

e Work in Europe

The Adaptability of Work Arrangements Index

by

Werner B. Korte



Gesellschaft für Kommunikations-
und Technologieforschung mbH, Bonn (Germany)

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- Telework as Precursor to e-Work
- Dimensions of Change in Work
- Indicators for Measuring Change and Adaptability
- **Results:** Adaptability of Work Arrangements Index (AWAI)
- Conclusions

The Outset

“The EU is to become the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth and **more and better jobs** and **greater social cohesion**”

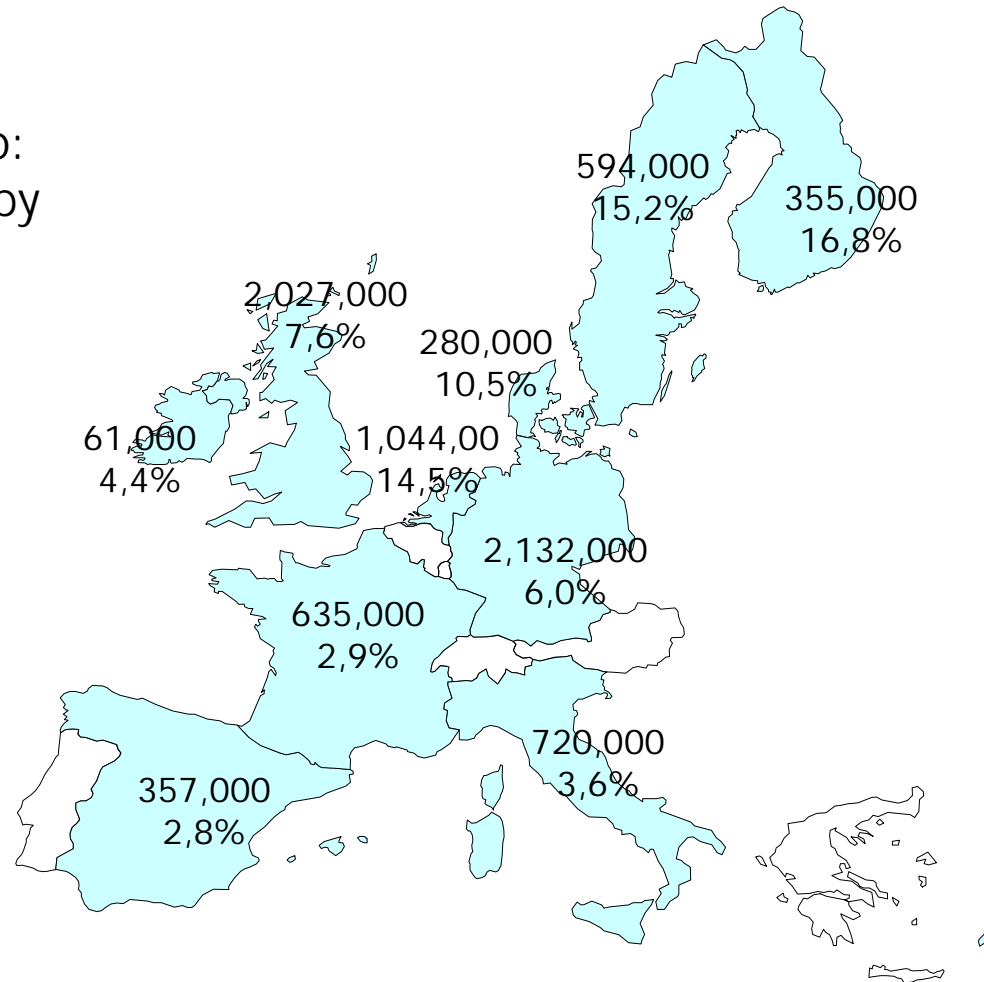
European Commission,
Lisbon European Council,
March 2000

Telework as the Precursor of e-Work

1994:
high level expert group:
10 million teleworkers by
2000

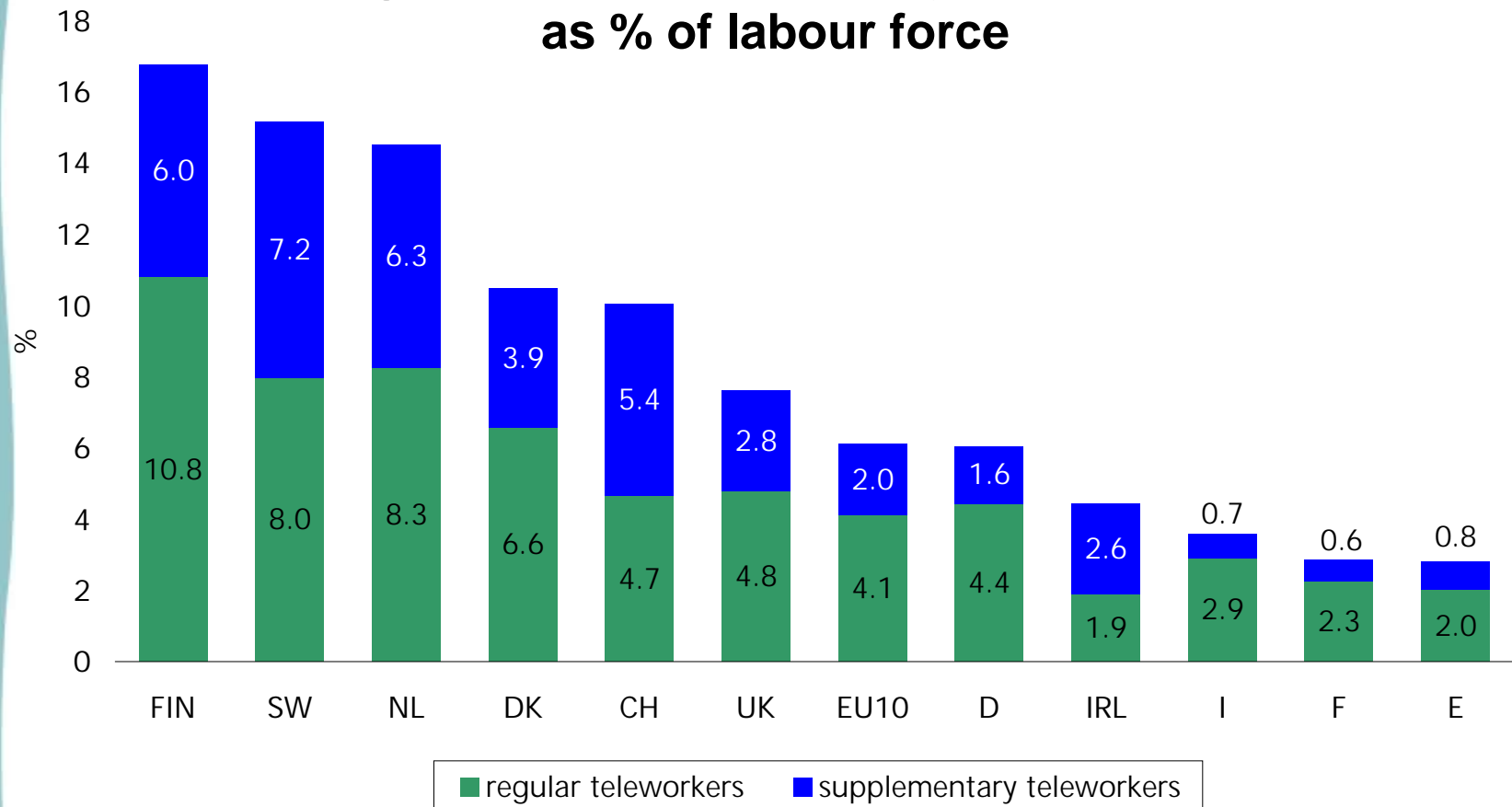
1999:
ECaTT:
9 million Europeans
now teleworking

2000:
ECaTT:
10.5 million European
teleworkers



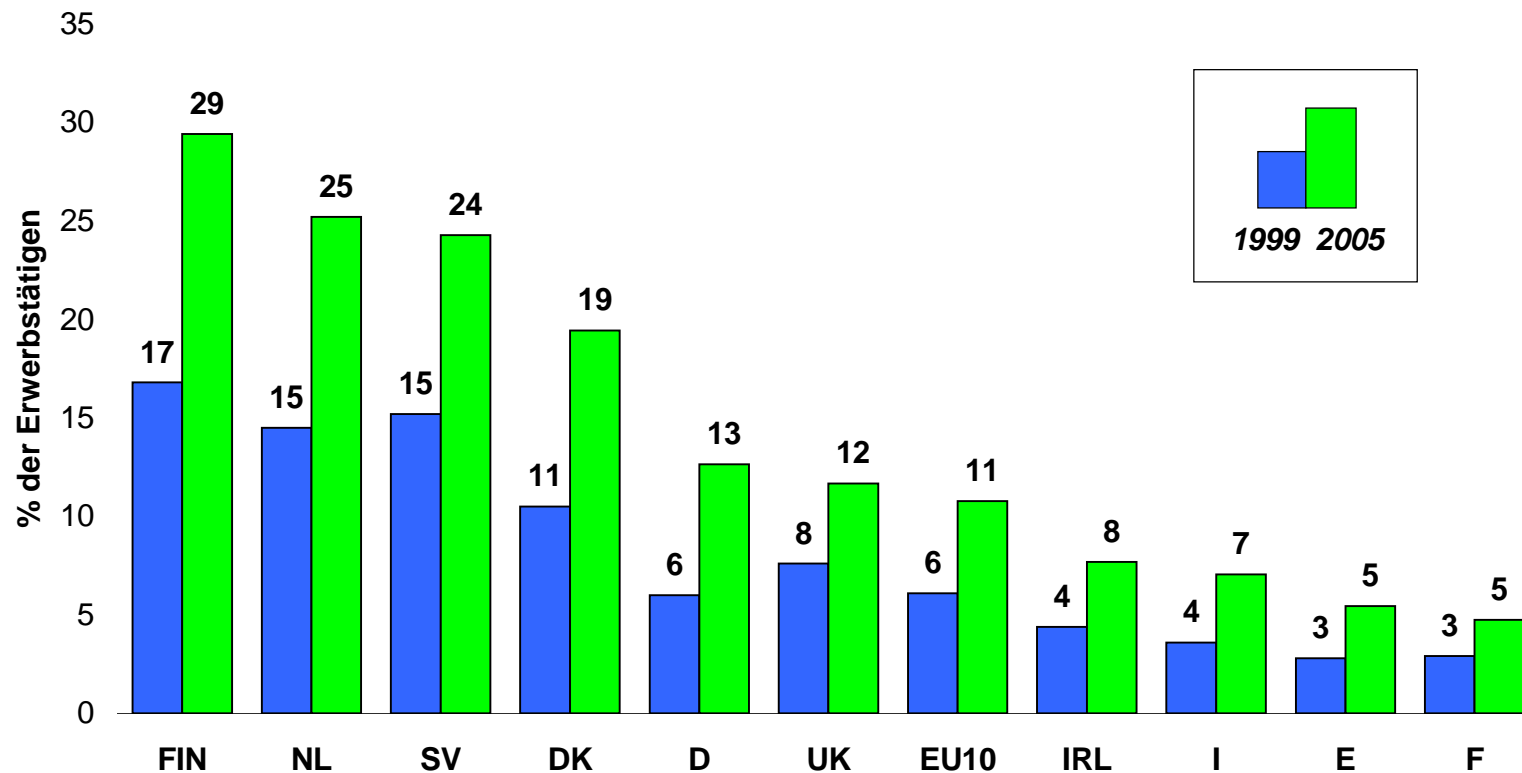
Telework as the Precursor of e-Work

Regular and supplementary teleworkers as % of labour force

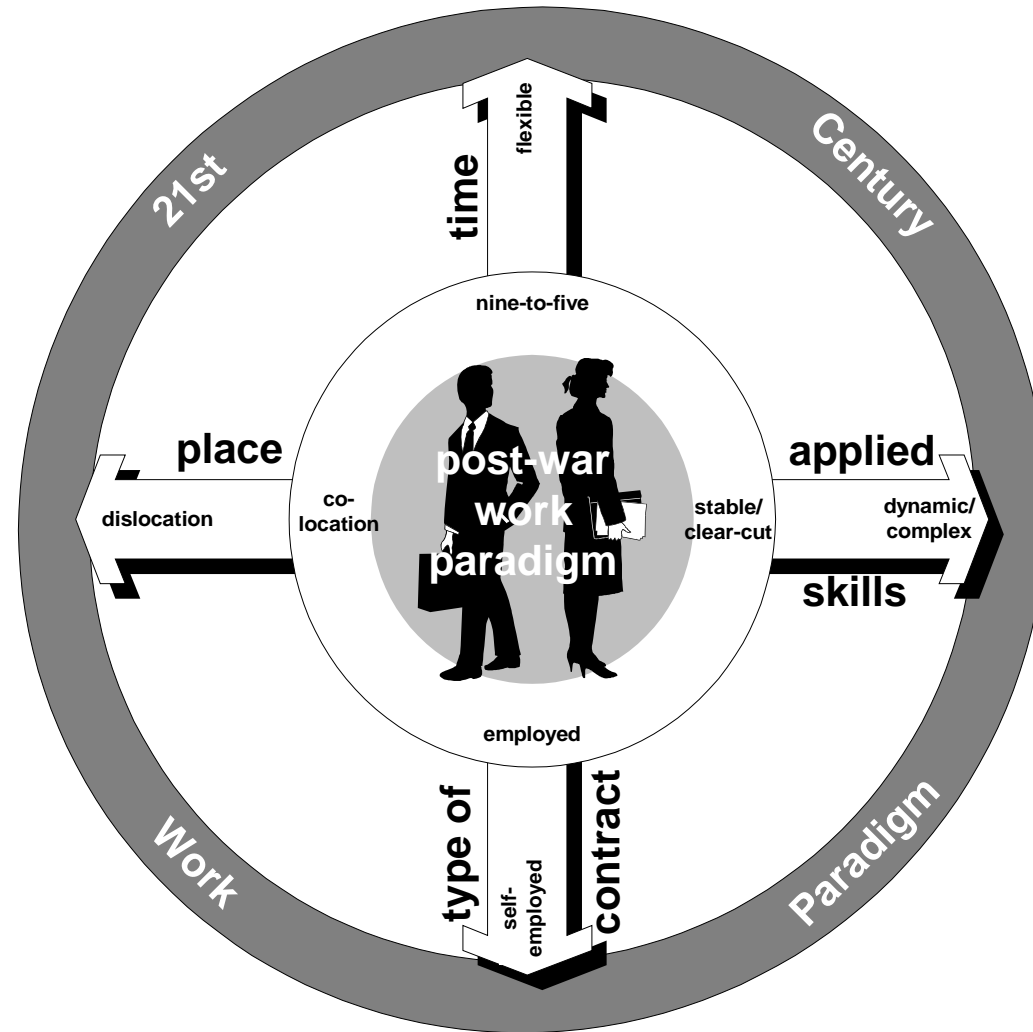


Telework as the Precursor of e-Work

Teleworkers as % of total labour force 1999 - 2005



Dimensions of Change in Work Arrangements



Dimensions of Change in Work Arrangements: Trends

Time	9 to 5	flexitime
Place	co-location	dislocation
Contract	employed	self-employed
Applied skills	stable, clear-cut	dynamic, complex

Indicators for Measuring Change and Adaptability in Work Arrangements

Time	<ul style="list-style-type: none"> • Voluntary part-time working • Temporal autonomy in job
Place	<ul style="list-style-type: none"> • Teleworking • Tele-cooperation
Contract	<ul style="list-style-type: none"> • Increase in self-employment • Employment protection legislation
Applied skills	<ul style="list-style-type: none"> • Managerial responsibility • Lifelong learning of employees

Indicators for Measuring Change and Adaptability

Dimension	Indicator	Definition	Year	Source
Time	Voluntary part-time working	Voluntary part-time workers in % of total labour force	1999	Eurostat (LFS)
Time	Temporal autonomy in job	% of total labour force with discretion over start/finish of working time	1999	Empirica ECaTT
Place	Teleworking	All teleworkers in % of labour force	1999	Empirica ECaTT
Place	Tele-cooperation	Workers who tele-cooperate as % of all workers	1999	Empirica ECaTT
Contract	Increase in self-employment	Increase in the share of self-employed in % of total employment 1989-1999	1988/1998	Eurostat (LFS); IAB
Contract	Employment protection legislation	Employment Protection Legislation Indicator by OECD	1998	OECD
Applied skills	Managerial responsibility	Workers with managerial responsibility in work in % of total labour force	1999	Empirica ECaTT
Applied skills	Lifelong learning of employees	Percentage of employees, aged 30-39, who have participated in training over the 4 weeks prior to the survey.	1999	Eurostat (LFS)

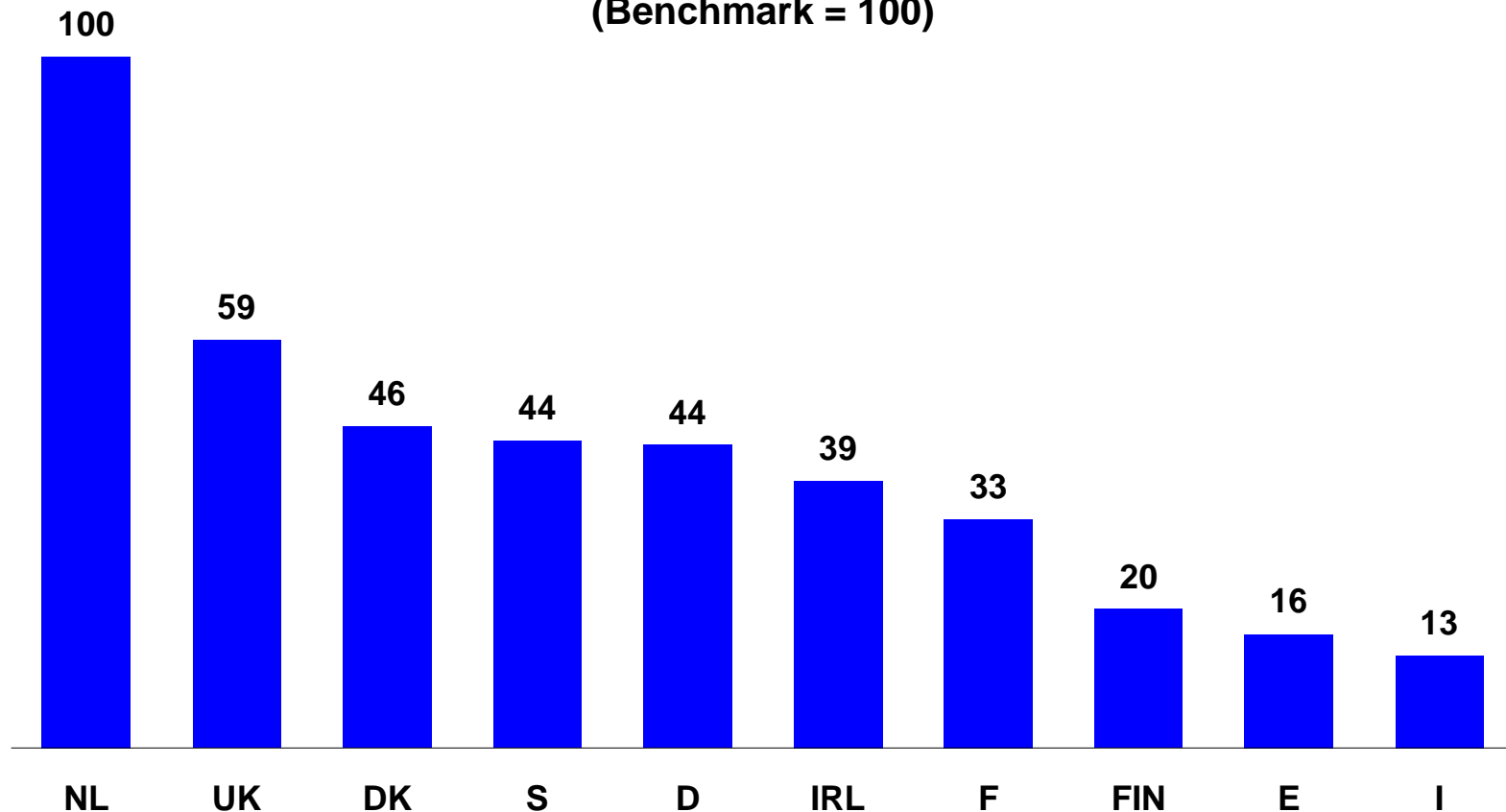
Indicators for Measuring Adaptability: Voluntary Part-time Work

- Strong increase in part-time work throughout the EU (in last decade)
- Large country differences in share of voluntary among all part-time work
- Individual flexibility to adapt amount of work to family requirements and preferences
- Often enabled by ICTs (better coordination of different time schedules through asynchronous communication and tele-cooperation)

Indicators for Measuring Adaptability

Voluntary part-time working 1999

(Benchmark = 100)

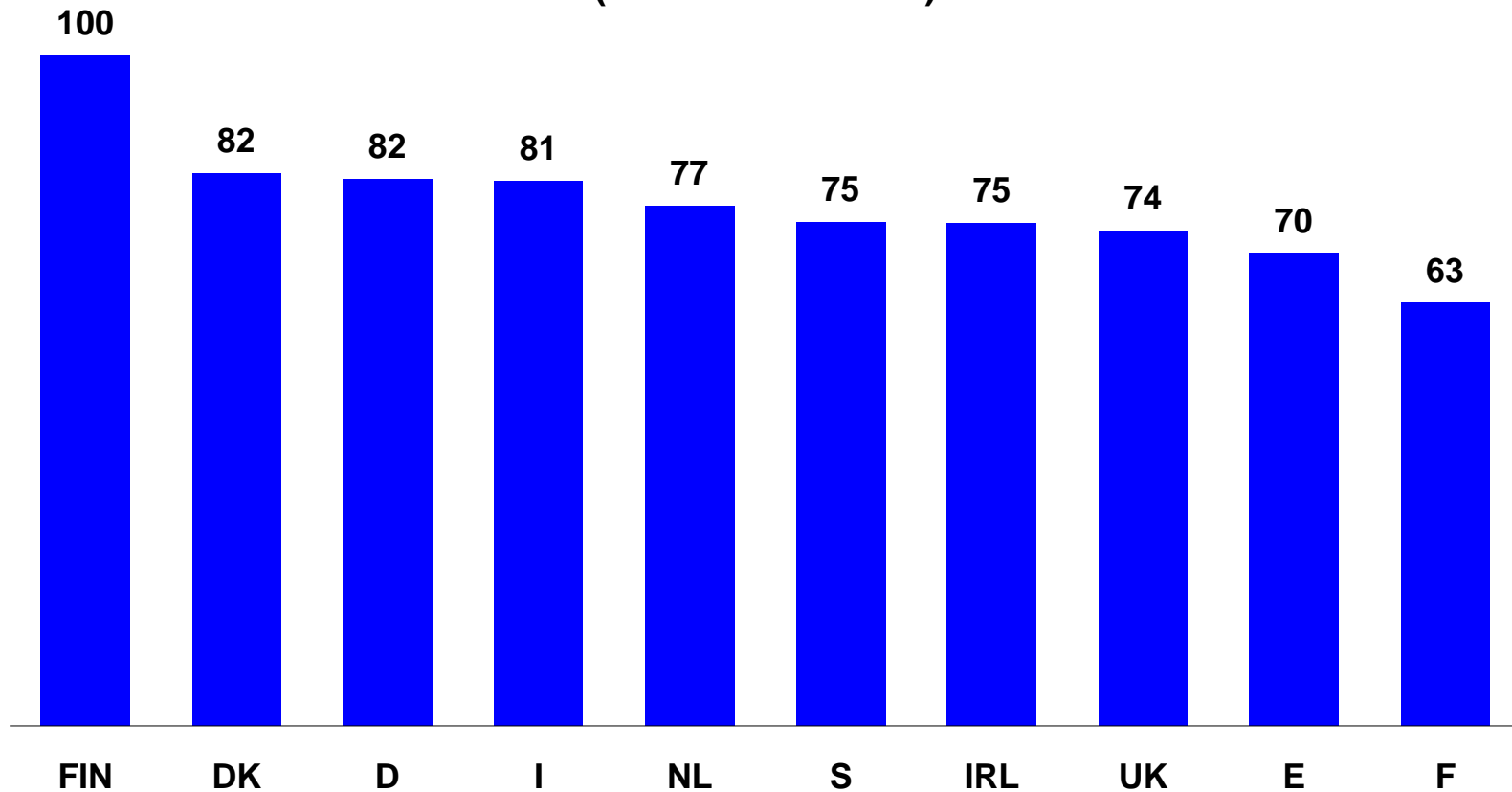


Indicators for Measuring Adaptability: Temporal Autonomy in Job

- Flexitime work arrangements on the rise
- Adapted to increasingly diverse and manifold lifestyles
- Adapted to more varied business requirements (just-in-time working)
- Also often enabled by ICTs (better coordination of different time schedules)

Indicators for Measuring Adaptability

Temporal autonomy in job 1999 (Benchmark = 100)



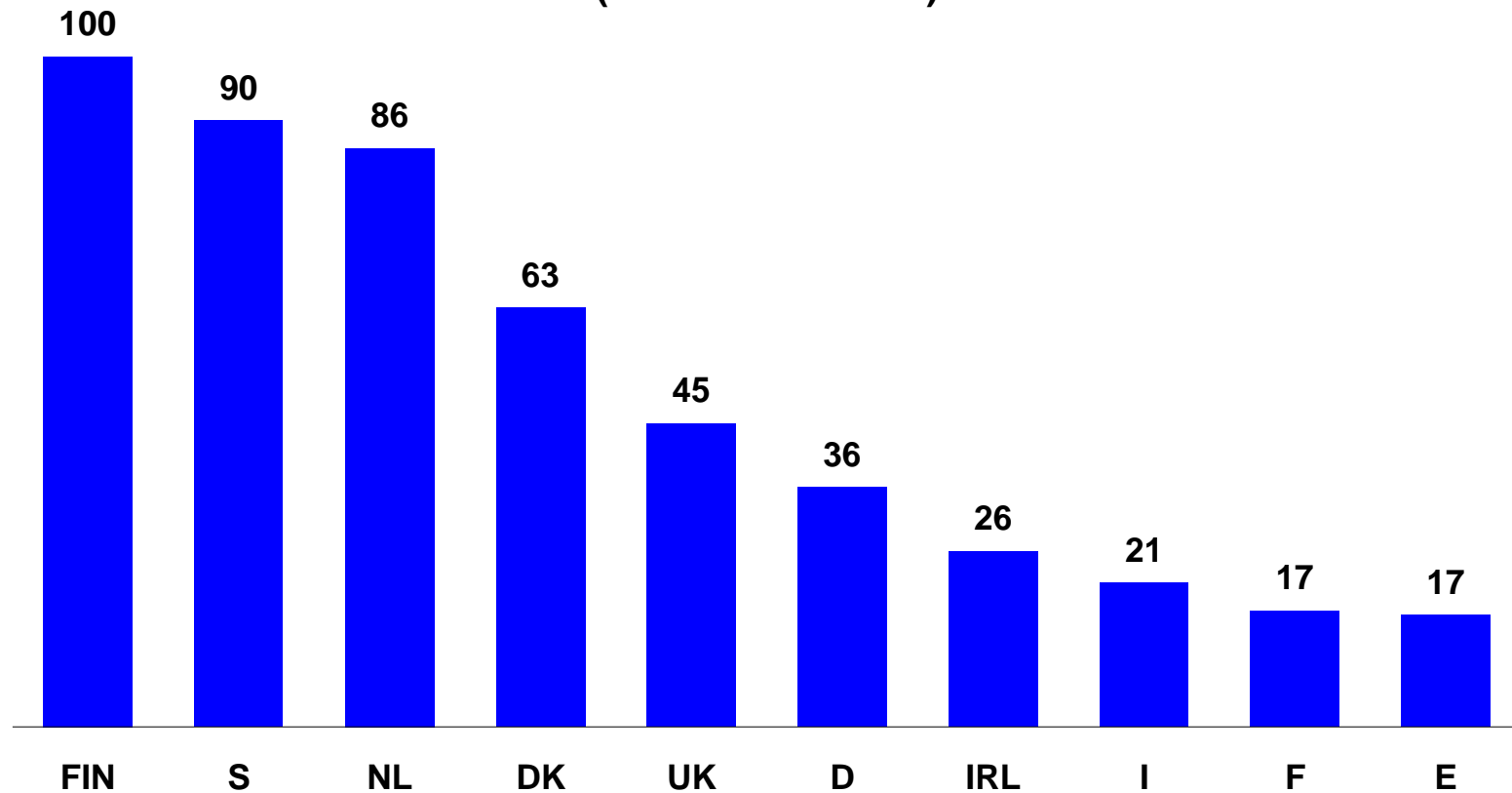
Indicators for Measuring Adaptability:

Teleworking

- Spatial flexibility enabled by telework: Location of work can be changed in the short term.
- Companies are more adaptable to changes in their business environment
- Very dynamic development in last decade

Indicators for Measuring Adaptability

Telework 1999 (Benchmark = 100)

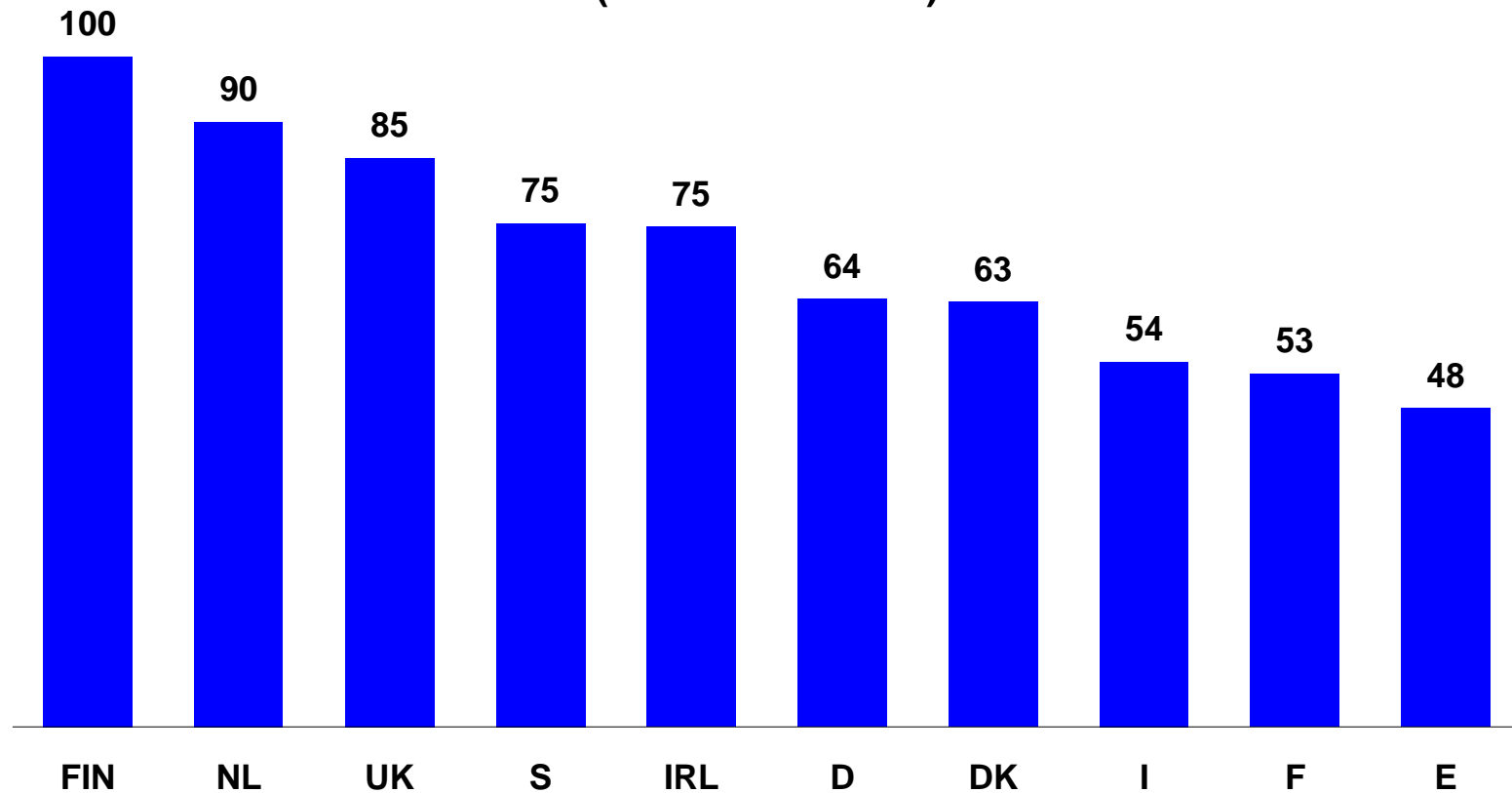


Indicators for Measuring Adaptability: **Tele-cooperation**

- Collaboration across boundaries of establishments by means of ICTs
- In-situ telework: Flexible configurations of human capital without moving people from one place to another
- Boost to productivity and innovation in companies
- Except for Finland, in all EU countries less than half of the labour force do tele-cooperate

Indicators for Measuring Adaptability

Tele-cooperation 1999 (Benchmark = 100)

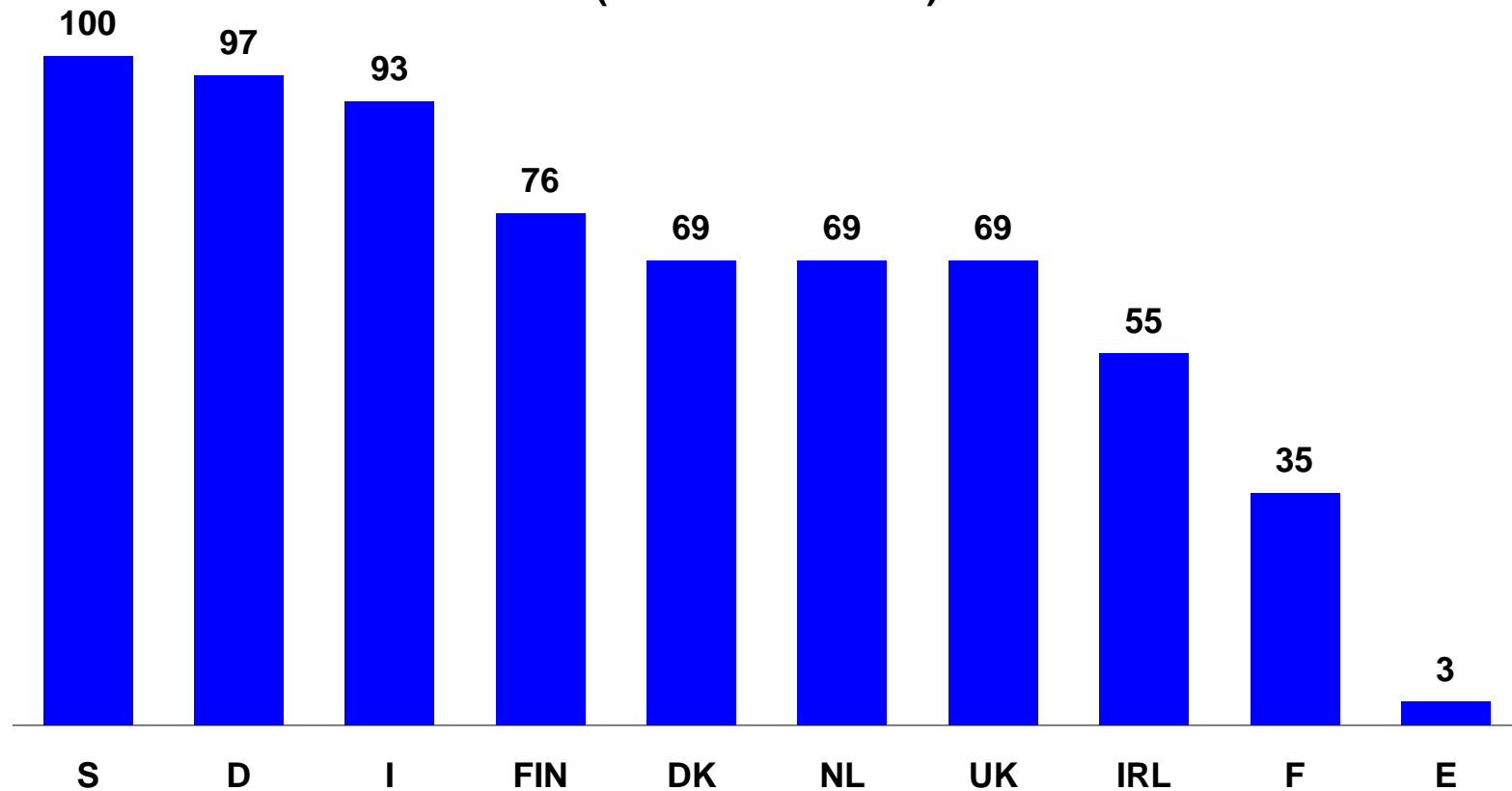


Indicators for Measuring Adaptability: **Increase in Freelance Self-employment**

- Self-employment has been decreasing throughout the EU until only a few years ago
- Excluding farming and self-employment with employees results in share of freelancers
- Share of freelancers has risen in last decade
- ICTs have boosted opportunities for freelancing

Indicators for Measuring Adaptability

Growth in self-employment: freelancers 1988-98 (Benchmark = 100)

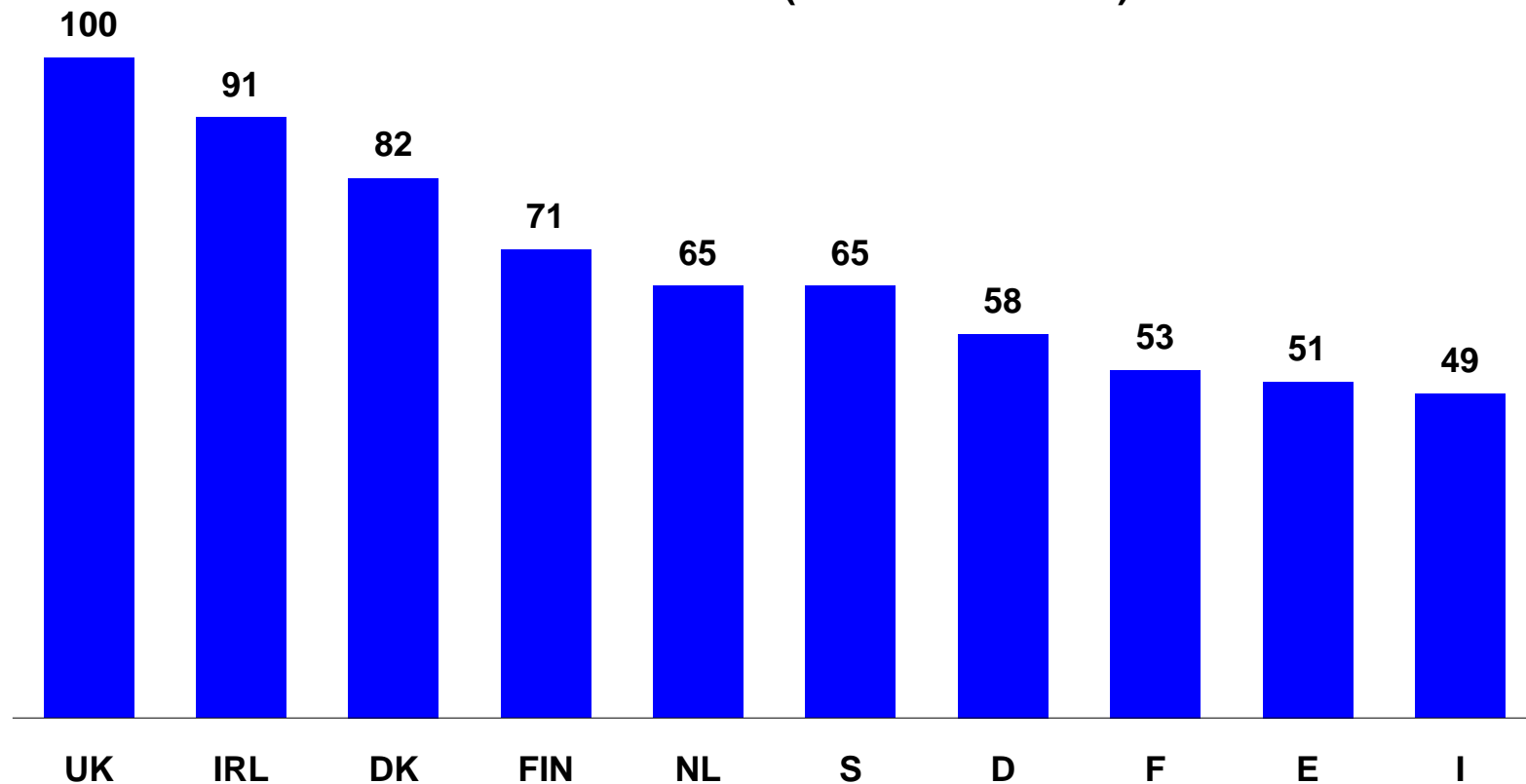


Indicators for Measuring Adaptability: **Employment Protection Legislation**

- Compound Indicator developed by OECD
- Includes information on regulation of dismissals (hire & fire), part-time and temporary work etc.

Indicators for Measuring Adaptability

OECD Employment Protection Legislation Indicator 1998 (Benchmark = 100)

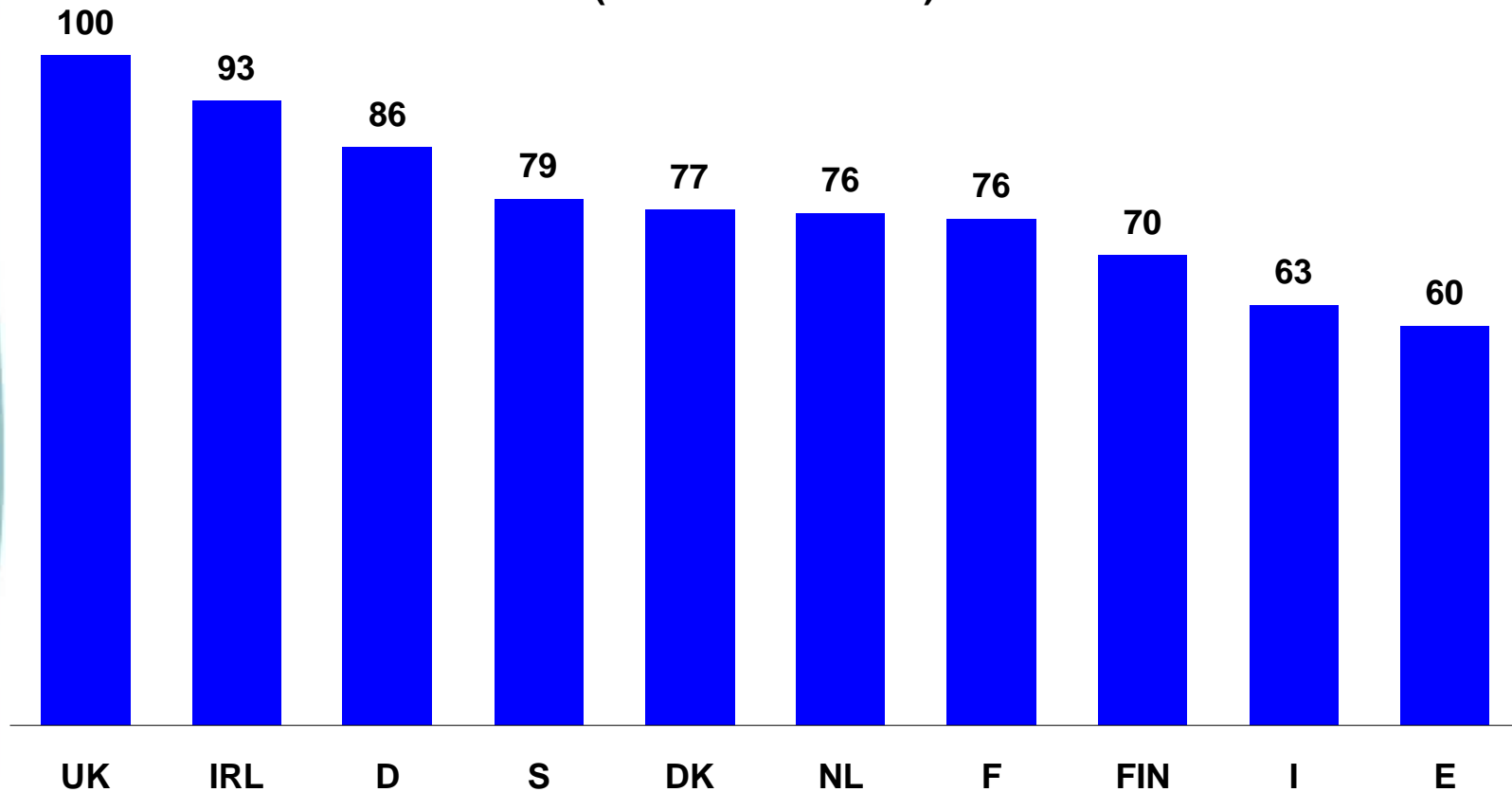


Indicators for Measuring Adaptability: **Managerial Responsibility**

- Business re-engineering asks for flatter hierarchies and more responsibility handed to workers
- Job enlargement, job enrichment and worker empowerment are important factors for companies striving for flexibility

Indicators for Measuring Adaptability

Managerial responsibility 1999 (Benchmark = 100)

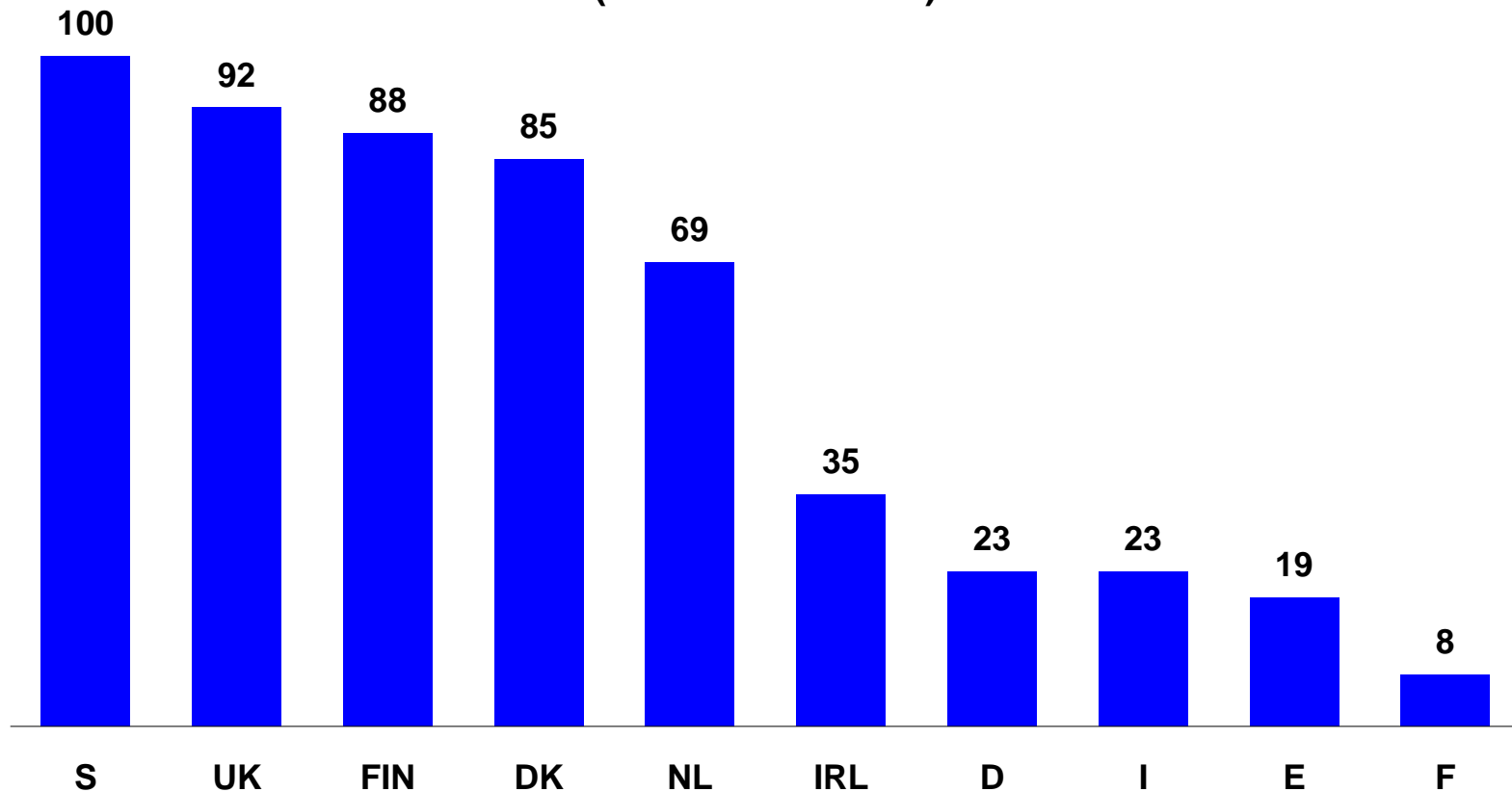


Indicators for Measuring Adaptability: Lifelong Learning of Employees

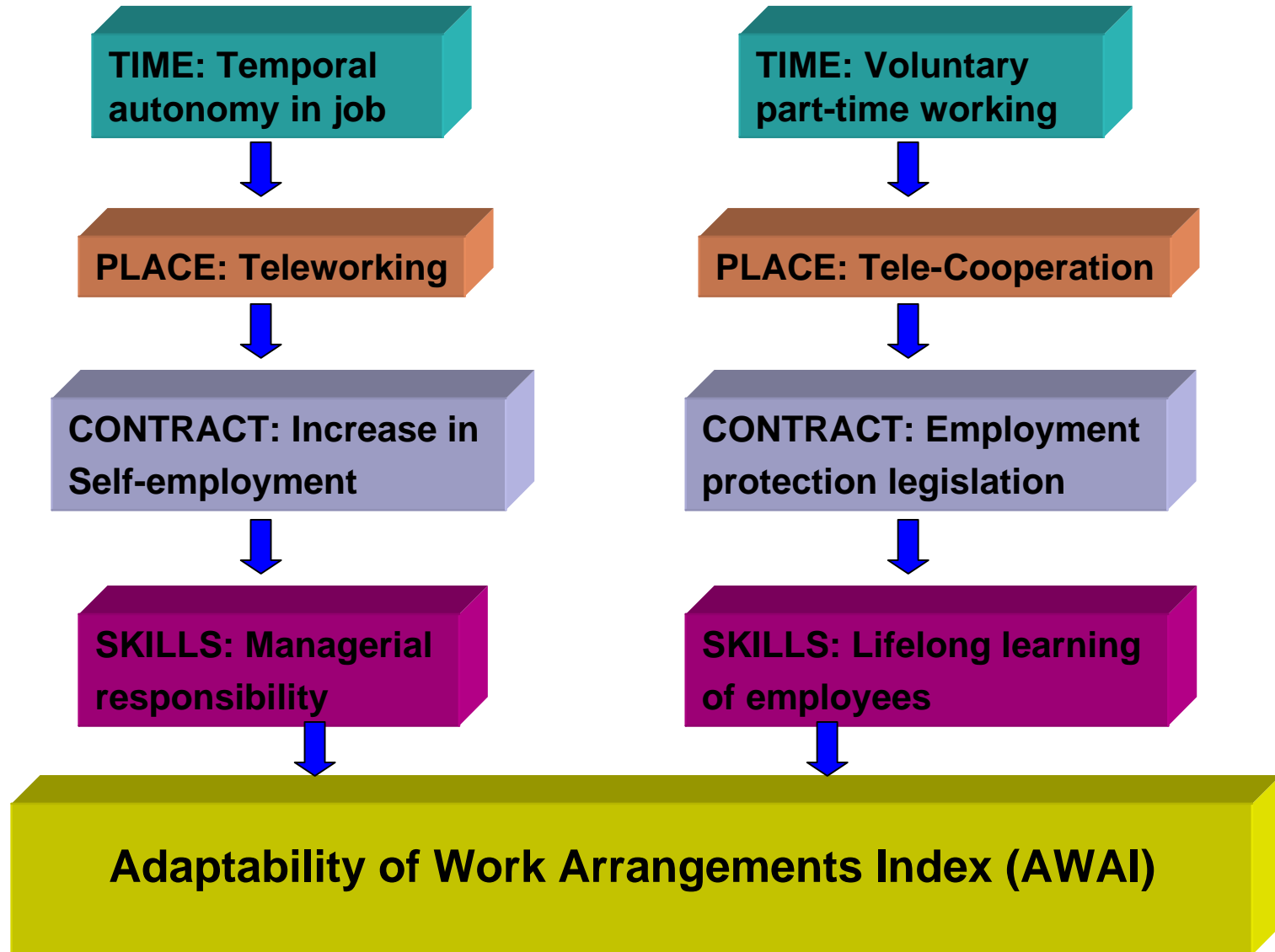
- Shorter technology life-cycles require workers to be trained continuously
- Lifelong learning boosts adaptability of both companies and individuals on the labour market
- Today lifelong learning schemes are primarily targeted at the unemployed
- AWAI uses data on employees (persons holding a job) having participated in training in 4 weeks prior to the survey

Indicators for Measuring Adaptability

Lifelong learning of employees (Benchmark = 100)



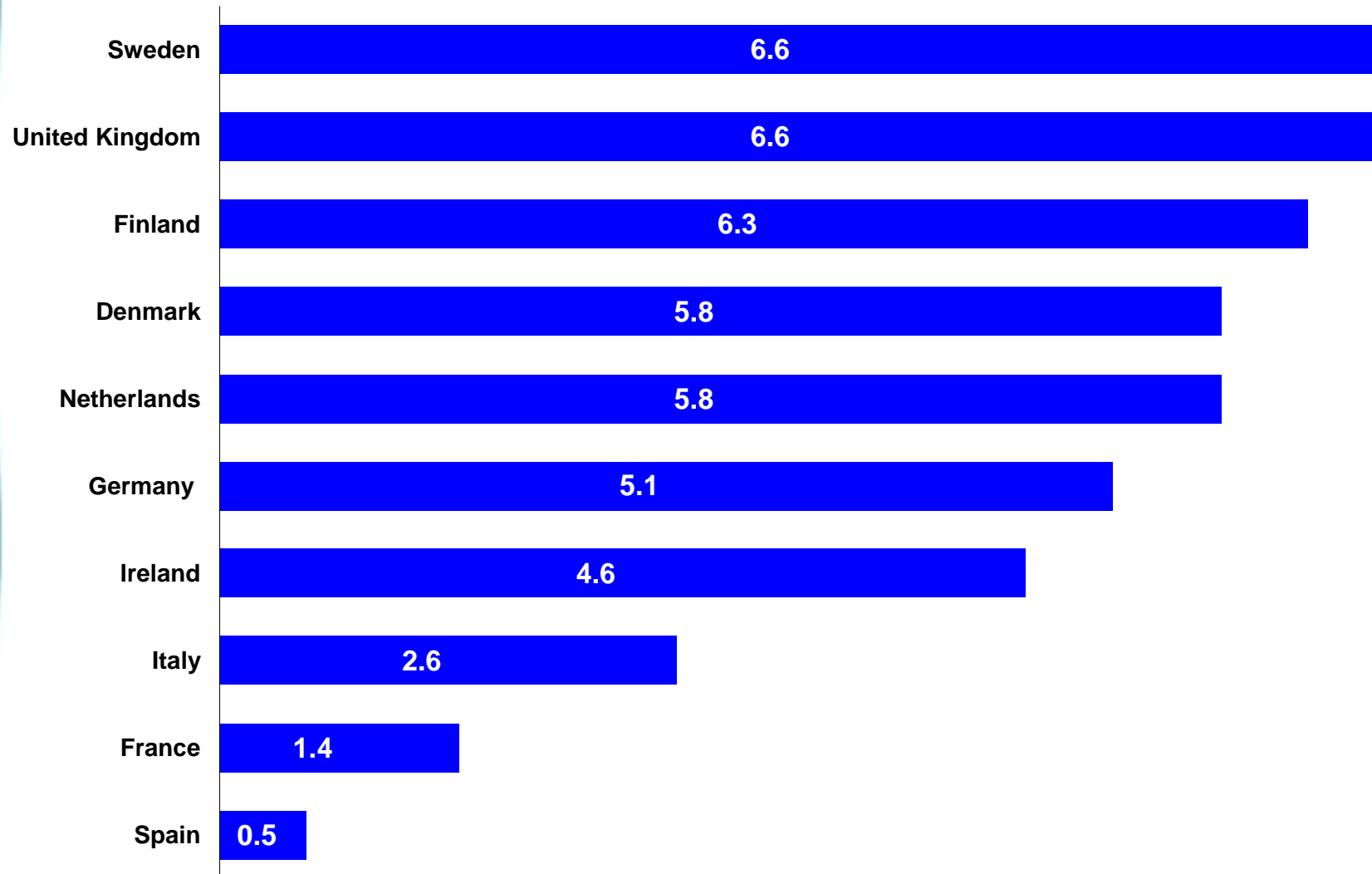
From Indicators to Index



The Need for a New Index

- Emphasis on labour market adaptability in EC's European Employment Policy not reflected in available indices.
- Available Labour Market Flexibility Indices only represent employer-centred flexibility
- Available Information Society Indices focus on technical equipment instead of outcomes at level of the individual
- Towards AWAI, the **Adapatability of Work Arrangements Index**

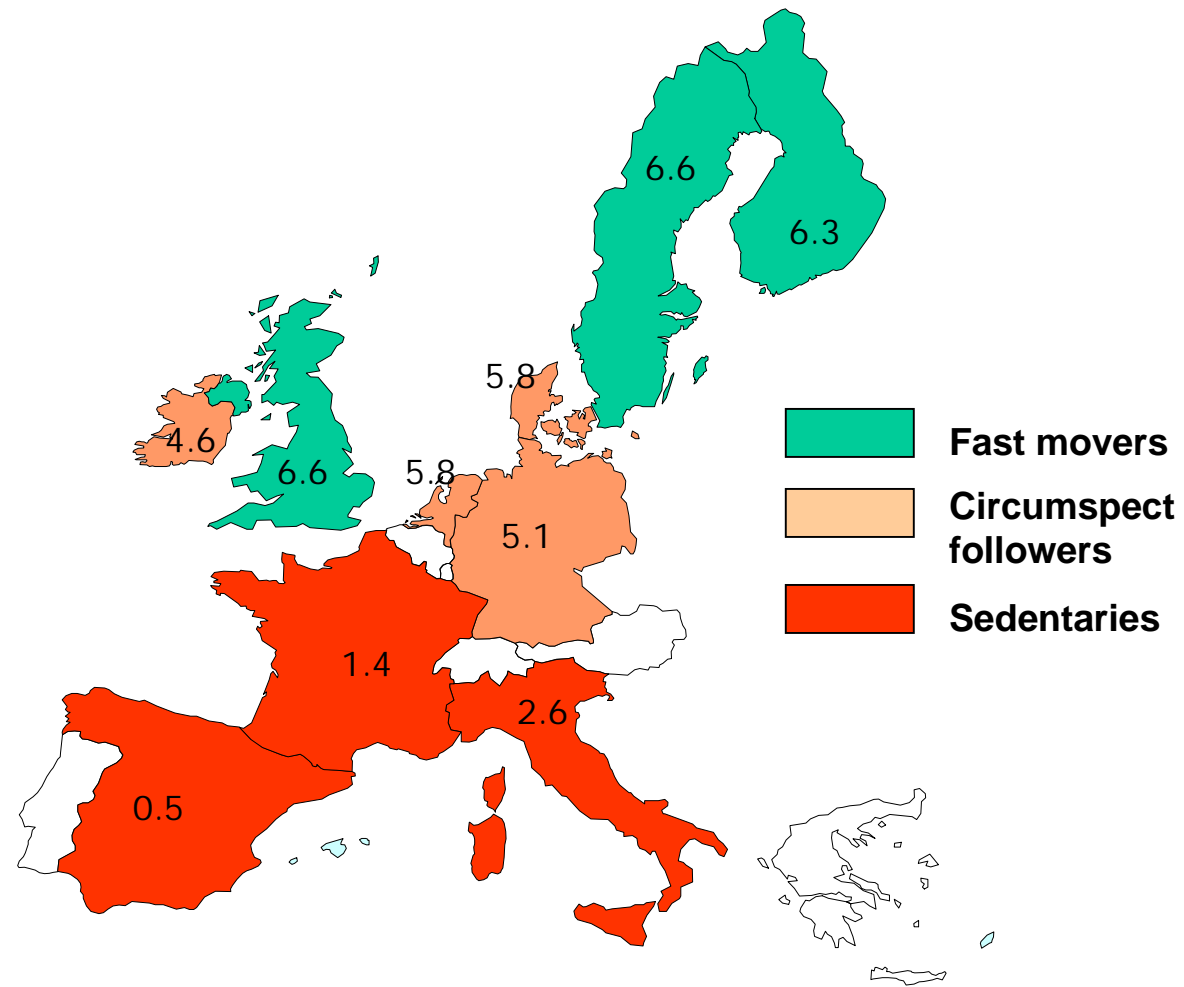
AWAI Index Results



AWAI Index Calculation Results

Dimension	TIME		PLACE		CONTRACT		APPLIED SKILLS			
Indicator	Voluntary part-time working	Temporal autonomy in job	Teleworking	Tele-Cooperation	Employment Protection in Legislation	Self-employed	Managerial Responsibility	Lifelong learning of employees	AWAI Index ¹	Overall rank
Sweden	44	75	90	75	65	100	79	100	6.63	1
United Kingdom	59	74	45	85	100	69	100	92	6.63	1
Finland	20	100	100	100	71	76	70	88	6.25	3
Denmark	46	82	63	63	82	69	77	85	5.75	4
Netherlands	100	77	86	90	65	69	76	69	5.75	4
Germany	44	82	36	64	58	97	86	23	5.13	6
Ireland	39	75	26	75	91	55	93	35	4.63	7
Italy	13	81	21	54	49	93	63	23	2.63	8
France	33	63	17	53	53	35	76	8	1.38	9
Spain	16	70	17	48	51	3	60	19	0.50	10

AWAI Index Results



AWAI Index Results

Fast Movers

Sweden, UK, Finland

- Highly adaptable, dynamic labour markets

Circumspect Followers

**Denmark, Netherlands
Germany, Ireland**

- Solid middle group which attempt to combine (positive) aspects from the past and future

Sedentaries

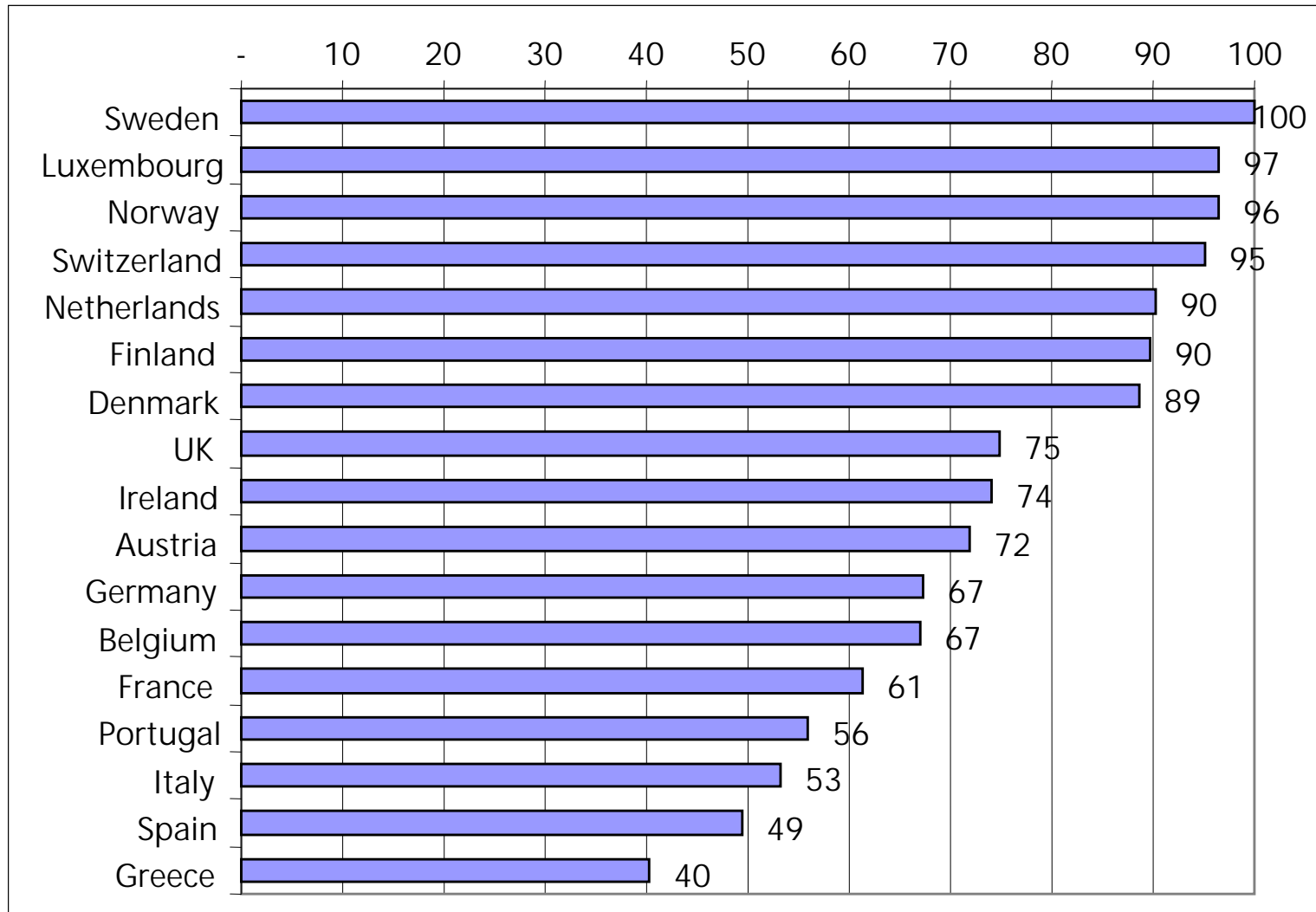
Italy, France, Spain

- Slow movers, running the danger to loose contact to developments in the rest of the European Union

empirica 'Economy&Work-Index': Calculation method

No.	Indicators	Weight in %
38	GDP per capita (at current prices)	10
39	GDP per capita (purchasing power parities)	10
40	Employment rate	10
41	Unemployment rate	10
42	Total ICT market as a percentage of GDP	10
43	Technology balance of payments	
44	Export-import ratio of the electronic industry	10
45	Internet hosts per 1000 inhabitants	10
46	eCommerce servers per 1000 inhabitants	10
47	Percentage of workforce working with a PC	20
48	Percentage of tele-homeworkers (at least parttime)	
	Total	100

Economy&Work-Index: Results

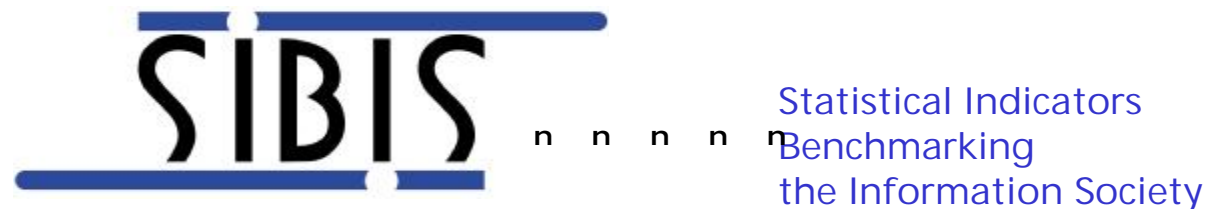


Comparison of results to IDC's "Information-Society-Index"

AWAI Index		IDC: "ISI 2000"		
Sweden	6.6	Sweden	6496	(100)
United Kingdom	6.6	Norway	6112	(94)
Finland	6.3	Finland	5953	(92)
Denmark	5.8	USA	5850	
Netherlands	5.8	Denmark	5837	(90)
Germany	5.1	UK	5662	(87)
Ireland	4.6	Switzerland	5528	(85)
Italy	2.6	Australia	5382	
France	1.4	Singapore	5269	
Spain	0.5	Netherlands	5238	(81)
		Japan	5182	
		Canada	5126	
		Germany	4937	(76)

Conclusions

- AWAI Results should be interpreted with care because sustainability of flexible work arrangements is still not adequately measurable
- Data on labour market adaptability is scarce
- New, more adequate indicators are needed
- Research is on the way SIBIS Project



- Website: <http://www.sibis-eu.org>

SIBIS - Domains to be covered

eEurope objectives:

- Telecommunication & access
- Internet for researchers
- Secure access & smart cards

(1) "A Cheaper, faster and secure Internet"

- Education
- **Work, employment and skills**
- Social inclusion

(2) "Investing in people and skills"

- e-Commerce
- e-Government
- e-Health

(3) "Stimulate the use of the Internet"

SIBIS

Thank you very much for your attention!

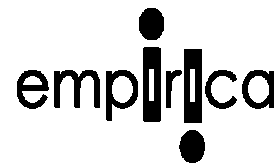
For more information please visit:

<http://www.ecatt.com>

<http://www.empirica.com>

<http://www.sibis-eu.org>

or contact:



empirica Gesellschaft für Kommunikations-
und Technologieforschung mbG

Oxfordstr. 2

D-53111 Bonn

Tel.: (+49) 2 28 - 9 85 30-0

Fax: (+49) 2 28 - 9 85 30 -12

Email: info@empirica.com

<http://www.empirica.com>

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Telework as the Precursor of e-Work

