Delivering on the growth promise in the peripheral European countries: How can an "innovating out of the crisis" strategy work in Greece

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Six years after the crisis
Where does Europe stand: Three crucial observations

- As J. Fagerberg very briefly showed:

"Before 2008: Global convergence and a dynamic Europe → "After 2008: A stagnant Europe in a (still quite dynamic) world"

Stagnation and the threat of a **deflationary** spiral.

- In addition, the **vast disinvestment** that has taken place over the recent years, especially in the **peripheral** economies due to the long-lasting austerity programmes of various intensity.

So, **underinvestment** and **unemployment** become "**the double hazard**" in the Euro-area.

- The crisis effects were uneven and acute for several parts of Europe, in particular in the **Southern European periphery countries** which suffered a severe **rollback** in the catching-up process towards the EU average level.

What is **at stake** now for Europe?

The need for a **global** perspective for the **European future**.

The Euro crisis is not only a financial and monetary crisis; it is really about Europe's **position** in the emerging global competitive landscape.

How the European countries and above all Europe can respond effectively to a world that is rapidly changing, and the long-term strategic position of **Europe as a global player** is diminishing

What has to **be done in Europe**?

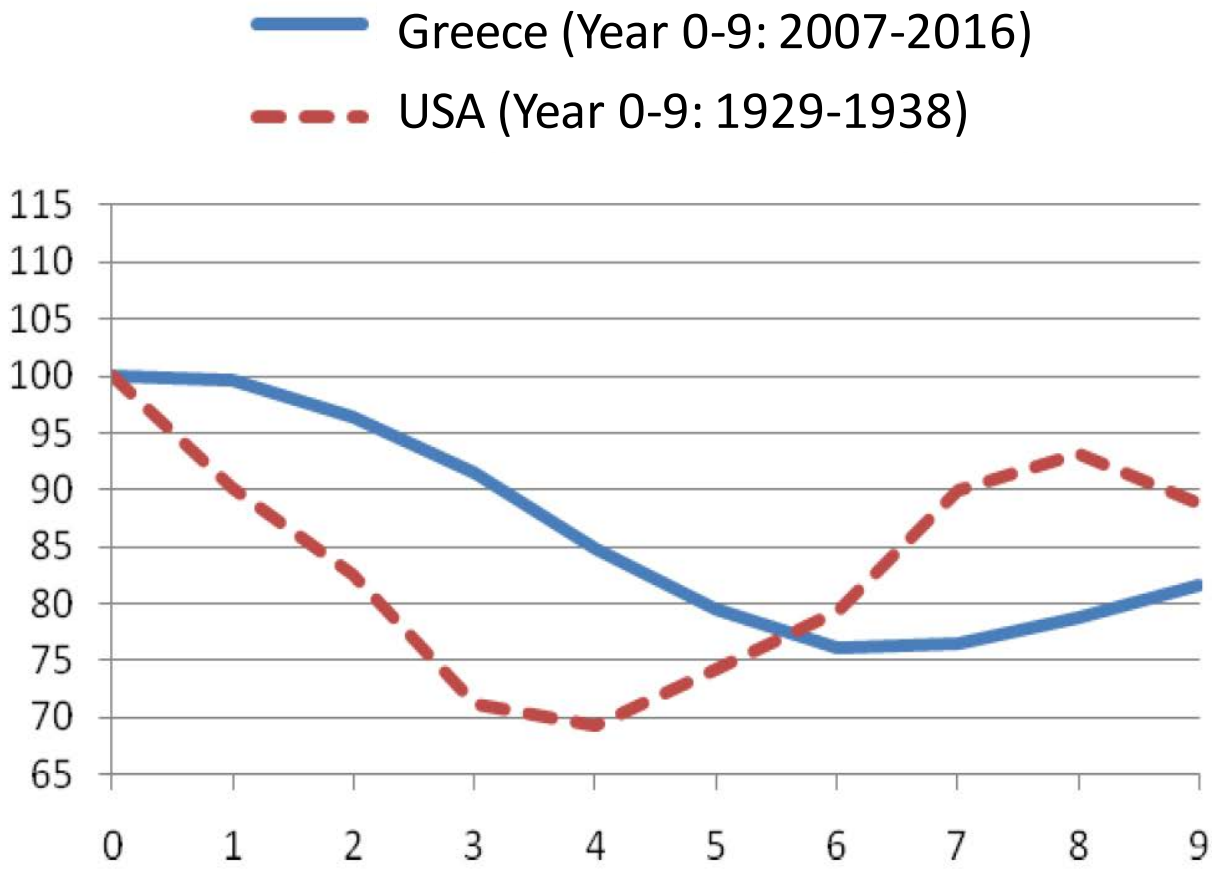
- What is urgently needed is an "**innovating out of the crisis" growth/development strategy** at the European level, which should take seriously into consideration the **heterogeneous character** of the European economies by taking into account for the required adaptations to the different contexts, systems and capabilities of the **several parts (socioeconomic configurations) of Europe.**

The **case of Greece as a Southern European economy**: **Did the recession end?**

- A few days ago, on the 14th of November 2014, the Greek Statistical Authority, announced that GDP for the **3rd** Quarter of 2014 in volume terms increased by **0.7%** in comparison with the 2nd Q of 2014 and by **1.7%** compared to the 3rd Q of 2013.
- Did the recovery has come and the restart of the hardest hit peripheral economy in Europe is on its way? And how sustainable can be?

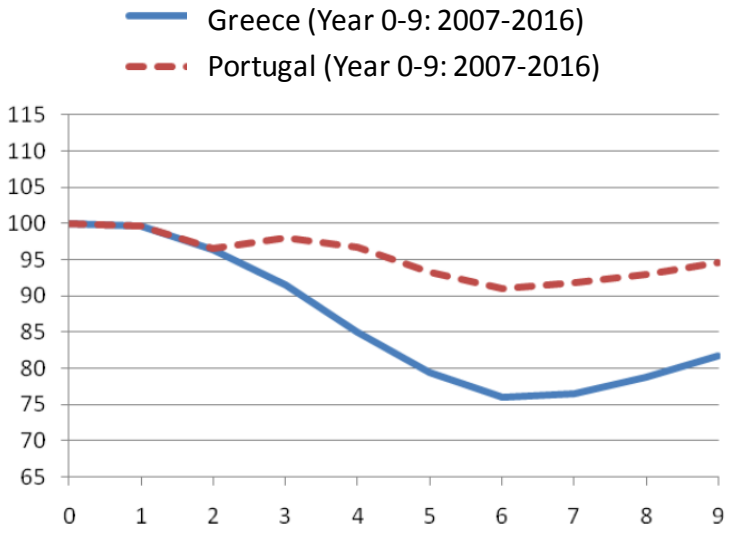
How long, how deep the recession was (?) in Greece?

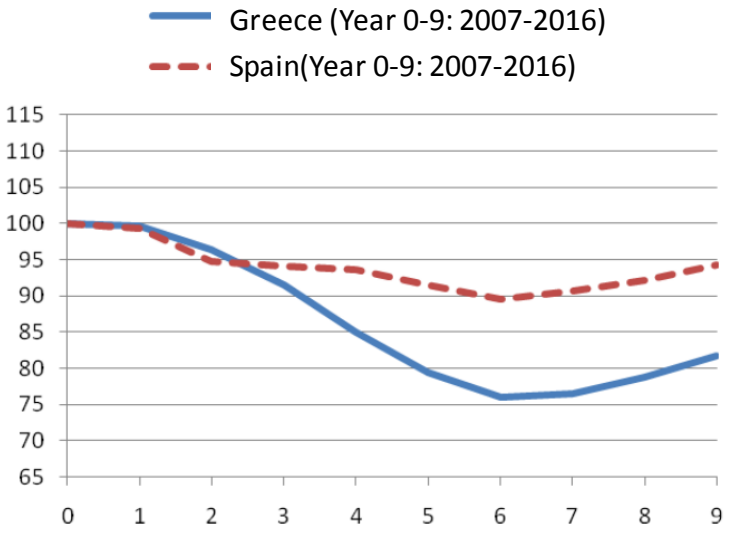
[Source: Eurobank, Research Department, 2014],



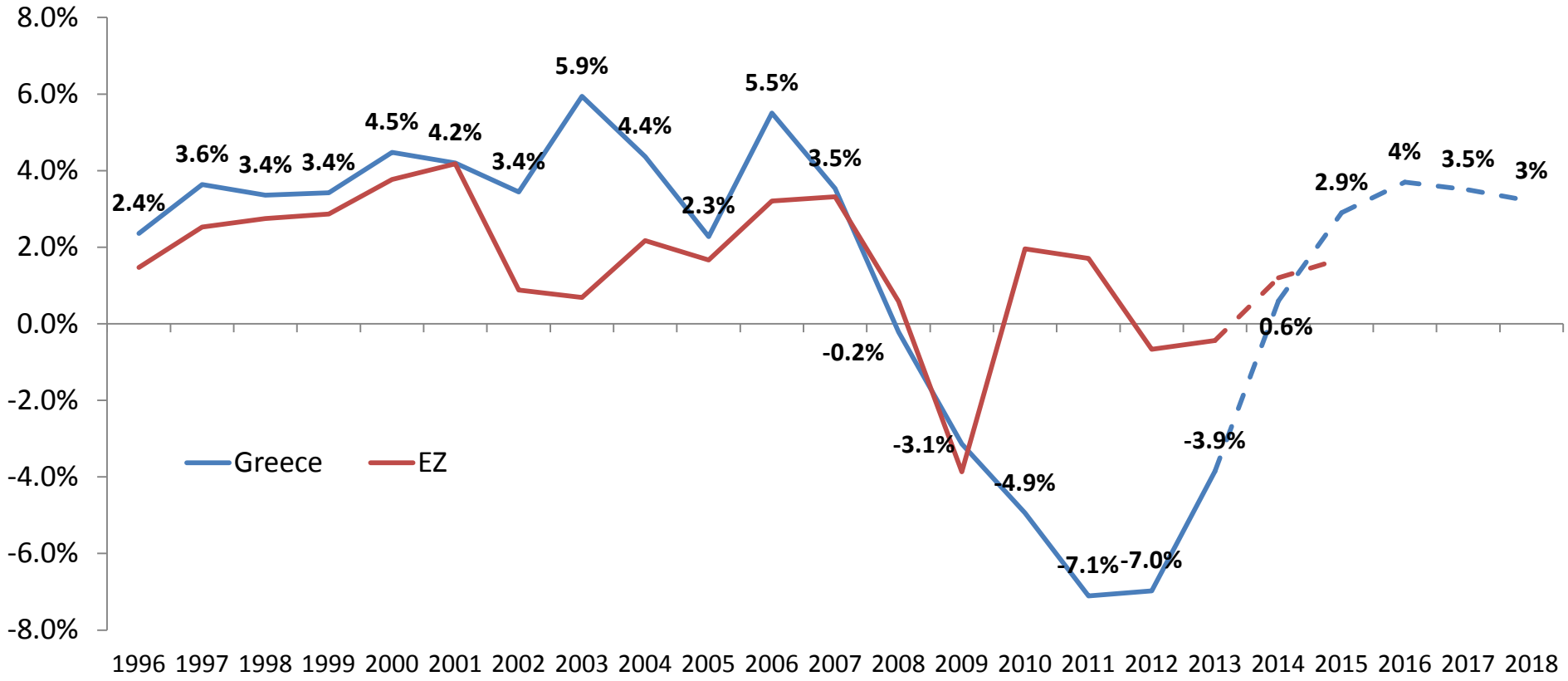
Greek recession compared to the Portuguese and the Spanish

(Source: Eurobank, Research Department, 2014)





But, Greece was a rapidly growing economy with higher growth rates than the Eurozone for almost 15 years…(1994-2007)



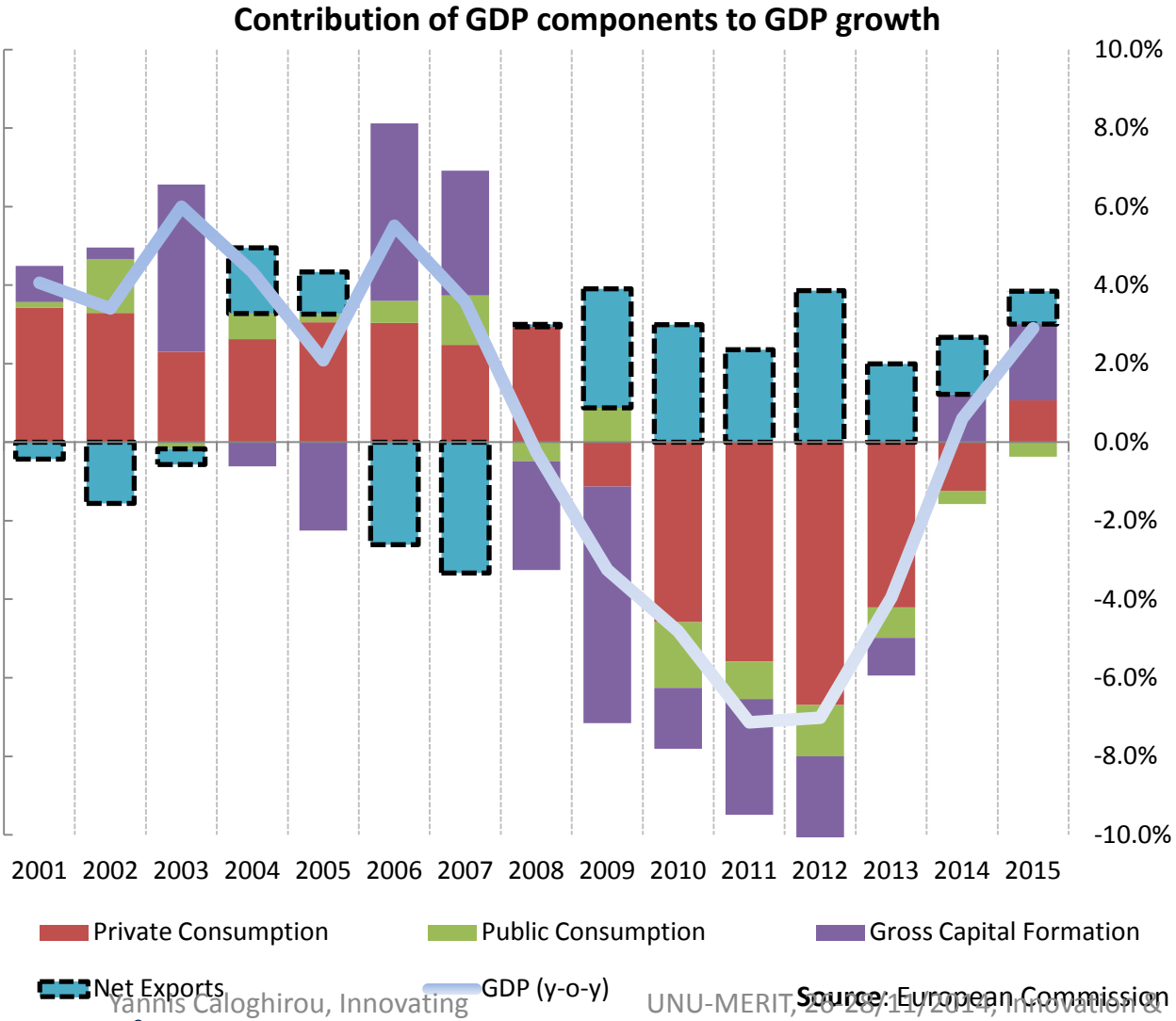
Source: Medium-Term Fiscal Strategy Framework 2015-2018 (Greek data), Eurostat (EZ data), European Economic Forecast, Spring 2014

Average growth rate in Greece 2000-2008: **3,7 %**

EZ-18: **2,0 %**

EE-28: **2,3 %**

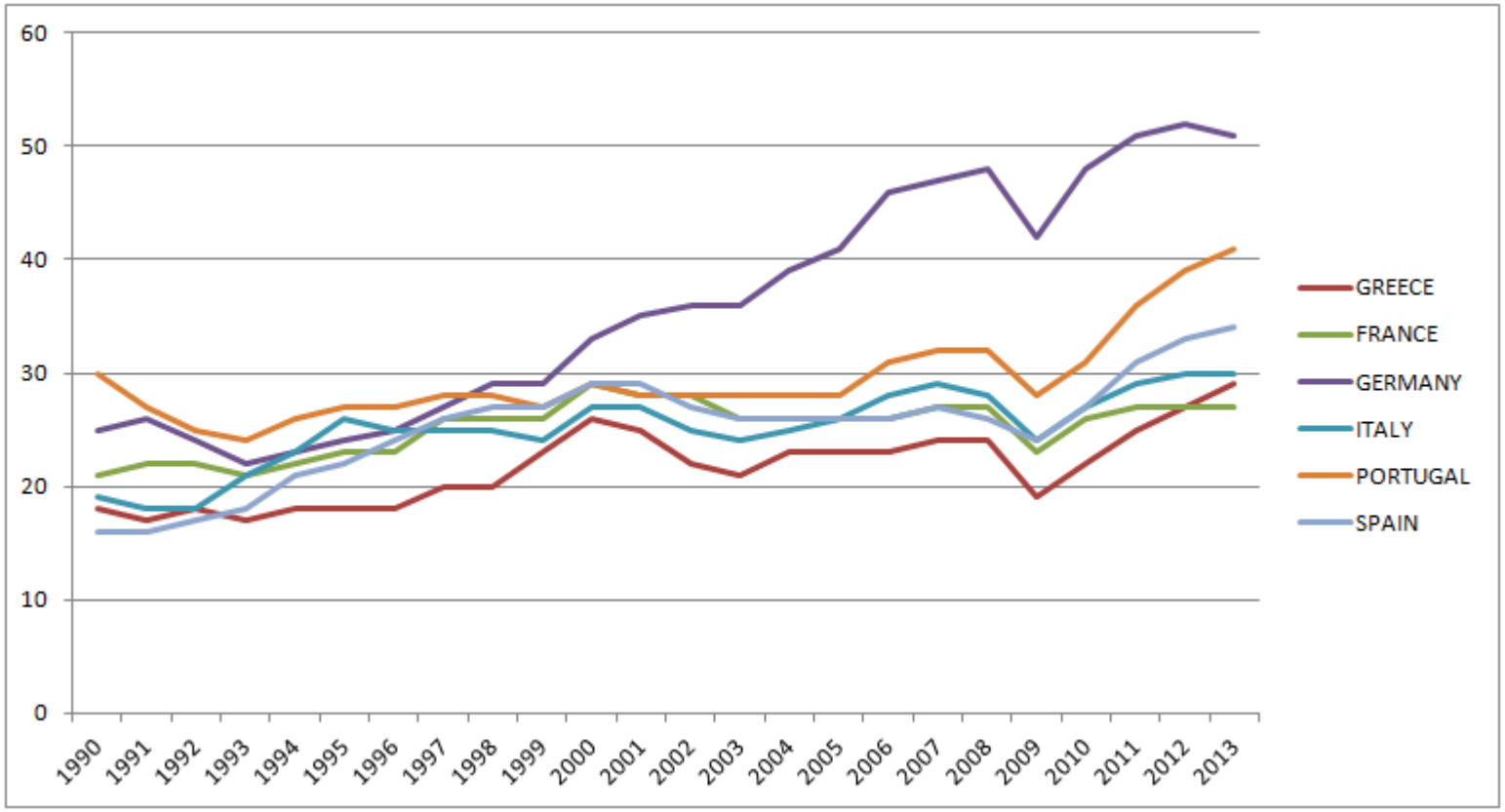
The result was deeper than anticipated recession
Slight recovery projected for 2014 (0.6%), 2.9% for 2015



Cumulative GDP contraction of ~ 24% (2007 - end of 2013)

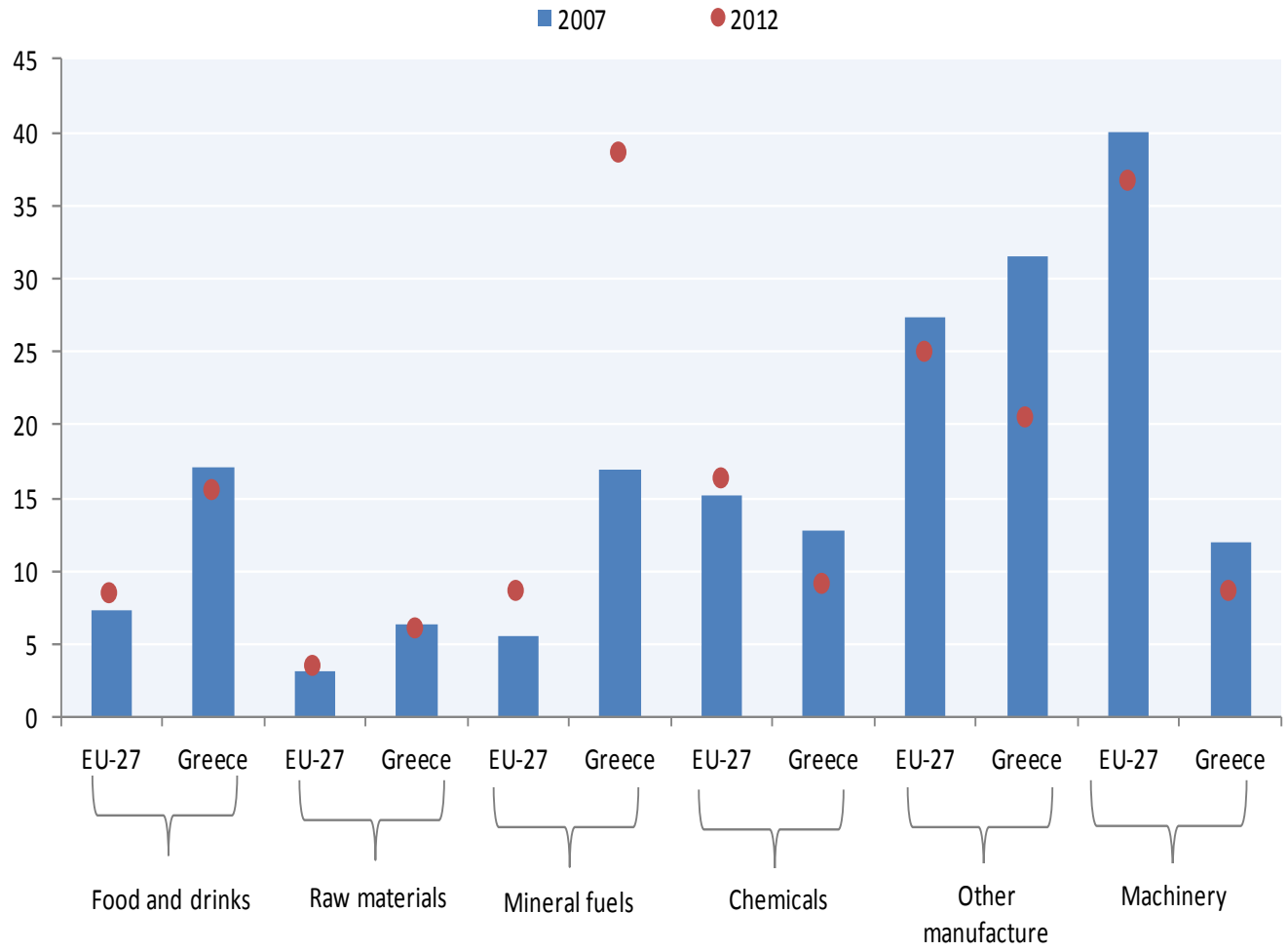
- Private Cons.: -23.3%
- Public Cons.: -20.8%
- Cumulative **Investment decrease : -60.1% (2007- end of 2013)**
- Exports: -13.7%
  " " Goods:- 2.8%
  " "Services: - 23.6%
- Imports: -42.7%
  " " goods: - 46.4%
  " " services: - 23.9%

Exports as % of GDP



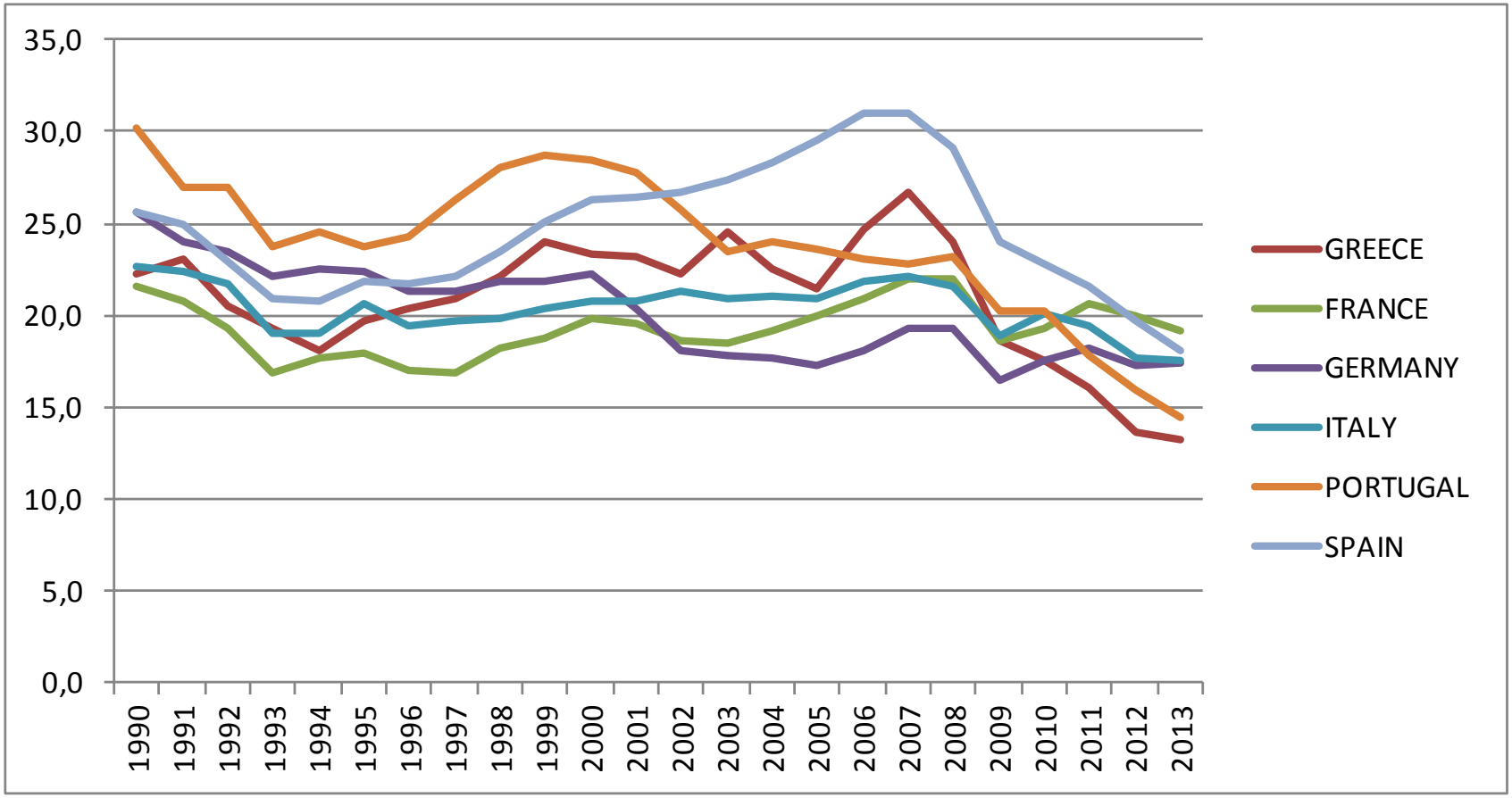
Share of exports by main products

- Exports are basically low tech low value added



- Source: Eurostat

Investments as % of GDP



Combating the Greek economic crisis: What was and is still **missing** in policy terms?

- **Macroeconomic policies** (monetary, fiscal and income policies) in Greece have dominated both the public debate and the public policy agenda during the last six years of the crisis. That's reasonable because of the acute fiscal crisis (in fact fiscal derailing), but …something is missing.
- The **structural** and the **contextual** (i.e. the European/ global) dimension of the crisis is missing.
- There is **not an automatic link** between the necessary macroeconomic stabilization (plus some general market-based structural reforms) and a high-quality, high-potential growth trajectory.
- The time is ripe for **shifting the emphasis** of the economic discussion and the economic policy agenda towards the **prerequisites for value creation** and **positive restructuring/ rebalancing ,**instead of **solely** focusing on **cost** factors.
- Think **globally** but do not neglect the **meso** and **micro** level.

International Competitiveness: A MULTI-DIMESIONAL PHENOMENON

- **The limits of the "unit labour cost"** (relative to that of its trading partners in common currency) measure in the policy context. It does take into account quality differences.
- Competitiveness should be analysed as a dynamic phenomenon i.e. in a growth perspective.
- "Non-price factors" (technology, innovation, capabilities, social capacity, the type of demand..) are equally (if not more important) than the variations in wage-costs and prices
- Price/cost competitiveness vs. **structural** competitiveness
- Where in the competitiveness ladder do you and can you position your business firm/ industrial activity/ economy?

The Greek economy in the International Division of Labour: The defect of **"The stuck in the middle"** strategic position

The Greek system of production and business in a globalised environment of intense competition is facing **two-sided competitive pressures** both from:

- Cheap producers located in low-income/ low labour cost countries
- Quality superior producers located in high-income countries with advanced technological and operational capabilities.

Greek economy in the period (1994-2007): High growth but lower "**knowvative**" content

- Long and impressive growth path, but…important systemic hysteresis (**lags** and **missing links**) in the linkage of the system of production and business with knowledge, technology and innovation.
- Very **limited national R&D investment** despite the fact of **improving performance and visible presence of Greek research groups at the EU level.**

Greek economy in the period (1994-2007): High growth but lower "knowvative" content (..cont..)

- Not adequate operational use of ICT (except mobile and the National Academic and Research Network)- despite considerable progress in the use of ICT by younger generations.
- A lack of commercializing research results (Missing link between the research community and the business/ industrial world).
- New entrepreneurial ventures are mostly of B2C type with very little technological content, very little B2B (compared to other EU countries) [GEM Survey].
- Economic growth faster than the change in attitudes and mindsets.

Strong points of the Research System

- High and visible participation with an important role in the research networks emerging from the EU- funded under competitive terms research programmes during a period of 35 years.
- Increasing scientific production.
- Remarkable presence in the top 1% most sited research (research excellence)

But, very little commercialisation and academic entrepreneurship.

Underinvestment by both the public and the private sector in R&D

The threat of one way “brain drain”

Participation intensity and centrality role of Greece in FPs (1984-2009)

(*number of actors, number of participations in parenthesis)

No	Country	Organizations	Co-ordinators	Top 1% most central actors
1	GERMANY	8650 (27952)	1594 (3800)	81 (9988)
2	UNITED KINGDOM	6302 (23915)	1568 (4081)	93 (10268)
3	FRANCE	6389 (22995)	1380 (3443)	70 (8410)
4	ITALY	5344 (17609)	1158 (2388)	52 (5244)
5	SPAIN	3965 (12201)	776 (1567)	40 (3824)
6	NETHERLANDS	3266 (11194)	744 (1838)	33 (4183)
7	BELGIUM	2358 (7595)	515 (1180)	15 (2501)
8	GREECE	1625 (7248)	276 (893)	22 (3429)
9	SWEDEN	1786 (6228)	251 (603)	19 (2301)
10	DENMARK	1478 (5042)	351 (760)	17 (1670)
11	PORTUGAL	1317 (3829)	179 (309)	12 (1042)
12	AUSTRIA	1415 (3795)	249 (486)	12 (914)
13	SWITZERLAND	1113 (3777)	51 (104)	13 (1440)
14	FINLAND	1025 (3716)	161 (415)	9 (1501)
15	NORWAY	870 (2828)	150 (352)	12 (850)
16	IRELAND	746 (2492)	130 (311)	7 (882)
17	POLAND	813 (2135)	108 (179)	7 (330)
18	CZECH REPUBLIC	547 (1356)	32 (40)	5 (203)
19	HUNGARY	550 (1290)	42 (56)	2 (191)
20	SLOVENIA	315 (783)	26 (33)	5 (275)
21	ROMANIA	430 (738)	21 (27)	0
22	BULGARIA	262 (561)	22 (28)	2 (43)
23	SLOVAKIA	225 (499)	19 (25)	2 (53)
24	ESTONIA	155 (375)	17 (23)	1 (34)
25	LITHUANIA	147 (317)	15 (17)	0
26	LUXEMBOURG	161 (284)	28 (45)	0
27	CYPRUS	111 (271)	6 (7)	1 (74)
28	LATVIA	120 (237)	17 (19)	1 (23)
29	MALTA	39 (112)	1 (1)	0

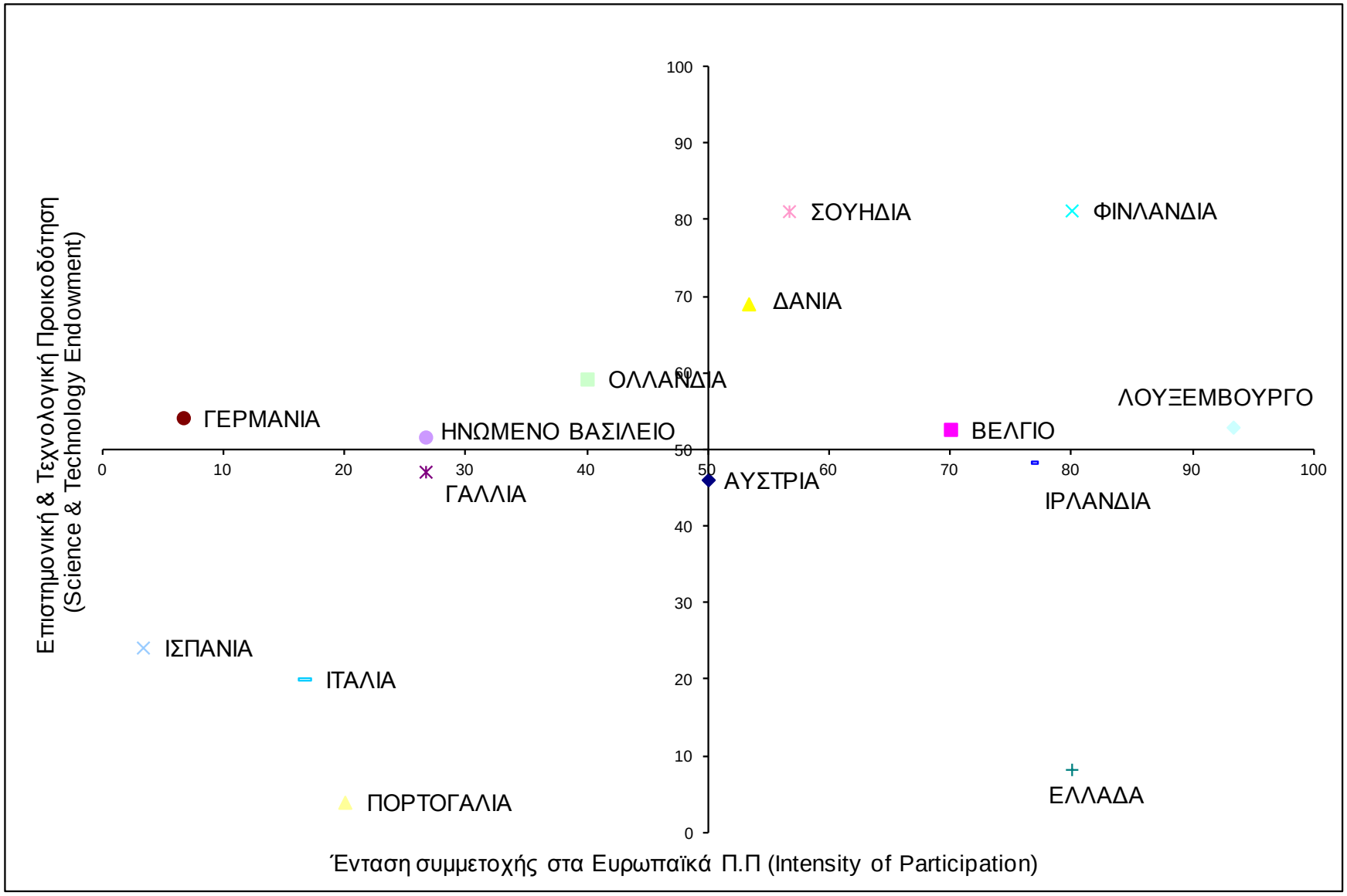
Top 20 most important organizations in EU- funded policy-driven research joint ventures (1984-2009)

Organisation Name	Type	Country	Participations	Centrality score
FRAUNHOFER GESELLSCHAFT ZUR FÖRDERUNG DER ANGEWANDTEN FORSCHUNG EV	Research	GERMANY	1404 (2)	3 (1)
CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE (CNRS)	Research	FRANCE	1620 (1)	7 (2)
NETHERLANDS ORGANISATION FOR APPLIED SCIENTIFIC RESEARCH - TNO	Research	NETHERLANDS	877 (3)	8 (3)
VTT - TECHNICAL RESEARCH CENTRE OF FINLAND	Research	FINLAND	715 (5)	12 (4)
NATIONAL TECHNICAL UNIVERSITY OF ATHENS	**Education**	**GREECE**	**727 (4)**	**15 (5)**
CONSIGLIO NAZIONALE DELLE RICERCHE (CNR)	Research	ITALY	695 (6)	18 (6)
KATHOLIEKE UNIVERSITEIT LEUVEN	Education	BELGIUM	587 (10)	21 (7)
COMMISSARIAT À L'ENERGIE ATOMIQUE (CEA)	Research	FRANCE	637 (7)	29 (8)
CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	Research	SPAIN	597 (9)	30 (9)
IMPERIAL COLLEGE OF SCIENCE, TECHNOLOGY AND MEDICINE	Education	UK	564 (11)	32 (10)
RHEINISCH-WESTFÄLISCHE TECHNISCHE HOCHSCHULE AACHEN	Education	GERMANY	499 (13)	34 (11)
UNIVERSIDAD POLITÉCNICA DE MADRID	Education	SPAIN	434 (19)	34 (12)
UNIVERSITÄT STUTTGART	Education	GERMANY	436 (18)	36 (13)
SIEMENS AKTIENGESELLSCHAFT	Industry	GERMANY	605 (8)	38 (14)
LUND UNIVERSITY	Education	SWEDEN	426 (20)	43 (15)
ECOLE POLYTECHNIQUE FEDERALE DE LAUSANNE	Education	SWITZERLAND	453 (17)	52 (16)
CENTRO RICERCHE FIAT (C.R.F.) SCPA	Research	ITALY	503 (12)	54 (17)
ARISTOTLE UNIVERSITY OF THESSALONIKI	**Education**	**GREECE**	**294 (36)**	**59 (18)**
KUNGLIGA TEKNISKA HOEGSKOLAN	Education	SWEDEN	397 (23)	59 (19)
DEUTSCHES ZENTRUM FÜR LUFT- UND RAUMFAHRT EV (DLR)	Research	GERMANY	463 (16)	61 (20)

Greek actors in top100 central organizations (1984-2009)

Organization Name	Type	Centrality Score	Co-ordinator	Participations
NATIONAL TECHNICAL UNIVERSITY OF ATHENS	Education	15 (5)	75 (18)	727 (4)
ARISTOTLE UNIVERSITY OF THESSALONIKI	Education	59 (18)	27 (77)	294 (36)
UNIVERSITY OF PATRAS	Education	91 (29)	24 (93)	252 (52)
NATIONAL AND KAPODISTRIAN UNIVERSITY OF ATHENS	Education	117 (39)	14 (182)	254 (51)
FOUNDATION FOR RESEARCH AND TECHNOLOGY - HELLAS (FORTH)	Research	120 (40)	44 (33)	306 (32)
NATIONAL CENTRE FOR SCIENTIFIC RESEARCH 'DEMOKRITOS'	Research	225 (74)	35 (46)	171 (82)
CENTRE FOR RESEARCH AND TECHNOLOGY HELLAS (CERTH)	Research	230 (77)	34 (54)	149 (100)

Research Activity in ICT



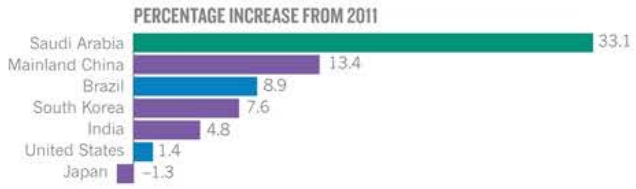
Excellence in Research

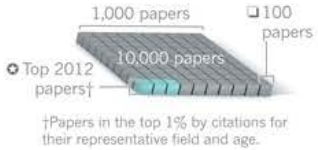
The share of the published research production of each country in the top scientific journal in the top 1% of most cited papers (2012)

SCIENTIFIC PAPER TRAIL

Number of research papers published in 2012 by leading science nations, and the proportion of each country's research this year that is in the top 1% of most-cited papers*.

*Figures estimated from data for January–October; 39 countries with total above 6,000 papers shown.





The system of production and entrepreneurship

- Too many micro firms (particularly with 1-4 employees) and high self-employment compared to other EU countries.
- Even within the group of larger firms, most are SMEs and only small number of actually large firms.
- Those of the established (incumbent) firms that are doing some research, they invest in technology upgrading, develop innovations, invest in human capital, exported to some degree performed better during the crisis.
- Among the new firms, they performed better start ups that were oriented to link (or “plug in”) with international networks of innovation (i.e. new firms active in mobile applications and content).

A growth strategy: What?

- Introduction of a clear “activating knowledge” systemic dimension in the economic “policy mix’.
- The strategy should address five key-issues:
  - Enhance the STID system
  - Create a vibrant ecosystem for Knowledge-intensive entrepreneurship to floursish (the pool of potential would be entrepreneurs esp. Among engineering and business graduates)

A growth strategy: What?

- Invest in developing and upgrading the human factor.
- Organize a smart and effective functional state beyond mere cuts in public expenditures.
- Untap the under-utilised ICT induced growth potential which can bring about productivity gains both in the public administration and the business sector. Investment in ICT and new technologies should go hand in hand with training the people dealing with them.

Beyond the sectoral approach at the perception of the "ecosystem"

- The transfer of the ecosystem at the analysis of value chain and related socio-economic processes
- Technical-socioeconomic ecosystems.
- The role of actors and stakeholders. Broad range.
- Interactions between organizations and symbiotic relations for the creation of knowledge.
- The role of actors and the exigent demand.
- Platforms, learning, knowledge and innovation networks.

Examples of ecosystems

- The ecosystem of Information and Communication Technologies
- The agro-bio-nutritional-food value chain coupled with tourism
- The environmental
- The construction (projects, materials, insulators, bioclimatic, smart buildings, energy saving, renovations of buildings..)
- Energy (production and demand management..)
- Health (services and pharma)
- Creative and Cultural Industries

A growth strategy: How

- Implementation matters very much in the Greek and other similar contexts. Drafting the policy framework and putting the incentives right is not sufficient.
- A system of interrelated and well coordinated public policies with concrete measures and rules of the game is necessary

The organization and the strategic management of the implementation matters a lot

- **System of policies**. Consolidation and integration of measures, interventions and actions. Timing.
- **Public debate agenda configuration**. Development is a process of mobilization of resources, humans, groups etc.
- **Strong coordination** but decentralized implementation
- The **quality and effectiveness** (=capacity to deliver) of the actors involved.
- A process of **engaging actors** in each of these value chains as well as allowing space for new actors to emerge should be activated

Funding and broad concensus are prerequisites

- A reasonable national public investment programme to support the strategy for growth, employment and structural competitiveness supplementary to necessary European initiative.
- A new social and political deal for promoting this strategy is an absolute must.

Junker's investment package announced on November the 25th , 2014

- 315 bn Euros package for the next 3 years, but **doubts** how a limited EU contribution (€21 billion of initial public money) is intended to lift fifteen times as much in capital.