THE GLOBAL STANDARD
FOR LIVESTOCK DATA

Network. Guidelines. Certification.

Future ICAR, Phase II

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Introduction

In 2014 the ICAR Board decided to implement the recommendation of the Working Group Future ICAR:

1. Main priorities for immediate future of ICAR are: promotion & visibility, growth, and creation of an effective organisation for the future.
2. The roles of ICAR Board, Service ICAR Board and ICAR Chief Executive are as identified by the Future ICAR strategy group (refer to workbook ICAR Business Processes v7).
3. Establish routine and regular Board meetings for Service ICAR independently of the ICAR Board meetings.
4. Develop a strong, effective and efficient ICAR Executive Team under leadership of ICAR Chief Executive reporting to ICAR Board and Board of Service ICAR.
5. Appoint directors to the Board of Service ICAR with experience, knowledge and enthusiasm for the services being provided through Service ICAR.
6. Create position of ICAR Chief Executive with role as defined, to replace role of Secretary General (refer to workbook ICAR Business Processes v7, and draft Job Description v5). Recruit and appoint suitable person to position of ICAR Chief Executive.
7. ICAR Executive Team to review business processes in order to efficiently deliver on ICAR strategy and to operate according to world-best practice while effectively exploiting technology developments.

These recommendations have been implemented successfully.

Introduction

The ICAR Board wants to execute the next phase, which is to settle ICAR and Service ICAR in a country to stimulate a next phase of progress and growth.

There are a number of reasons to move away from Italy:

1. Italian law. This is complex and not easy to follow, for a part due to the fact that all documents have to be in Italian language
2. Bureaucracy and related hurdles to do easy business
3. Relatively high taxes for companies
4. Politic atmosphere which is not Pro EU
5. Italy is not international oriented and the economy is not open

ICAR Board decided to execute this project, which we will call 'Future ICAR phase II'. The assignment for this project is:

- Set up criteria to select the country for the juridical and physical location of ICAR and Service ICAR;
- Present a top 3 list of potential countries
- Make a recommendation to the ICAR Board

This report presents the results.

The future ICAR office

The main question is: what type of work are ICAR employees supposed to do in future?

Most important is that ICAR is leading in setting the guidelines and in certification of recording processes. This will require a staff of young scientists with focus on data analysis to support working groups and to develop new guidelines and administrators to safeguard certification processes.

We expect also that IT and finances should be outsourced as much as possible.

Thus the future ICAR office would consist of a CE, an administrator and 3 – 4 good data scientists. The future ICAR office will have close ties with research stations in animal data collection and data processing.

Criteria

The possible criteria for ranking of most suitable country are:

- It must be a EU nation. This is because the EU s still one of the largest area’s for animal production and moreover Interbull is the official EU reference center for animal evaluations. In addition the Euro is a strong currency. Finally the ICAR founding members are European.
- The Infrastructure to travel to ICAR office and to organize meetings
- Infrastructure for IT (fast Internet connections) must be top
- Education and training of people should be high. English language must be no problem
- The Labor market efficiency, which is flexibility and efficiency and labor law
- Business sophistication and innovation
- Corporate Tax for ICAR and for Service ICAR
- Attractiveness for young people
- Low corruption rate
- Office must be located independently, i.e. not housed in a member’s office

Short list of countries

There has been a number of studies on the competitiveness ranking of countries:

- https://www.weforum.org/reports/the-global-competitiveness-report-2017-2018
- https://www.forbes.com/best-countries-for-business/list/#tab:overall
- https://www.imd.org/wcc/world-competitiveness-center/

The World Economic (WE) Forum is the International Organization for Public-Private Cooperation.

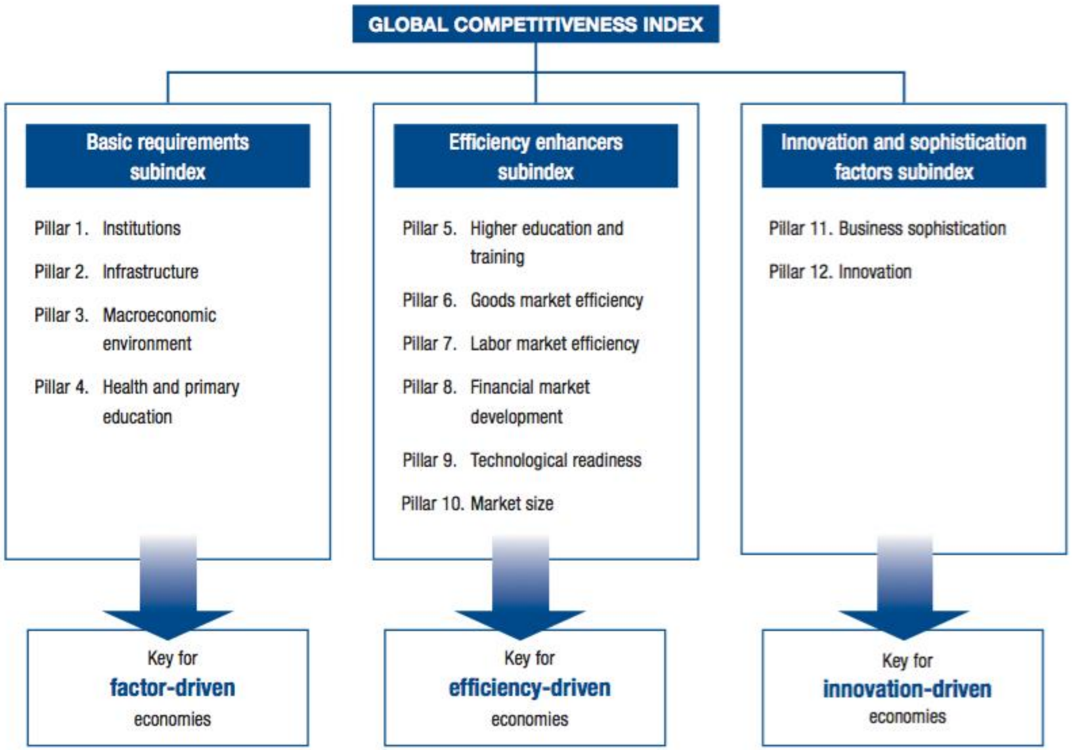
The Forum engages the foremost political, business and other leaders of society to shape global, regional and industry agendas.

It was established in 1971 as a not-for-profit foundation and is headquartered in Geneva, Switzerland. It is independent, impartial and not tied to any special interests. The Forum strives in all its efforts to demonstrate entrepreneurship in the global public interest while upholding the highest standards of governance. Moral and intellectual integrity is at the heart of everything it does.

World Economic Forum

The WE uses the Global Competitive Index (GCI) for ranking of countries. It is developed since 2005 and combines 114 indicators to 12 pillars, which are combined again to subindices and finally to the GCI. This is show in next diagram:

Figure 1: The Global Competitiveness Index framework



World Economic Forum

The 2017-2018 world wide top 25 ranking is shown in next table.

Table 1: The Global Competitiveness Index 2017–2018

	OVERALL INDEX		SUBINDEXES: Basic requirements		SUBINDEXES: Efficiency enhancers		SUBINDEXES: Innovation and sophistication factors	
Economy	Rank	Score	Rank	Score	Rank	Score	Rank	Score
Switzerland	1	5.86	1	6.39	3	5.65	1	5.86
United States	2	5.85	25	5.54	1	6.01	2	5.80
Singapore	3	5.71	2	6.34	2	5.72	12	5.25
Netherlands	4	5.66	4	6.24	8	5.46	4	5.62
Germany	5	5.65	11	5.97	6	5.53	3	5.65
Hong Kong SAR	6	5.53	3	6.26	4	5.58	18	4.96
Sweden	7	5.52	8	6.00	12	5.30	5	5.57
United Kingdom	8	5.51	23	5.65	5	5.55	9	5.34
Japan	9	5.49	21	5.66	10	5.39	6	5.55
Finland	10	5.49	9	5.98	11	5.30	8	5.48
Norway	11	5.40	6	6.02	14	5.29	13	5.19
Denmark	12	5.39	13	5.90	15	5.26	11	5.28
New Zealand	13	5.37	5	6.05	9	5.43	25	4.81
Canada	14	5.35	17	5.72	7	5.52	24	4.82
Taiwan, China	15	5.33	15	5.84	16	5.25	15	5.12
Israel	16	5.31	28	5.48	19	5.12	7	5.53
United Arab Emirates	17	5.30	7	6.02	17	5.23	20	4.93
Austria	18	5.25	19	5.70	22	5.03	10	5.30
Luxembourg	19	5.23	10	5.98	23	5.01	16	5.11
Belgium	20	5.23	27	5.48	18	5.15	14	5.18
Australia	21	5.19	18	5.70	13	5.29	27	4.68
France	22	5.18	26	5.54	20	5.10	17	5.07
Malaysia	23	5.17	24	5.55	24	4.94	21	4.91
Ireland	24	5.16	20	5.68	21	5.09	19	4.93
Qatar	25	5.11	12	5.91	25	4.94	22	4.85

IMD

The IMD World Competitiveness Center has been a pioneer in the field of the competitiveness of nations and World Economy Ranking since 1989.

Their mission is: ‘ We are dedicated to the advancement of knowledge on world competitiveness by offering benchmarking services for countries and companies using the latest and most relevant data on the subject.’ For almost 30 years, the IMD World Competitiveness Center has pioneered research on how nations and enterprises compete to lay the foundations for future prosperity.

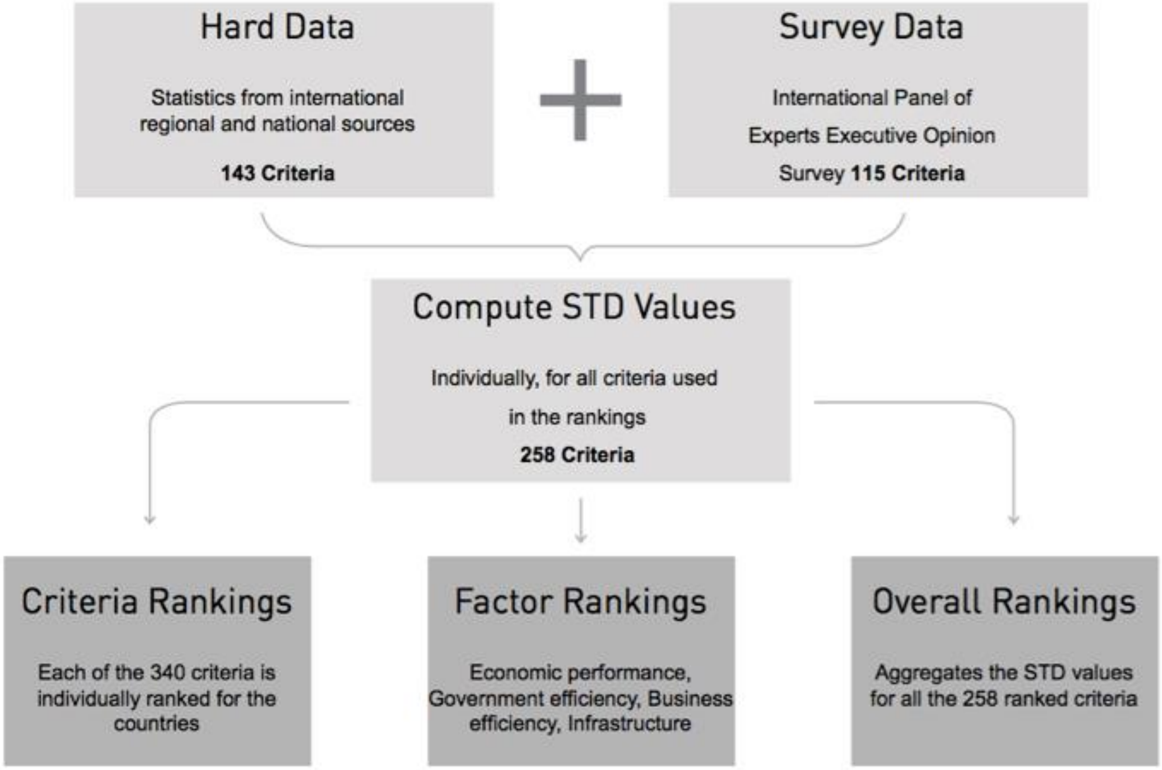
IMD is located in Switserland and Singapore. It cooperates with a network of 55 partner institutes worldwide to provide governments and the business and academic communities with the following services:

- Competitiveness assessment and education
- Workshops/Mega Dives on competitiveness
- Special country/regional competitiveness reports
- World Competitiveness Yearbook and Online

IMD 2018 ranking

The IMD method for ranking countries on competitiveness is outlined in next diagram. Competitiveness is defined by IMD as the extent to which a country is able to foster an environment in which enterprises can generate sustainable value.

Figure 1. Computing the Rankings



IMD 2018 top

IMD | IMD WORLD COMPETITIVENESS CENTER

The 2018 IMD World Competitiveness Ranking Top 15

Economic performance	Government efficiency	Business efficiency	Infrastructure	Country	Overall
1	26	12	1	USA	1
9	1	1	23	Hong Kong SAR	2
7	3	11	8	Singapore	3
6	8	6	9	Netherlands	4
25	2	9	2	Switzerland	5
26	6	3	3	Denmark	6
3	4	2	36	UAE	7
40	5	5	4	Norway	8
24	11	4	5	Sweden	9
13	9	7	7	Canada	10
4	17	8	24	Luxembourg	11
11	13	10	21	Ireland	12
2	46	15	19	China Mainland	13
5	10	13	38	Qatar	14
12	19	19	11	Germany	15

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Forbes

Forbes is the well kown magazine for business. For the list of best countries to do business:

‘ We determined the Best Countries for Business by rating 153 nations on 15 different factors including property rights, innovation, taxes, technology, corruption, freedom (personal, trade and monetary), red tape and investor protection. Each category was equally weighted. We tweaked our methodology this year for the first time in a decade after conversations with multiple site-selection experts. Stock market performance is out, and we added workforce, infrastructure, market size, quality of life and political risk to provide a better gauge of how attractive a country is for capital investment. The data is based on published reports from Freedom House, Heritage Foundation, Property Rights Alliance, United Nations, Transparency International, World Bank Group, Aon, Marsh & McLennan and World Economic Forum (click here for more details on the methodology and the best and worst country on each metric).’

Forbes 2018 top 15 ranking

#1	United Kingdom
#2	New Zealand
#3	Netherlands
#4	Sweden
#5	Canada
#6	Hong Kong
#7	Denmark
#8	Ireland
#9	Singapore
#10	Switzerland
#11	Australia
#12	United States
#13	Germany
#14	Finland
#15	Norway

Short list

For the top 3 list of EU countries eligible for ICAR location, we propose to leave out the UK, as this country is in the Brexit.

In the ranking list of the WE we see more or less 3 groups of EU countries in the top 25, which is: NL and DEU, the Scandinavian countries DK, SWE and FIN and then the group with France, Ireland, Belgium and Austria.

The IMD 2018 list shows NL, DK, SWE and Ireland on resp. rank 4, 6, 9 and 12. Germany and Finland are ranked 15 and 16

The Forbes list ranks NL, SWE, DK and Ireland resp. 4, 5, 7 and 8. Germany and Finland rank 13 and 14.

Interesting are the differences in rank for US, NZ and the UK. This is of course due to different calculation methods in order to rank. Forbes ranks the UK as 1 because of the attractive business climate. “The single biggest issue Britain will face is the frictionless participation in their economy of highly educated global talent. Talent is the key that unlocks innovation, growth, and competitiveness,” says Matthew De Luca, a strategic consultant with Cushman & Wakefield. Forbes: ‘ New Zealand has transformed from an agrarian economy to an industrialized, free market one over the past four decades. The Kiwi nation privatized dozens of industries like airlines, insurance, banking and telecommunications previously controlled by the government. It scores first overall for red tape, corruption and property rights.
Rounding out the top five are the Netherlands, Sweden and Canada.’

Short list

For the short list of 3 countries to we propose:

1. NL, because this country is in all rankings the best EU country
2. SWE, because this country ranks on average the best among the the Scandinavian countries (although differences are small) but moreover Interbull is located in Sweden;
3. Ireland. This country is business friendly, scores well in the different rankings and is in the group France, Belgium, Austria far out the best.

IMD and WE country reports are given for NL, SWE and IRL in the last slides.

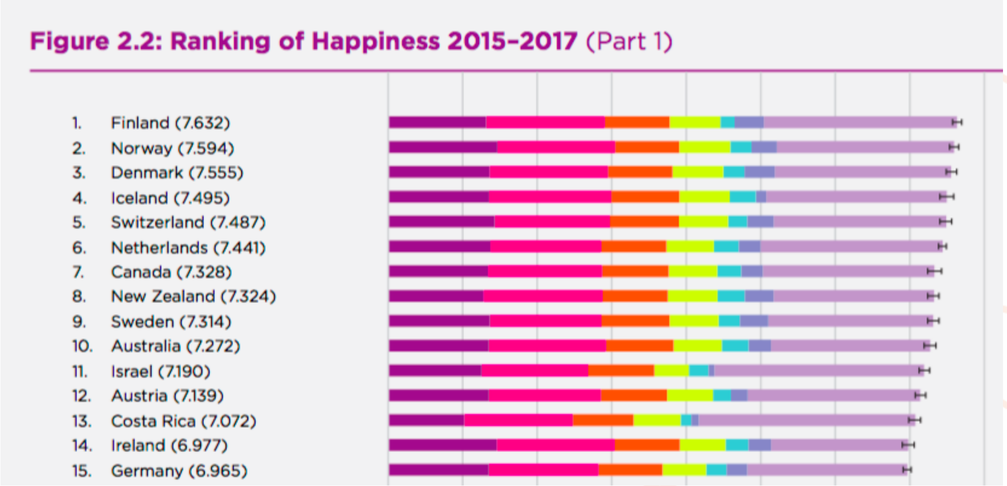
Recommendation

For the final recommendation, we matched NL, SWE and Irl with 6 ICAR criteria:

- Infrastructure for travelling
- Infrastructure IT, technological readiness (use of IT in business, high speed internet connections..)
- Labor market efficiency
- Business sophistication and innovation
- Corporate taxes
- Attractiveness for young people

For attractiveness young people, the happiness ranking of countries could be used an indicator. Ranking for happiness 2018 is in next figure and is taken from http://worldhappiness.report/ed/2018/

We scored NL, SWE and Irl as 1, 2 and 3 for attractiveness young people.



Recommendation

Next table is a summary for NL, SWE and Irl for the ICAR criteria. Results were taken from WE and IMD country reports. Corporate and Socials security rate for companies are taken from: https://tradingeconomics.com/country-list/corporate-tax-rate?continent=europe and https://www.belastingdienst.nl/wps/wcm/connect/bldcontentnl/belastingdienst/zakelijk/winst/vennootschapsbelasting/tarieven_vennootschapsbelasting

Table: ranks and % for NL, SWE and Irl for ICAR criteria for location office

	NL	SWE	IRL
Infrastructure for travel (rank WE)	3	19	31
Technological readiness (Infrastructure IT, # users, etc; rank WE)	3	5	18
Labor market efficiency (rank WE)	13	20	21
labor market (rank IMD)	4	17	14
Business sophistication and innovation (rank WE)	4	5	19
Attractiveness young people (rank HW and MB)	*1*	*2*	*3*
Corporate taks (%, tradingeconomics)	*20/25*	*22*	*13*
Social Security Rate for companies (to be paid above employer's wage, % tradingeconomics)	*19*	*31*	*11*

- Corporate taks in NLD: 20% for < 200K, and 25% for above 200K

Recommendation

We propose the ICAR board to elect NL as the country to locate ICAR and Service ICAR offices. The rank of NL is the best. Moreover in this country a number of research project is on going on animal recording and application of smart farming. In addition social security taxes to be paid be companies will be zero if employees are involved in research projects.

For SWE an advantage may be that Interbull is located in SWE and that synergy could be get with ICAR in daily operation. However, Interbull office is not ICAR, but SLU. To get synergy will have a number of obstacles which is hard to manage. Therefore we think this option is not so valid.

Our recommendation to the ICAR board is to:

- Select NL as the country for location of ICAR and Service ICAR
- Find out the best juridical form for ICAR: society or as a coop; and for Service ICAR, which will likely be a company with limited liability
- Find out the best place for location in NL
- Make a proposal to ICAR board for the ICAR office place in NL and the juridical form for ICAR and Service ICAR.

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Thank you

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Appendices

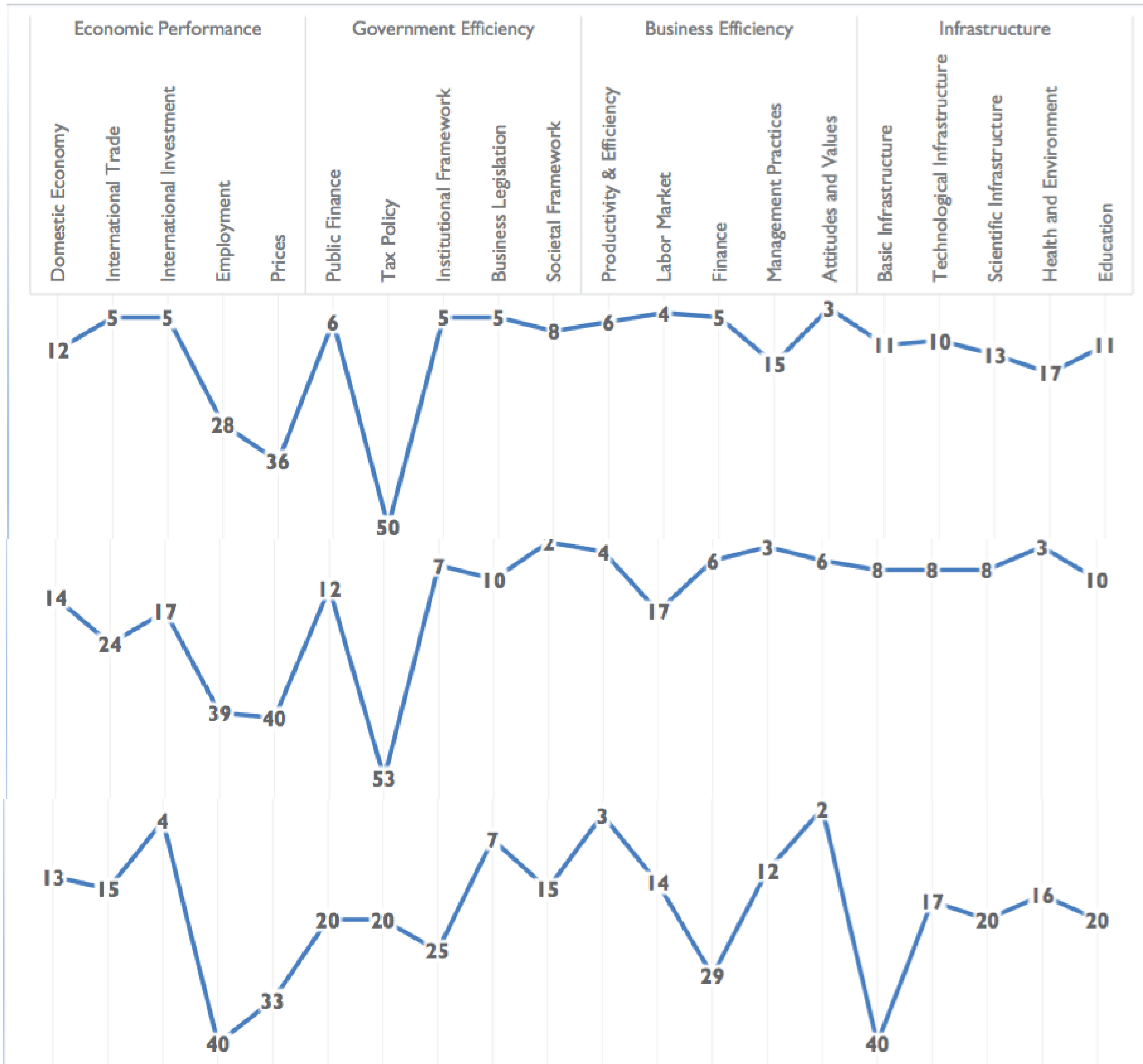
2-11-2018

IMD:

NL

SWE

IRL



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WE, NL

Economy Profiles

Netherlands

4th /137

The Global Competitiveness Index 2017-2018 edition

WORLD ECONOMIC FORUM

Key indicators, 2016

Source: International Monetary Fund; World Economic Outlook Database (April 2017)

Population millions	17.0	**GDP per capita** US$	45,282.6
GDP US$ billions	771.2	**GDP (PPP)** % world GDP	0.73

Performance overview

Index Component	Rank/137	Score (1-7)	Trend	Distance from best
Global Competitiveness Index	4	5.7		
Subindex A: Basic requirements	4	6.2		
1st pillar: Institutions	7	5.8		
2nd pillar: Infrastructure	3	6.4		
3rd pillar: Macroeconomic environment	14	6.1		
4th pillar: Health and primary education	4	6.7		
Subindex B: Efficiency enhancers	8	5.5		
5th pillar: Higher education and training	4	6.1		
6th pillar: Goods market efficiency	5	5.5		
7th pillar: Labor market efficiency	13	5.1		
8th pillar: Financial market development	28	4.6		
9th pillar: Technological readiness	3	6.3		
10th pillar: Market size	23	5.1		
Subindex C: Innovation and sophistication factors	4	5.8		
11th pillar: Business sophistication	4	5.7		
12th pillar: Innovation	6	5.6		

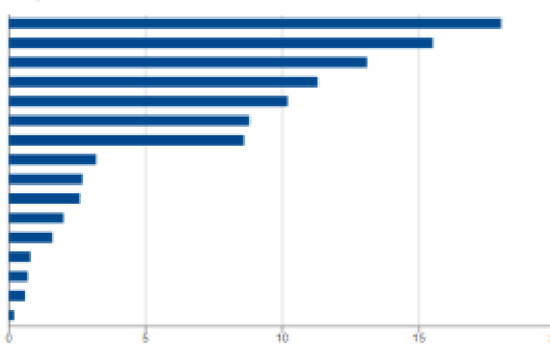
Edition	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Rank	5 / 144	8 / 148	8 / 144	5 / 140	4 / 138	4 / 137
Score	5.5	5.4	5.5	5.5	5.6	5.7

The Netherlands (4th) maintains its position with the support of a strong education system and high levels of tech readiness among businesses and individuals. Its thriving innovation ecosystem, ranked 6th globally, puts the country in an excellent position to shape the unfolding Fourth Industrial Revolution.

Most problematic factors for doing business

Source: World Economic Forum, Executive Opinion Survey 2017

Restrictive labor regulations	18.0
Inefficient government bureaucracy	15.5
Tax rates	13.1
Inadequately educated workforce	11.3
Tax regulations	10.2
Insufficient capacity to innovate	8.8
Access to financing	8.6
Policy instability	3.2
Crime and theft	2.7
Poor work ethic in national labor force	2.6
Inadequate supply of infrastructure	2.0
Government instability/coups	1.6
Foreign currency regulations	0.8
Inflation	0.7
Corruption	0.6
Poor public health	0.2



Note: From the list of factors, respondents to the World Economic Forum's Executive Opinion Survey were asked to select the five most problematic factors for doing business in their country and to rank them between 1 (most problematic) and 5. The score corresponds to the responses weighted according to their rankings.

WE, Irl

Economy Profiles

Ireland

24th / 137

The Global Competitiveness Index 2017-2018 edition

Key indicators, 2016

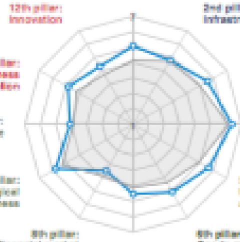
Source: International Monetary Fund; World Economic Outlook Database (April 2017)

Population millions	4.7	**GDP per capita** US$	62,562.3
GDP US$ billions	293.6	**GDP (PPP)** % world GDP	0.27

Performance overview

Index Component	Rank/137	Score (1-7)
Global Competitiveness Index	24	5.2
Subindex A: Basic requirements	20	5.7
1st pillar: Institutions	19	5.3
2nd pillar: Infrastructure	31	5.1
3rd pillar: Macroeconomic environment	24	5.8
4th pillar: Health and primary education	16	6.5
Subindex B: Efficiency enhancers	21	5.1
5th pillar: Higher education and training	10	5.8
6th pillar: Goods market efficiency	8	5.3
7th pillar: Labor market efficiency	21	4.9
8th pillar: Financial market development	69	4.0
9th pillar: Technological readiness	18	6.0
10th pillar: Market size	45	4.5
Subindex C: Innovation and sophistication factors	19	4.9
11th pillar: Business sophistication	19	5.2
12th pillar: Innovation	19	4.7

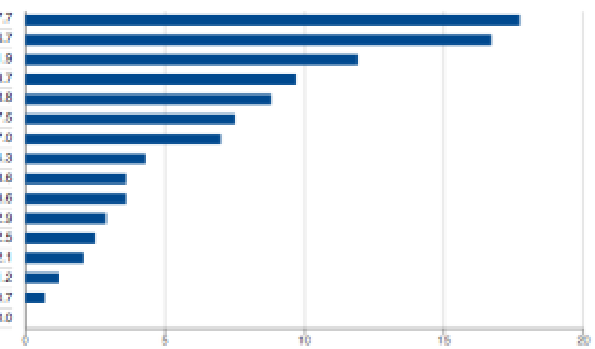
Edition	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Rank	27 / 144	28 / 148	25 / 144	24 / 140	23 / 138	24 / 137
Score	4.9	4.9	5.0	5.1	5.2	5.2



Most problematic factors for doing business

Source: World Economic Forum, Executive Opinion Survey 2017

Inadequate supply of infrastructure	17.7
Tax rates	16.7
Inefficient government bureaucracy	11.9
Access to financing	9.7
Government instability/coups	8.8
Insufficient capacity to innovate	7.5
Restrictive labor regulations	7.0
Policy instability	4.3
Tax regulations	3.6
Inadequately educated workforce	3.6
Poor public health	2.9
Foreign currency regulations	2.5
Inflation	2.1
Poor work ethic in national labor force	1.2
Crime and theft	0.7
Corruption	0.0



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WE, SWE

Economy Profiles

Sweden

7th / 137

on.

The Global Competitiveness Index 2017-2018 edition

Key indicators, 2016

Source: International Monetary Fund, World Economic Outlook Database (April 2017)

Population millions	10.0	**GDP per capita** US$	51,164.5
GDP US$ billions	511.4	**GDP (PPP)** % world GDP	0.42

Performance overview

Index Component	Rank/137	Score (1-7)
Global Competitiveness Index	7	5.5
Subindex A: Basic requirements	8	6.0
1st pillar: Institutions	11	5.6
2nd pillar: Infrastructure	19	5.6
3rd pillar: Macroeconomic environment	4	6.4
4th pillar: Health and primary education	20	6.4
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Subindex C: Innovation and sophistication factors	5	5.6
11th pillar: Business sophistication	6	5.6
12th pillar: Innovation	7	5.5

Edition	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Rank	4 / 144	6 / 148	10 / 144	9 / 140	6 / 138	7 / 137
Score	5.5	5.5	5.4	5.4	5.5	5.5

Sweden (7th) is overtaken by Hong Kong SAR this year, dropping one spot while retaining its absolute score. The Swedish economy performs best in absolute terms on the set of basic requirements, although the data show a deterioration in the perception of the institutional environment. This is true for both public and private institutions, with the economy dropping seven spots on this set of indicators. Sweden's macroeconomic environment (4th) continues to improve as both the government's budget deficit and debt fell in 2016. Furthermore, the country is well positioned to contribute to and benefit from technological advances, with top 10 ranks for technological readiness, business sophistication, and innovation capacity.

Most problematic factors for doing business

Source: World Economic Forum, Executive Opinion Survey 2017

Tax rates	22.6
Restrictive labor regulations	14.8
Tax regulations	13.4
Inadequately educated workforce	9.3
Inefficient government bureaucracy	6.9
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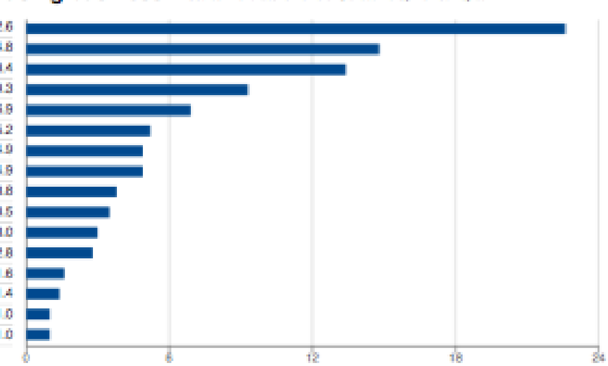
Policy instability	3.0
Inflation	2.8
Corruption	1.6
Crime and theft	1.4
Poor public health	1.0
Foreign currency regulations	1.0



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