive Summary
 - Sample Description
 - Innovation Capacities of Companies in the Selected Regions

Content

- **NICHE: Project Overview**
- Macro-Economic Analysis (based on EuroStat database)
 - Executive Summary
 - Sample Description
 - Agri-food Industry of Selected Countries & Regions
- Micro-Economic Analysis (based on IMP³rove database)
 - Executive Summary
 - Sample Description
 - Innovation Capacities of Companies in the Selected Regions

NICHE is an EU-funded project that aims at building innovative food value chains

NICHE project description

- “The **food sector as a whole is faced with major challenges** that arise from changes in the sector’s economic and non-economic environments. The availability of safe, sustainable and healthy food has taken a new and pressing dimension in the light of an ever-growing global population and increasing environmental and sustainability concerns.
- Technology has already substantially re-shaped the business models, value chains and efficiencies in this sector, but **a new wave of driven innovation is needed** to give response to this new demand.
- A special feature of the food production sector in Europe is that the 99% of the enterprises, generating 50% of the turnover, are SMEs. These **current challenges cannot be met by any individual enterprise but require concerted actions and coordination of initiatives**.
- Aware of the role that innovation may have in giving response to this demanding sector, **the NICHE project wish to realize its potential by effectively promoting policies in 7 European regions** where food has been identified as a key sector to apply existing research and innovation strengths.
- By working together the NICHE partnership aims, by 2019 and through the improvement of existing policies, **achieve an average 15 % increase in the adoption of research and innovation solutions** by food sector companies in their regions to give response to the demand of this sector identified as high-potential sector for their smart growth.
- In doing so is key the creation of the right conditions to maximize all this existing potential in the way of **establishing effective open innovation ecosystems, at both regional and interregional level**, that will bring together all the relevant actors to facilitate technology and knowledge exchange that will be translated in new products and services.
- The project will establish these ecosystems that will last beyond the NICHE's lifecycle and where involved **stakeholders will benefit of a more effective and productive way of collaboration.**”

In particular, the NICHE project has four key objectives that shall address the food sectors in 7 selected regions

Project overview

Selected regions



Key objectives

1. **Pioneer an open innovation approach in the food sector** bringing together all the relevant stakeholders under a quadruple helix model i.e. research centres, universities, enterprises, policy makers, innovation agencies, final consumers, etc, at both regional and interregional level, to propose actions based on a mutual learning exercise that will improve the regional policies supporting the introduction of innovation into the regional food value changes
2. **Establish regional open innovation ecosystems** to assure the perpetuation of a systemic support to the innovation applied to the food sector
3. **Exchange and learn from experiences among regions** sharing similar challenges, opportunities and areas of smart specialization
4. **Explore new mechanisms to transfer and apply research and innovation** for new food products, services or processes

The present analysis shall provide a baseline for the NICHE project by analyzing both, macro- and micro-economic data

Overview on the present analysis

Goal:

Providing a baseline for NICHE project's activities and interventions on a regional macro-economic and micro-economic level



Macro-Economic Analysis

High-level analysis of the agri-food sector in 7 selected European countries and regions based on publicly available data from EuroStat (<http://ec.europa.eu/eurostat>) and the Global Innovation Index (<https://www.globalinnovationindex.org/gii-2016-report>)



Micro-Economic Analysis

Analysis of companies' innovation management capabilities and performances across and within 7 European regions based on the IMP³rove Assessment data (<https://www.improve-innovation.eu/>) gathered in the frame of the NICHE project

The present analysis will feed into the development of a project report written by the NICHE consortium partners



Content

- NICHE: Project Overview
- **Macro-Economic Analysis (based on EuroStat database)**
 - **Executive Summary**
 - Sample Description
 - Agri-food Industry of Selected Countries & Regions
- **Micro-Economic Analysis (based on IMP³rove database)**
 - Executive Summary
 - Sample Description
 - Innovation Capacities of Companies in the Selected Regions

The seven selected regions as well as the respective countries differ significantly in terms of their agricultural profiles

General findings

- **The agricultural representativeness of the selected regions** for their countries varies greatly with regional shares of the *national agricultural* Gross Value Added (GVA) ranging from 4.7 % (Northern Ireland) to 47.4 % (Border, Midland and Western Ireland).
- The **economic relevance of the agricultural sector for the respective region** is greatest for Crete (Greece) and Vest (Romania), with more than 6% of the *total regional* Gross Value Added generated by the agricultural sector.
- In comparison, **the 7 regions can be grouped into three clusters** with different regional profiles in terms of farm structure, agricultural accounts and regional innovation performance:
 - **Cluster A** comprises Northern Ireland (UK), Länsi Suomi (Finland) and Border, Midland & Western (Ireland). These regions tend to have comparably bigger farms, more animal farming, a lower agriculture output/input ratio and a higher Regional Innovation Score
 - **Cluster C** comprises Kujawsko-Pomorskie (Poland), Crete (Greece) and Vest (Romania). These regions tend to have comparably smaller farms, more crop farming, a lower Regional Innovation Score and a higher agriculture output/input ratio
 - **Cluster B** comprising only Estonia shows characteristics of Cluster A and Cluster C, e.g. by having the largest average farm size (as in cluster A), while at the same time showing a 31.4% share of farms that consumer more than 50% of their outputs themselves (similar to the regions in cluster B)

Regional differences could be assessed in terms of farm structures, agricultural accounts and innovation ratings

Specific findings

Farm structure-related findings:

- On average, **farms are largest in Estonia**, demonstrating an average size of 50ha.
- The **degree of self-sufficiency farming** seems highest in Vest (Romania) with 81,5% of the farms consuming more than 50% of their own output and an average number of 0.5 annual working units per farm.
- From a **product perspective**, „milk“ ranks most often among the regional key products in terms of their production value, while it plays a minor role in Crete (Greece) and Vest (Romania).

Agricultural accounts-related findings:

- The **average agricultural gross value added per farm** is highest in Länsi Suomi (Finland) and lowest in Vest (Romania) among the selected 7 regions
- The analyzed regions with a comparably **higher share of animal output** from total agricultural goods output tend to have a **lower output/input ratio**

Innovation-related findings

- The **overall regional innovation scores** are significantly higher in Northern Ireland (UK), Länsi Suomi (Finland) and Border, Midland and Western (Ireland) compared to Kujawsko-Pomorskie (Poland), Crete (Greece) and Vest (Romania)
- The innovation ranks of the 7 selected regions are **comparable with the equivalent country ranks**
- **Northern Ireland (UK) ranks highest in terms of regional SMEs´ collaboratives**, which is an important enabling factor for fostering innovation eco-systems and value chains



Content

- NICHE: Project Overview
- **Macro-Economic Analysis (based on EuroStat database)**
 - Executive Summary
 - **Sample Description**
 - Agri-food Industry of Selected Countries & Regions
- Micro-Economic Analysis (based on IMP³rove database)
 - Executive Summary
 - Sample Description
 - Innovation Capacities of Companies in the Selected Regions

The 7 participating regions as well as their countries differ in terms of their geographic area, GDP, and population

Sample description

	Country / Region / Share	Area (in km²)	GDP (in € mn)	Population	GDP per Capita (in EUR)
	United Kingdom	248,484	1,770,910	63,022,532	28,200
	Northern Ireland	14,130	37,813	1,809,539	21,000
	<i>Regional Share</i>	5.7%	2.1%	2.9%	
	Finland	338,433	188,744	5,375,276	35,000
	Länsi Finland	64,761	43,180	1,360,041	31,700
	<i>Regional Share</i>	19.1%	22.9%	25.3%	
	Ireland	69,797	162,600	4,570,881	35,500
	Border, Midland and Western	33,252	29,299	1,237,715	23,700
	<i>Regional Share</i>	47.6%	18.2%	27.1%	
	Estonia	45,277	16,216	1,329,660	12,100
	Poland	312,679	370,851	38,062,718	9,600
	Kujawsko-Pomorskie	17,972	16,597	2,075,129	7,900
	<i>Regional Share</i>	5.8%	4.8%	5.4%	
	Greece	131,957	208,532	11,123,392	18,500
	Crete	8,336	10,197	627,144	16,000
	<i>Regional Share</i>	6.3%	4.9%	5.6%	
	Romania	238,392	131,478	20,199,059	6,200
	Vest Romania	32,033	13,042	1,913,831	6,800
	<i>Regional Share</i>	13.4%	9.9%	9.5%	



Content

- NICHE: Project Overview
- **Macro-Economic Analysis (based on EuroStat database)**
 - Executive Summary
 - Sample Description
 - **Agri-food Industry of Selected Countries & Regions**
- Micro-Economic Analysis (based on IMP³rove database)
 - Executive Summary
 - Sample Description
 - Innovation Capacities of Companies in the Selected Regions



Regional Comparisons

In comparison the 7 regions can be grouped into 3 distinct clusters with different regional profiles

Clusters identified

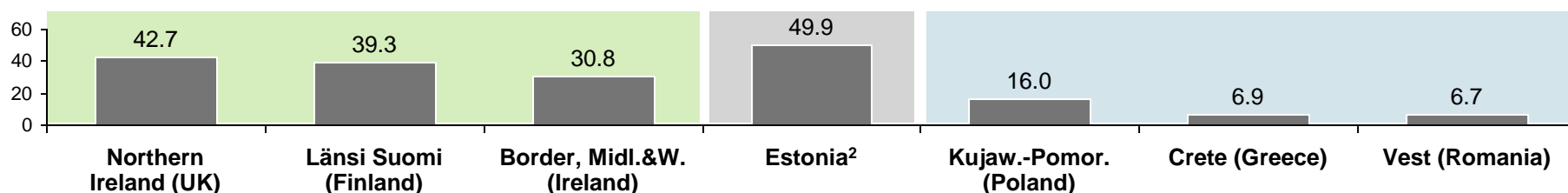
Selected regions



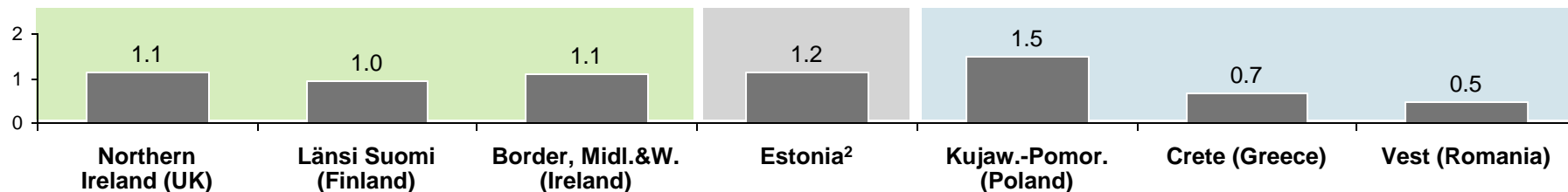
On average, farms in cluster A tend to be larger, to employ more people and to consume less output themselves

Farm structure differences

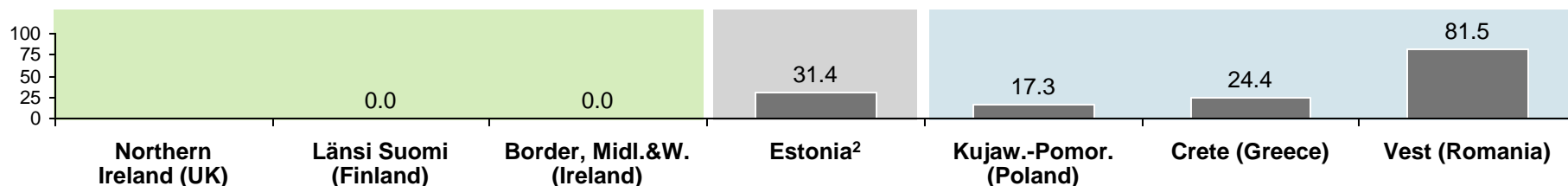
Average size of farms (in ha)



Average number of employees per farm (in annual working units)



Share of farms that consume more than 50% of their output (in%)



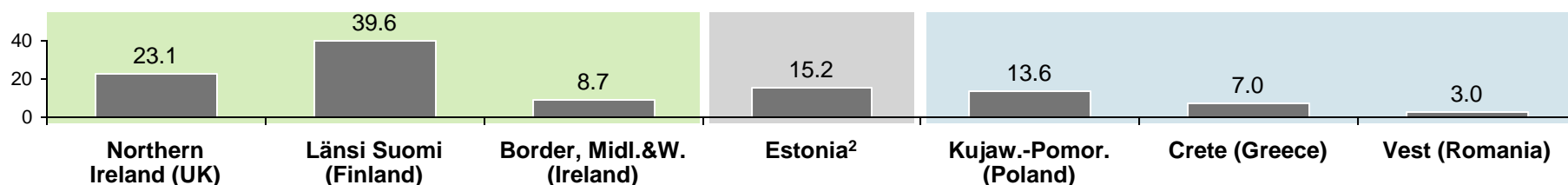
Cluster A Cluster B Cluster C

1. GVA = gross value added; Annual values as of 2014,
2. Given that there is no regional data available for Estonia, national data was used as a proxy
Source: EuroStat, IMP³rove Academy, 2017
www.improve-innovation.eu; IMP³rove is a registered trademark

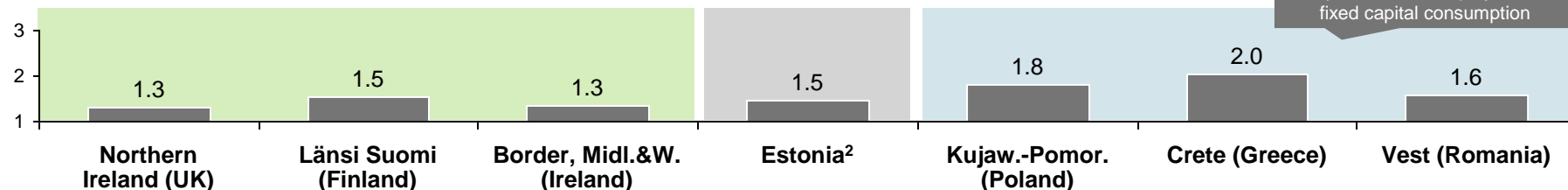
Cluster A's comparably lower output/input ratio might be traced back to the higher degree of animal vs. crop output

Agricultural accounts

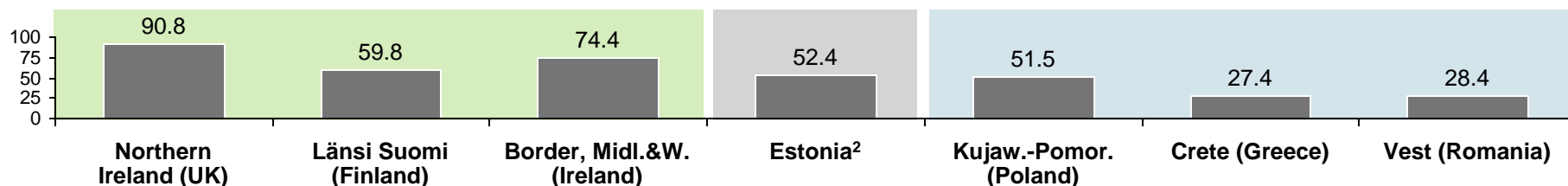
Average agricultural gross value added per farm (in TEUR)



Agricultural output/input ratio³



Share of animal output from total agricultural goods output (in%)

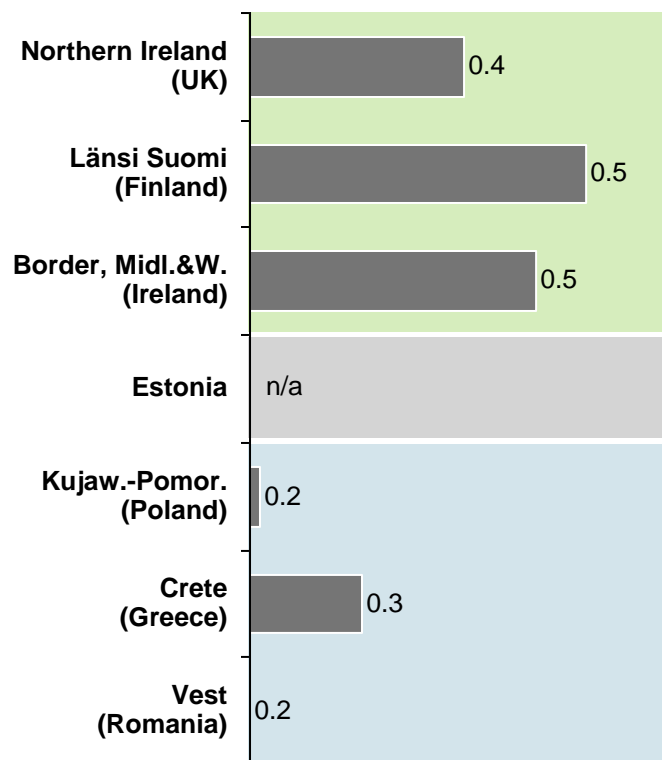


Cluster A Cluster B Cluster C

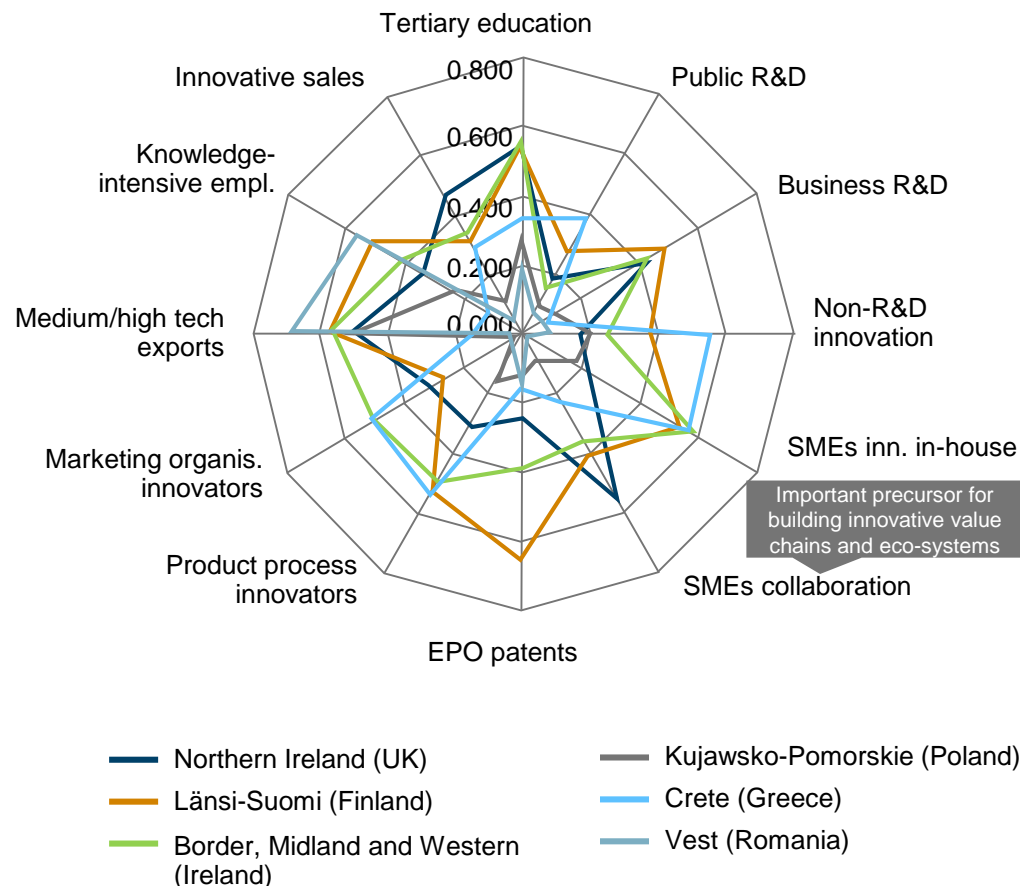
1. GVA = gross value added; Annual values as of 2014
2. Given that there is no regional data available for Estonia, national data was used as a proxy
3. Based on agricultural input and output at production value (basic price) in EUR
Source: EuroStat, IMP³rove Academy, 2017
www.improve-innovation.eu; IMP³rove is a registered trademark

Finally, Northern Ireland, Länsi Suomi and Crete outperform their peers in terms of their regional innovation scores

Regional innovation scores¹

















Cluster A Cluster B Cluster C



¹ Based on all sectors in the respective region
Source: Regional Innovation Scoreboard 2016, IMP³rove Academy, 2017
www.improve-innovation.eu; IMP³rove is a registered trademark

The regional split resonates with the respective country rankings in the Global Innovation Index

Country-specific innovation ranks

Rank 2016	Country	Rank 2011	Change in rank
3	 United Kingdom	10 	+7
5	 Finland	5 	-
7	 Ireland	13 	+6
24	 Estonia	23 	-1
39	 Poland	43 	+4
40	 Greece	63 	+23
48	 Romania	50 	+2



Country and Region Profiles

Country: United Kingdom

Inputs

Total agricultural input¹:
€ 19,855 mn

- Seeds & Planting stock: € 954 mn
- Energy & Lubricants: € 1,733 mn
- Fertilizers: € 1,819 mn
- Plant protection: € 1,169 mn
- Feedingstuff: € 6,283 mn
- Others: € 7,769 mn

Production

Total agricultural output¹:
€ 30,282 mn

- Utilized agricultural area: ~17.33 mn ha (70% of total area)
- Number of farms: ~183k (22% less than 10 ha)
- Employment¹: 415k persons (1.4% of national employment; 54% are self-employed)

Trade

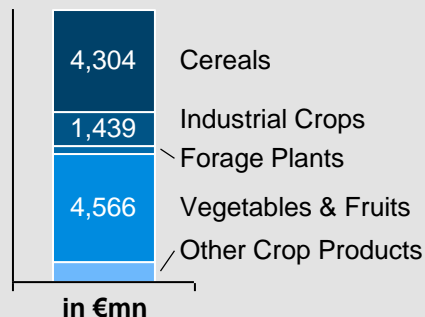
Agricultural trade balance²:
€ -22,667 mn

- Trade of food, beverages and tobacco
 - Exports: € 23,443 mn (6.2% of total exports)
 - Imports: € 48,110 mn (9.3% of total imports)



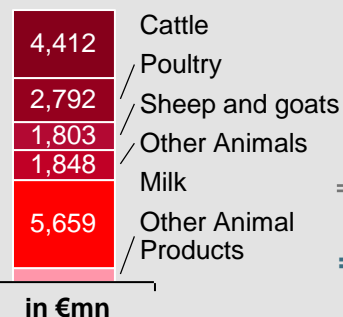
Crop Output

Total: € 11,441 mn



Animal Output

Total: € 17,449 mn



Service Output

Total: € 1,392 mn



Total Output

Total: € 30,282 mn

0.6%

Share of agricultural¹
GVA³ from total GVA

€ 11,953 mn

Gross value added
from agriculture¹

Region: Northern Ireland (United Kingdom)

4.7%

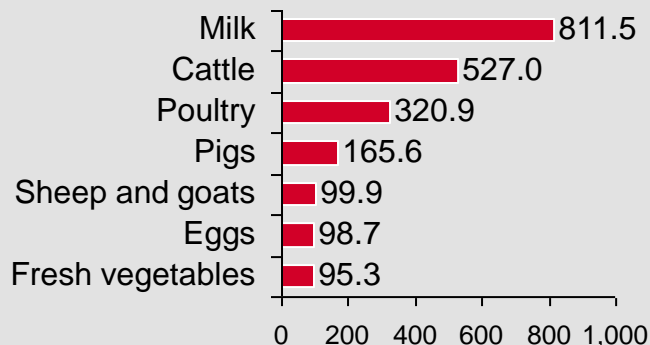
Share of regional from national agricultural¹ gross value added



1.4%

Share of *total* regional gross value added from agriculture¹

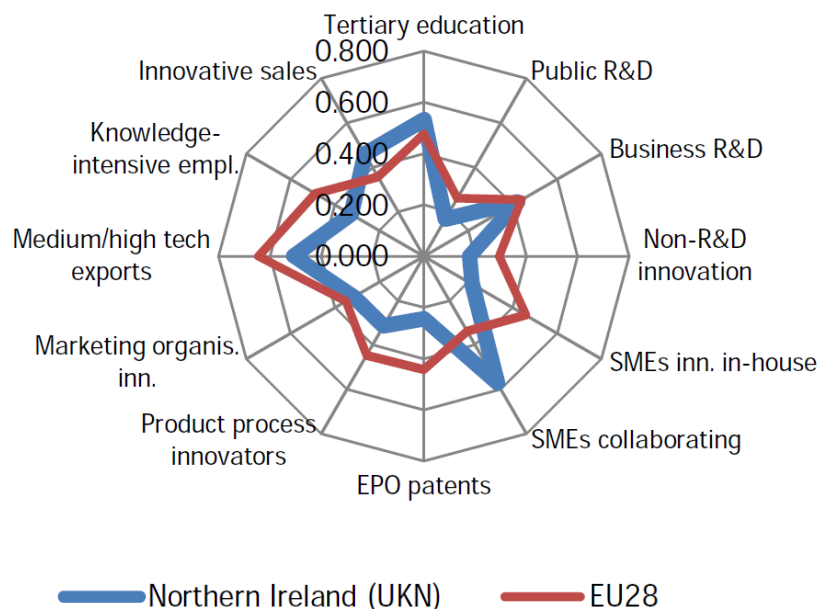
Main products (€mn production value)



	Country	Region	Regional share
Farm Structure¹			
Utilized agricultural area (hectare)	17,326,990	1,046,140	6.0%
Number of farms	183,040	24,510	13.4%
Labour Force directly employed (annual working units)	274,520	27,460	10.0%
Agricultural Accounts¹			
Agricultural Input (€ million)	19,855	1,802	9.1%
Agricultural Output (€ million)	Total: 30,282	Total: 2,346	T: 7.1%
	Crop: 11,441	Crop: 207	C: 1.8%
	Animal: 17,449	Animal: 2,040	A: 11.7%
	Services: 1,392	Services: 99	S: 7.1%
Agricultural Gross Value Added ² (€ million)	11,953	566	4.7%

Regional Innovation Performance: Northern Ireland

Regional Innovation Performance



Regional Innovation Index

- Regional Innovation Score 2016: **0.38**
- Trend since 2014: negative (-4%)
- Slightly below EU28 average (91% of EU28 Ø)

Innovation Strengths & Weaknesses

- Overall **strong** innovator
- Relative strengths compared to the EU28 are in Innovative SMEs collaborating with others, Sales of new product innovations, and Tertiary education attainment
- Relative weaknesses are in Public R&D expenditures, Non-R&D innovation expenditures, and SMEs innovating in-house

Country: Finland

Inputs

Total agricultural inputs¹:
€ 3,366 mn

- Seeds & Planting stock: € 119 mn
- Energy & Lubricants: € 513 mn
- Fertilizers: € 407 mn
- Plant protection: € 75 mn
- Feedingstuff: € 1,091 mn
- Others: € 1,126 mn

Production

Total agricultural output¹:
€ 4,523 mn

- Utilized agricultural area: ~2.28 mn ha (7% of total area)
- Number of farms: ~54k (17% less than 10 ha; 0% of farms consume more than 50% of output)
- Employment¹: 105k persons (4.3% of national employment; 66% are self-employed)

Trade

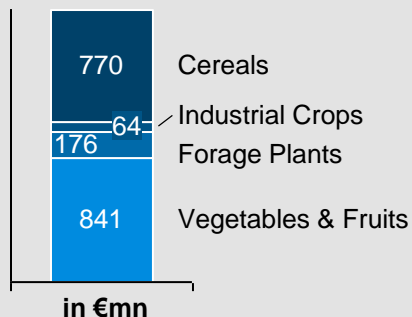
Agricultural trade balance²:
€ -1,796 mn

- Trade of food, beverages and tobacco
 - Exports: € 1,420 mn (2.5% of total exports)
 - Imports: € 4,189 mn (7.3% of total imports)



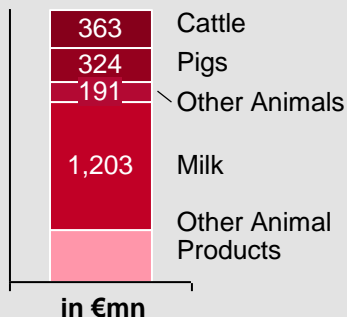
Crop Output

Total: € 1,855 mn



Animal Output

Total: € 2,570 mn



Service Output

Total: € 99 mn



Total Output

Total: € 4,523 mn

1.0%

Share of agricultural¹
GVA³ from total GVA

€ 1,685 mn

Gross value added
from agriculture¹

Region: Länsi (Finland)

47.4%

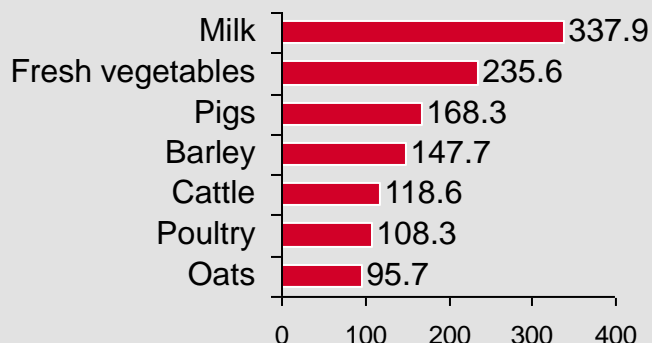
Share of regional from national agricultural¹ gross value added



2.0%

Share of *total* regional gross value added from agriculture¹

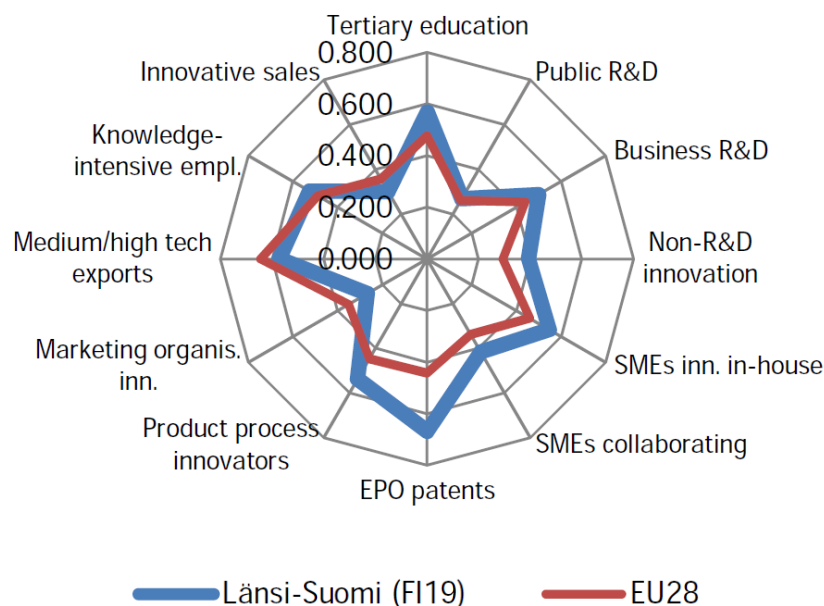
Main products (€mn production value)



	Country	Region	Regional share
Farm Structure¹			
Utilized agricultural area (hectare)	2,282,400	791,180	34.7%
Number of farms	54,400	20,160	37.1%
Labour Force directly employed (annual working units)	57,550	19,320	33.6%
Agricultural Accounts¹			
Agricultural Input (€ million)	3,366	1,175	34.9%
Agricultural Output (€ million)	Total: 4,523	Total: 1,798	T: 39.8%
	Crop: 1,855	Crop: 710	C: 38.3%
	Animal: 2,570	Animal: 1,056	A: 41.1%
	Services: 99	Services: 33	S: 33.0%
Agricultural Gross Value Added ² (€ million)	1,685	798	47.4%

Regional Innovation Performance: Länsi

Regional Innovation Performance



Regional Innovation Index

- Regional Innovation Score 2016: **0.50**
- Trend since 2014: negative (-4%)
- Above EU28 average (119% of EU28 Ø)

Innovation Strengths & Weaknesses

- Overall **strong** innovator
- Relative strengths compared to the EU28 are in EPO patent applications, Non-R&D innovation expenditures, and Innovative SMEs collaborating with others
- Relative weaknesses are in SMEs with marketing or organisational innovations, Public R&D expenditures, and Sales of new product innovations

Country: Ireland

Inputs

Total agricultural inputs¹:
€ 5,120 mn

- Seeds & Planting stock: € 67 mn
- Energy & Lubricants: € 455 mn
- Fertilizers: € 566 mn
- Plant protection: € 69 mn
- Feedingstuff: € 2,334 mn
- Others: € 1,570 mn

Production

Total agricultural output¹:
€ 7,294 mn

- Utilized agricultural area: ~4.96 mn ha (71% of total area)
- Number of farms: ~140k (18% less than 10 ha; 0% of farms consume more than 50% of output)
- Employment¹: 111k persons (5.8% of national employment; 78% are self-employed)

Trade

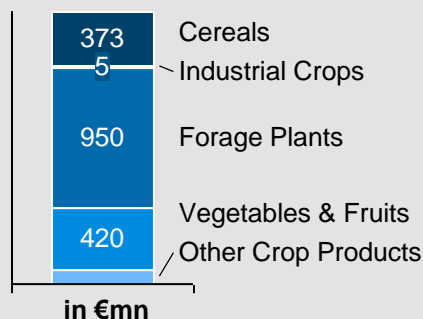
Agricultural trade balance²:
€ 3,423 mn

- Trade of food, beverages and tobacco
 - Exports: € 10,446 mn (11.4% of total exports)
 - Imports: € 7,023 mn (11.6% of total imports)



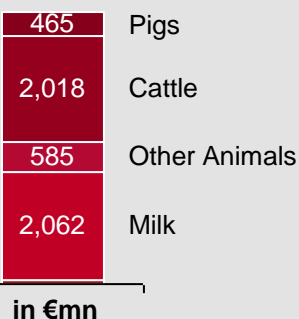
Crop Output

Total: € 1,747 mn



Animal Output

Total: € 5,188 mn



Service Output

Total: € 359 mn



Total Output

Total: € 7,294 mn

1.2%

Share of agricultural¹
GVA³ from total GVA

€ 2,174 mn

Gross value added
from agriculture¹

Region: Border, Midland and Western (Ireland)

29.3%

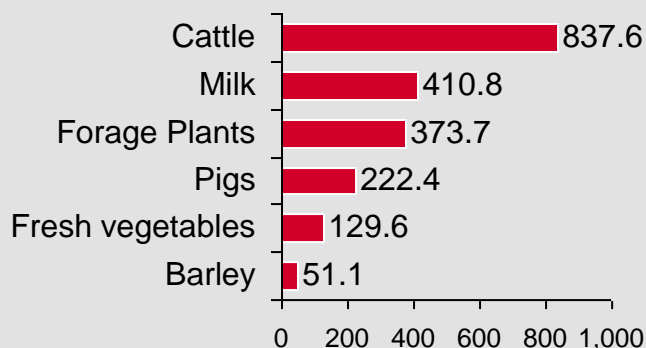
Share of regional from national agricultural¹ gross value added



2.3%

Share of *total* regional gross value added from agriculture¹

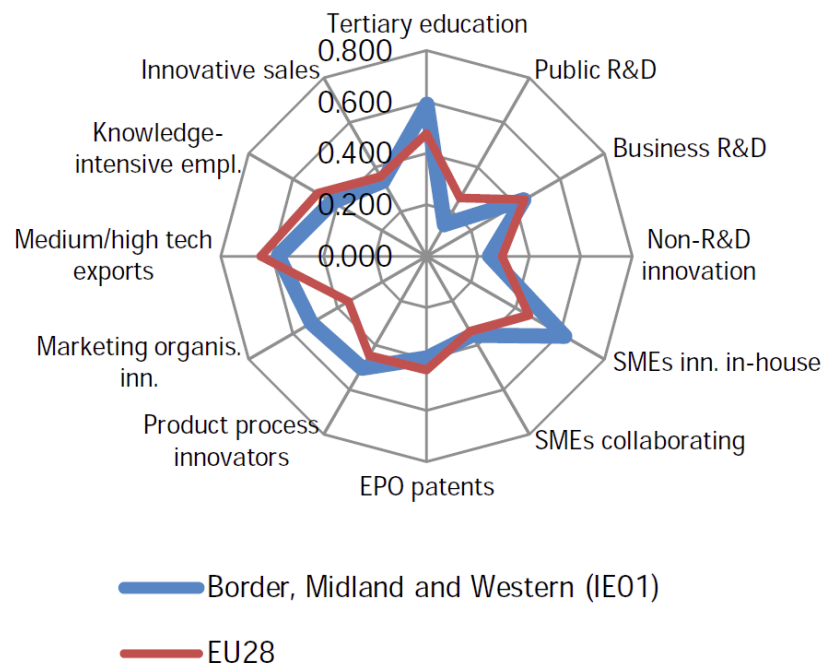
Main products (€mn production value)



	Country	Region	Regional share
Farm Structure¹			
Utilized agricultural area (hectare)	4,959,450	2,269,920	45.8%
Number of farms	139,600	73,610	52.7%
Labour Force directly employed (annual working units)	163,690	81,460	49.8%
Agricultural Accounts¹			
Agricultural Input (€ million)	5,129	1,875	36.6%
Agricultural Output (€ million)	Total: 7,294	Total: 2,512	T: 34.8%
	Crop: 1,747	Crop: 613	C: 35.1%
	Animal: 5,188	Animal: 1,782	A: 34.3%
	Services: 359	Services: 118	S: 32.9%
Agricultural Gross Value Added ² (€ million)	2,174	637	29.3%

Regional Innovation Performance: Border, Midland and Western

Regional Innovation Performance



Regional Innovation Index

- Regional Innovation Score 2016: **0.45**
- Trend since 2014: negative (-8%)
- Around EU28 average (103% of EU28 Ø)

Innovation Strengths & Weaknesses

- Overall **strong** innovator
- Relative strengths compared to the EU28 are in SMEs with marketing or organisational innovations, SMEs innovating in-house, and Tertiary education attainment
- Relative weaknesses are in Public R&D expenditures, Non-R&D innovation expenditures, and Sales of new product innovations

Country: Estonia

Inputs

Total agricultural inputs¹:
€ 501 mn

- Seeds & Planting stock: € 17 mn
- Energy & Lubricants: € 70 mn
- Fertilizers: € 36 mn
- Plant protection: € 16 mn
- Feedingstuff: € 223 mn
- Others: € 132 mn

Production

Total agricultural output¹:
€ 737 mn

- Utilized agricultural area: ~558k ha (21% of total area)
- Number of farms: ~19k (54% less than 10 ha; 31% of farms consume more than 50% of output)
- Employment¹: 21k persons (3.6% of national employment; 25% are self-employed)

Trade

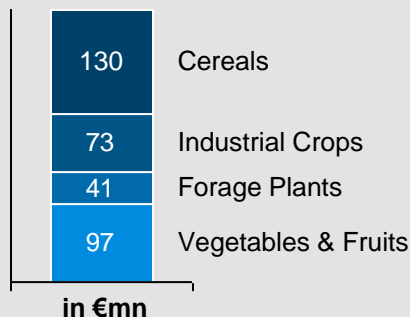
Agricultural trade balance²:
€ -256 mn

- Trade of food, beverages and tobacco
 - Exports: € 1.138 mn (9.4 of total exports)
 - Imports: € 1.394 mn (10.1% of total imports)



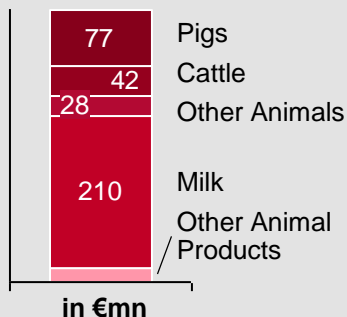
Crop Output

Total: € 342 mn



Animal Output

Total: € 377 mn



Service Output

Total: € 18 mn



Total Output

Total: € 737 mn

1.7%

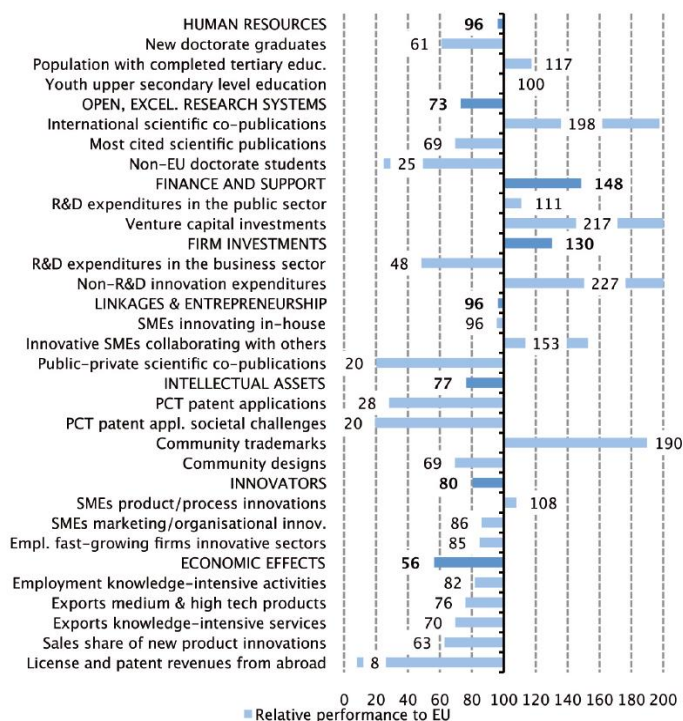
Share of agricultural¹ GVA³ from total GVA

€ 292 mn

Gross value added from agriculture¹

National Innovation Performance: Estonia¹

Regional Innovation Performance



National Innovation Index

- National Innovation Score² 2015: **0.45**
- Trend since 2014: negative
- Below EU28 average (86% of EU28 Ø)

Innovation Strengths & Weaknesses

- Overall **modest** innovator
- Estonia performs well above average on Non-R&D innovation expenditures, Venture capital investments, International scientific co-publications, and Community trademarks
- Performance is well below the EU average for License and patent revenues from abroad, PCT patent applications in societal challenges, and Public private co-publications

1. Given that there is no regional data available for Estonia, national data was used as a proxy; National Innovation Score is not comparable with Regional Innovation Score due to different calculations and factors considered in the index

Source: Regional Innovation Scoreboard (European Commission, 2016)

www.improve-innovation.eu; IMP3rove is a registered trademark

Country: Poland

Inputs

Total agricultural inputs¹:
€ 14,918 mn

- Seeds & Planting stock: € 285 mn
- Energy & Lubricants: € 3,177 mn
- Fertilizers: € 1,756 mn
- Plant protection: € 908 mn
- Feedingstuff: € 5,792 mn
- Others € 2,476 mn

Production

Total agricultural output¹:
€ 24,086 mn

- Utilized agricultural area: ~12.4 mn ha (46% of total area)
- Number of farms: ~1.43 mn (76% less than 10 ha; 38% of farms consume more than 50% of output)
- Employment¹: 1.79 mn persons (11.5% of national employment; 89% are self-employed)

Trade

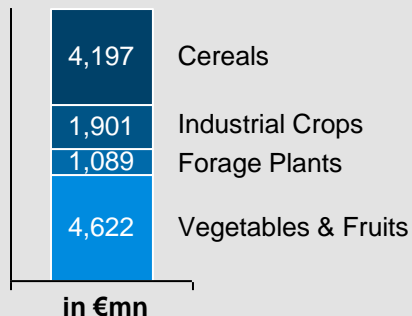
Agricultural trade balance²:
€ 7,271 mn

- Trade of food, beverages and tobacco
 - Exports: € 20,565 mn (12.4% of total exports)
 - Imports: € 13,294 mn (7.9% of total imports)



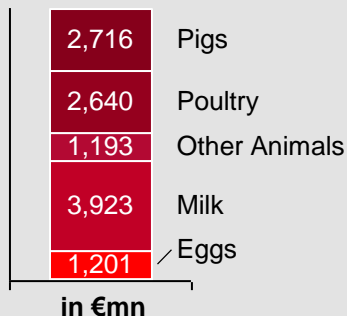
Crop Output

Total: € 11,846 mn



Animal Output

Total: € 11,743 mn



Service Output

Total: € 497 mn



Total Output

Total: € 24,086 mn

2.6%

Share of agricultural¹
GVA³ from total GVA

€ 9,573 mn

Gross value added
from agriculture¹

Region: Kujawsko-Pomorskie (Poland)

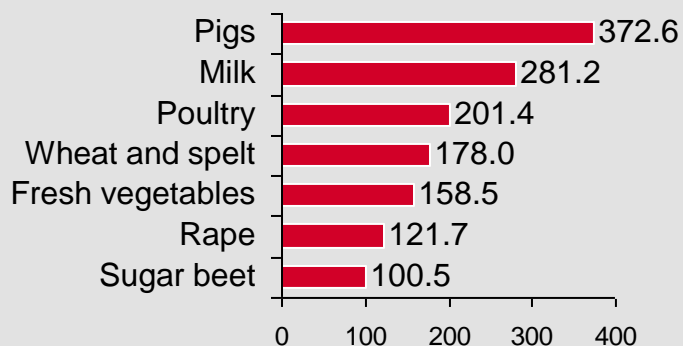
9.3%

Share of regional from national agricultural¹ gross value added


5.5%

Share of *total* regional gross value added from agriculture¹

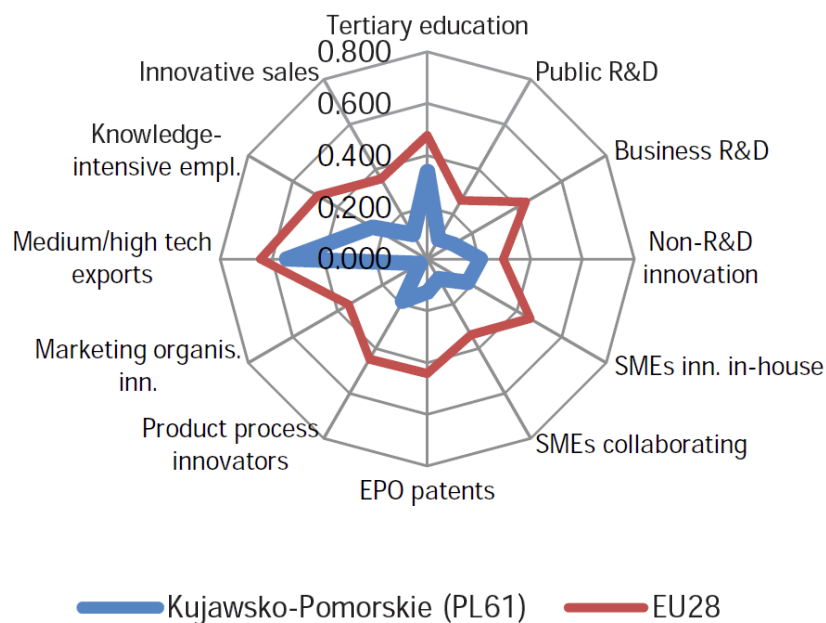
Main products (€mn production value)



	Country	Region	Regional share
Farm Structure¹			
Utilized agricultural area (hectare)	12,409,870	1,039,610	7.2%
Number of farms	1,429,010	64,990	4.5%
Labour Force directly employed (annual working units)	1,918,550	97,040	5.1%
Agricultural Accounts¹			
Agricultural Input (€ million)	14,675	1,105	7.5%
Agricultural Output (€ million)	Total: 24,086	Total: 1,986	T: 8.2%
	Crop: 11,846	Crop: 946	C: 8.0%
	Animal: 11,744	Animal: 1,003	A: 8.5%
	Services: 497	Services: 36	S: 7.3%
Agricultural Gross Value Added ² (€ million)	9,573	886	9.3%

Regional Innovation Performance: Kujawsko-Pomorskie

Regional Innovation Performance



Regional Innovation Index

- Regional Innovation Score 2016: **0.18**
- Trend since 2014: negative (-7%)
- Considerably below EU28 average (49% of EU28 Ø)

Innovation Strengths & Weaknesses

- Overall **modest** innovator
- The relative strengths in the regional innovation system are Exports of medium and high tech products, Tertiary education attainment, and Employment in knowledgeintensive industries
- Relative weaknesses are in SMEs with marketing or organisational innovations, Public R&D expenditures, and Innovative SMEs collaborating with others

Country: Greece

Inputs

Total agricultural inputs¹:
€ 5,330 mn

- Seeds & Planting stock: € 289 mn
- Energy & Lubricants: € 1,293 mn
- Fertilizers: € 287 mn
- Plant protection: € 218 mn
- Feedingstuff: € 1,944 mn
- Others: € 1,098 mn

Production

Total agricultural output¹:
€ 9,607 mn

- Utilized agricultural area: ~4.86 mn ha (37% of total area)
- Number of farms: ~710k (89% less than 10 ha; 18% of farms consume more than 50% of output)
- Employment¹: 488k persons (12.5% of national employment; 81% are self-employed)

Trade

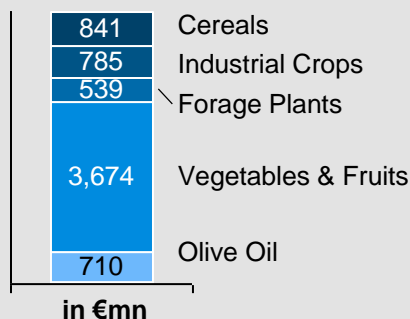
Agricultural trade balance²:
€ -21,206 mn

- Trade of food, beverages and tobacco
 - Exports: € 4,369 mn (16.1% of total exports)
 - Imports: € 5,666 mn (11.7% of total imports)



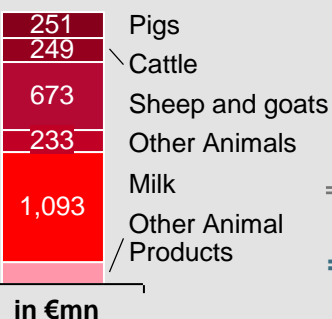
Crop Output

Total: € 6,609 mn



Animal Output

Total: € 2,714 mn



Service Output

Total: € 284 mn



Total Output

Total: € 9,607 mn

3.2%

Share of agricultural¹
GVA³ from total GVA

€ 4,973 mn

Gross value added
from agriculture¹

Region: Crete (Greece)

10.2%

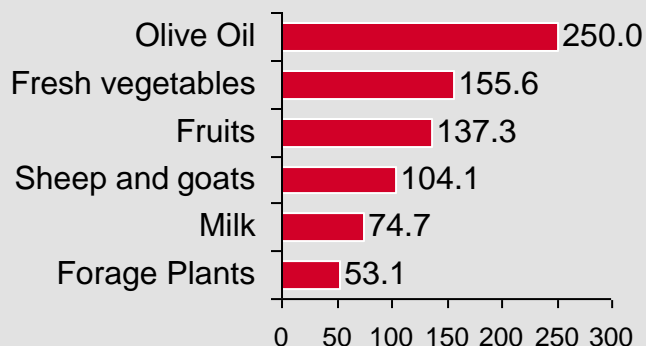
Share of regional from national agricultural¹ gross value added



6.6%

Share of *total* regional gross value added from agriculture¹

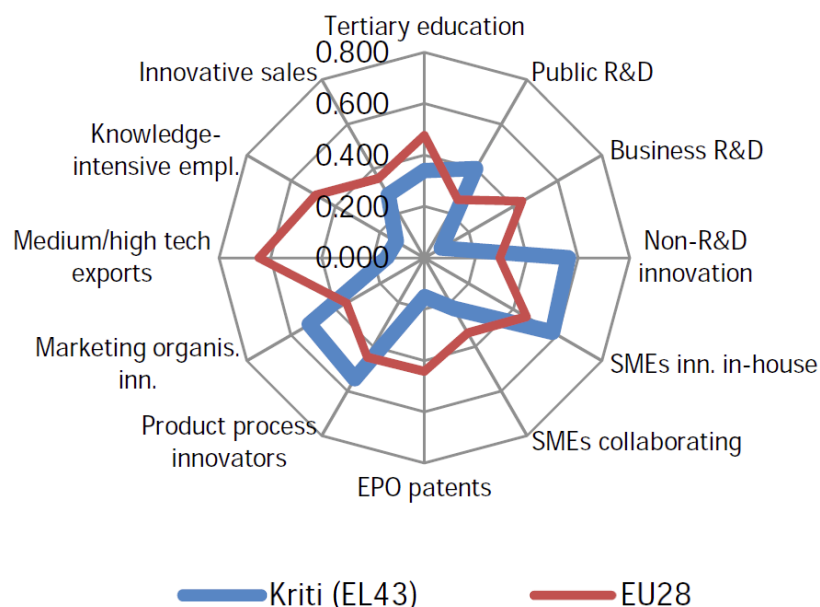
Main products (€ mn production value)



	Country	Region	Regional share
Farm Structure¹			
Utilized agricultural area (hectare)	4,856,780	605,820	12.5%
Number of farms	709,500	90,090	12.7%
Labour Force directly employed (annual working units)	463,860	53,560	11.5%
Agricultural Accounts¹			
Agricultural Input (€ million)	5,330	444	8.3%
Agricultural Output (€ million)	Total: 9,607	Total: 906	T: 9.4%
	Crop: 6,609	Crop: 638	C: 9.7%
	Animal: 284	Animal: 1,782	A: 34.3%
	Services: 27	Services: 118	S: 9.7%
Agricultural Gross Value Added ² (€ million)	4,973	510	10.2%

Regional Innovation Performance: Crete

Regional Innovation Performance



Regional Innovation Index

- Regional Innovation Score 2016: **0.28**
- Trend since 2014: strongly negative (-19%)
- Below EU28 average (61% of EU28 Ø)

Innovation Strengths & Weaknesses

- Overall **moderate** innovator
- Relative strengths compared to the EU28 are in Non-R&D innovation expenditures, Public R&D expenditures, and SMEs with marketing or organisational innovations
- Relative weaknesses are in Business R&D expenditures, Employment in knowledge-intensive industries, and Exports of medium and high tech products

Country: Romania

Inputs

Total agricultural inputs¹:
€ 9,661 mn

- Seeds & Planting stock: € 882 mn
- Energy & Lubricants: € 1,974 mn
- Fertilizers: € 650 mn
- Plant protection: € 289 mn
- Feedingstuff: € 2,694 mn
- Others: € 3,129 mn

Production

Total agricultural output¹:
€ 15,229 mn

- Utilized agricultural area: ~13.06 mn ha (55% of total area)
- Number of farms: ~3.63 mn (98% less than 10 ha; 88% of farms consume more than 50% of output)
- Employment¹: 2.35 mn persons (28.0% of national employment; 90% are self-employed)

Trade

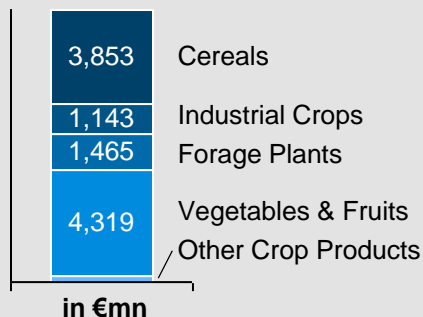
Agricultural trade balance²:
€ -37 mn

- Trade of food, beverages and tobacco
 - Exports: € 4,484 mn (8.5% of total exports)
 - Imports: € 4,521 mn (7.7% of total imports)



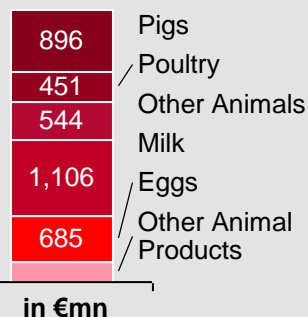
Crop Output

Total: € 11,040 mn



Animal Output

Total: € 3,967 mn



Service Output

Total: € 222 mn



Total Output

Total: € 15,229 mn

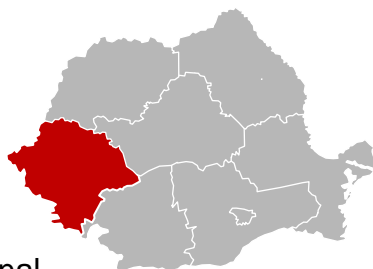
5.3%

Share of agricultural¹
GVA³ from total GVA

€ 7,110 mn

Gross value added
from agriculture¹

Region: Vest (Romania)

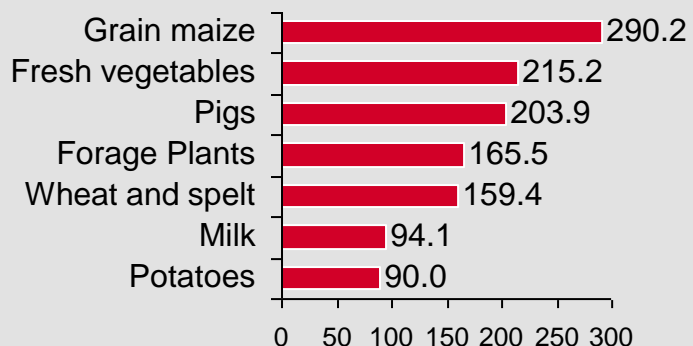

10.5%

Share of regional from national agricultural¹ gross value added

6.1%

Share of *total* regional gross value added from agriculture¹

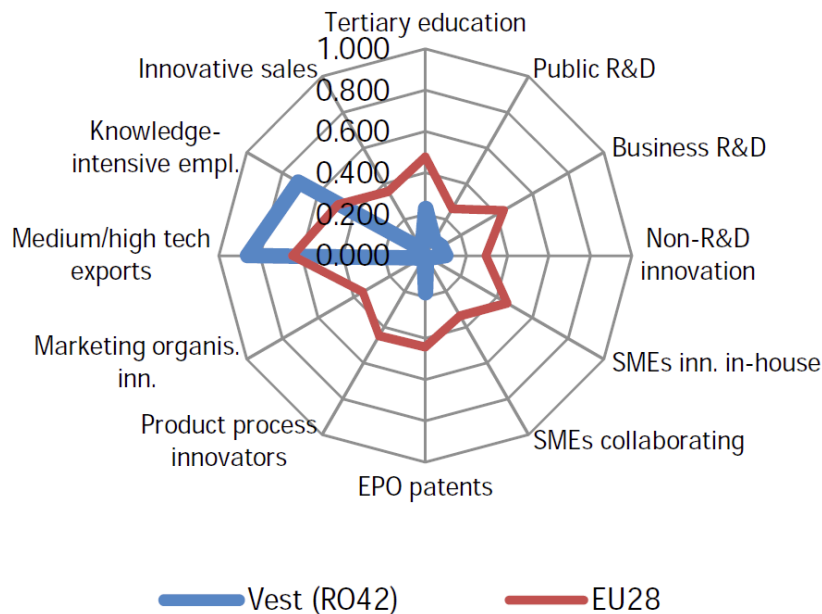
Main products (€ mn production value)



	Country	Region	Regional share
Farm Structure¹			
Utilized agricultural area (hectare)	13,055,850	3,203,300	12,6%
Number of farms	3,629,660	247,000	6.8%
Labour Force directly employed (annual working units)	1,552,630	116,840	7.5%
Agricultural Accounts¹			
Agricultural Input (€ million)	9,661	1,062	11.0%
Agricultural Output (€ million)	Total: 15,229	Total: 1,679	T: 11.0%
	Crop: 11,040	Crop: 1,192	C: 10.8%
	Animal: 3,967	Animal: 474	A: 11.9%
	Services: 222	Services: 14	S: 6.1%
Agricultural Gross Value Added ² (€ million)	7,110	746	10.5%

Regional Innovation Performance: Vest Romania

Regional Innovation Performance



Regional Innovation Index

- Regional Innovation Score 2016: **0.17**
- Trend since 2014: negative (-6%)
- Considerably below EU28 average (41% of EU28 Ø)

Innovation Strengths & Weaknesses

- Overall **modest** innovator
- Relative strengths compared to the EU28 are in Employment in knowledge-intensive industries, Exports of medium and high tech products
- Relative weaknesses are in Innovative SMEs collaborating with others, SMEs with product or process innovations, and SMEs innovating in-house



Content

- NICHE: Project Overview
- Macro-Economic Analysis (based on EuroStat database)
 - Executive Summary
 - Sample Description
 - Agri-food Industry of Selected Countries & Regions
- **Micro-Economic Analysis (based on IMP³rove database)**
 - **Executive Summary**
 - Sample Description
 - Innovation Capacities of Companies in the Selected Regions

The micro-economic analysis is based on IMP³rove Assessment data from 108 firms located in the 7 selected regions

Overview on the sample



- The 108 analyzed companies **operate all in the agrifood ecosystem** and are based in at least one of the **7 selected regions**.
- The vast majority of firms in the sample **focuses on downstream activities** in the agrifood value chain, especially food processing (labelled as manufacturing) and accommodation & food service activities.
- More than half of the companies in the sample **employ 10 or less people**.
- The datasets for all firms have been gathered by utilizing the **web-based IMP³rove Assessment** (<https://www.improve-innovation.eu/our-services/assessments/improve-assessment/>).
- Almost all datasets were gathered between **November 2016 and April 2017**¹.
- Given the firms' involvement in the NICHE project, a **positive selection bias** towards comparably innovative companies can be assumed.

The representativeness of the analysed firms for their respective regions is limited by the selection process and small sample size

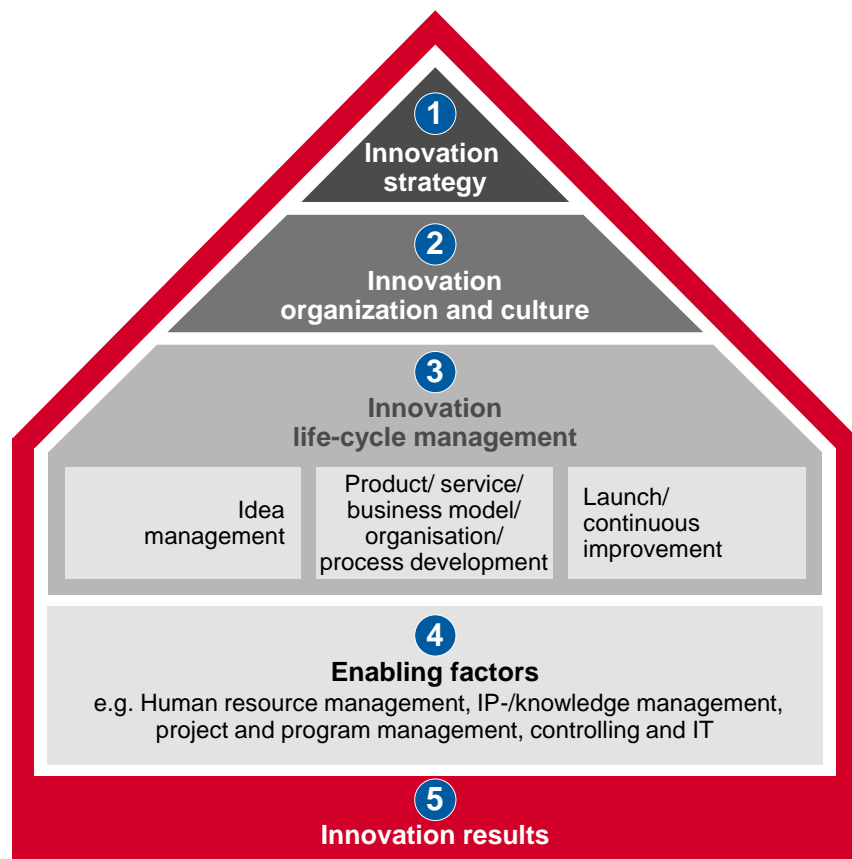
1. Except for 3 firms with entries between November 2015 and November 2016

Source: IMP³rove – European Innovation Management Academy, April 2017

www.improve-innovation.eu; IMP³rove is a registered trademark

The IMP³rove Assessment captures various innovation management aspects on a firm-level within 5 dimensions

Framework of the IMP³rove Assessment

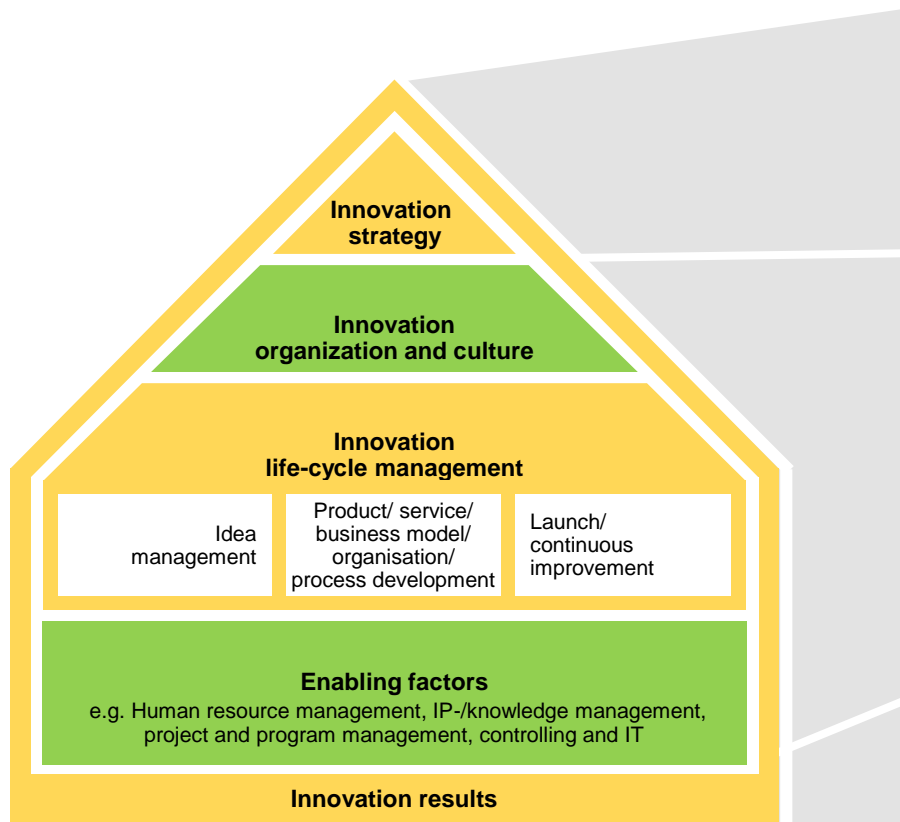


Description

- 1 Innovation strategy**
 - Vision and strategic focus on innovation
 - Implementation of strategy
- 2 Organization and culture**
 - Roles and responsibilities
 - Organizational structure
 - Organizational culture and climate
- 3 Innovation life cycle processes**
 - Idea management
 - Product/service/business model/organizational or process development
 - Launch and continuous improvement
- 4 Enabling factors**
 - Project management
 - Human resources and incentives
 - IT and knowledge management
- 5 Innovation results**
 - Growth in revenue
 - Growth in profit
 - Growth in number of employees

Overall, the firms' approaches to innovation management could be more ambitious, systematic, and impactful

Key findings along the House of Innovation



The “what”: More ambitious

- On average, the companies in the sample demonstrate a comparably low level of innovation ambition
- Only a fraction of firms “strives for radical innovation”
- The share of firms analyzed, that have not defined an innovation strategy varies from 0% to 40% across regions

The “how”: More systematic

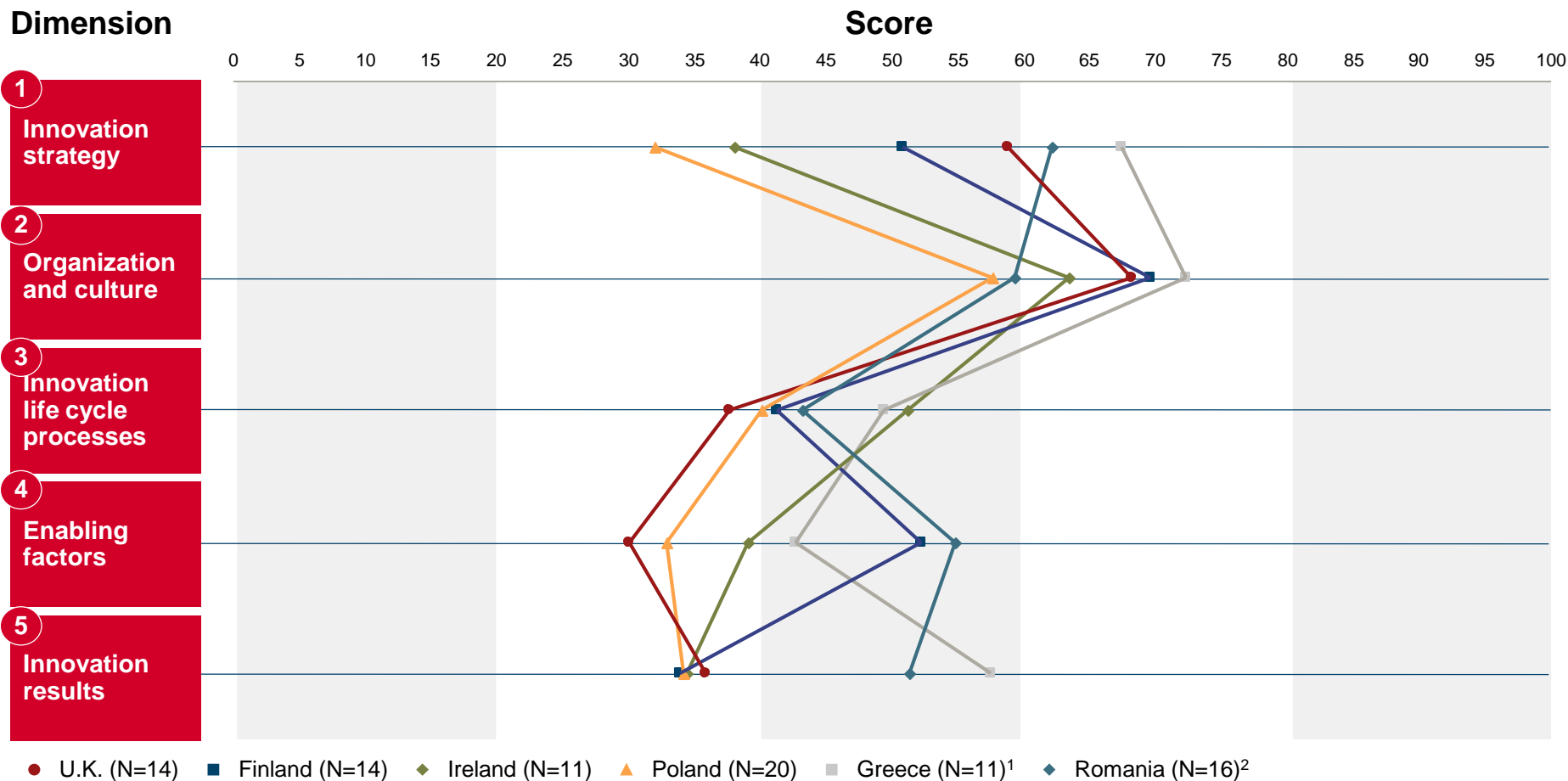
- Although firms' top management seems to highly embrace innovation across region, the cultural innovation readiness decreases with lower hierarchy levels
- Most companies analyzed foster innovation by collaborating with external partners, especially with customers (direct and indirect) and with network partners
- With respect to innovation processes, the degree of formalization could be further enhanced of the innovation processes and a rather short term perspective which also displays the low ambition to have high impact innovations
- Especially the fuzzy front end of innovation is rather left to chance than managed properly

The “why”: More impactful

- Although the share of sales from innovation is on average comparably high, the EBIT shares are significantly lower
- For the future, nearly all companies see a medium to high potential to further improve their innovation management performances

Despite varying scores among the analyzed firms in the 7 regions, the dimensional characteristics are comparable

Firm performance characteristics



Note: Due to missing data the scores for Estonia could not be assessed
 Source: A.T. Kearney, IMP³rove – European Innovation Management Academy, April 2017
 www.improve-innovation.eu; IMP³rove is a registered trademark

A number of measures could further enhance the innovation management performances of the firms in the regions

Potential focus areas for innovation support actions

Increase the level of ambition

- Launch an award for outstanding new product and service innovation

Push for structured innovation management

- Launch support programs (training and consulting) to help companies achieve more strategic focus, implement more systematic idea management approaches and achieve higher degrees of process formalization

Leverage the firms' perceived room for improvement

- Provide wide-spread transparency on the innovation management capabilities and performances of further firms in the regions by utilizing the IMP³rove Assessment
- Offer large scale innovation management advisory services to SMEs

Increase database for enhanced transparency

- Increase dataset in order to receive more fine-grained insights into the overall regions' innovation management capabilities and performances
- Track innovation management performances over time in order to assess the impact of the support measures

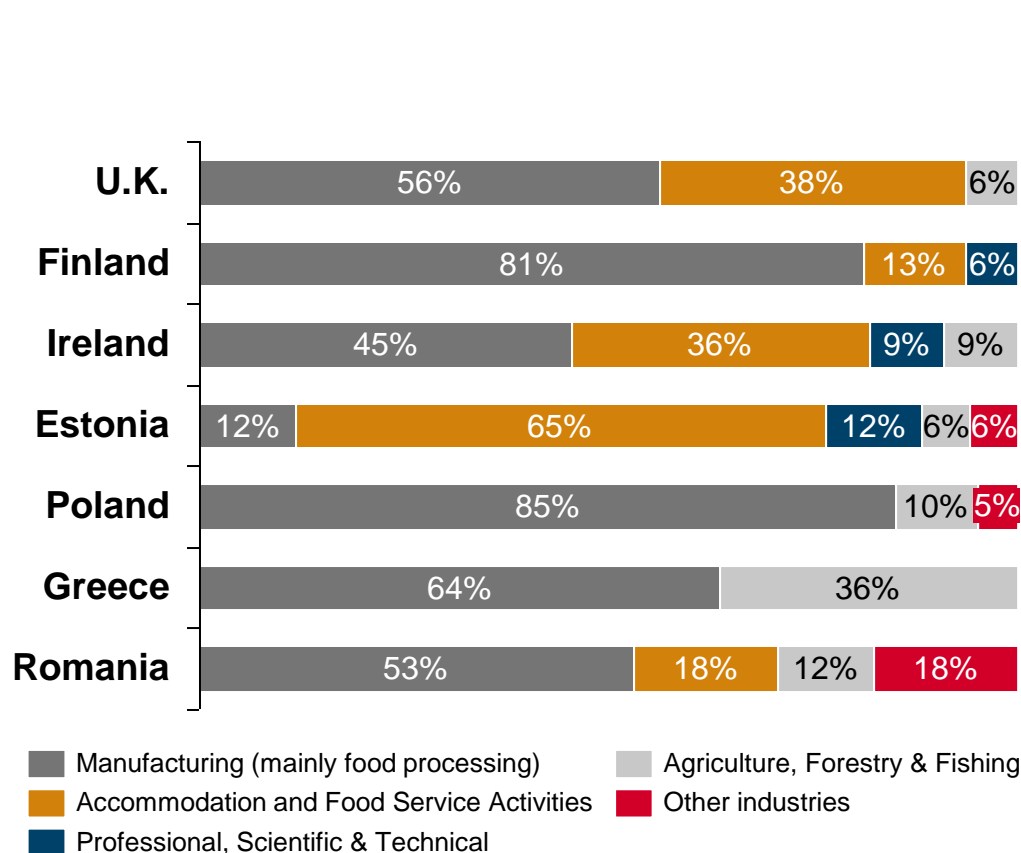


Content

- NICHE: Project Overview
- Macro-Economic Analysis (based on EuroStat database)
 - Executive Summary
 - Sample Description
 - Agri-food Industry of Selected Countries & Regions
- **Micro-Economic Analysis (based on IMP³rove database)**
 - Executive Summary
 - **Sample Description**
 - Innovation Capacities of Companies in the Selected Regions

The majority of firms in the sample operate in the food processing industry and employ up to 10 people

Sample description



Average number of employees	Average age	Sample size
12	14	N = 16
25	21	N = 16
11	16	N = 11
16	10	N = 17
55	20	N = 20
32	34	N = 11
40	12	N = 17



Content

- NICHE: Project Overview
- Macro-Economic Analysis (based on EuroStat database)
 - Executive Summary
 - Sample Description
 - Agri-food Industry of Selected Countries & Regions
- **Micro-Economic Analysis (based on IMP³rove database)**
 - Executive Summary
 - Sample Description
 - **Innovation Capacities of Companies in the Selected Regions**

Three-quarters of the companies see great future impact of innovation management on business success

Impact of innovation management on business success (1/2)

Share of companies that rated the impact of IM on business success high¹ (N=108)

“Current impact is high”:

39.8%

+ 36.1%

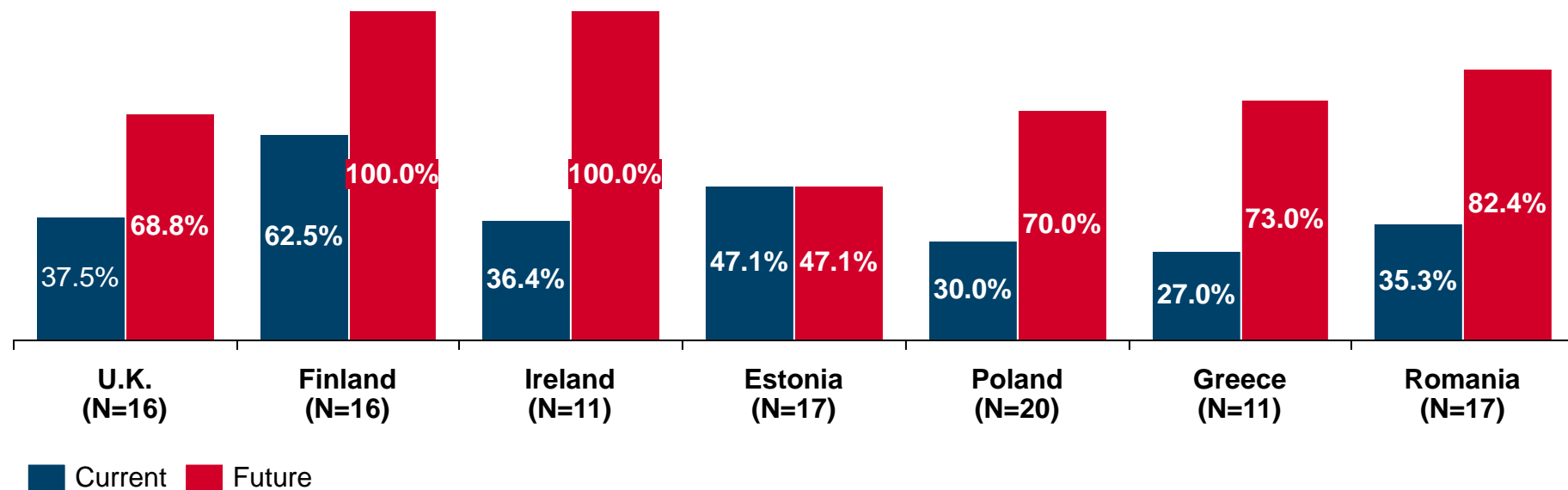
“Future impact will be high”:

75.9%

The perceived increasing importance of innovation management is prevailing across almost all regions

Impact of innovation management on business success (2/2)

Share of companies that rated the impact of IM on business success high¹



1. Rating 6 or 7 on a scale from 1 (very low) to 7 (very high).

Source: IMP³rove – European Innovation Management Academy, April 2017

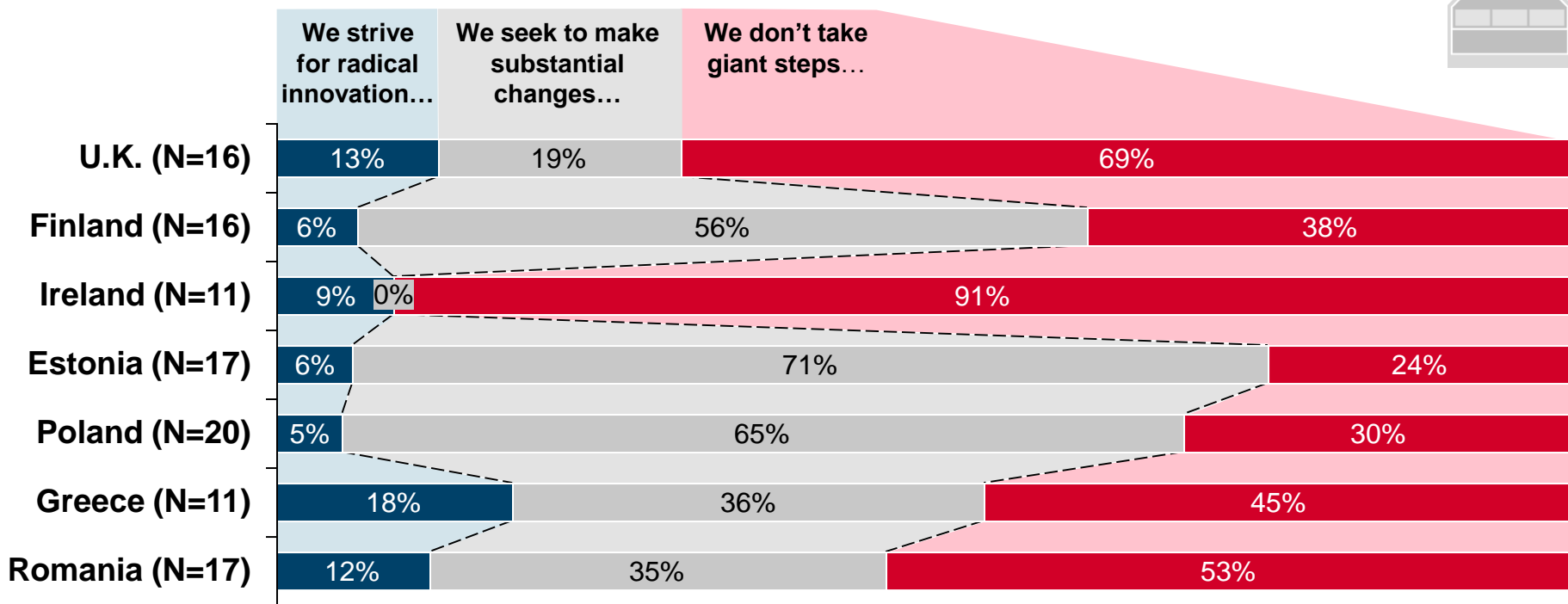
www.improve-innovation.eu; IMP³rove is a registered trademark



Innovation Strategy

Overall, the firms show a low level of ambition to innovate – just a small number of firms strive for radical innovation

Level of innovation ambition



“We strive for radical innovation by making significant changes in the business model, products, services and processes of the organisation to fundamentally change the competitive environment (radical innovations - often called breakthrough innovations - that are totally new to the market)”

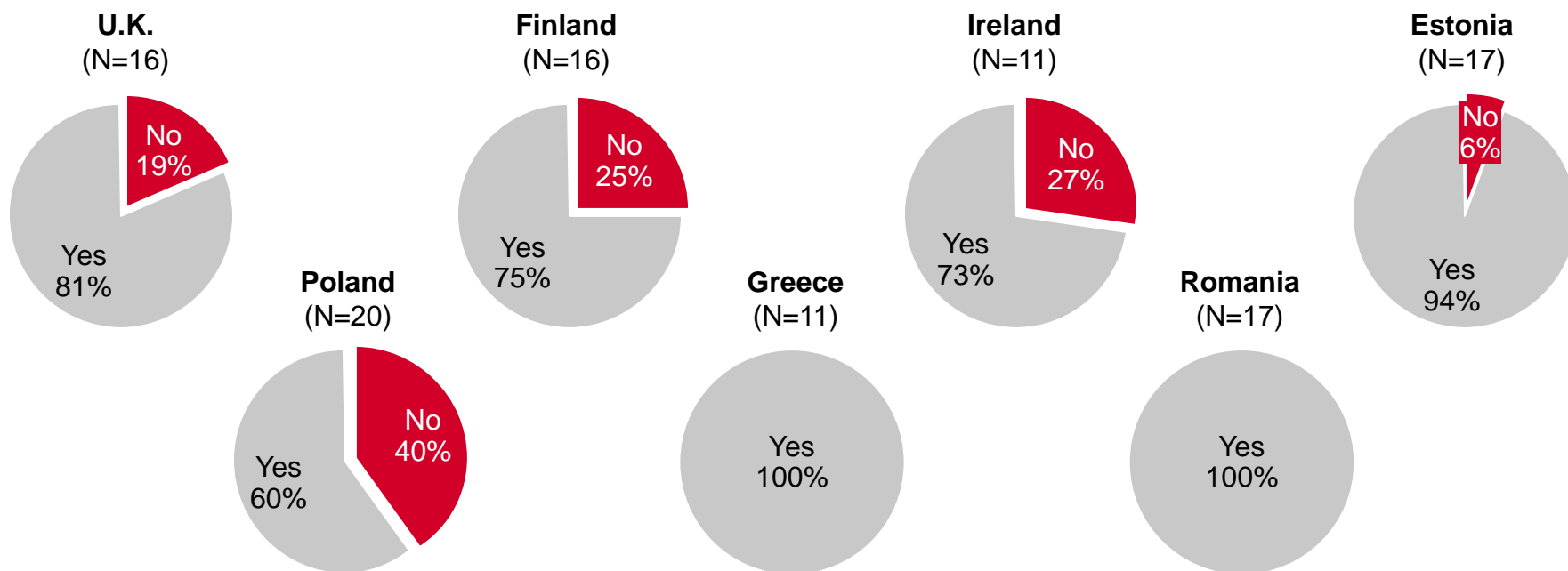
“We seek to make substantial changes to either the business model or the technology (products, services and processes) that provide changes to the competitive environment but are usually not disruptive or dramatic.”

“We don't take giant steps; however, we seek to make rather small changes to existing products, processes, services and/or business models to add value.”

The degree to what innovation is addressed strategically within the analyzed firms, varies greatly among regions

Innovation strategy definition

Share of companies that have defined an innovation strategy

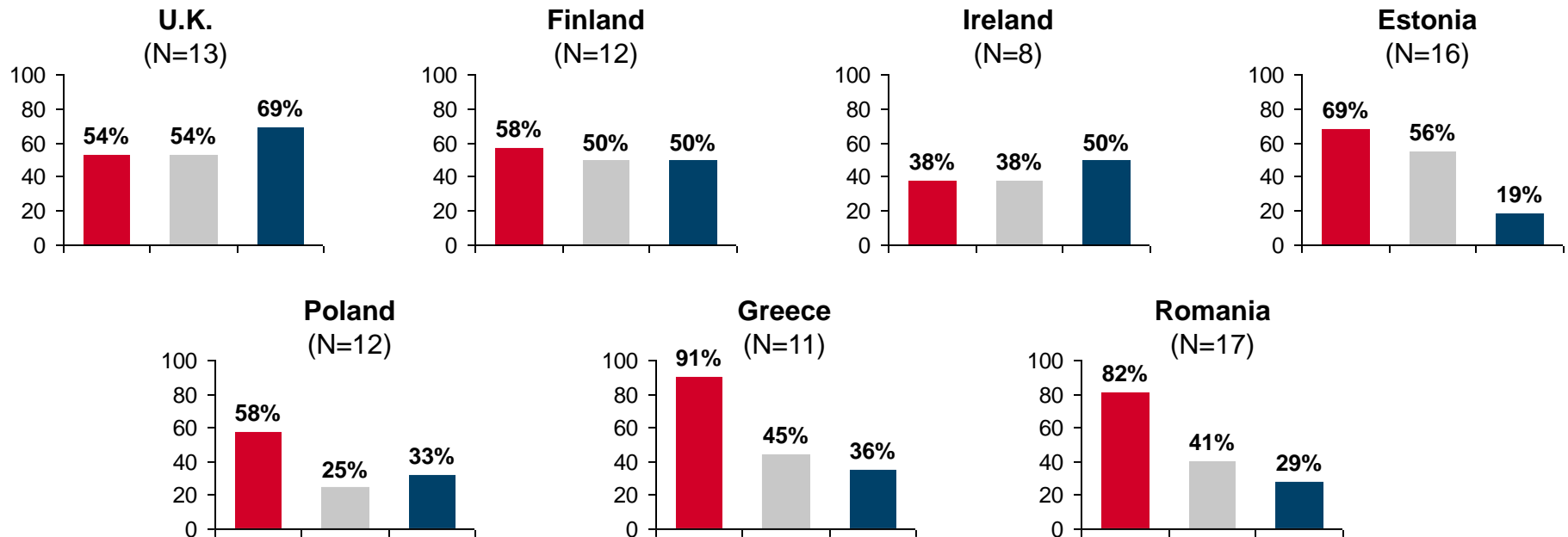


“Yes” = share of companies in sample that have defined an innovation strategy

“No” = share of companies in sample that have not defined an innovation strategy

Only a part of the firms that have defined an innovation strategy build it on analytical rigour and fully implement it

Characteristics of the innovation strategy¹

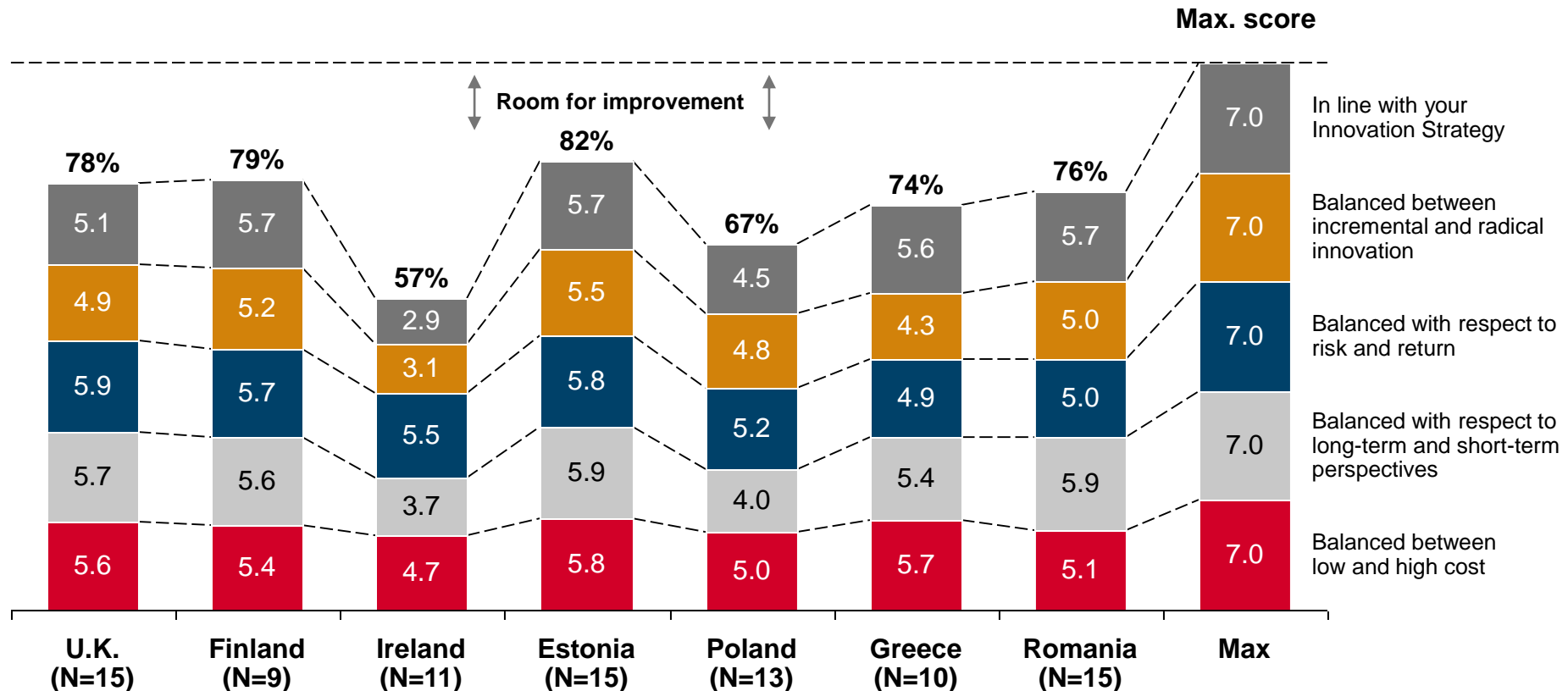


- Strategy results from analysis of potential business areas for future innovation
- Strategy sets clear objectives for innovation management activities
- Strategy focuses on development of innovation capabilities

1. Measured only for the firms that have defined an innovation strategy
Source: IMP³rove – European Innovation Management Academy, April 2017
www.improve-innovation.eu; IMP³rove is a registered trademark

However, on a portfolio level, the firms analyzed show a comparably balanced set of innovation projects

Attributes of innovation project(s)¹



Q: To what degree do the following attributes apply to your innovation project(s)? From 1 (Not applicable) to 7 (Fully applicable).

Source: IMP³rove – European Innovation Management Academy, April 2017

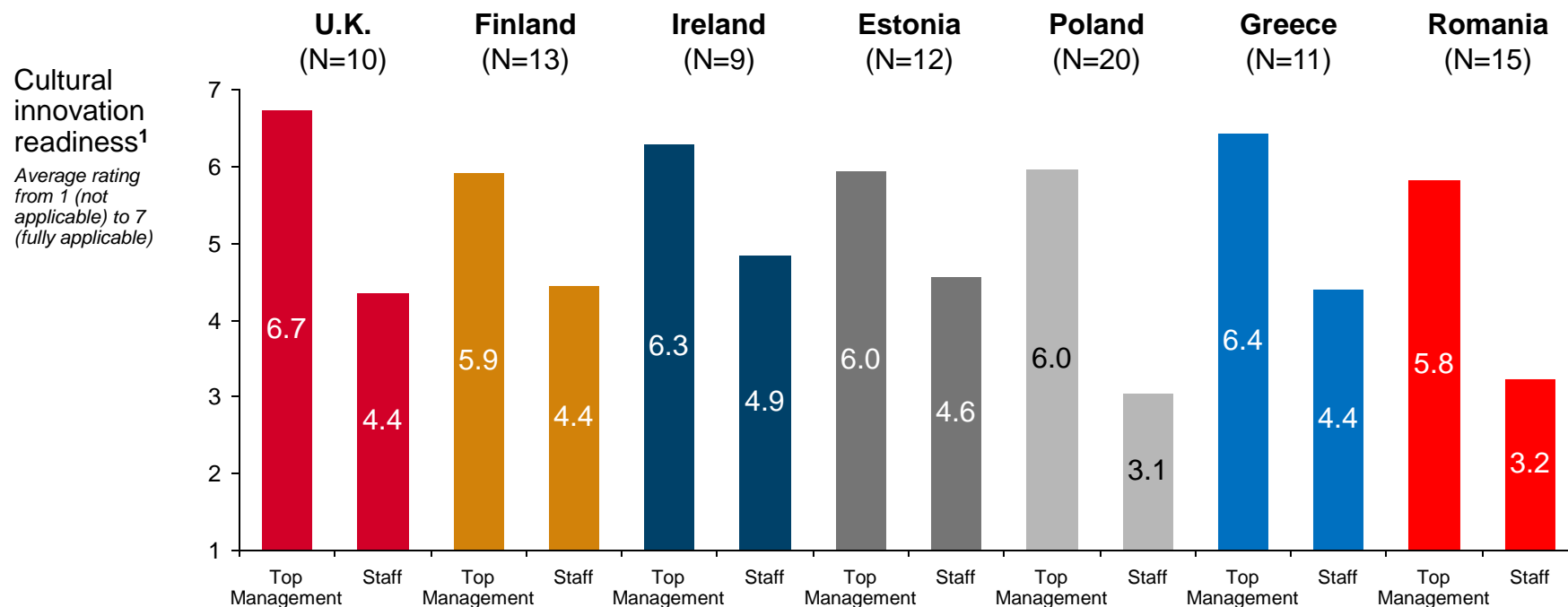
www.improve-innovation.eu; IMP³rove is a registered trademark



Innovation Organization and Culture

Although top management seems to highly embrace innovation across firms, it cannot fully transfer this to the staff

Attitude to innovation



Note: Sample is smaller due to cases that are not assessable

1. Innovation readiness is the average rating of the following components: 1. Excited/passionate about innovation 2. Open rather than sceptical towards new unusual ideas 3. Able to think out-of-the-box 4. Imaginative 5. Able to „sell“ ideas internally 6. Focusing on business impact








Source: IMP³rove – European Innovation Management Academy; Figures as of April 2017

www.improve-innovation.eu; IMP³rove is a registered trademark

The majority of firms in the sample fosters innovation by utilizing relationships to internal and external stakeholders

Innovation cooperation – Overview



Country	Amount Average number of regular innovation partners ¹	Intensity		Impact	
		Regularity of involvement of different groups in the innovation processes ³		Enhancement of the innovation life cycle through external partners ⁴	
		Internal Groups	External Groups	Formal partnerships	Informal relationships
 United Kingdom (N=16)	4.1	5.9	4.0	3.6	4.2
 Finland (N=16)	4.2	5.5	3.9	5.5	4.5
 Ireland (N=11)	2.1	5.2	4.4	5.1	4.9
 Estonia (N=17)	19.8 ²	4.9	4.6	5.2	4.4
 Poland (N=20)	4.0	5.5	4.6	4.2	4.3
 Greece (N=11)	3.7	5.4	4.5	4.9	4.1
 Romania (N=17)	5.4	5.0	3.6	4.7	4.9

Significant variation in terms of number of innovation partners across regions

More intensive involvement of internal versus external groups

Higher degrees of formal compared to informal collaboration

1. Q: Number of innovation partners you are in regular contact with and exchange information and knowledge; 2. One "outlier" with 500 partners was excluded

3. Q.: How regularly do you involve the following groups in generating new ideas and collecting suggestions for improvements? From 1 (Not at all) to 7 (Highly regularly)

4. Q: To what degree do partnerships/informal relationships support and enhance each phase of the entire innovation life cycle? From 1 (Not at all) to 7 (To a very high degree)

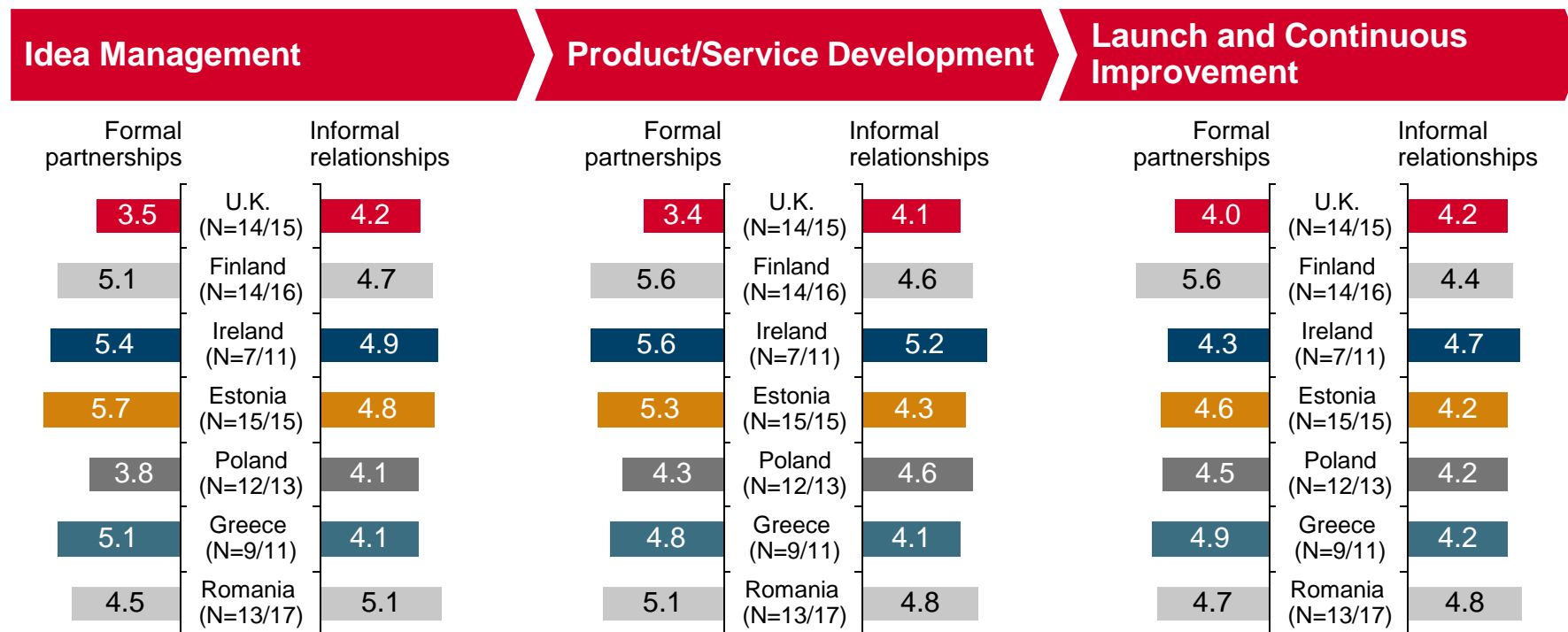
Source: IMP³rove – European Innovation Management Academy, April 2017

www.improve-innovation.eu; IMP³rove is a registered trademark

The degree of enhancement through external cooperation is equally intensive along the entire innovation life cycle

External cooperation

Degree of support and enhancement of innovation life cycle phases through external cooperation¹



1: not at all to 7: to a very high degree

Note: Sample is smaller due to cases that are not assessable

1. Q: If you work with any partners on innovation projects, to what degree do partnerships support and enhance each phase of the entire innovation life cycle? How much do informal relationships with external sources without any formal agreements enhance each phase of the entire innovation life cycle? From 1 (Not at all) to 7 (To a very high degree).

Source: IMP³rove – European Innovation Management Academy, April 2017

www.improve-innovation.eu; IMP³rove is a registered trademark

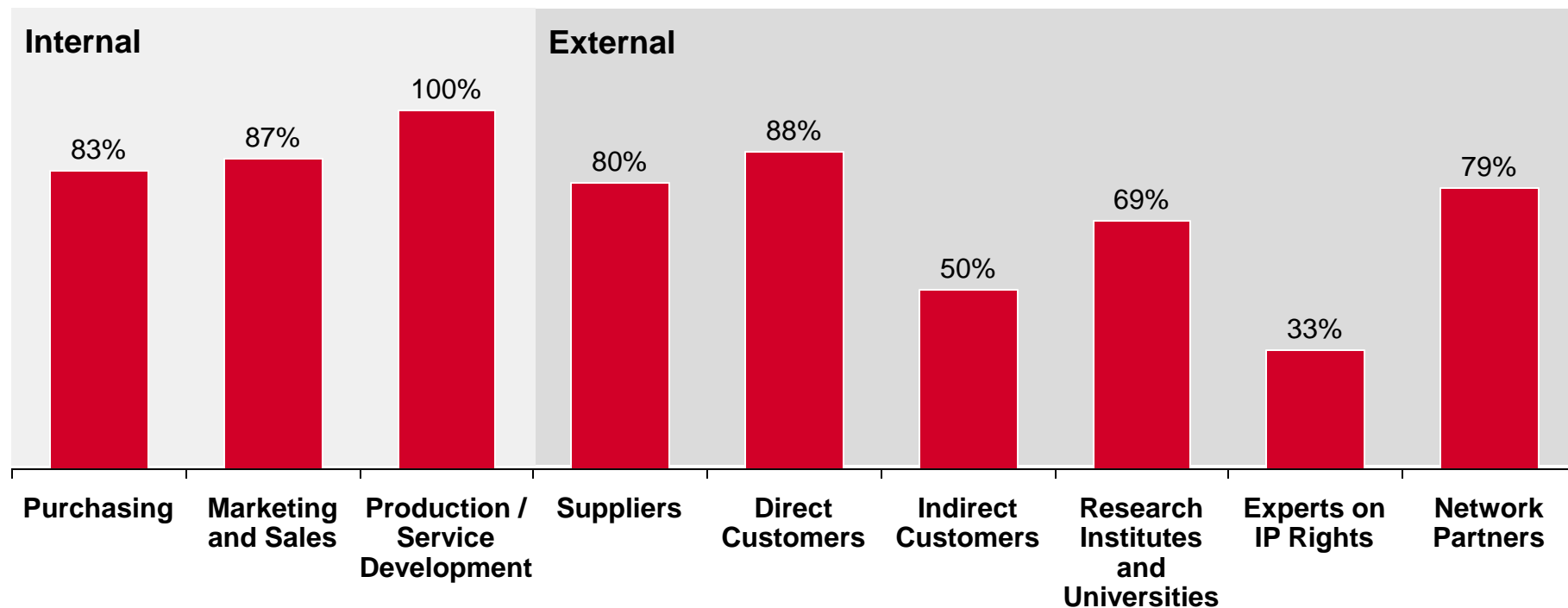


Innovation Organization and Culture - Cooperation Deep- Dive

Northern Ireland (N=16, United Kingdom)

External cooperation

Involvement of the respective group¹



1. Share of companies with a score >1 for the Question: How regularly do you involve the following groups in generating new ideas and collect suggestions for improvements? From 1 (Not at all) to 7 (Highly regularly). Note: Companies that didn't answer sub-questions adequate (inserted 0) were excluded.

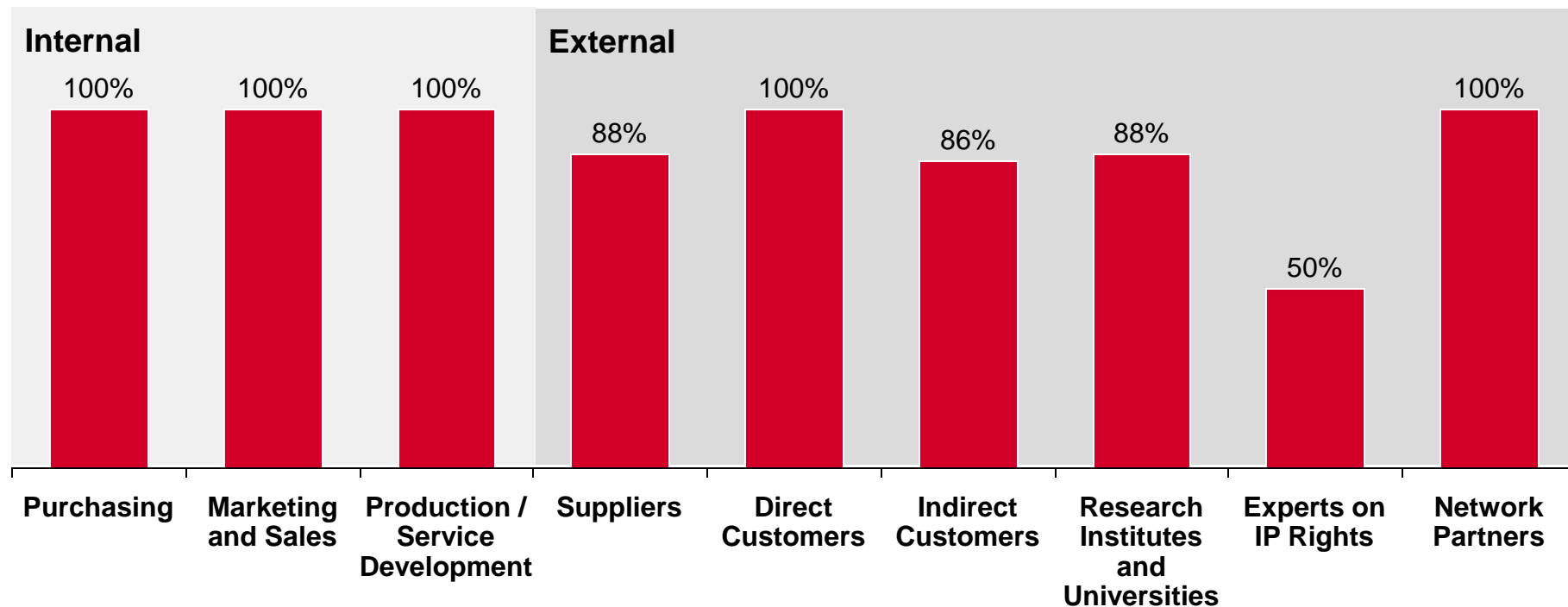
Source: IMP³rove – European Innovation Management Academy, April 2017

www.improve-innovation.eu; IMP³rove is a registered trademark

Länsi Finland (N=16, Finland)

External cooperation

Involvement of the respective group¹



1. Share of companies with a score >1 for the Question: How regularly do you involve the following groups in generating new ideas and collect suggestions for improvements? From 1 (Not at all) to 7 (Highly regularly). Note: Companies that didn't answer sub-questions adequate (inserted 0) were excluded.

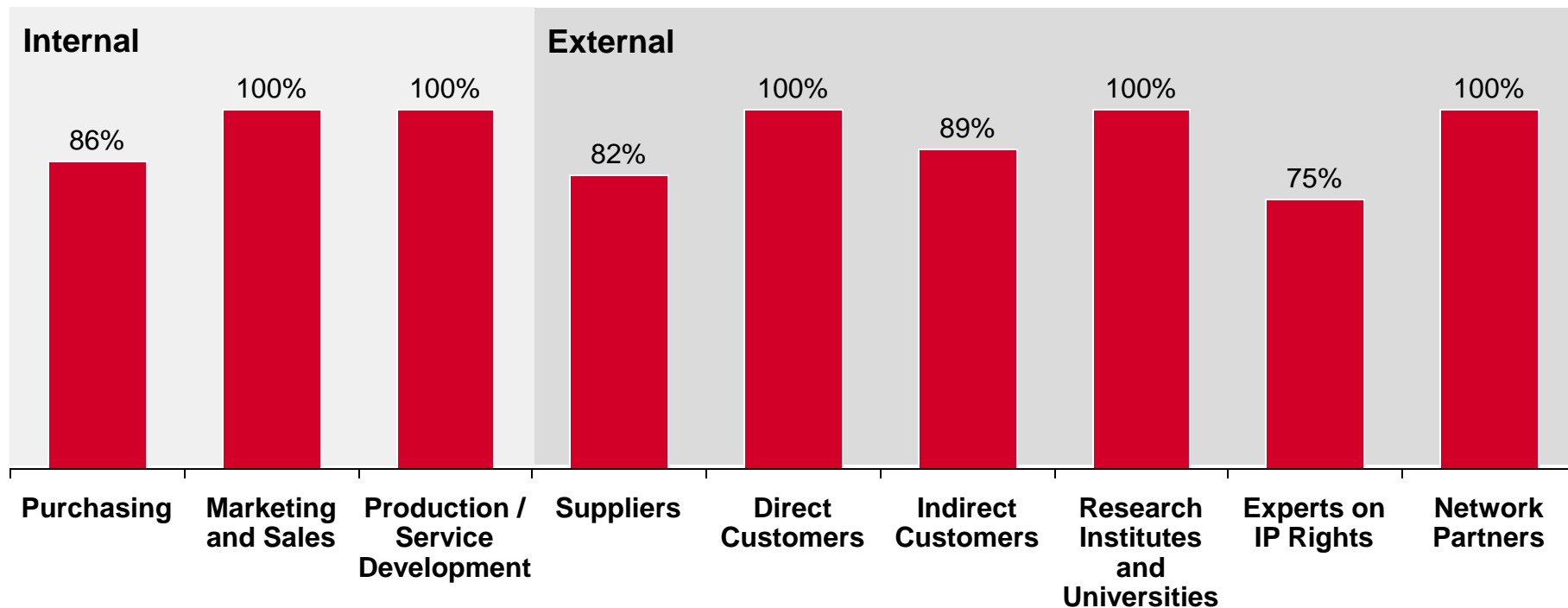
Source: IMP³rove – European Innovation Management Academy, April 2017

www.improve-innovation.eu; IMP³rove is a registered trademark

Border, Midland and Western (N=11, Ireland)

External cooperation

Involvement of the respective group¹



1. Share of companies with a score >1 for the Question: How regularly do you involve the following groups in generating new ideas and collect suggestions for improvements? From 1 (Not at all) to 7 (Highly regularly). Note: Companies that didn't answer sub-questions adequate (inserted 0) were excluded.

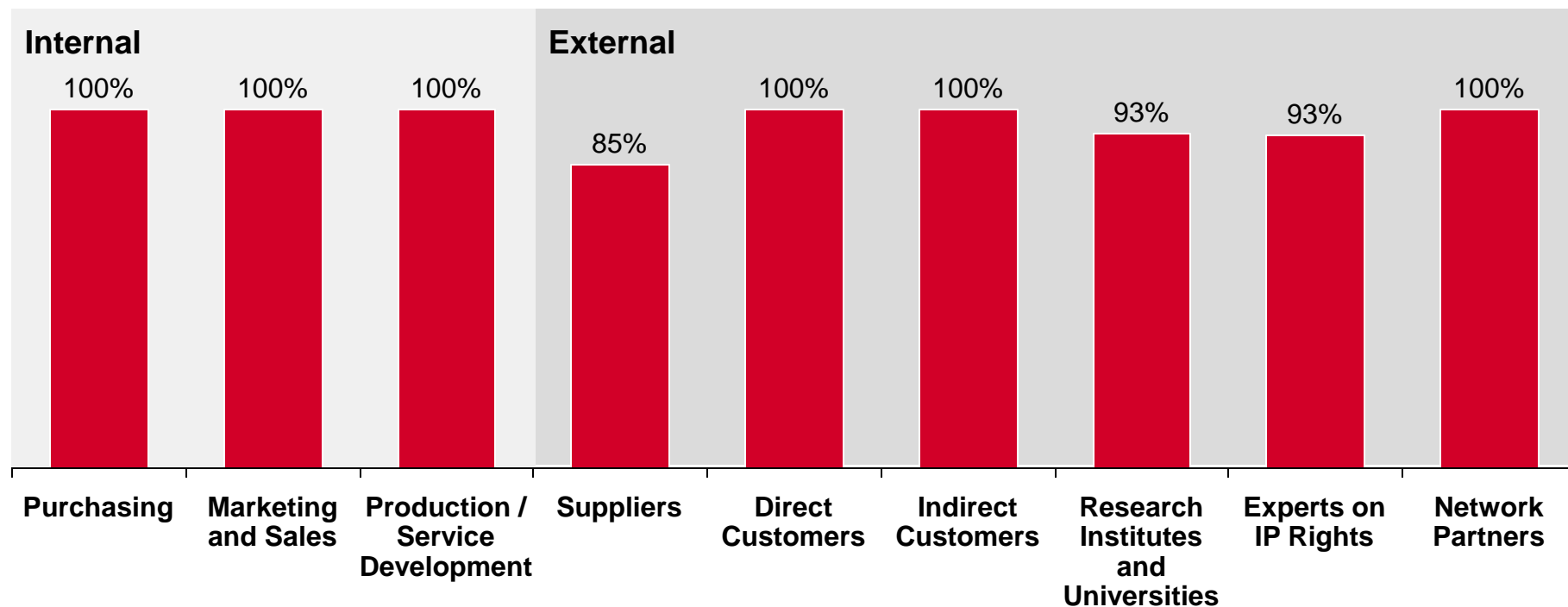
Source: IMP³rove – European Innovation Management Academy, April 2017

www.improve-innovation.eu; IMP³rove is a registered trademark

Estonia (N=17)

External cooperation

Involvement of the respective group¹



1. Share of companies with a score >1 for the Question: How regularly do you involve the following groups in generating new ideas and collect suggestions for improvements? From 1 (Not at all) to 7 (Highly regularly). Note: Companies that didn't answer sub-questions adequate (inserted 0) were excluded.

Source: IMP³rove – European Innovation Management Academy, April 2017

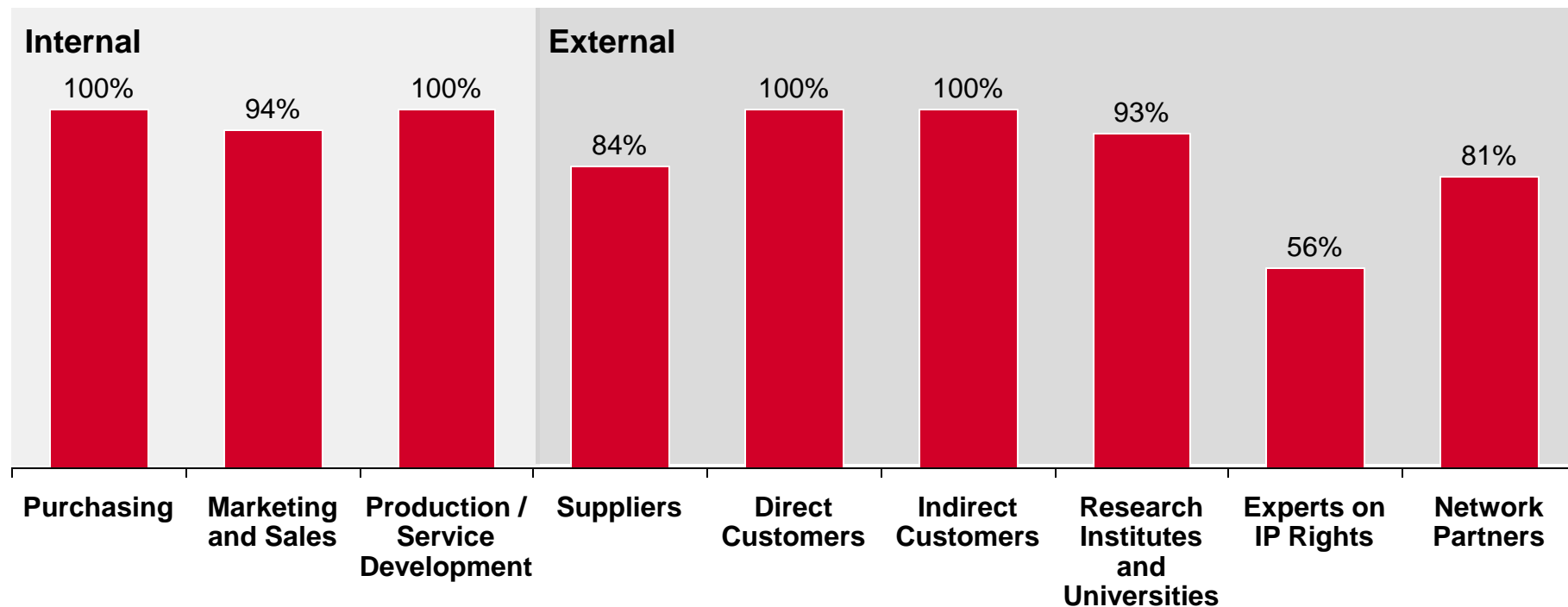
www.improve-innovation.eu; IMP³rove is a registered trademark



Kujawsko-Pomorskie (N=20, Poland)

External cooperation

Involvement of the respective group¹



1. Share of companies with a score >1 for the Question: How regularly do you involve the following groups in generating new ideas and collect suggestions for improvements? From 1 (Not at all) to 7 (Highly regularly). Note: Companies that didn't answer sub-questions adequate (inserted 0) were excluded.

Source: IMP³rove – European Innovation Management Academy, April 2017

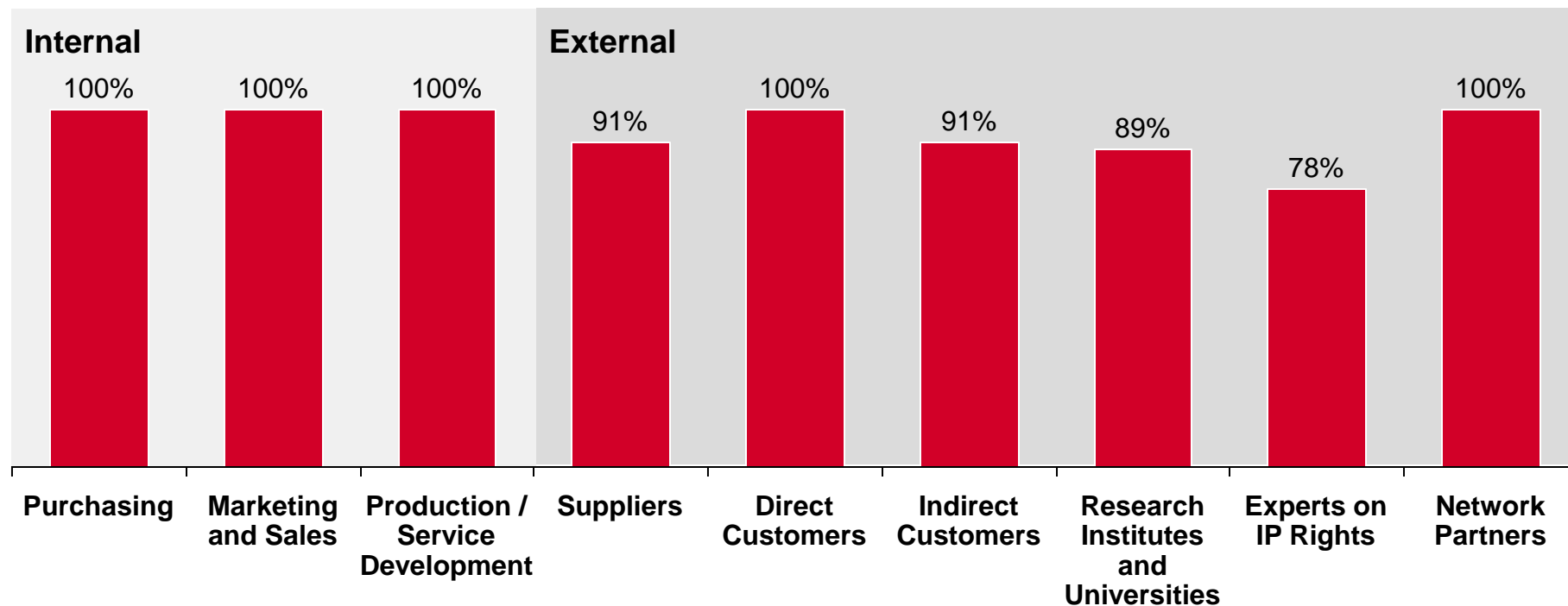
www.improve-innovation.eu; IMP³rove is a registered trademark



Crete (N=11, Greece)

External cooperation

Involvement of the respective group¹



1. Share of companies with a score >1 for the Question: How regularly do you involve the following groups in generating new ideas and collect suggestions for improvements? From 1 (Not at all) to 7 (Highly regularly). Note: Companies that didn't answer sub-questions adequate (inserted 0) were excluded.

Source: IMP³rove – European Innovation Management Academy, April 2017

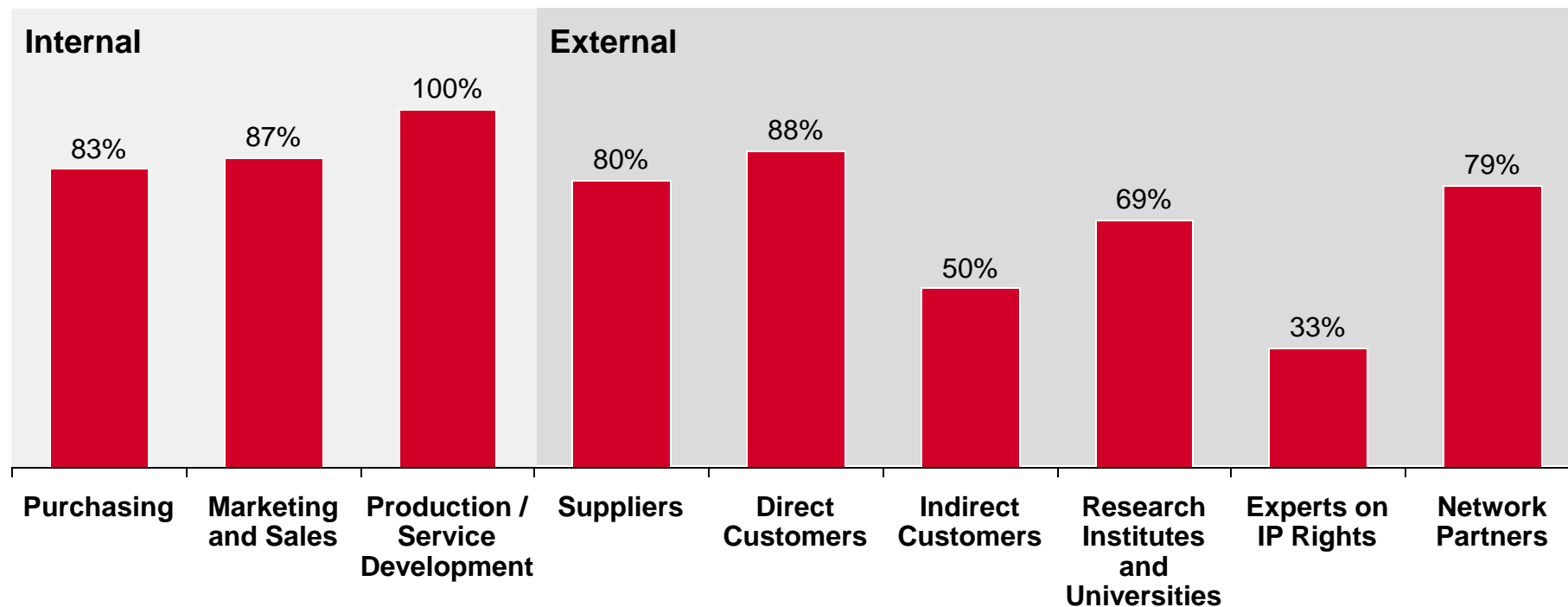
www.improve-innovation.eu; IMP³rove is a registered trademark



Vest (N=17, Romania)

External cooperation

Involvement of the respective group¹



1. Share of companies with a score >1 for the Question: How regularly do you involve the following groups in generating new ideas and collect suggestions for improvements? From 1 (Not at all) to 7 (Highly regularly). Note: Companies that didn't answer sub-questions adequate (inserted 0) were excluded.

Source: IMP³rove – European Innovation Management Academy, April 2017

www.improve-innovation.eu; IMP³rove is a registered trademark

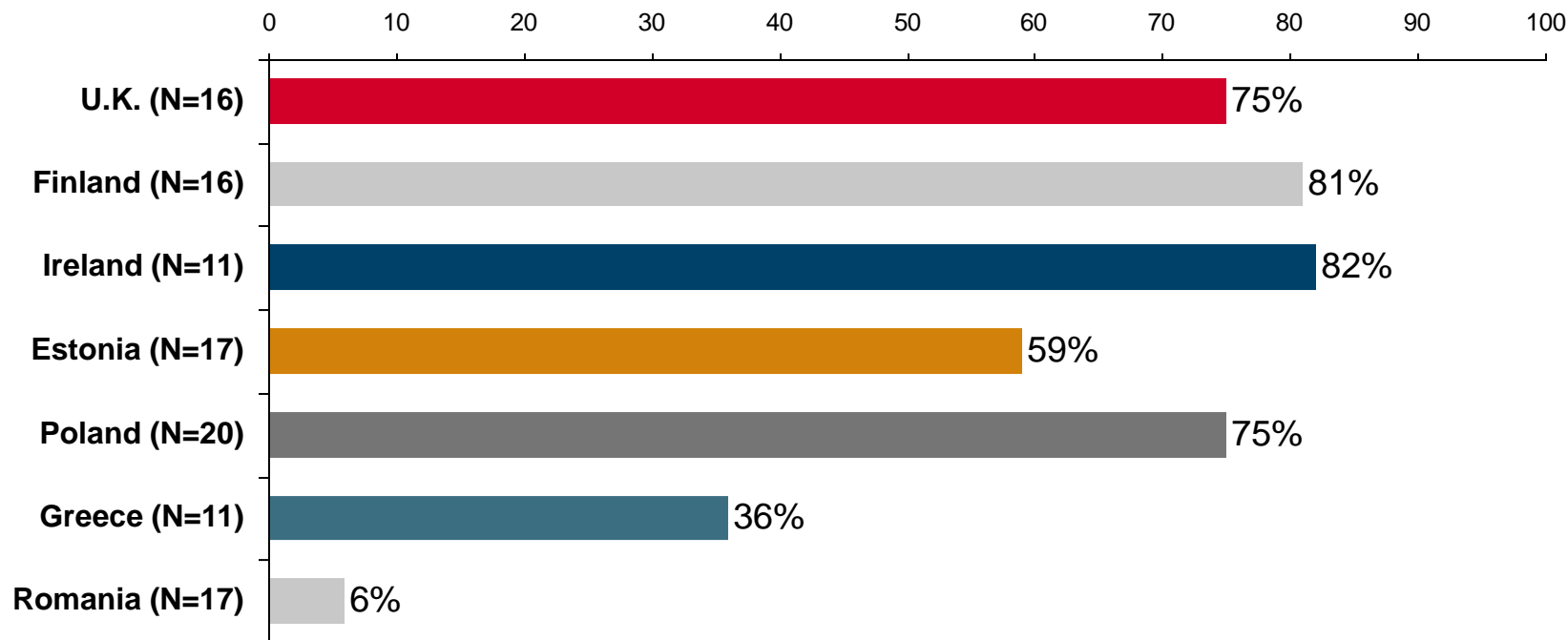


Innovation Life-Cycle Management

The vast majority of the companies analyzed has no structured and formal way of producing ideas

Systematic idea generation

Share of companies that have *no* structured and formalized ideation process¹



1. Answered that "Ideas are not generated and recorded in a structured and formalised way"

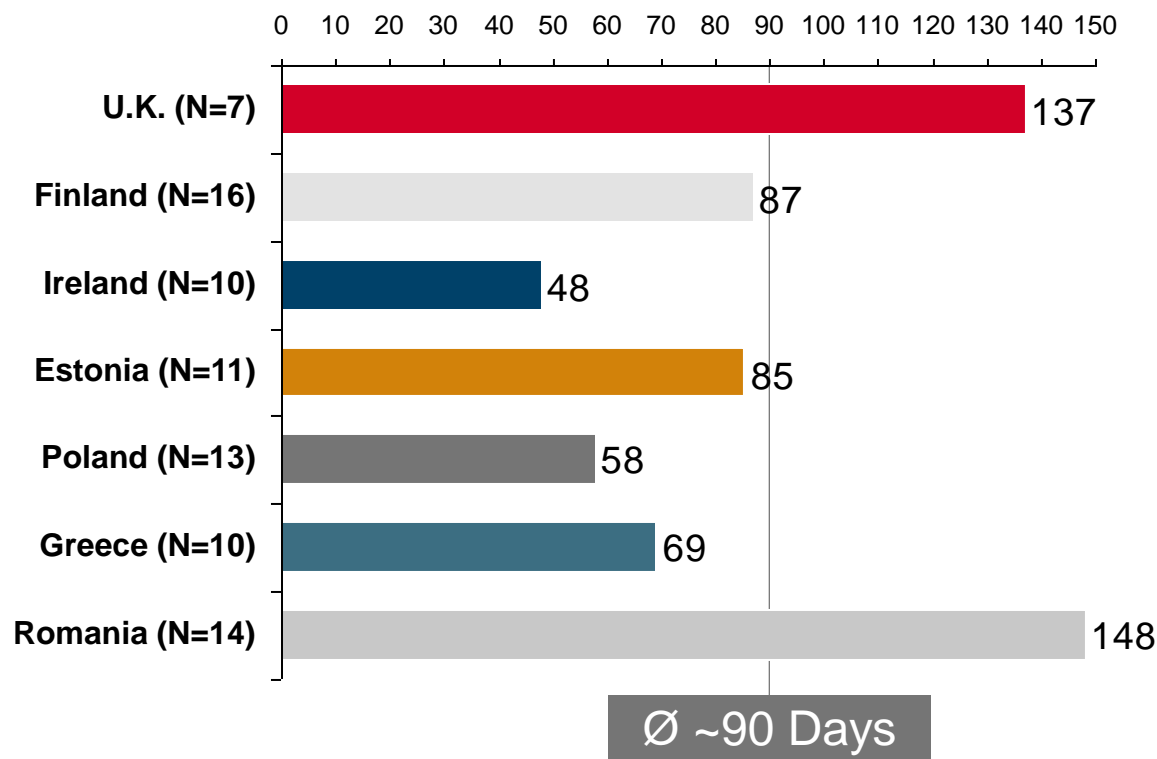
Source: IMP³rove – European Innovation Management Academy, April 2017

www.improve-innovation.eu; IMP³rove is a registered trademark

Moreover, many firm have no proper system to select promising ideas fast and turn them into innovation projects

Idea management cycle time

Average days it take for the most promising ideas to be selected and to get to the development phase



Companies that don't record, assess and select ideas and suggestions

56.3%	N=9
0%	-
9.1%	N=1
35.3%	N=6
35.0%	N=7
9.1%	N=1
17.6%	N=3

Note: Sample is smaller due to cases that don't record, assess and select ideas and suggestions.

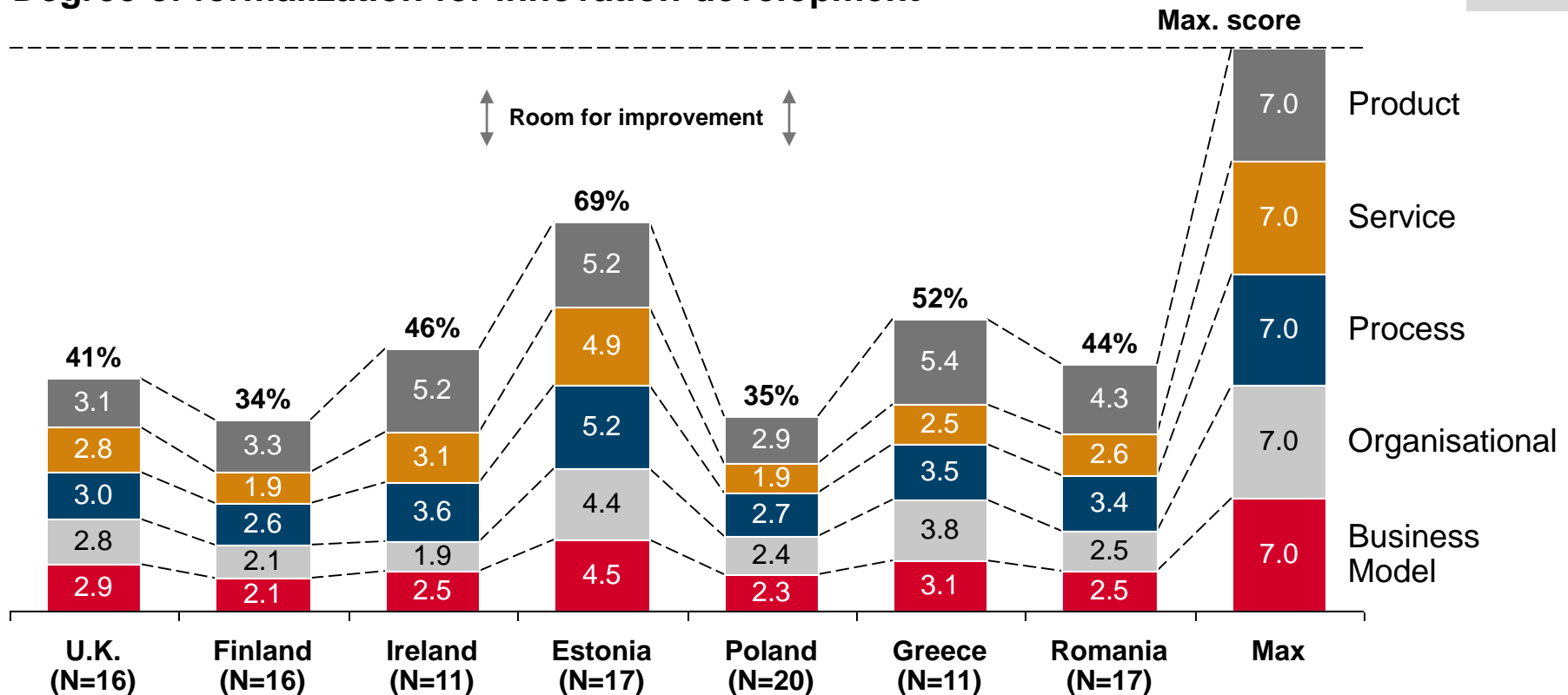
Source: IMP³rove – European Innovation Management Academy, April 2017

www.improve-innovation.eu; IMP³rove is a registered trademark

In line, there is room for improvement with respect to formalizing especially non-product development processes

Development process – Per innovation type

Degree of formalization for innovation development¹



1. Q: To what degree do you have a formal process in place for product, service, process, organizational or business model development? From 1 (Not at all) to 7 (Success fully in place).

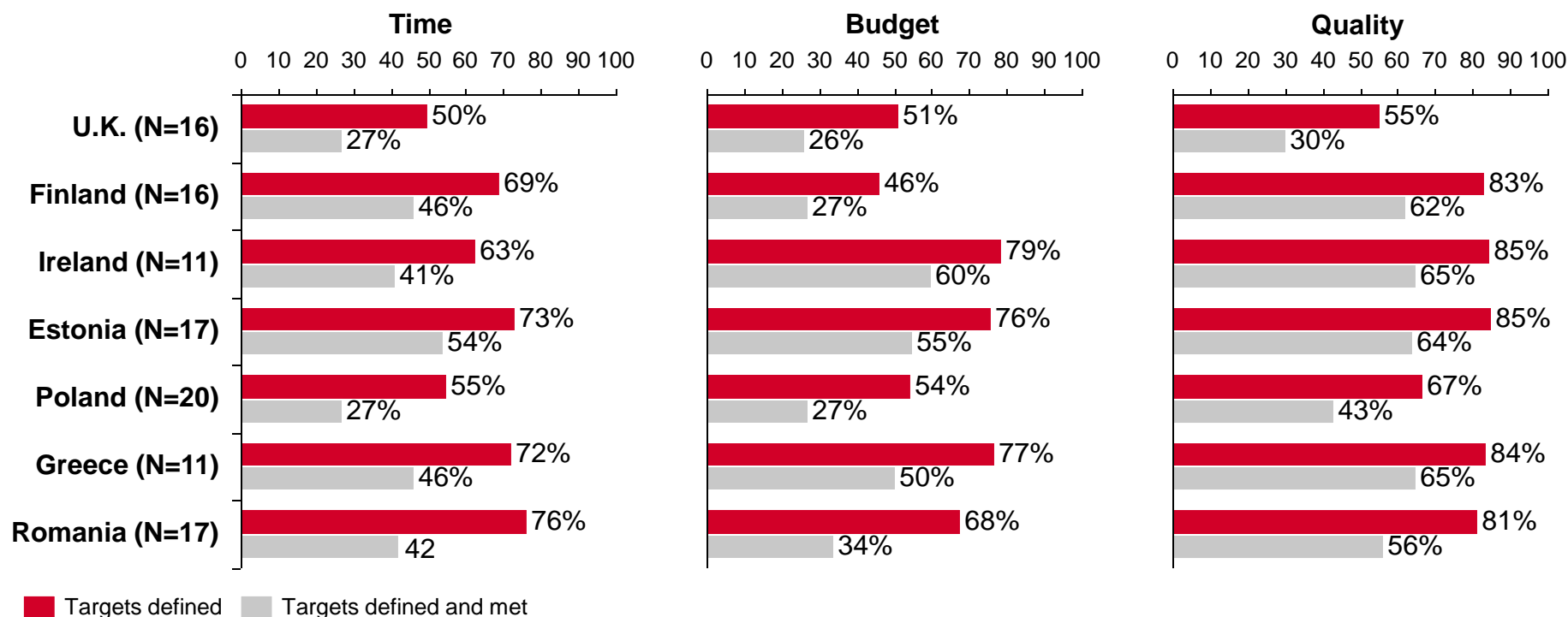
Source: IMP3rove – European Innovation Management Academy, April 2017

www.improve-innovation.eu; IMP3rove is a registered trademark

With respect to projects targets, the analyzed companies seem to focus predominantly on quality

Project targets

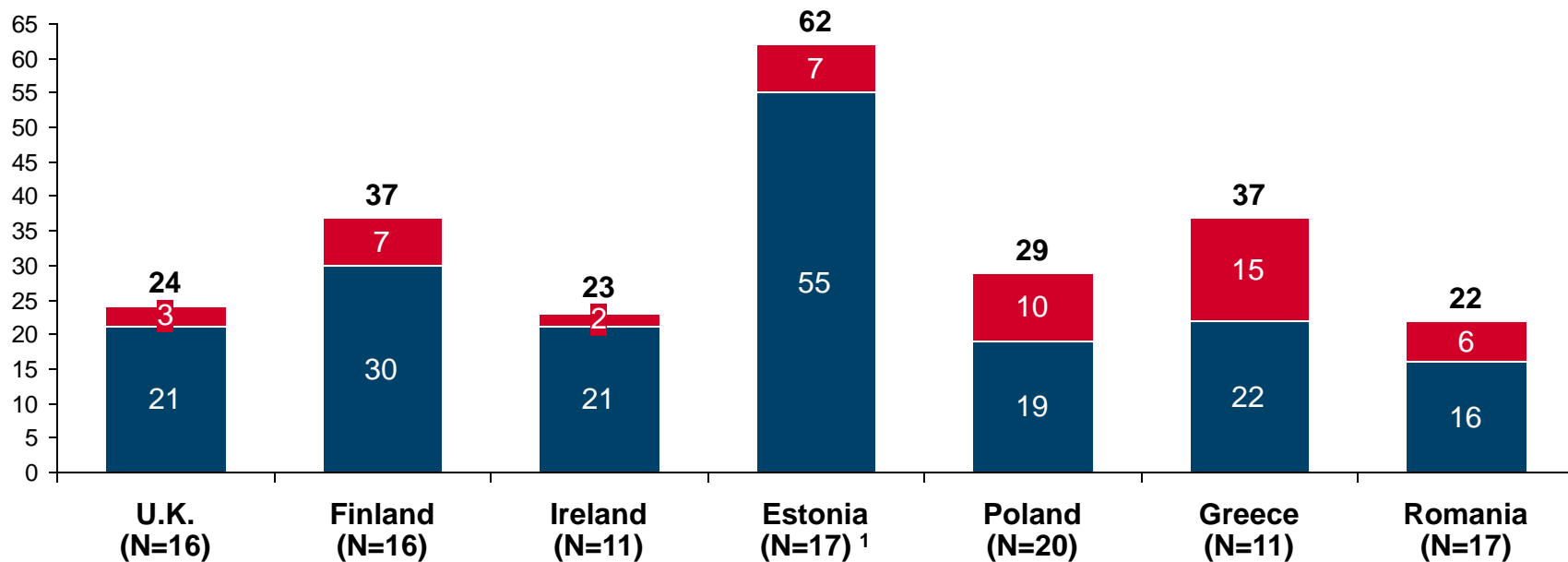
For innovation projects in the last 3 years, what percentage had targets defined? How many met these targets?¹



1. Share of projects where targets were defined and met in %
Source IMP3rove – European Innovation Management Academy, April 2017
www.improve-innovation.eu; IMP3rove is a registered trademark

The focus on quality is also reflected in the project success rate, which is comparably high for most firms analyzed

Average number and success rate of radical and incremental innovation projects started within the last 4 years



Average Success-rate

	U.K. (N=16)	Finland (N=16)	Ireland (N=11)	Estonia (N=17)¹	Poland (N=20)	Greece (N=11)	Romania (N=17)
Radical	95.8%	76.7%	97.1%	87.1%	78.1%	78.6%	89.5%
Incr.	93.7%	85.0%	87.9%	82.0%	72.2%	76.8%	83.3%

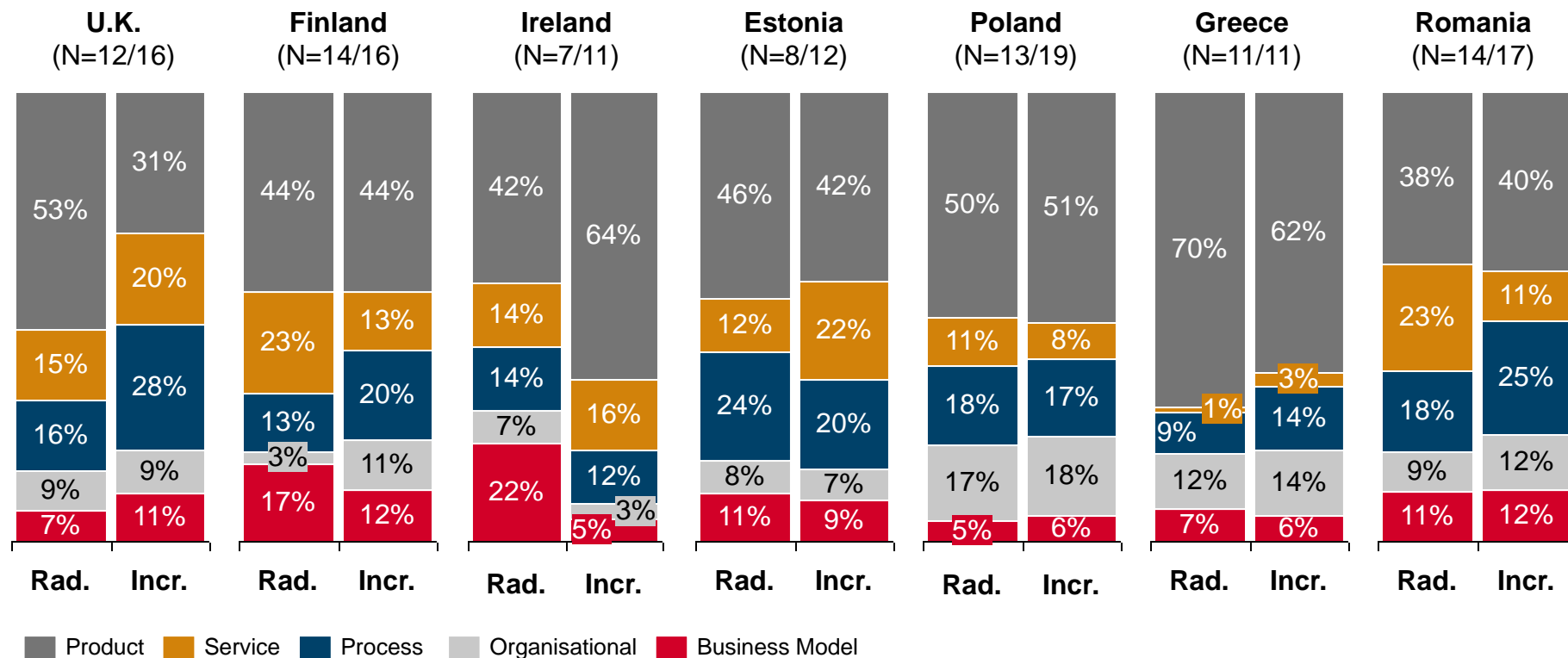
1. One outlier with 1000/1000 projects was excluded

Source: IMP³rove – European Innovation Management Academy, April 2017

www.improve-innovation.eu; IMP³rove is a registered trademark

The project portfolio of the firms in the sample is comparable across regions with a focus on product innovations

Innovation portfolio comprising projects started within the last 4 years



Note: N is smaller due to companies that have not started any innovation project

Source: IMP3rove – European Innovation Management Academy, April 2017

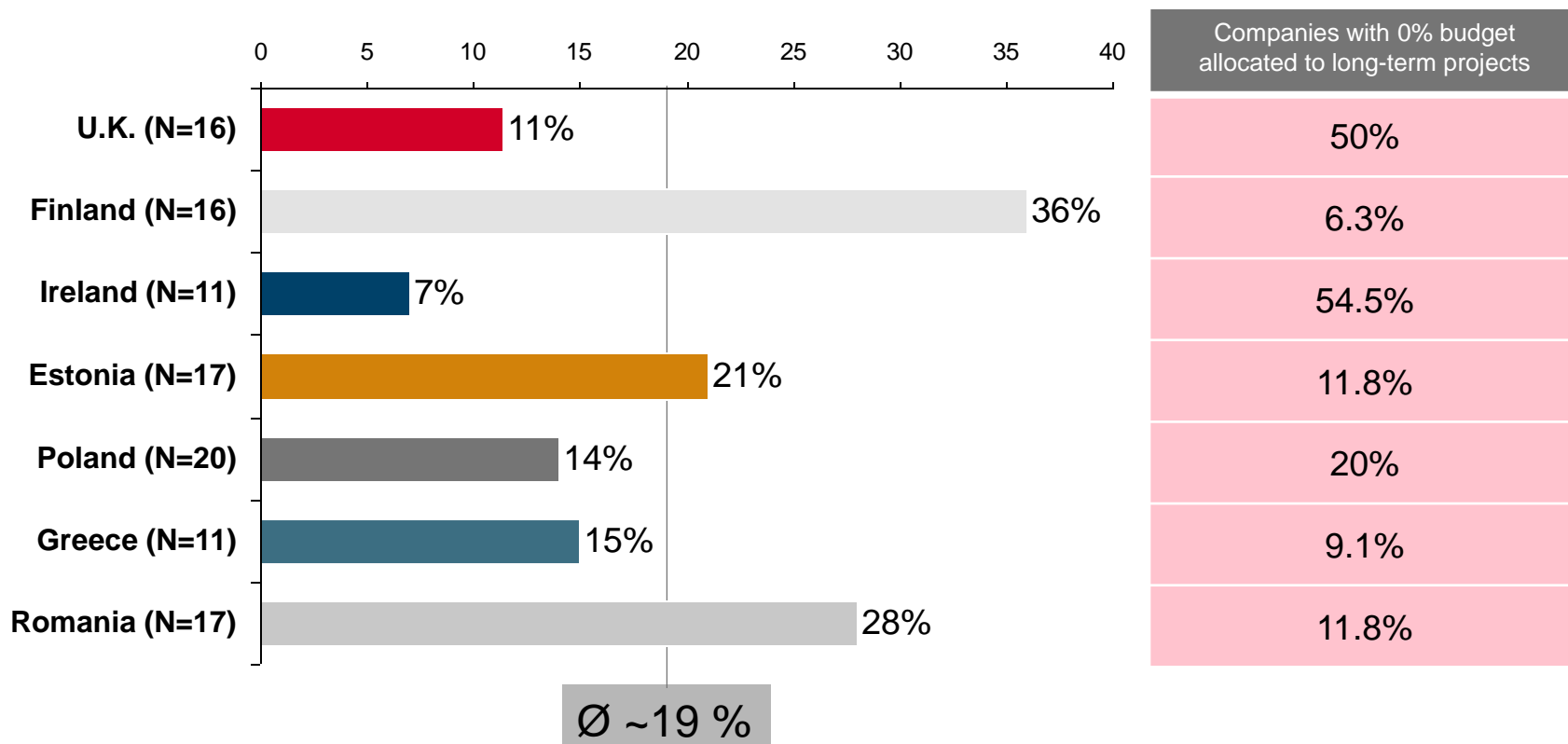
www.improve-innovation.eu; IMP3rove is a registered trademark



Innovation-Enabling Factors

A significant proportion of the firms analyzed has a rather short-term focus when investing in innovation

Percentage of budget set aside for long-term projects¹



1. Long-term means with a timeframe longer than the usual time-to-profit for the industry

Source: IMP³rove – European Innovation Management Academy, April 2017








www.improve-innovation.eu; IMP³rove is a registered trademark

Besides recognition, money is the main incentive firms in the sample offer to foster innovation

Incentives and rewards (1/2)

Share of companies offering incentives for innovation to their staff¹



Country	Resource-related			Acknowledgement-related		Share of companies with no incentives
	Money	Admin. Support	Facilities	Recognition	Award	
 U.K. (N=16)	29%	14%	14%	29%	0%	56%
 Finland (N=16)	27%	13%	73%	100%	20%	6%
 Ireland (N=11)	18%	18%	55%	91%	0%	0%
 Estonia (N=17)	80%	33%	20%	73%	20%	12%
 Poland (N=20)	80%	13%	33%	73%	20%	25%
 Greece (N=11)	50%	30%	80%	80%	30%	9%
 Romania (N=17)	75%	13%	63%	56%	6%	6%

1. Q: Do you offer any incentives to your staff with regards to innovation? If yes, which of the following do you offer?

Source: IMP³rove – European Innovation Management Academy, April 2017

www.improve-innovation.eu; IMP³rove is a registered trademark

In addition, some great examples of individual rewards could be found especially in Romania and Finland

Incentives and rewards (2/2)

Incentives and rewards found under “others”¹

Possibility to travel
on innovation
matters



Ability to meet the
top professionals in
the world



Monthly get-together
& idea contest



Competition
among staff



Funding PhD
projects of
employees



Providing education
and development of
skills



Gifts and personal
development



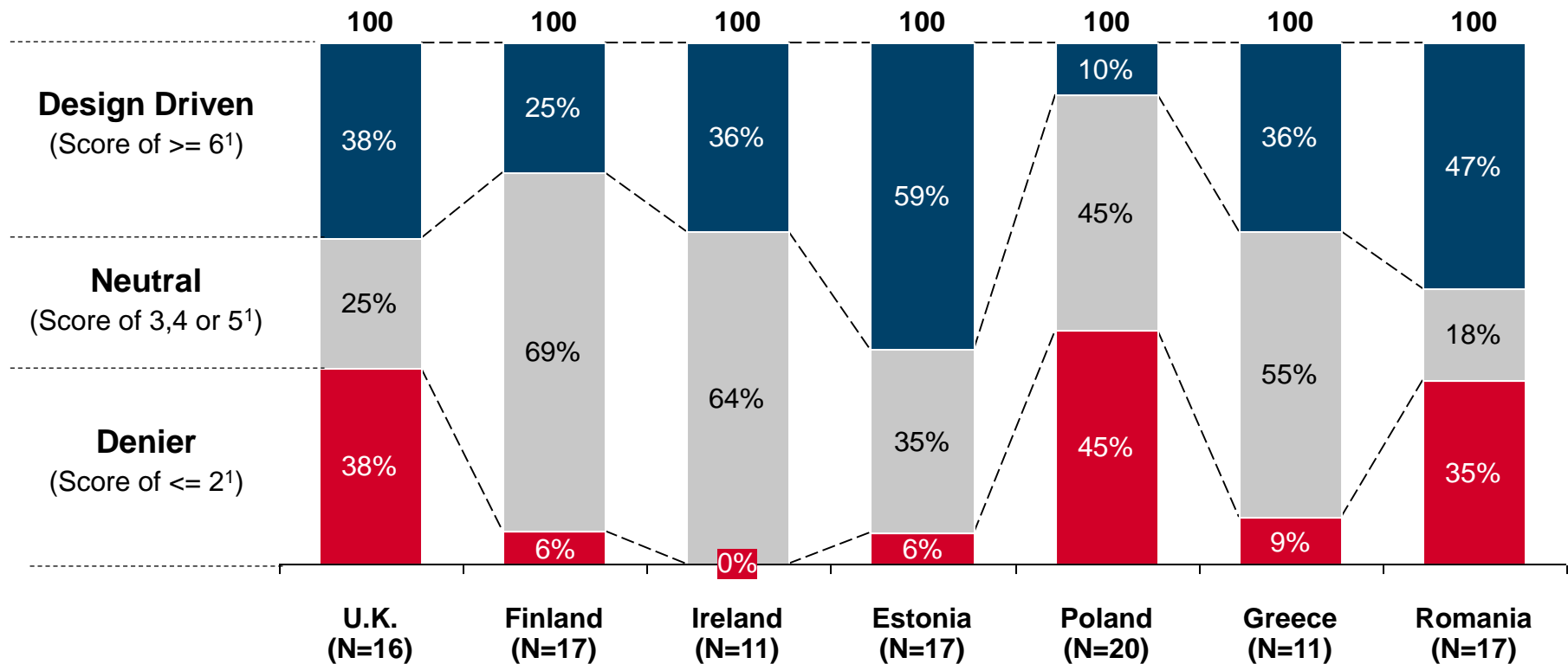
1. Q: Do you offer any incentives to your staff with regards to innovation? If yes, which of the following do you offer?

Source: IMP³rove – European Innovation Management Academy, April 2017

www.improve-innovation.eu; IMP³rove is a registered trademark

A large share of the companies analyzed already rely on design principles as a lever for innovation...

Design and design management as a lever for innovation



1. Q: Do you rely on design and design management as lever for innovation? From 1 (Not at all) to 7 (To a very high extend)

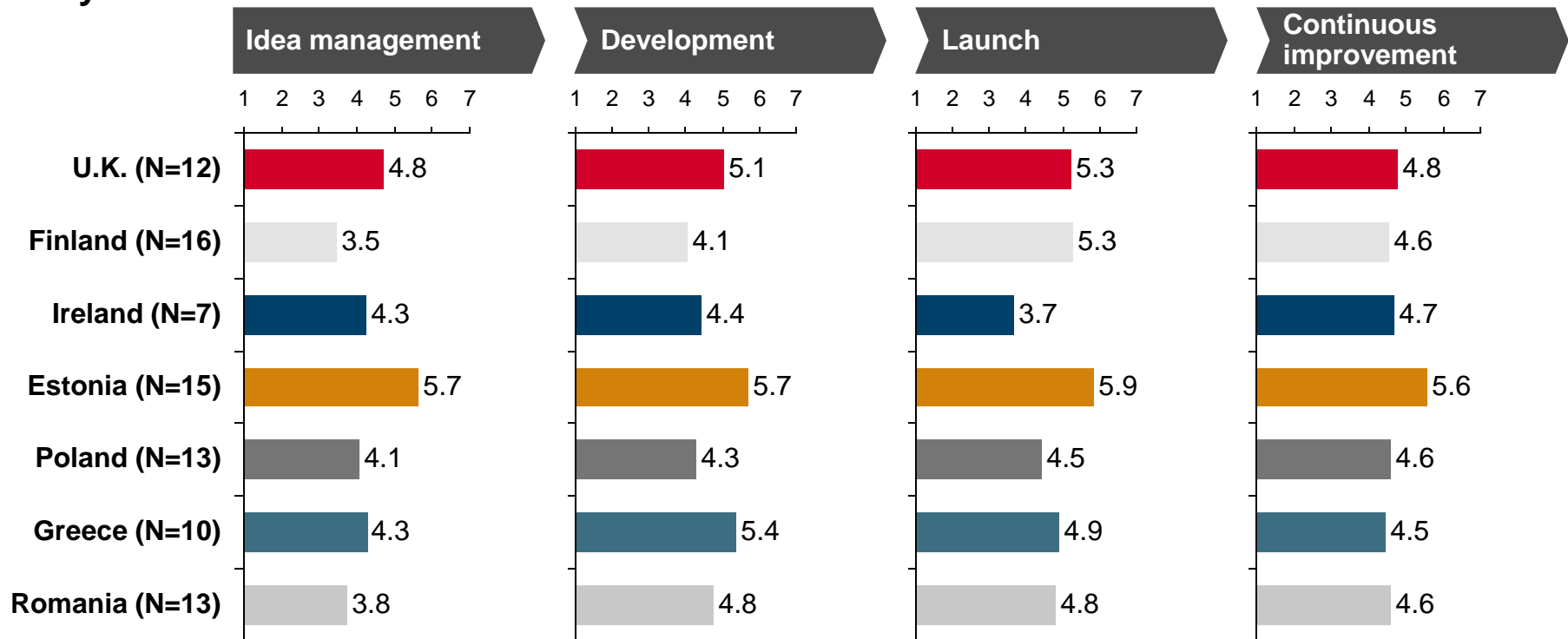
Source: IMP³rove – European Innovation Management Academy, April 2017

www.improve-innovation.eu; IMP³rove is a registered trademark

...and assess an impact of design on the different phases of the innovation life cycle

Impact of design management on innovation management

Average contribution of design to different phases of the innovation life cycle¹



Note: N is smaller as not all companies answered the questions properly (inserted 0)

1. Q: Over the last 3 years, to what extent has design contributed to your innovation management in the following way? From 1 (Not at all) to 7 (To a very high extend).

Source: IMP3rove – European Innovation Management Academy, April 2017

www.improve-innovation.eu; IMP3rove is a registered trademark

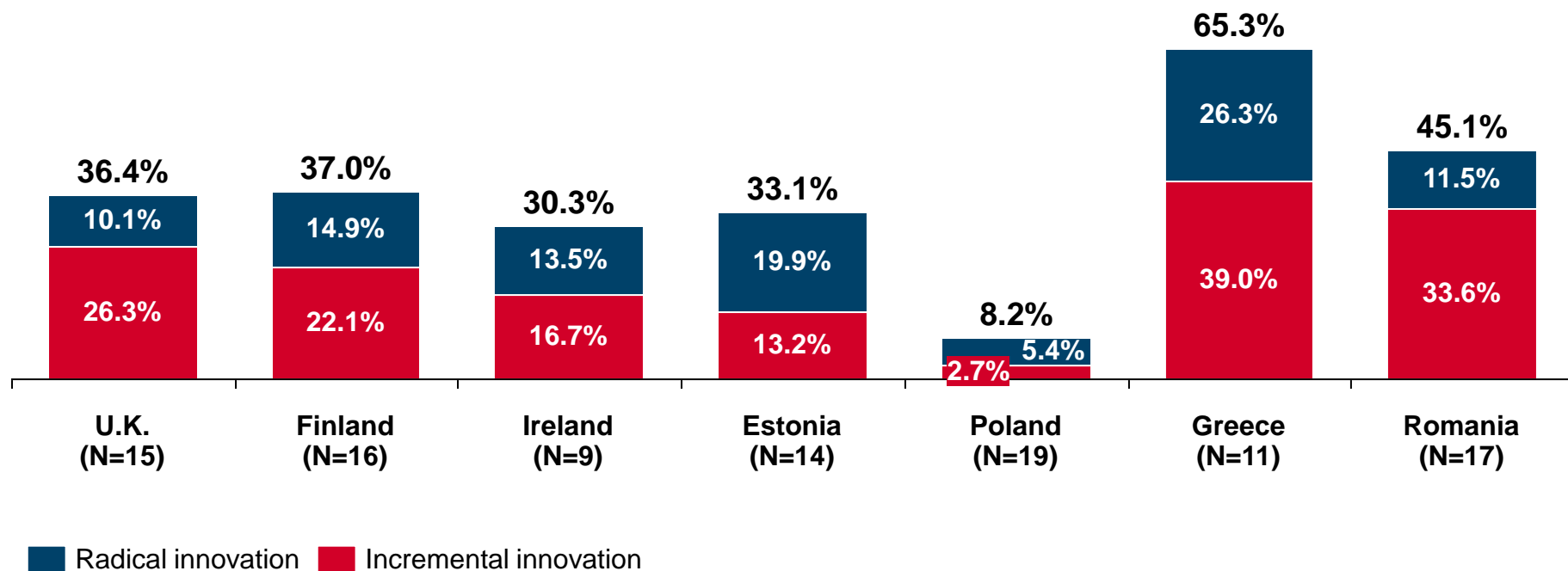


Innovation Results

The companies analyzed have a comparably high share of sales from innovation except for the firms from Poland

Sales from Innovation

Average share of sales from innovation over the last four years



Note: N is smaller due to companies that have generated no sales from innovation

Source: IMP³rove – European Innovation Management Academy, April 2017








www.improve-innovation.eu; IMP³rove is a registered trademark

However, firm's average profit shares and margins from innovation are comparably low across the 7 regions

Innovation profit

Exposition of the Inno-EBIT-Margin with additional performance indicators



Country	Average % of EBIT from Innovation per Year ¹	Average Innovation-EBIT-Margin ²	<div> <div></div> Leggards (IEM <0%) <div></div> Midfield (IEM 0-5%) <div></div> Leader (IEM >5%) </div>
 U.K. (N=16)	20.8%	7.52%	<div> <div></div> 66.7% <div></div> 37.5% </div>
 Finland (N=16)	26.3%	4.80%	<div> <div></div> 6.3% <div></div> 73.3% <div></div> 25.0% </div>
 Ireland (N=11)	11.2%	2.83%	<div> <div></div> 81.8% <div></div> 18.2% </div>
 Estonia (N=17)	11.1%	1.70%	<div> <div></div> 88.2% <div></div> 11.8% </div>
 Poland (N=20)	11.1%	3.72%	<div> <div></div> 5.0% <div></div> 75.0% <div></div> 20.0% </div>
 Greece (N=11)	19.2%	7.54%	<div> <div></div> 63.6% <div></div> 36.4% </div>
 Romania (N=16) ³	17.0%	3.06%	<div> <div></div> 18.8% <div></div> 68.8% <div></div> 12.5% </div>

1. Over the last four years 2. Innovation-EBIT-Margin = (EBIT from Sales * Share of EBIT from innovation) / Income from sales

3. One Outlier with -176% was excluded

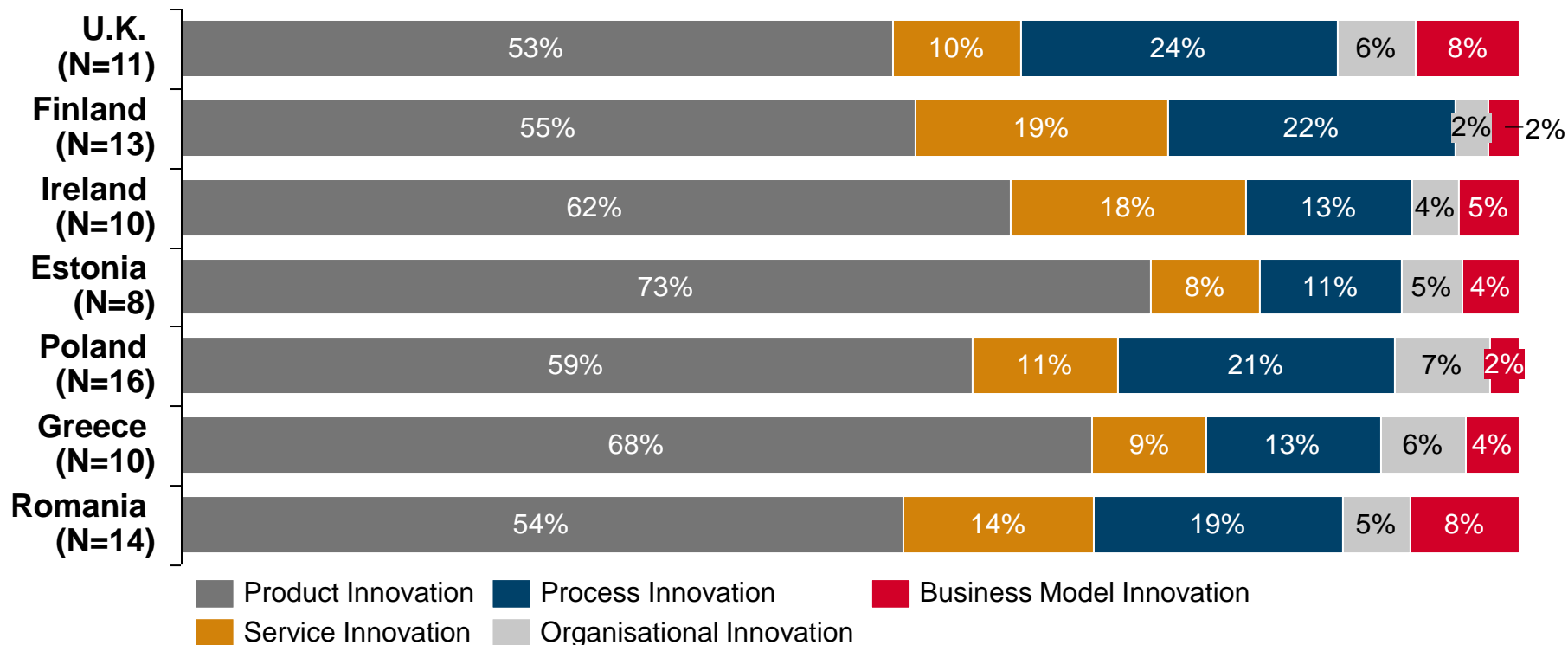
Source: IMP³rove – European Innovation Management Academy, April 2017

www.improve-innovation.eu; IMP³rove is a registered trademark

For the firms across regions, most of the EBIT generated with innovation comes from product innovation

Composition of EBIT from Innovation

Last year's operational profits from innovation projects distribution across different types of innovation



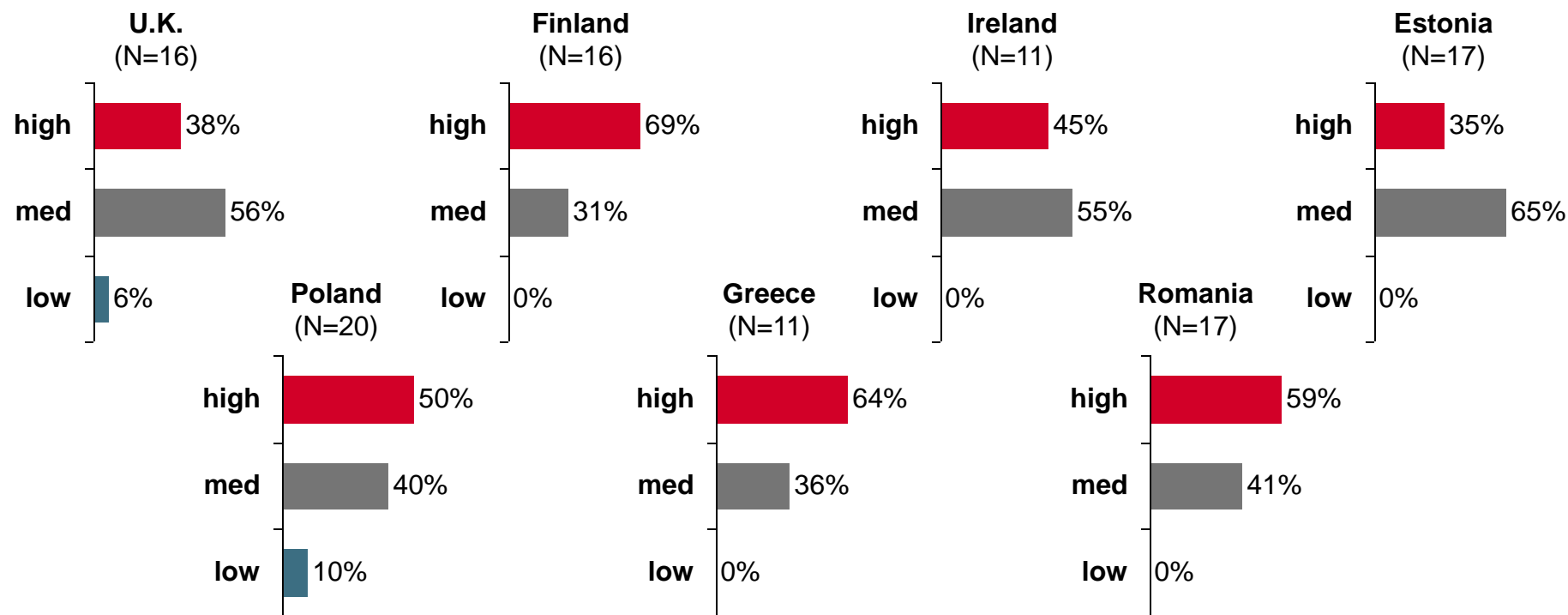


Outlook

For the future, nearly all companies see a medium to high potential to further improve their innovation management

Outlook

Potential to improve the current innovation management performance¹ (Share of companies)



1. High = 6 or 7, med = 3-5, low = 1 or 2; rated from 1 (not at all) to 7 (very much) for the Question: By how much can you improve your current innovation management performance?

Source: IMP³rove – European Innovation Management Academy, April 2017

www.improve-innovation.eu; IMP³rove is a registered trademark

We are looking forward to hearing from you

Dr. Eva Diedrichs
Dr. Nils Dülfer
Marius Müller
Carina Pietsch

IMP³rove –
European Innovation Management
Academy EWIV

Dreischeibenhaus 1
D-40211 Düsseldorf

Tel: +49 (0)211 1377 0
Fax: +49 (0)211 1377 2999
info@improve-innovation.com
www.improve-innovation.eu



IMP³rove

academy