



Digital Transformation – Unlocking Digital Value to Society

Greece, May 2017

High performance. Delivered.

Agenda

1

Digital Transformation Initiative

in collaboration with the World Economic Forum

2

Greece – Digital Opportunity Context

Unlocking Trapped Value: A new framework for growth

We see five supporting topics to unlock \$100trn of trapped value at stake for business and society, with greater share of value estimated to accrue to society

Dimensions of Digital Transformation

The industry deep dives identified three dimensions of Digital Transformation: **growth, efficiency and experience**

Enabling Industries

Highlighted the **unique role of enabling industries** like Telecoms and Chemistry in driving digital transformation

Countries

Started collaborating with three countries (**Denmark, India and the UK**) to support advancing their respective digital national strategies; key focus area for 2017

Cross-industry themes

Emphasized the significance of trusted **platform business models** (half of the total value at stake across DTI)

Technologies

We identify **only 7-8 technologies** are critical to transforming business and society including AI, 3D Printing, Robotics, Platforms, Autonomous vehicles etc.

Focus Areas for DTI (2015 – 2017)

5 Cross industry themes	13 In depth industry reviews	3 Country deep dives
Digital Consumption	Aviation, Travel and Tourism	Denmark
Digital Enterprise	Chemistry and Advanced Materials	United Kingdom
Societal implications	Mining and Metals	India
Unlocking Digital Value to Society	Oil and Gas	?
B2B Platform Economy	Professional Services	
	Retail	?
<i>Economics of Productivity</i>	Telecommunications	?
	Automotive	?
	Consumer Industries	?
	Electricity	?
	Healthcare	?
2015 / 2016 deep-dives	Logistics	?
<i>2017 work streams</i>	Media	?

Common Inhibitors Identified Across Industries

Five common inhibitors are identified as key challenges to unlocking trapped value

- 1 **Short-term** financial targets for public companies
- 2 **Speed** of adopting new regulations
- 3 The challenge of **cannibalizing revenues** in new business models
- 4 **Skills shortages** to meet tomorrow's workforce needs
- 5 The **slow adoption rates** of new technologies

DTI 2016: CEO Champions

DTI has gained significant importance for CEOs. Five CEOs championed the initiative and shared research and thought leadership with senior management in their respective organizations



Jonas Prising
CEO
ManpowerGroup



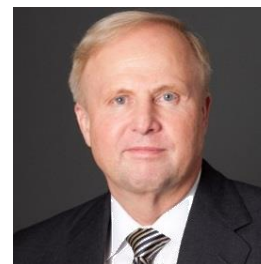
Jean-Yves Charlier
CEO
VimpelCom



Arne Sorenson
CEO
Marriott International



T.V. Narendran
CEO
Tata Steel



Bob Dudley
CEO
BP

Unlocking Trapped Value to Society and Business

Our DTI value-at-stake framework and DVS metric offer a unique approach to understanding – and unlocking – the value of digitalization for business and society.

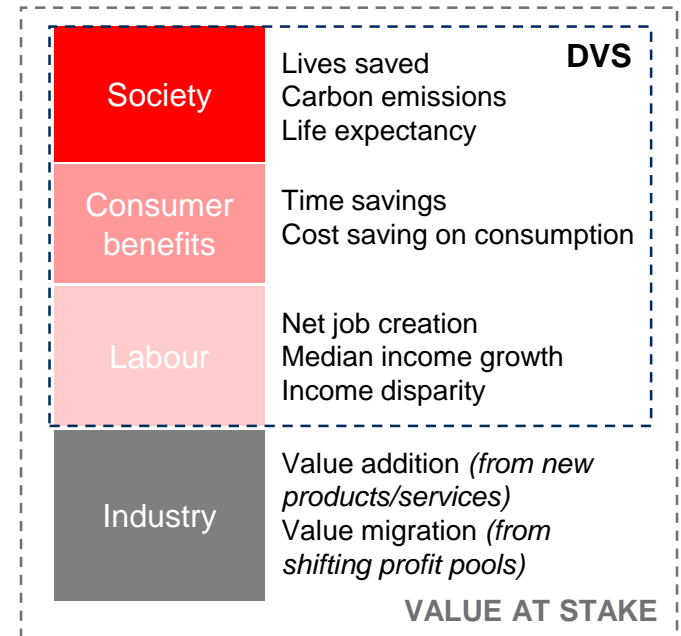
Value at stake

- Framework to assess the impact of digital initiatives on industries, customers, society and the environment over the next decade (2016 to 2025)
- Over 130 digital initiatives analysed covering innovations such as 3D printing, driverless cars, predictive maintenance, remote healthcare and drones

Digital value to society (DVS)

- New metric created by aggregating the KPIs that relate to the impact of digitalization on health and safety, employment, the environment and customers

The components of value at stake and DVS



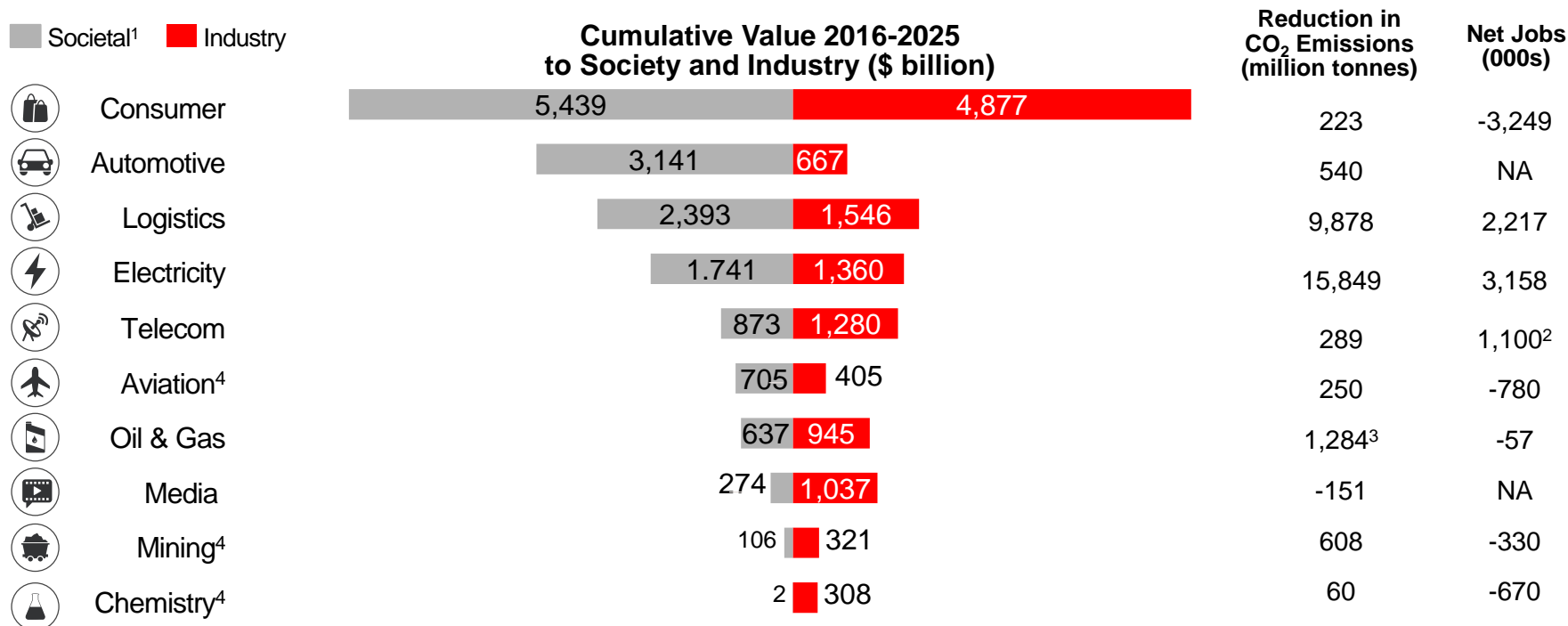


A combination of Augmented Reality + Deep-learnings + Hardware (tractors) = Blue River Technology



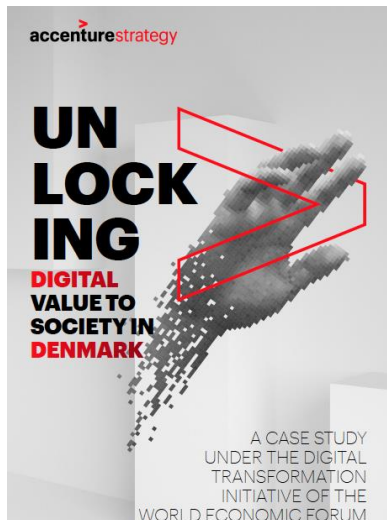
Unlocking \$100 trillion of value FOR BUSINESS AND SOCIETY by digital transformation

Across 10 industries, the value-at-stake methodology estimates that net benefits, scaled up across all industries and including externalities, will be greater than \$100 trillion over the decade to 2025 for both society and industry.



(1) Total societal value at stake includes impact on customers, society and the environment; the impact on external industries has not been considered; (2) Excludes the Extending Connectivity digital initiative; (3) Reduction in emissions for Oil and Gas refers to reduction in CO₂e emissions (4) Aviation refers to Aviation, Travel and Tourism; Mining to the Mining and Metals industries and Chemistry refers to Chemistry and Advanced Materials. Source: World Economic Forum, Accenture analysis
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Focus on Digital Denmark: Unlocking more than \$50+ billion of value over the next decade



Value at stake from digital transformation initiatives in Denmark (cumulative 2016-2025)

				Total Value at Stake	Trapped Value ¹ (approx.)	Productivity Gains	Emissions Reduction
E-commerce	33.4		0.4	\$34 billion 13% of Denmark's GDP in 2015	\$33 billion 97% of total	\$16 billion	--
Connected Travel Services	9.9		1.6	\$11 billion 4% of Denmark's GDP in 2015	\$8 billion 73% of total	\$1 billion	0.3 million tonnes
Sharing Economy	5.4		1.1	\$6 billion 2% of Denmark's GDP in 2015	\$4 billion 66% of total	\$1 billion	--
Assisted Driving	2.4		0.3	\$3 billion 1% of Denmark's GDP in 2015	\$2 billion 75% of total	--	0.5 million tonnes

¹ **Trapped value** is the difference between societal value and business value, where societal value is greater than business value. It does not reflect any multiplier effects to either society or business, which are a factor of individual initiatives within each industry and market.

Summary observations from DTI (so far)

- Identifying and **prioritizing digital programs** and initiatives **is challenging**
- **Governments** need a method to measure societal value of programs and initiatives in order to **allocate resources** more effectively and create appropriate **incentive structures** for the private sector
- We need to develop and embed an approach that can help governments incorporate **societal concerns into their decision-making** on digital transformation
- Our opportunity identification and prioritization methodologies and assets, and the **DVS and VaS approach** are helpful in **understanding tactical and long term opportunities** presented by digital transformation, and their value impact on society and business

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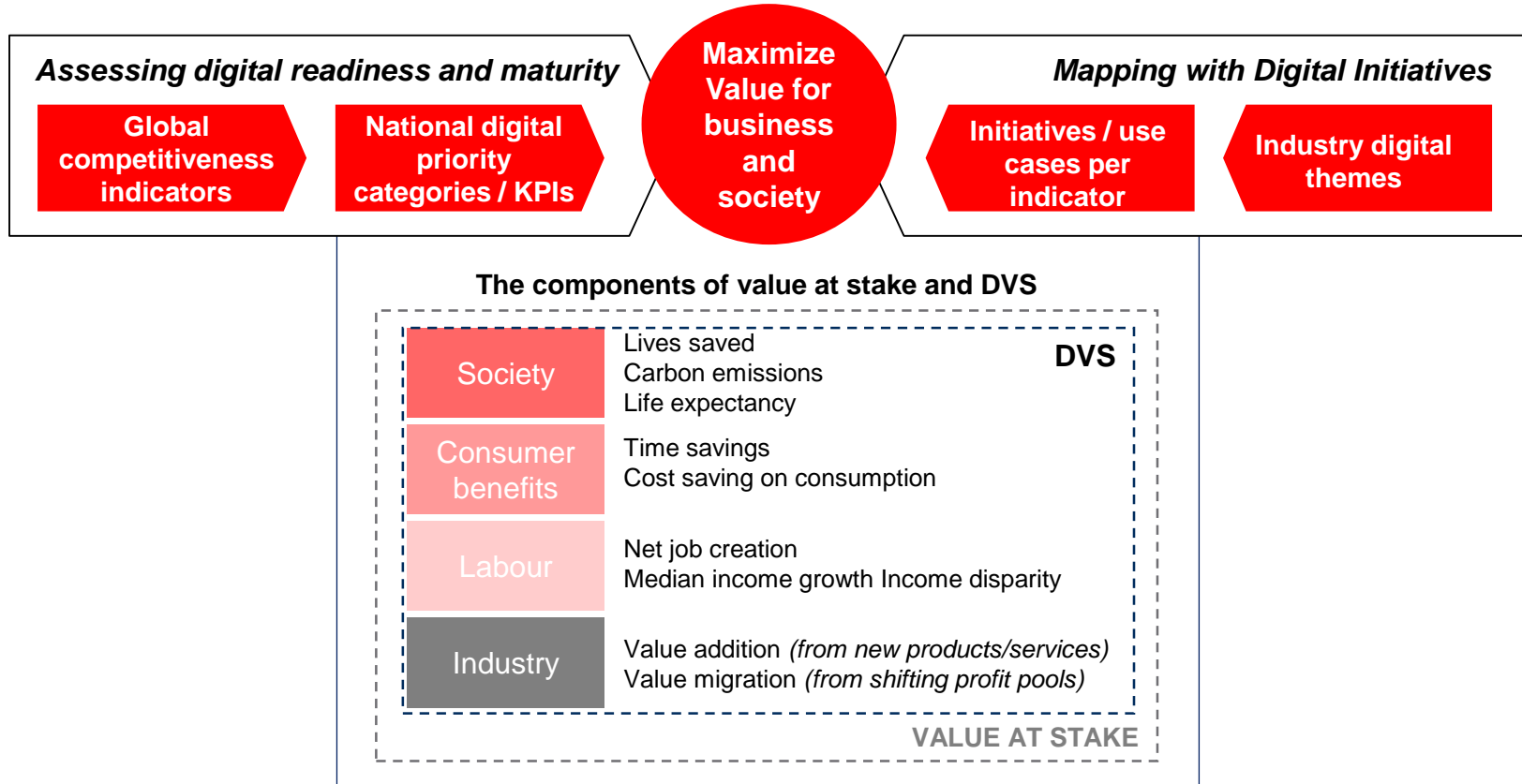
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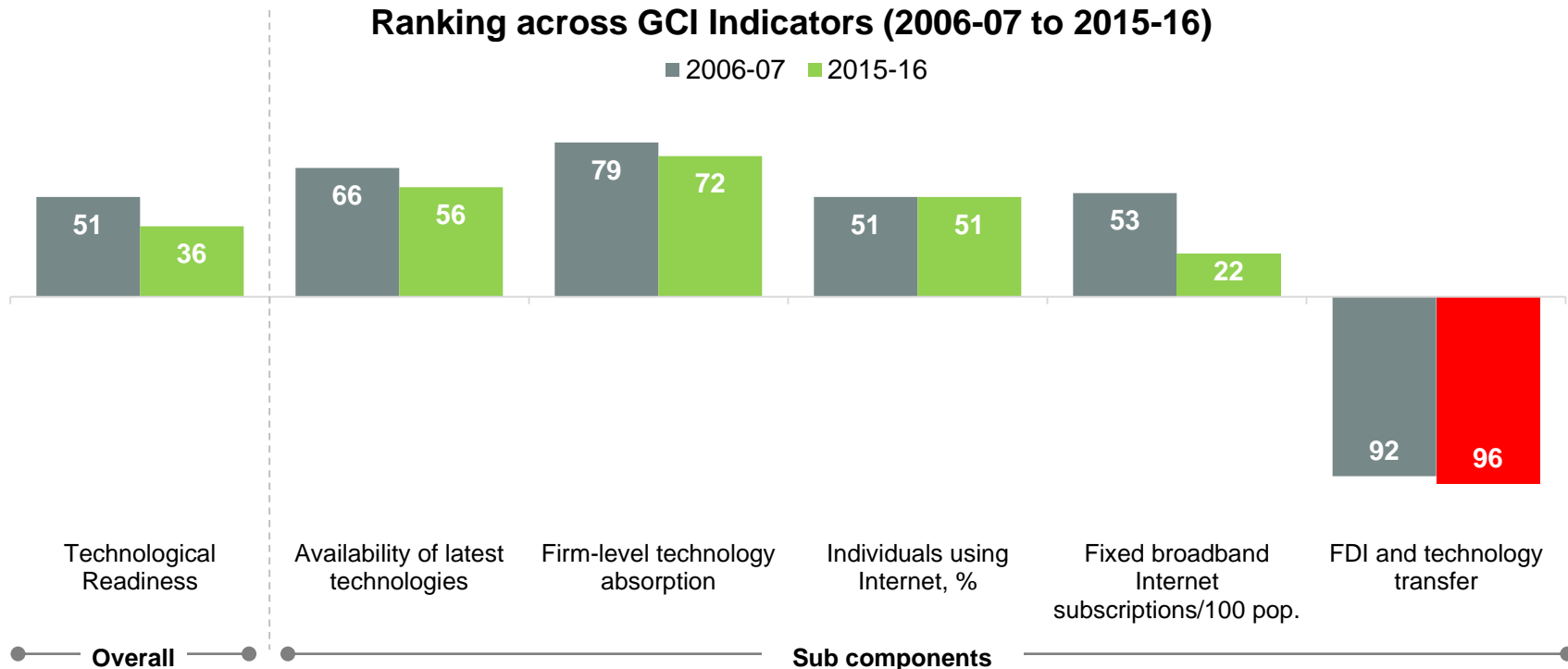
Greece – Digital Opportunity Context

Our Framework to Map Digital Initiatives to Government Priorities



Greece has witnessed increased readiness to adopt technology-led change over the past 10 years

Greece's Performance across 'Technological Readiness' Indicators

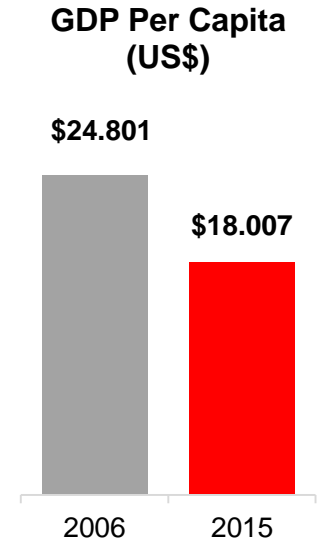
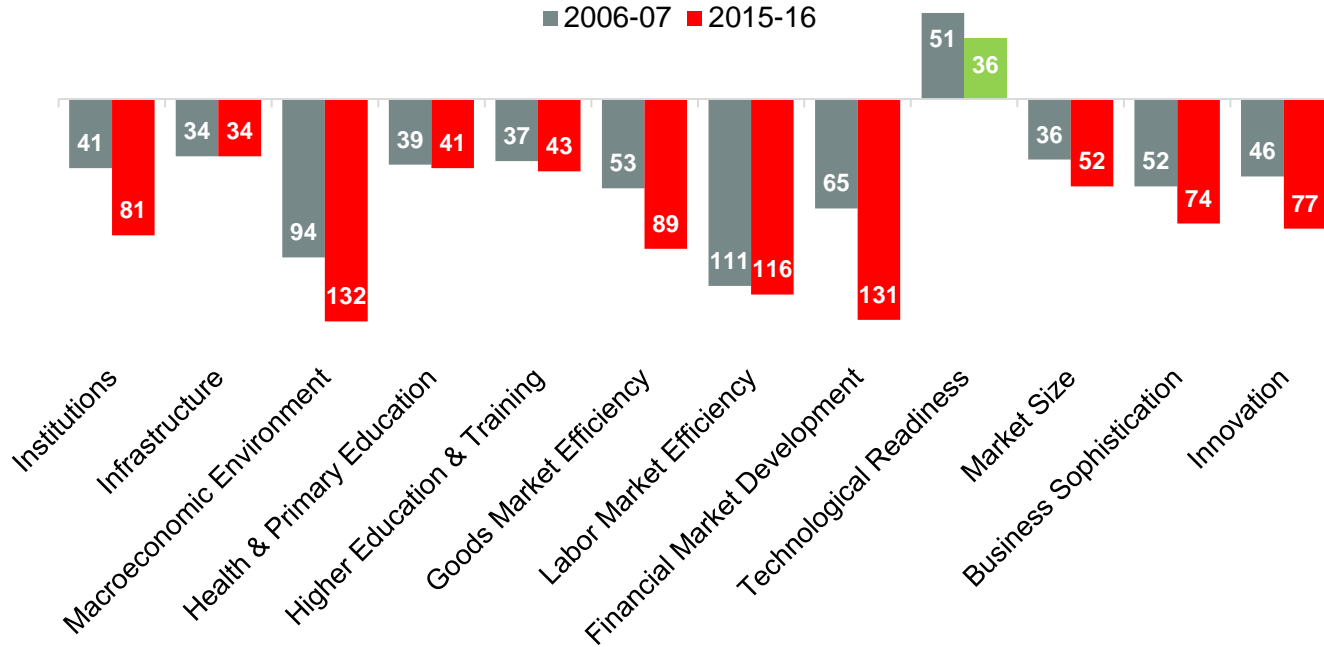


However, economic challenges during this period have affected performance on all other indicators, resulting in lower overall productivity

Performance across Global Competitiveness Indicators

GDP Per Capita

Ranking across GCI Pillars (2006-07 to 2015-16)



Similar countries have shown improvements on the lowest ranked indicators - suggesting potential focus areas for Greece for the next 5-10 years

Digital initiatives can address underperforming indicators

Lowest ranked Competitiveness Indicators for Greece	Greece	Cyprus	Czech Republic	Estonia	Israel	Italy
GDP per Capita (US\$)	\$18,007	\$23,075	\$17,557	\$17,085	\$35,729	\$29,993
Overall GCI ranking	81	65	31	30	27	43
Wastefulness of government spending	↓ 128	↓ 58	↑ 7	↑ 19	↓ 79	↓ 135
Ease of access to Loans	↓ 134	↓ 108	↑ 37	↓ 41	↓ 52	↓ 136
Soundness of banks	↓ 134	↓ 139	↑ 13	↑ 26	↑ 19	↓ 96
University-industry collaboration in R&D	↓ 110	↑ 40	↓ 42	↓ 34	↑ 7	↑ 59
Gov't procurement of advanced tech products	↓ 133	↓ 71	↓ 83	↑ 20	↓ 8	↓ 114

Significant opportunity to monitor and track government spending through digital interventions to increase accountability and efficacy

Opportunities to increase risk analysis capabilities to have better and more accurate assessment of risk profiles and credit ratings for businesses and customers

Scope of adoption of advance tech such as cloud, data analytics by government

To improve overall competitiveness, Greece should consider Digital Initiatives to address underperforming indicators

Example Government Initiatives

Wastefulness of government spending

Case study: Mobile only Banking, Pepper, Israel



Government procurement of advanced tech products

Case study: Digital ID card, Estonia



Appendix

A large, thick red arrow pointing to the right, positioned over the text "High performance. Delivered.".

High performance. Delivered.

*A combination of 3d printing
+ an APP platform +
chemical resins = Carbon 3D*

carbon



Seven Technologies Transforming the Industries

DTI research to date has identified seven key technologies that are expected to have the most impact among the industries analyzed (Note: Financial Services not assessed which would have highlighted blockchain)



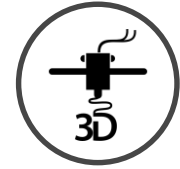
Artificial intelligence



Autonomous vehicles



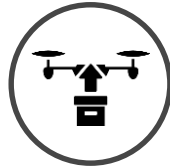
Big data analytics and cloud



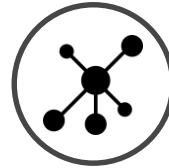
Custom manufacturing and 3D printing



Internet of Things (IoT) and connected devices



Robots and drones



Social media and platforms