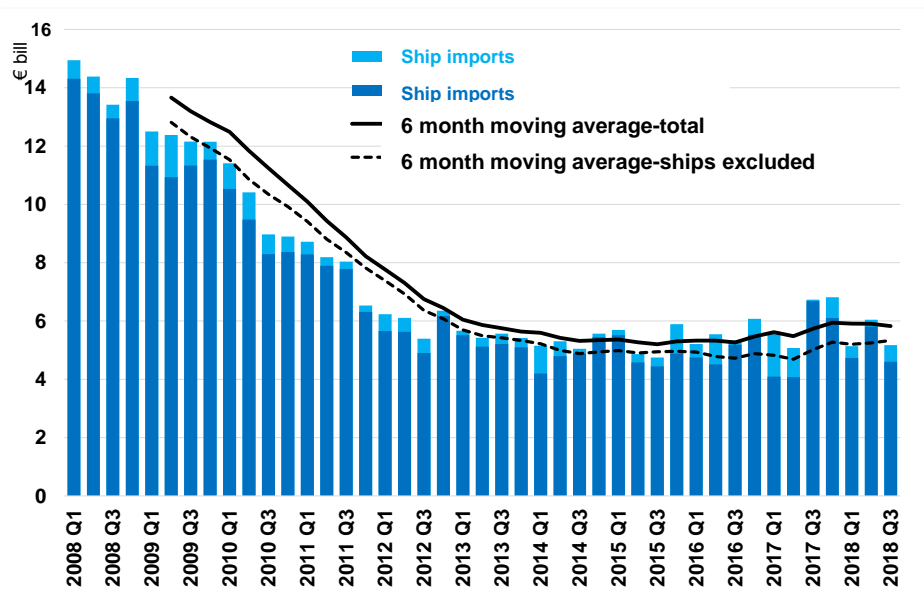


Growth challenges towards Industry 4.0

20.03.2019

Dr George Xirogiannis
Director
Industry, Growth and Infrastructure

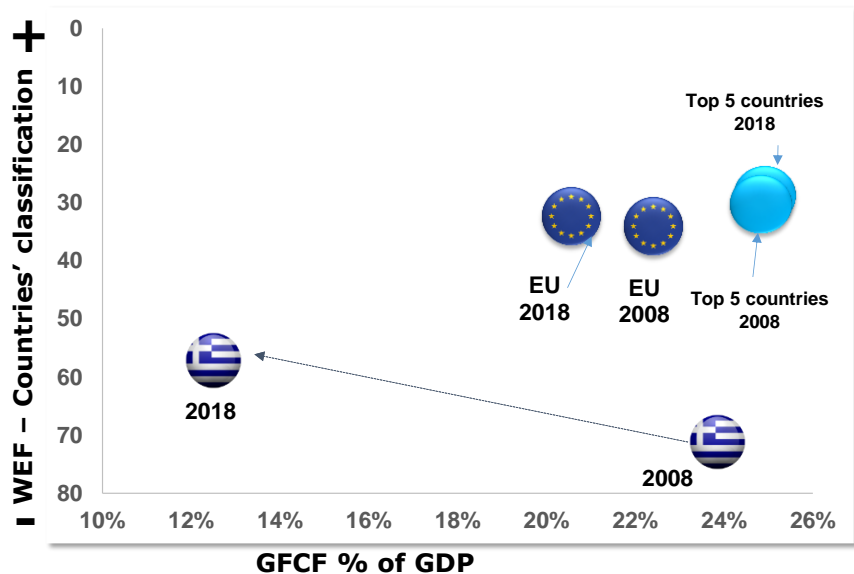


+154.5%, transport equipment
 +16.5%, ICT
 +18.4%, machinery
-23.2% total investments

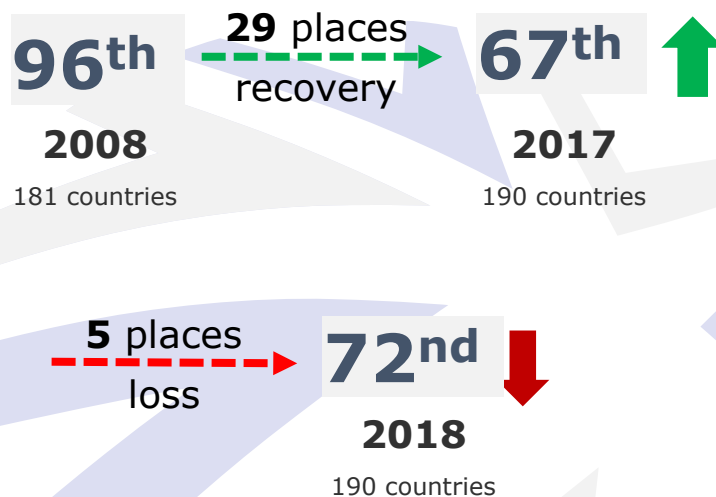
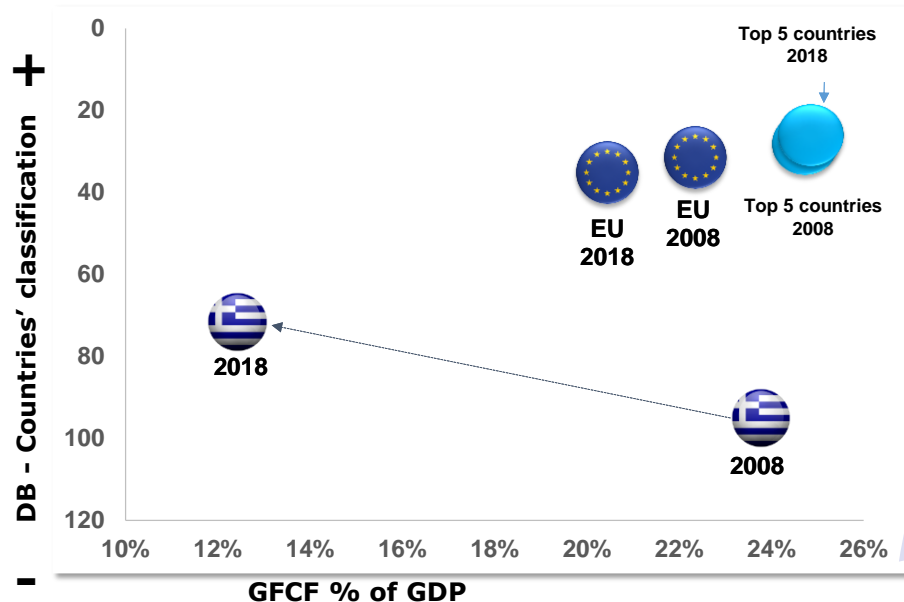
Barriers

- Outdated state aid practices
- Complex (environmental) licensing
- Over taxation
- Excessive non-wage costs and energy costs

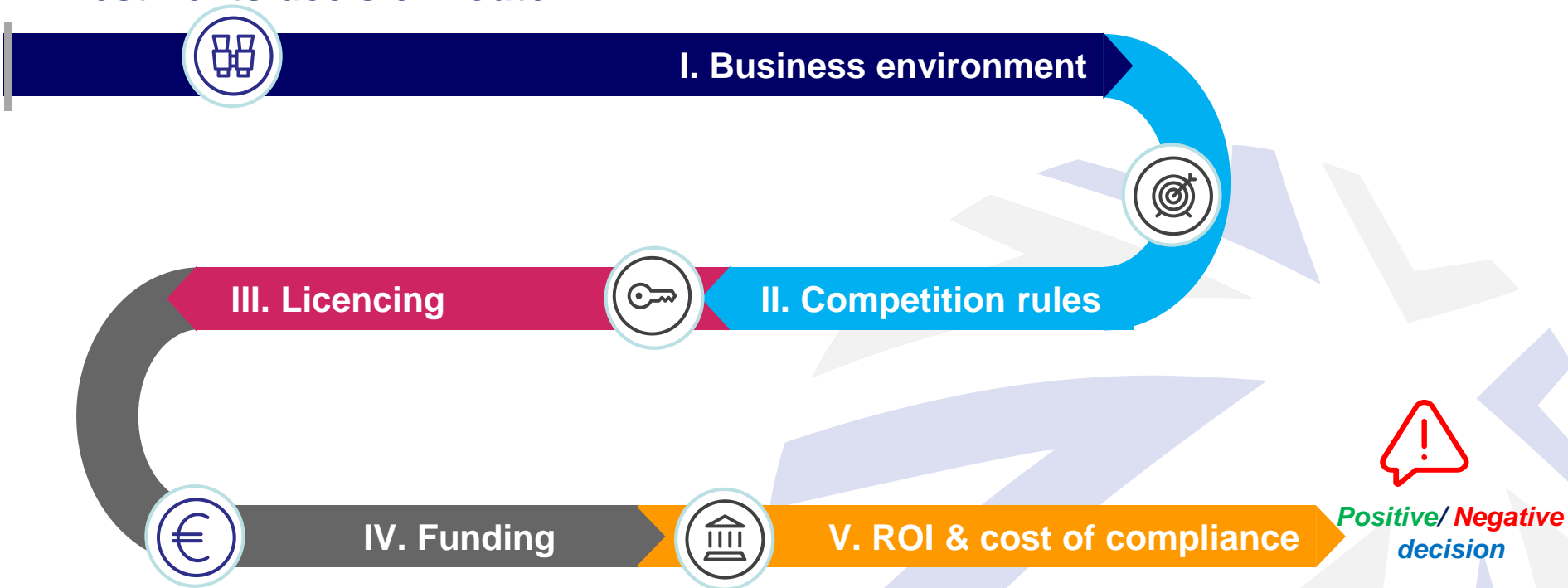
WEF : 27th of 28



Doing Business : 27th of 28





















Investments decision route



Global Competitiveness Index

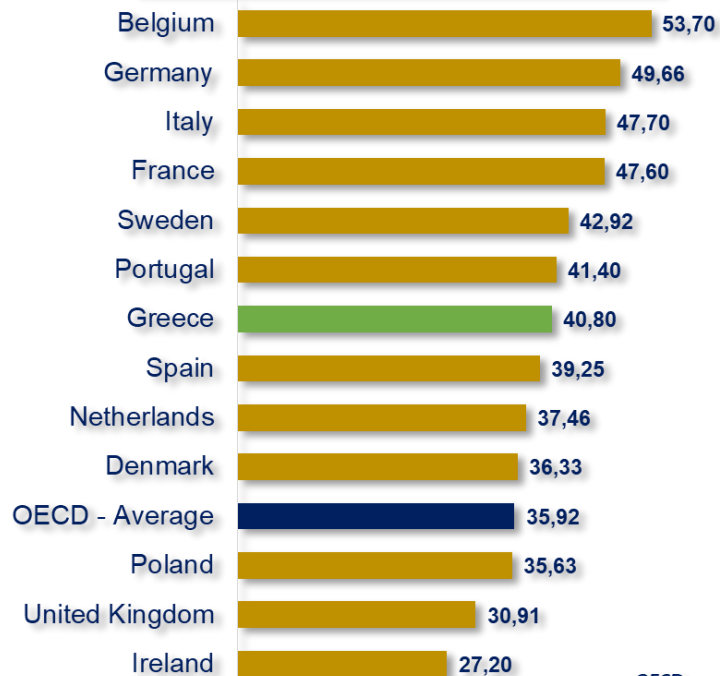
Ease of Doing Business

Additional Indicators

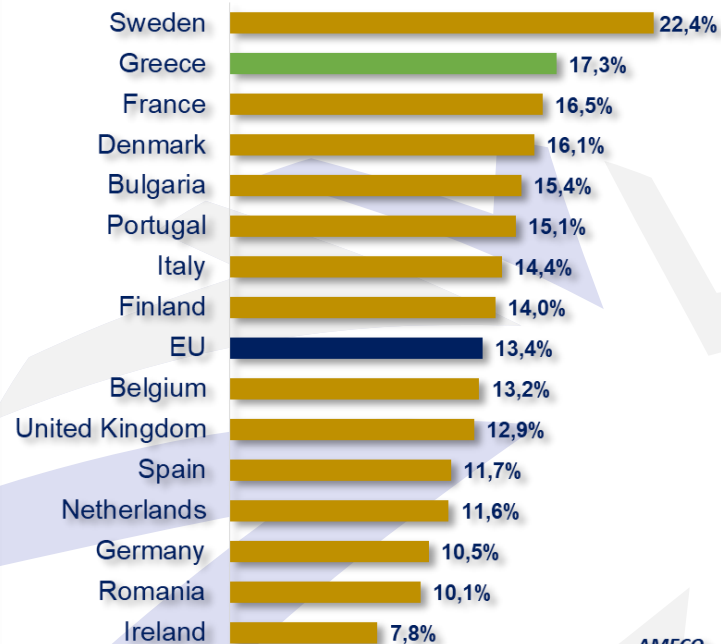
	Published Report 2018-2019	Comparison to 2017-2018		Published Report 2018-2019	Comparison to 2017-2018		Published Report 2019	Comparison to 2018		Published Report 2018	Comparison to 2017
"Institutions"	87 th /140	 3 seats	"Business dynamism"	72 nd /140	 15 seats	"Enforcing contracts"	132 rd /190	 1 seat	"No of pending admin. cases"	22 th /22	(2016)
"Product market"	63 rd /140	 3 seats	"Market size"	58 th /140	—	"Protecting minority investors"	51 st /190	 8 seats	"Use of ICT between courts & lawyers"	22 th /22	(2016)
"ICT adoption"	57 th /140	 2 seats	"Innovation capability"	44 th /140	 1 seat	"Trading across borders"	31 st /190	 2 seats	"DESI"	27 th /28	—
"Infrastructure"	38 th /140	 2 seats	"Labor market"	107 th /140	—						
			"Skills"	39 th /140	 2 seats						
						"Starting a business"	44 th /190	 7 seats			
						"Registering property"	153 rd /190	 8 seats			
						"Dealing with construction permits"	39 th /190	 19 seats			
						"Getting electricity"	79 th /190	 3 seats			
"Financial system"	114 th /140	 2 seats				"Getting credit"	99 th /190	 9 seats			
						"Resolving insolvency"	66 nd /190	 5 seats			
"Innovation capability"	44 th /140	 1 seat				"Paying taxes"	65 th /190	—	"Tax wedge"	14 th /35	14 th /35
									"Indirect taxes / GDP"	4 th /28	—
									"Direct taxes / GDP"	16 th /28	—

Tax Competitiveness

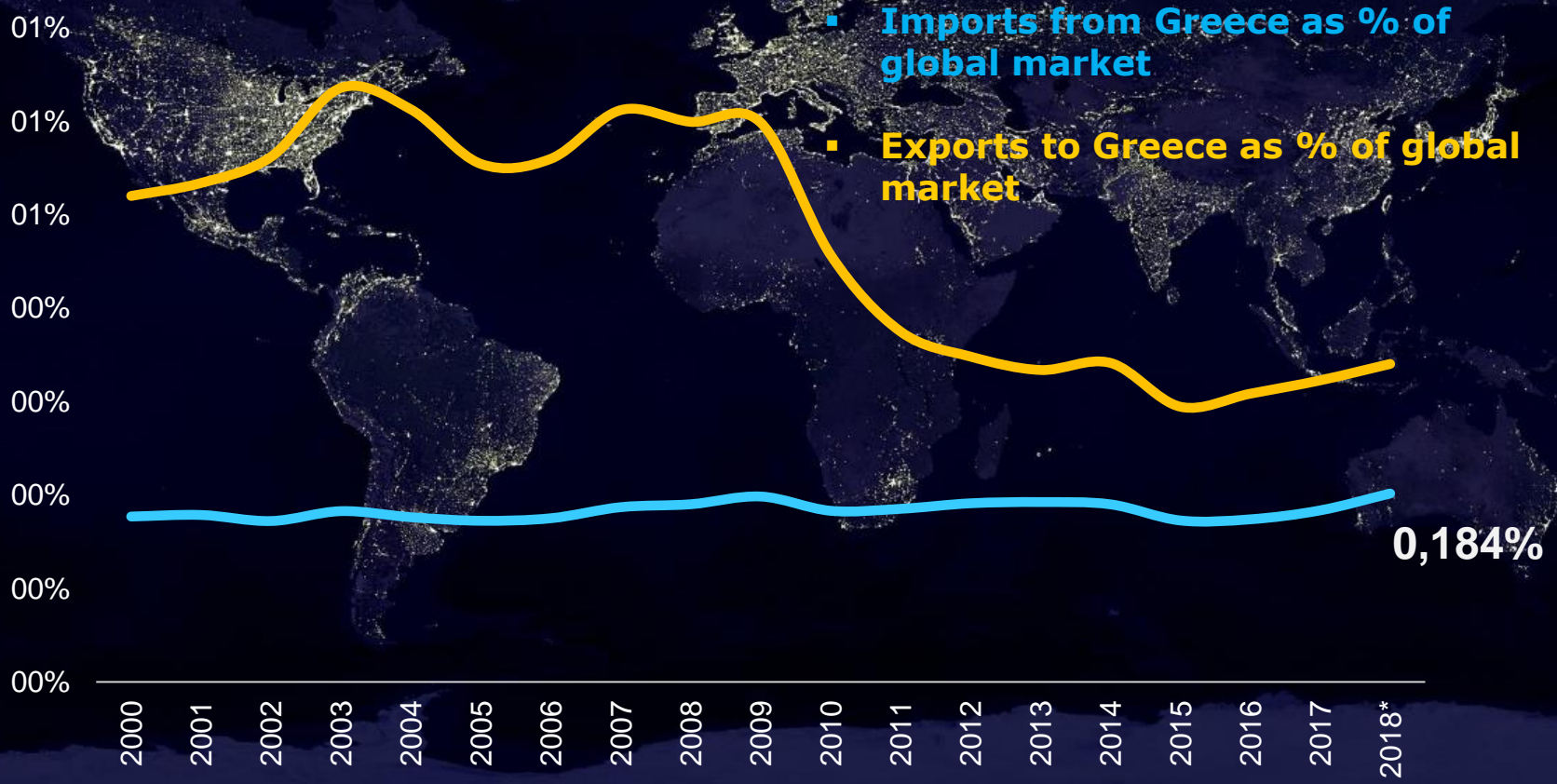
Tax wedge: 2017



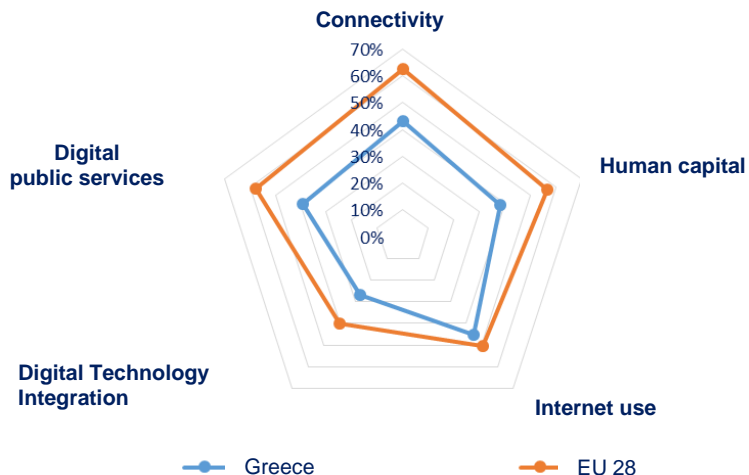
Indirect taxes % GDP: 2018



Exports Competitiveness



DESI index 2018: Greece 27th (28 E.U.)



Source: E.C., Digital Scoreboard

26ⁿ Technologies adoption (CRM & ERP)

27ⁿ e-Government services

24ⁿ Digital services “Front-office / Back-office

5,5% Cloud services, EU at 20.5%

6,5% e-invoicing, EU at 31,5%

lack of digital tools, 1 out of 3

SMEs website availability, 1 out of 3

4% integrated digital system



Talent

- 1 Inadequate supply of skilled workforce in high-demand fields
- 2 Lack of core management skills in the startup lifecycle
- 3 Lack of robust mentorship network



Innovation

- 4 Limited collaboration between startups, corporations, and universities
- 5 Weak universities focus on theoretical research as opposed to applied R&D
- 6 Low R&D investment in the Greek economy (especially by business)



Market Structure

- 7 Fear of failure inhibits entrepreneurial activity
- 8 Infant startup ecosystem limits international interest
- 9 Low economic openness & weak integration with the EU
- 10 Restrictive product and service market regulation



Institutional & Regulatory Framework

- 11 Business environment and lack of incentives discourage investment
- 12 Weak value proposition to startup talent challenges attraction & retention efforts
- 13 High taxation of employees & corporates along with a lack of incentives reduces materialization of ideas into startups
- 14 High costs and complicated procedures involved in starting, running, and closing a startup

Τι κάνουν οι άλλες χώρες για την 4^η βιομηχανική επανάσταση;



		Austria	Belgium	France	Germany	Denmark	UK	Spain	Italy	Lithuania	Lux	Holland	Hungary	Poland	Portugal	Sweden	Czech Republic
Incentives	Innovation Vouchers		✓	✓	✓		✓			✓			✓	✓	✓		✓
	Super Depreciations			✓		✓			✓								
	FDI incentives	✓													✓	✓	✓
	Tax reduction	✓	✓	✓		✓	✓	✓	✓	✓		✓		✓		✓	
Financing	Guarantees / Loans			✓		✓	✓		✓			✓	✓	✓	✓		
	Innovation Fund		✓	✓	✓	✓	✓				✓	✓		✓		✓	✓
	Venture capital - Support start-ups	✓		✓	✓	✓	✓	✓	✓			✓		✓		✓	
Patents & IP incentives		✓	✓		✓		✓		✓	✓	✓			✓			

Digital technologies promotion

Research Institutions & Industry

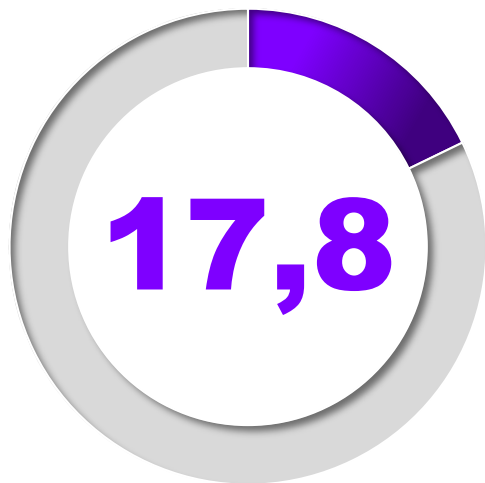
- **Spain**, «22@ Barcelona Innovation District»: 10 Universities, 12 research institutions, incubators, accelerators, 8.500 businesses & 100.000 employees
- **Italy**, 100 Digital Innovation Hubs on specialized education, supporting SMEs for I4.0 and fostering innovative projects.

Skills

Utilizing digital skills and competences

- **Austria**, «Schule 4.0», early acquiring of digital skills
- **Italy**, funding 1400 PhDs

**DIGITAL MATURITY
INDEX
201X**



**201X + 5
“BUSINESS AS
USUAL”**

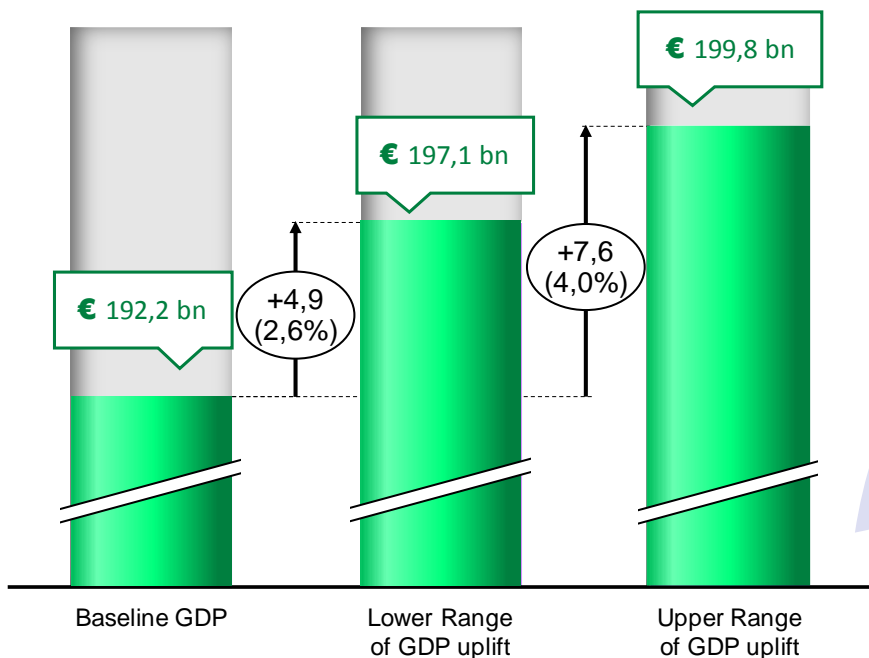


**201X + 5
TARGET**



Additional GDP Growth by 201X+5:

€4,9 – 7,6 bn



Brain drain reversal and
creation of at least **50,000 jobs**



Investment reforms

1-in / 2-out rule. For every new regulation which creates additional administrative burdens for businesses, the abolishment of regulations which create double the burden in question is required.

Adoption of a binding annual program for the simplification, codification, evaluation, deregulation

Fixed dates for implementation of new legislation

Legislative priority in reducing administrative burden.

A Pact for SMEs: After assessment by the public administration, if new regulatory arrangements entail disproportionately high burden on SMEs, they can be excluded from implementation. Alternatively, measures to reduce the impact (e.g. a few exceptions, a transition period, etc.) may be sought.

Digital Public Services (Government 2.0): Single Window, Single Tax Portfolio, Electronic Registers (Urban Planning, Land Use, Licensing, unique digital ID). Single Digital ID, Digital transactions throughout the supply chain. Digital document management and workflows. Digital services by default. "One-time" information principle.

Investment reforms

Administrative support for judges, especially in investment-related cases

Case assignment based on complexity.

Electronic court automation (e-courts)

- Fully electronic procedures (e.g. document submissions, electronic documents, work progress, decision making, electronic boards, etc.).
- Courts are electronically interconnected with public services to directly retrieve information.

Investment reforms

1. Spatial Planning and information tools

- **Digitization** of geolocation and licensing requirements.
- **Pre-licensing** with building regulations
- **Completion of the cadaster** with priority in areas of investment attractiveness.
- **Rapid resolution** of conflicts in land use

2. Simplifying licensing

Declarations of conformity and deadlines for approvals

“One-stop shop licensing”. Options may include

- "All-in-One Permit" or "All-in-one Agency"
- Central licensing authority for major projects
- Last-resort committee or agency

Alignment with EU practices

- Re-classification of environmental impact
- Remove categorization based on nuisance
- Parallel implementation of "environmental" and "spatial / urban planning"

Investment reforms

Tax predictability with set dates of any legislative change

- **Eliminate tax evasion and tax avoidance.** E-invoices can provide significant benefits including a 15% reduction in supply chain costs, up to € 1.4 billion in the private sector, 80% reduction of false tax statements, up to € 200 million increase in public revenues from the reduction of smuggling.
- **Loss carry forward** without a time limitation. Alternatively, loss carry forward losses for 12 years, with an annual cap of 70% on profits.
- **A single tax portfolio** for offsetting all forms of tax, duties and VAT (debit / credit)

Horizontal investment incentives for Industry 4.0 technologies and equipment

- Accelerated depreciations
- Super-depreciation 200%

Revolving state aid tools: Tax credits instead of grants & revolving grants.

For further information

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