

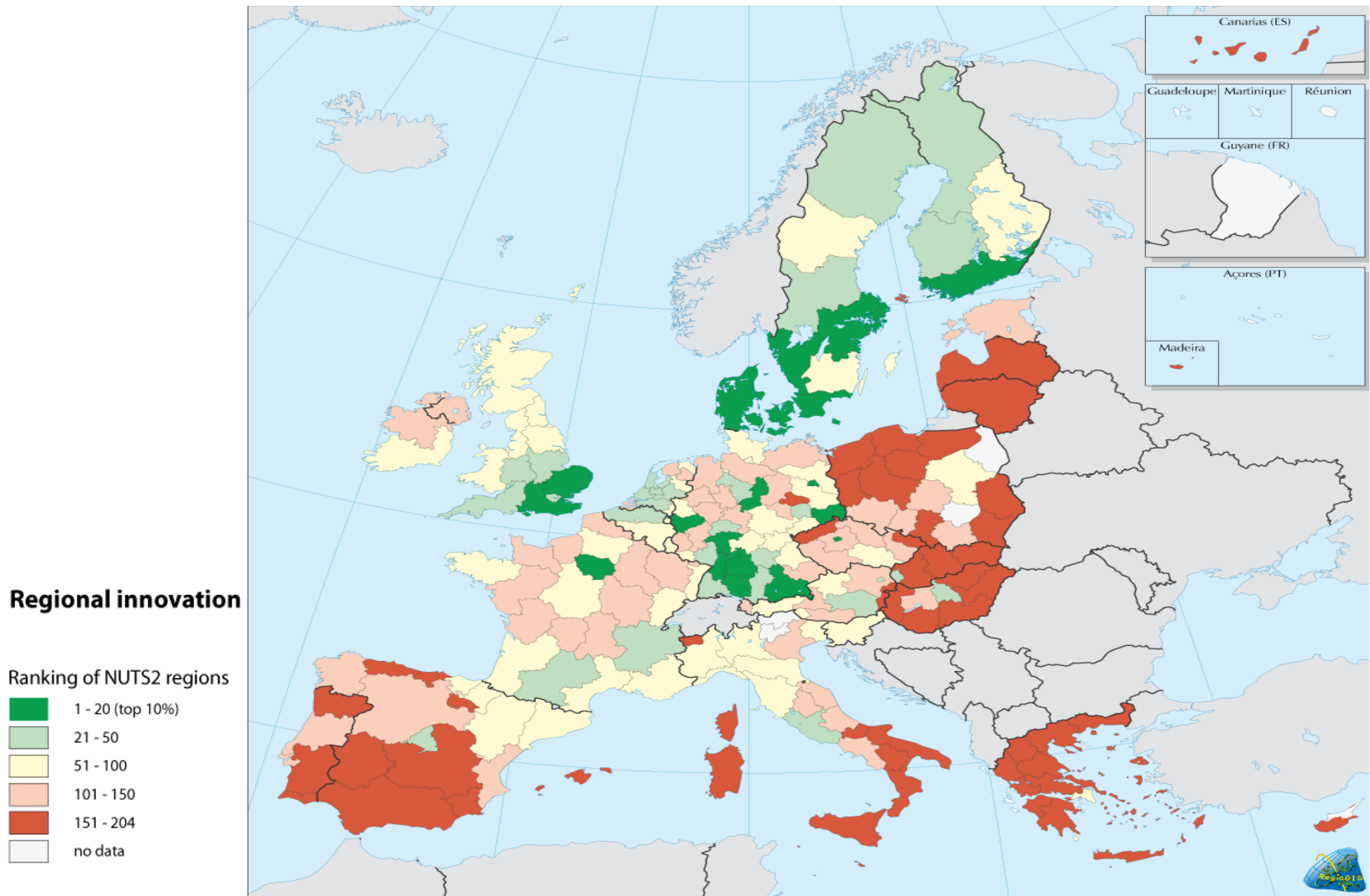
Explanation of a Paradox?

Innovation performance, GDP growth and
productivity in Greece

URENIO Research Unit

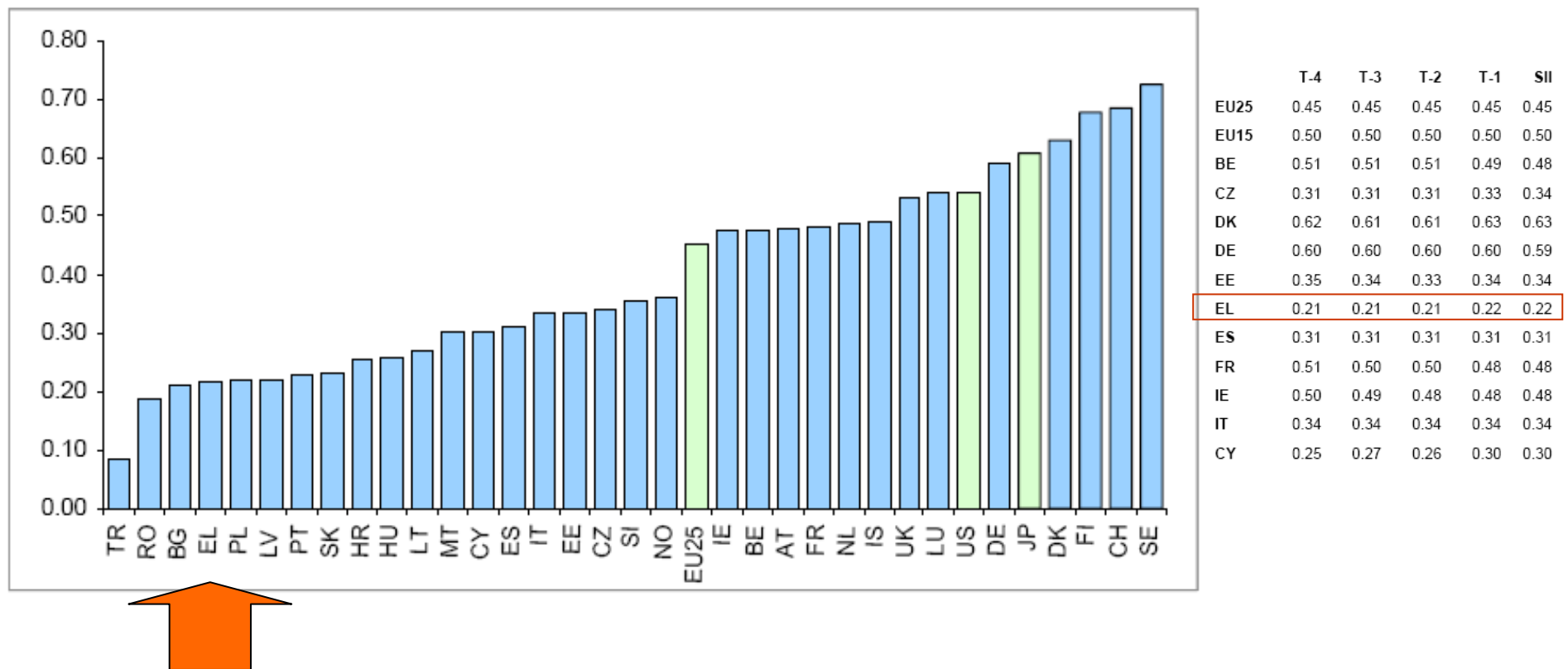
Postgraduate course: Intelligent Cities and Systems of Innovation

Greece: Extremely low innovation performance,

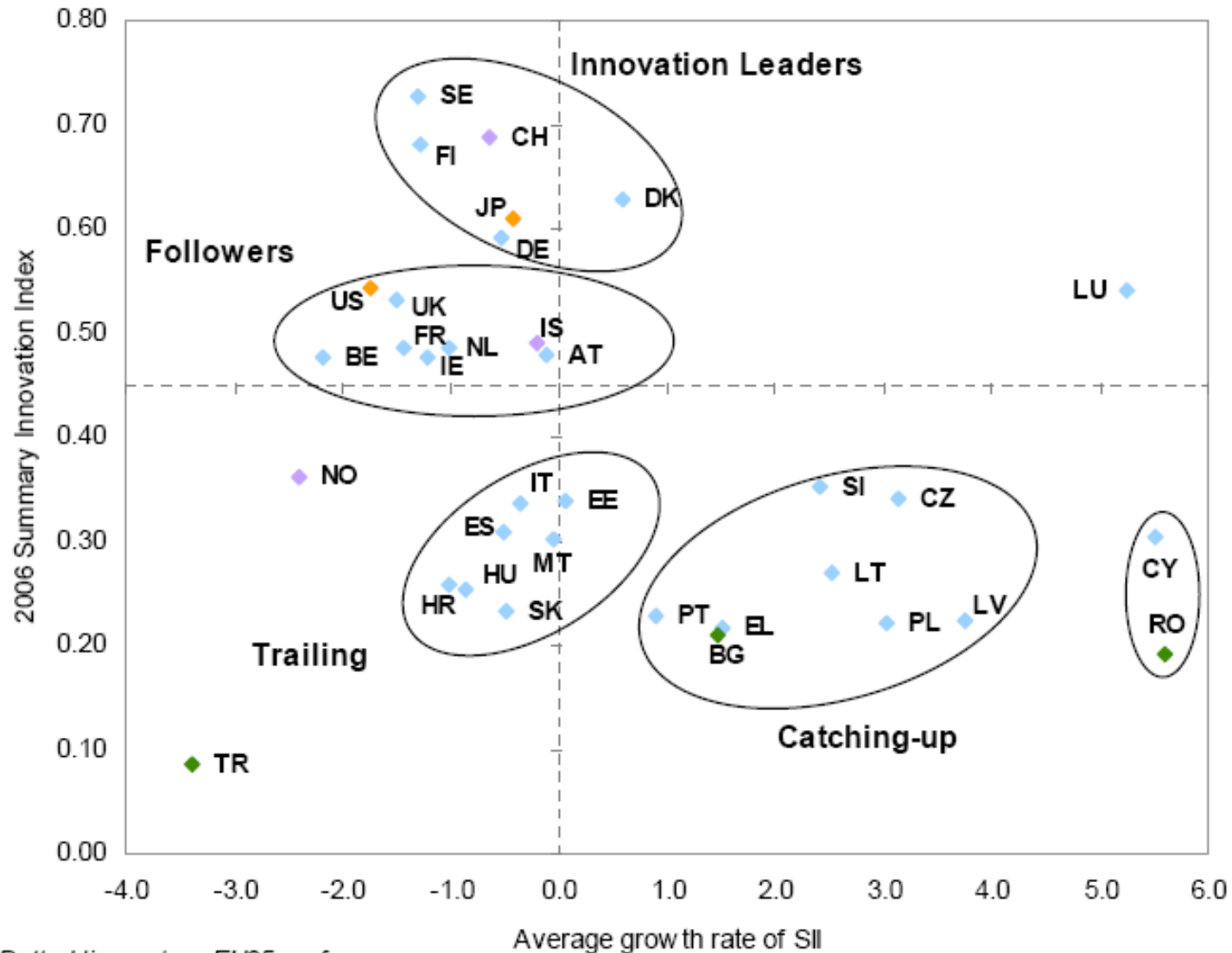


Greece: Extremely low innovation performance,

FIGURE 1: THE 2006 SUMMARY INNOVATION INDEX (SII)

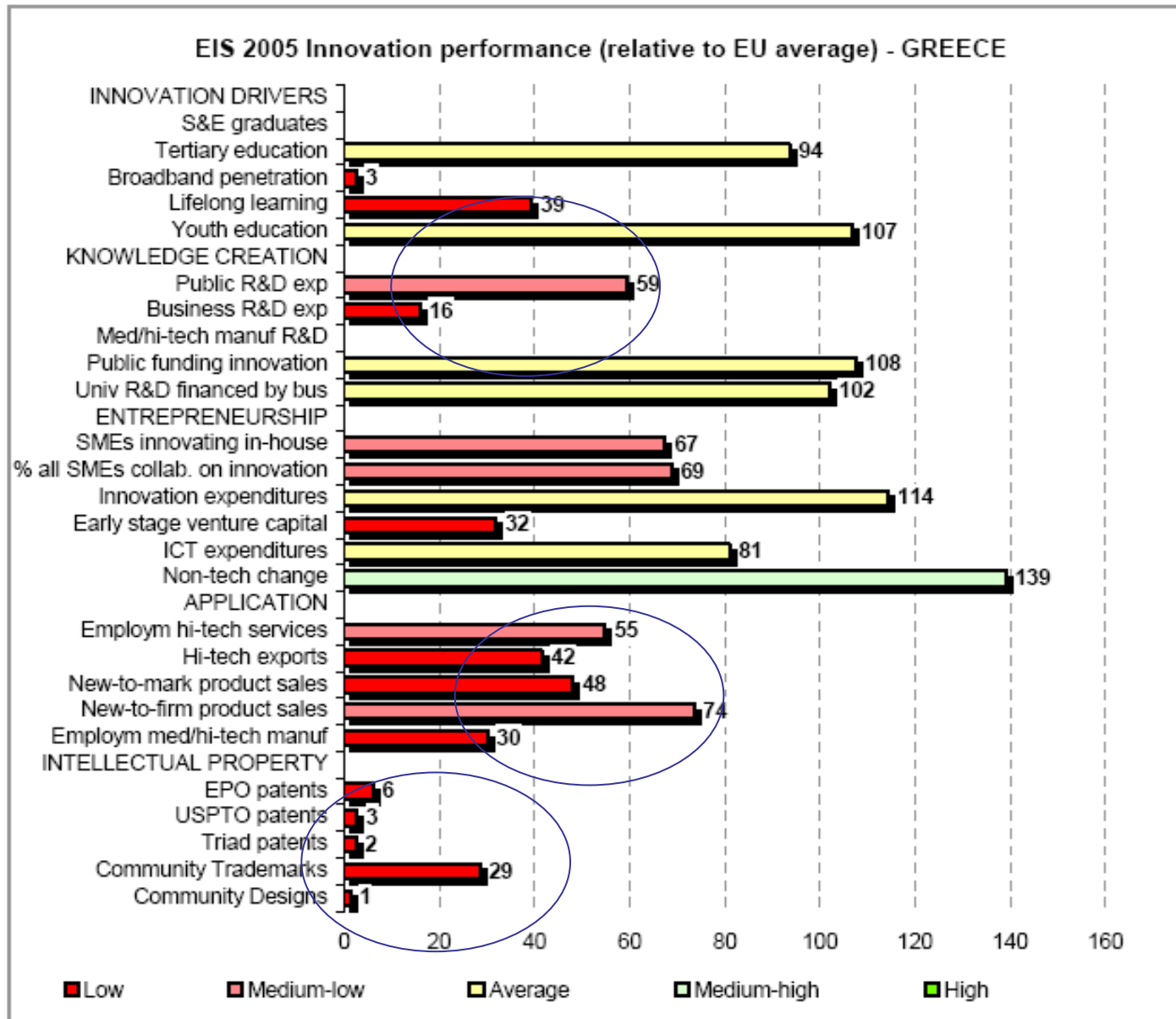


Greece: Extremely low innovation performance,

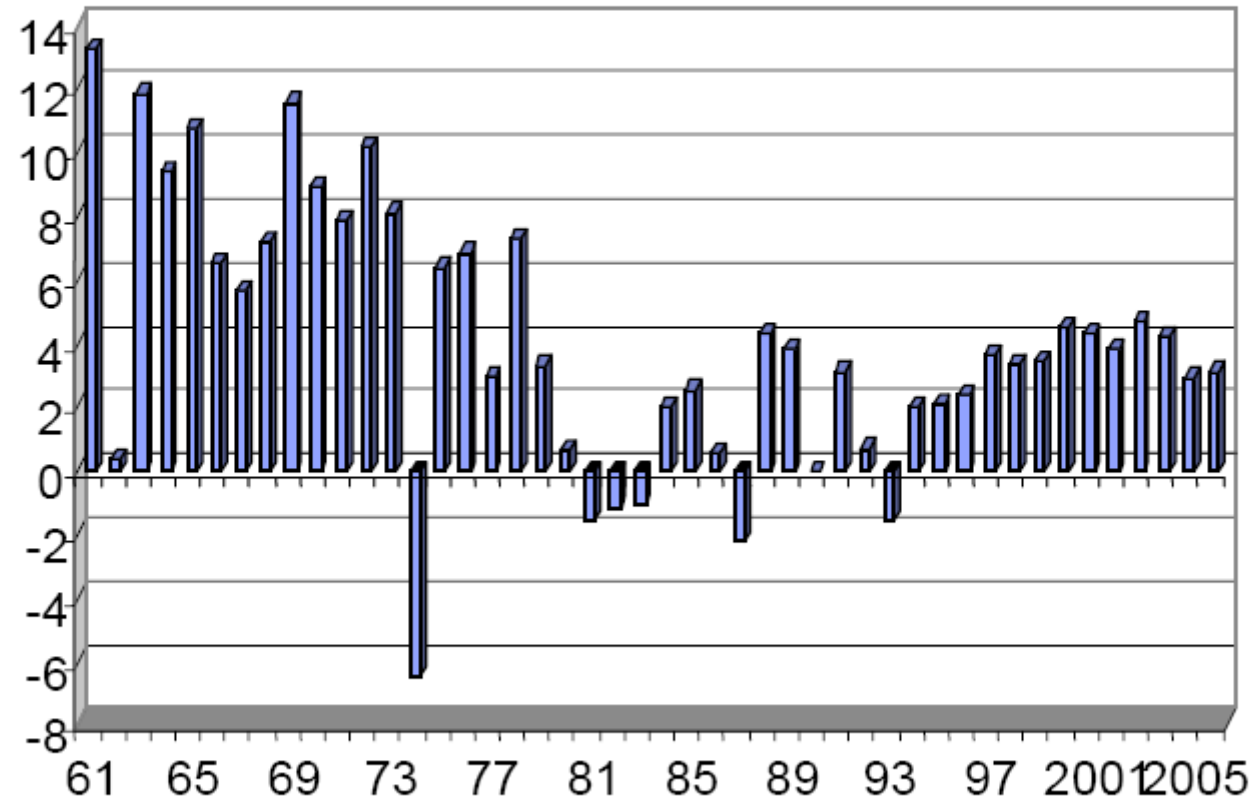


Dotted lines show EU25 performance.

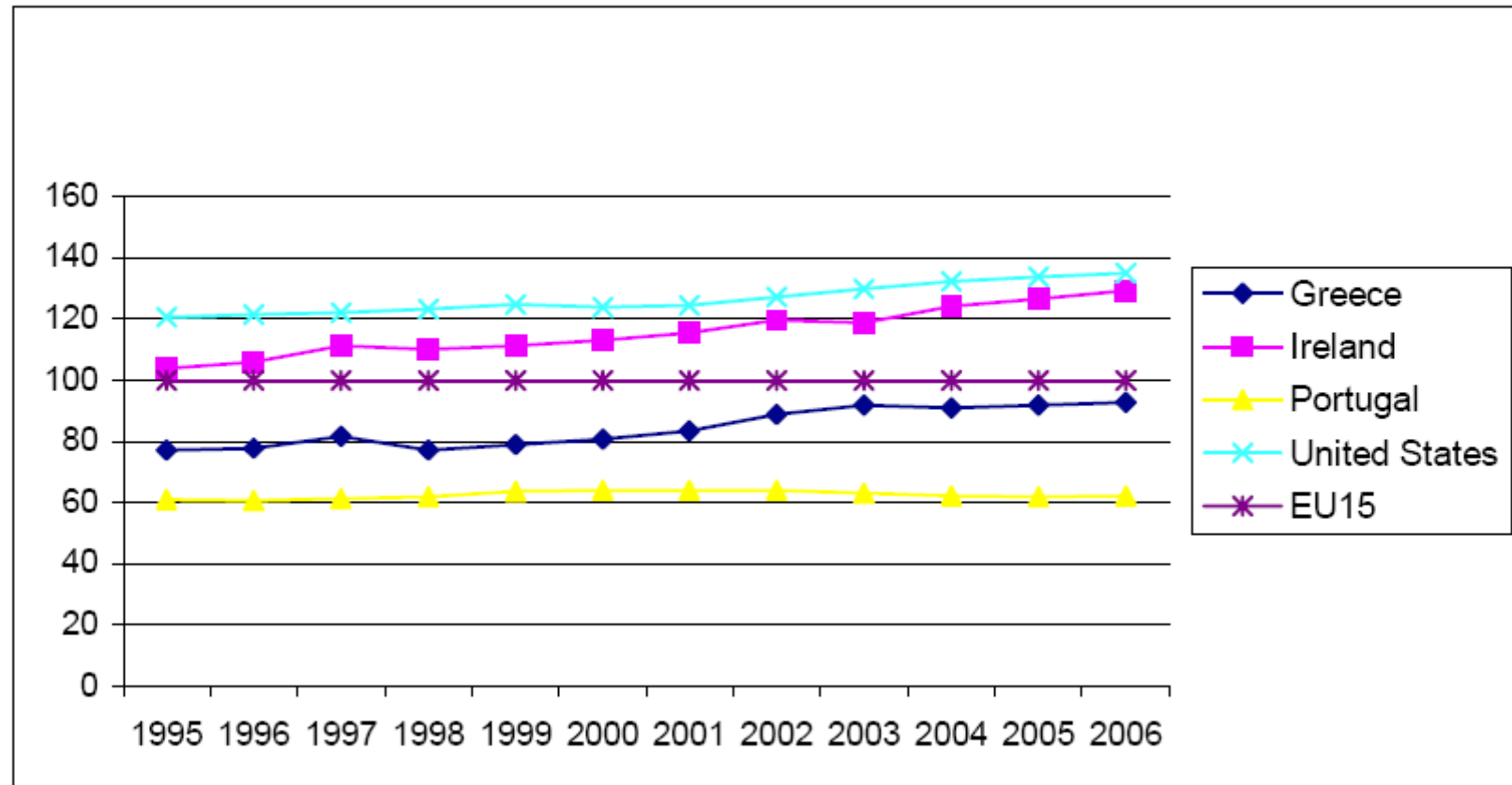
Greece: Extremely low innovation performance,



Greece: but high level of annual GDP growth,

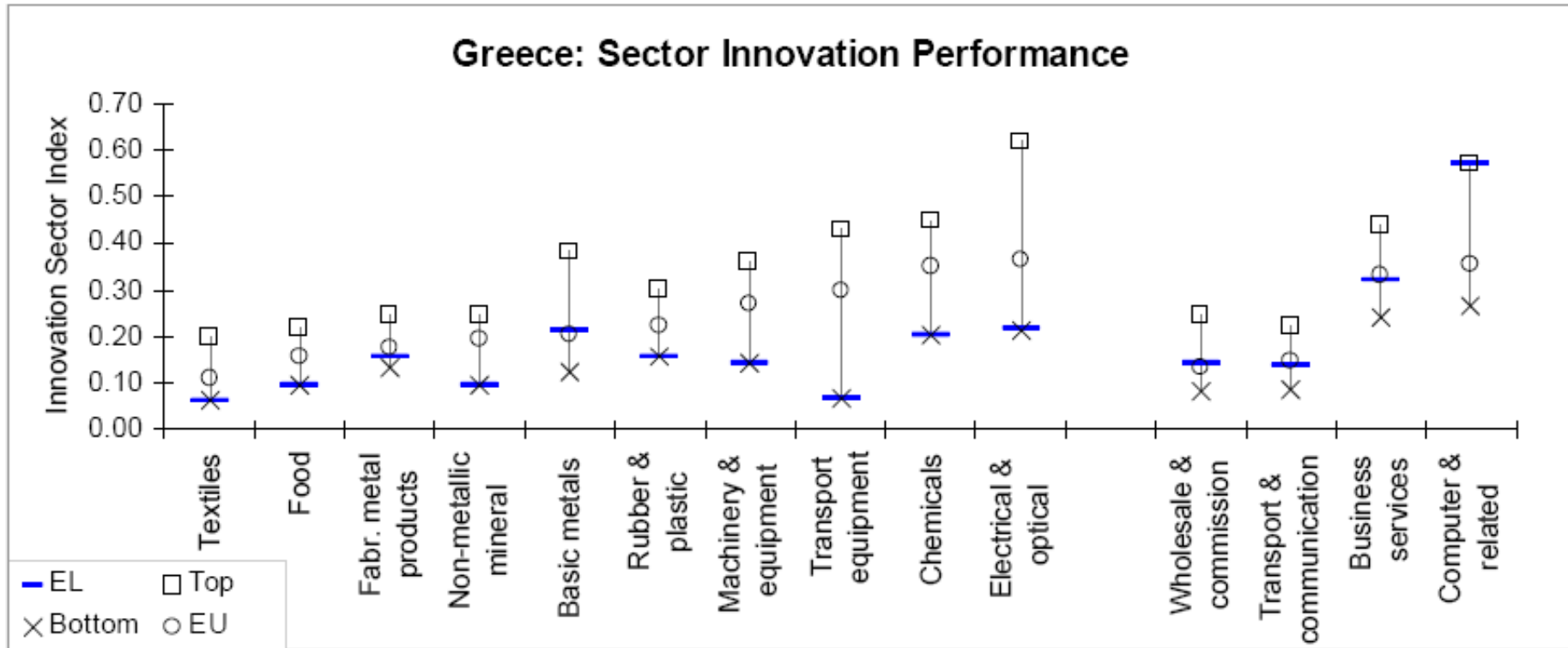


Greece: and high growth of productivity,



How it happens?

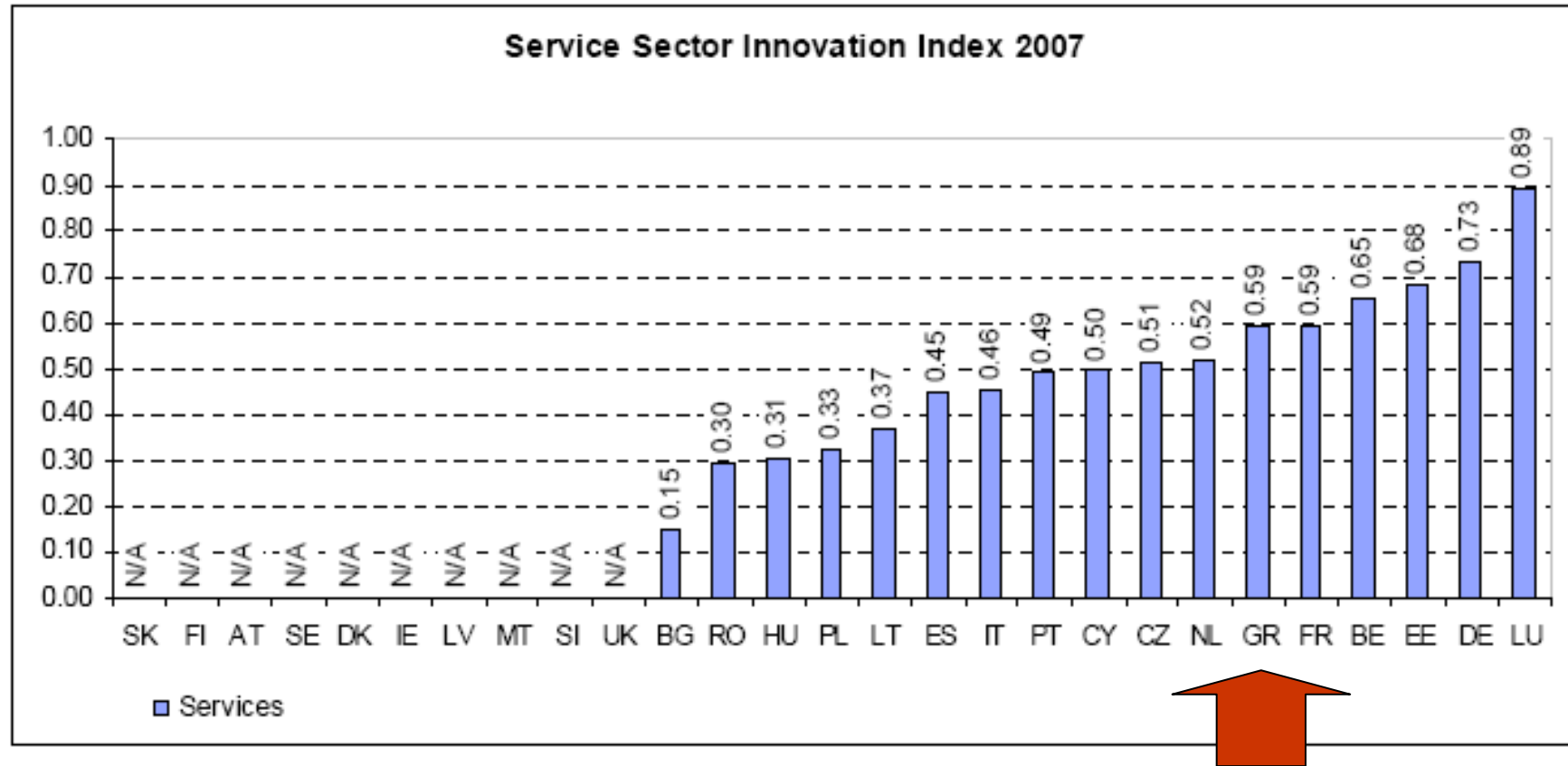
The explanation may be in the service sector!



ISI scores per sector shown by •, highest ISI score in country sample depicted by •, lowest ISI score in country sample depicted by x, EU average depicted by •.

Greece: 4th position in the EU in the Service Sector Innovation Index

Figure 5-1a

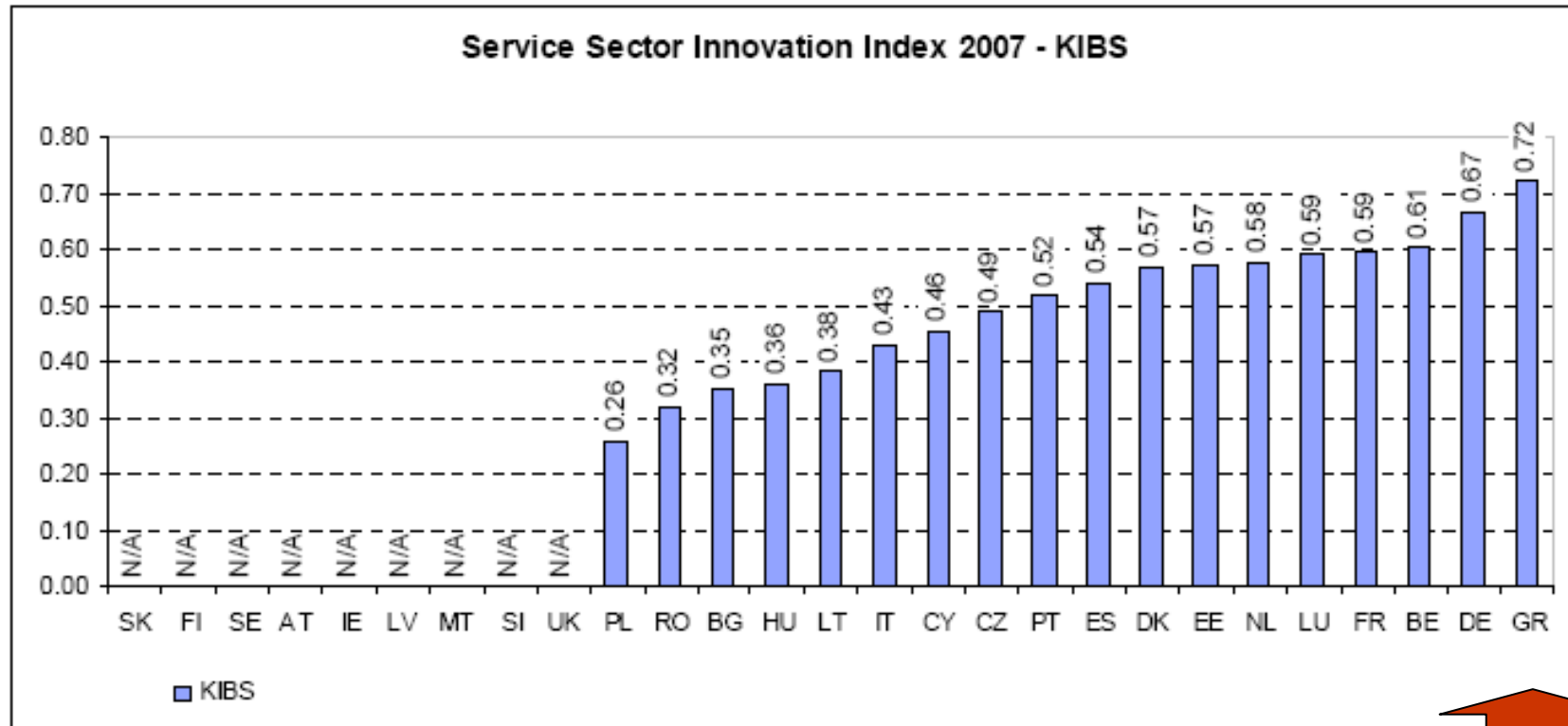


Source: Eurostat, New Cronos.

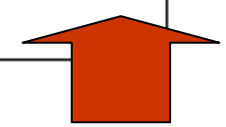
Source: Arundel A., Kanerva M., Van Cruysen D., and Hollanders H. (2007)
'Innovation Statistics for the European Service Sector, Pro Inno Europe

Greece: 1th position in the EU in the Knowledge Intensive Business Services (KIBS)

Figure 5-1b



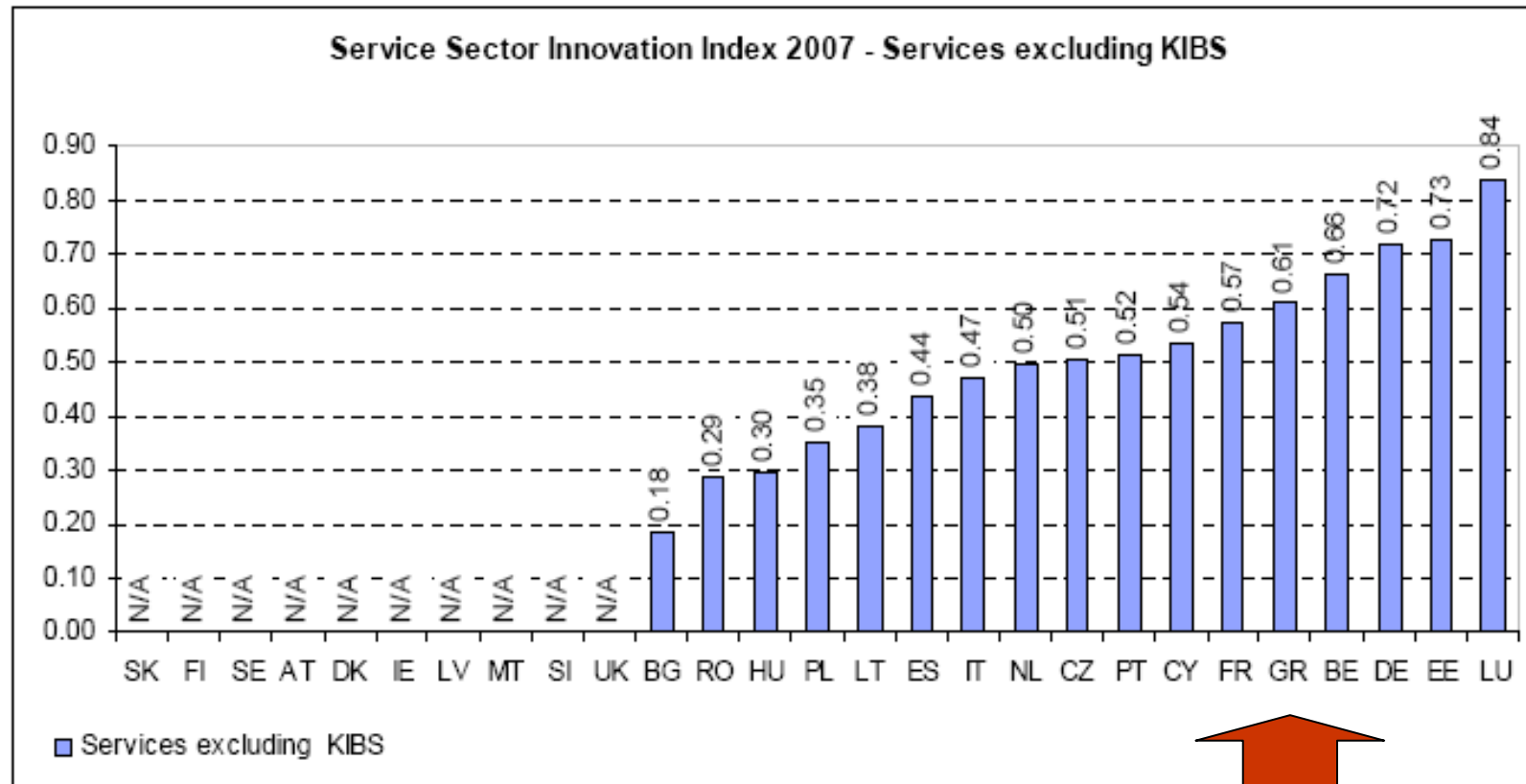
Source: Eurostat, New Cronos.



Source: Arundel A., Kanerva M., Van Cruysen D., and Hollanders H. (2007) 'Innovation Statistics for the European Service Sector, Pro Inno Europe

Greece: 4th position in the EU in the Service Sector Innovation Index excluding KIBS

Figure 5-1c

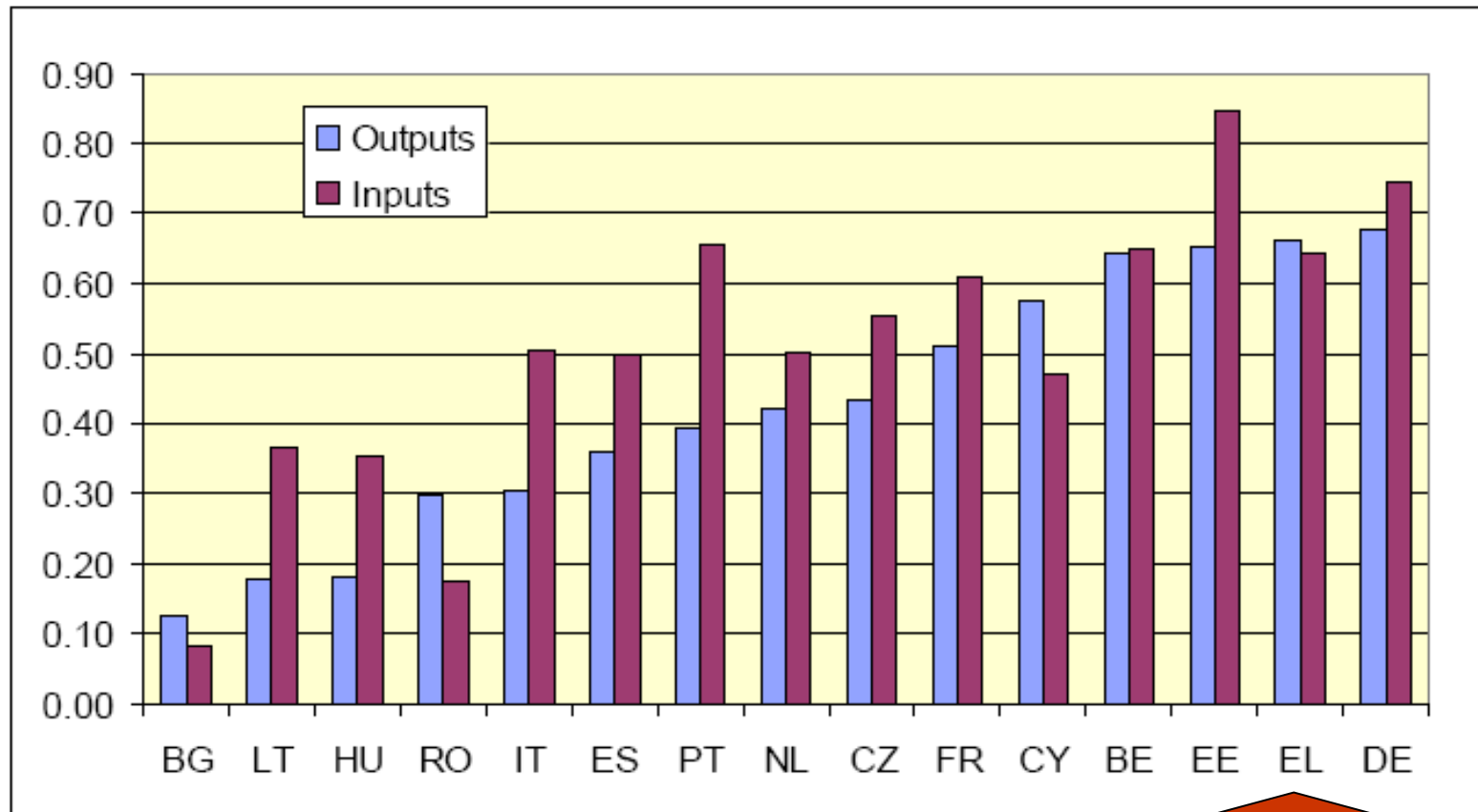


Source: Eurostat, New Cronos.

Source: Arundel A., Kanerva M., Van Cruysen D., and Hollanders H. (2007) 'Innovation Statistics for the European Service Sector, Pro Inno Europe

Greece: Balanced innovation input - output

Figure 5-1e. Performance on the service sector input and output innovation indices



Source: Arundel A., Kanerva M., Van Cruysen D., and Hollanders H. (2007) 'Innovation Statistics for the European Service Sector, Pro Inno Europe

The Service Sector Innovation Index

Table 3.1a Service Sector Innovation Indicators

Indicator	Code	Countries with data out of EU-27	Similarity with SSII 2006
HUMAN RESOURCES			
1.1 Share of firms engaged in training for innovation purposes	TRAINING	20	Same as SSII 2006 indicator 1.2
1.2 Share of firms reporting lack of qualified personnel as an important issue – reversed indicator	LACK_PERS	18	Same as SSII 2006 indicator 1.3
INNOVATION DEMAND			
2.1 Share of firms reporting uncertain demand as an important issue – reversed indicator	UNCERT_DEM	21	Similar to SSII 2006 indicator 2.1
2.2 Share of firms reporting no need to innovate because no demand for innovation – reversed indicator	NO_DEM	13	Not used in SSII 2006
PUBLIC SUPPORT FOR INNOVATION			
3.1 Share of firms that received any public funding for innovations	PUB_FUND	17	Not used in SSII 2006
PRODUCT AND PROCESS INNOVATION			
4.1 Share of firms engaged in intramural R&D	INTRA_RD	19	Not used in SSII 2006
4.2 Expenditures in intramural R&D (% of total innovation expenditure)	EXP_INTRA_RD	12	Similar to SSII 2006 indicator 3.1
4.3 Share of firms engaged in acquisition of machinery etc.	ACQ_MACH	20	Not used in SSII 2006
PRODUCT AND PROCESS OUTPUTS			
5.1 Share of firms with highly important effects in reduced materials and energy	EFF_MAT	16	Not used in SSII 2006
5.2 Share of firms with highly important effects in improved flexibility	EFF_FLEX	24	Not used in SSII 2006
5.3 Share of firms with highly important effects in improved quality	EFF_QUAL	24	Not used in SSII 2006
5.4 Share of firms with highly important effects in reduced labour costs	EFF_LBR_COST	18	Not used in SSII 2006
NON TECHNOLOGICAL INNOVATION			
6.1 Share of firms that introduced organisational and/or marketing innovations	ORG_MKT_INNO	20	Similar to SSII 2006 indicators 4.3 and 4.4
6.2 Share of firms that introduced organisational innovations	ORG_INNO	20	Same as SSII 2006 indicator 4.4
6.3 Share of firms that introduced marketing innovations	MKT_INNO	19	Same as SSII 2006 indicator 4.3
NON TECHNOLOGICAL INNOVATION OUTPUTS			
7.1 Share of firms with highly important effects in reduced time to respond	EFFORG_RESPTIME	18	Not used in SSII 2006
7.2 Share of firms with highly important effects in improved quality	EFFORG_QUAL	18	Not used in SSII 2006
7.3 Share of firms with highly important effects in reduced costs	EFFORG_COST	15	Not used in SSII 2006
COMMERCIALISATION			
8.1 Turnover of new and significantly improved products only new to firm (% of total turnover)	TURN_PROD_NEWFIRM	19	Same as SSII indicator 6.2
8.2 Share of firms that have new or significantly improved products new to market	PROD_NEWMKT	24	Not used in SSII 2006
INTELLECTUAL PROPERTY			
9.1 Share of firms that applied for a patent	IPR_PAT	12	Same as SSII 2006 indicator 7.1
9.2 Share of firms that registered an industrial design	IPR_DSG	16	Same as SSII 2006 indicator 7.3
9.3 Share of firms that registered a trademark	IPR_TM	15	Same as SSII 2006 indicator 7.2

The Service Sector Innovation Index (SSII) was based on CIS-3 data, covering innovative activities between 1998 and 2000, and more recent CIS-4 data for 2002-2004. The 23 indicators in the SSII are calculated for:

- The service sector: including NACE G51 (wholesale), NACE I (transport, storage and communication), NACE J (financial intermediation), NACE K72 (Computer and related activities), NACE 74.2 (Architectural and engineering activities and consultancies) and NACE K74.3 (Technical testing and analysis), and
- The Knowledge Intensive Business Services (KIBS)