

WELCOME

ACCOUNTANCY EUROPE

DIGITAL DAY 2019: WHAT DOES INNOVATION COST?

Moderator: Jennifer Baker EU Tech Policy Reporter

WiFi: BluePoint

#DIGITALDAYEU

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LOG IN

Florin Toma

President, Accountancy Europe

#DIGITALDAYEU

START UP: KEYNOTE SPEECH

Matthew Griffin Founder and CEO, 311 Institute



DIGITAL ENVIRONMENT: SYNERGIES BETWEEN TECHNOLOGY AND ENVIRONMENT

Mats Engström Analyst, Growth Analysis

Martha Ivanovas

Government Affairs Manager EMEA, Dell Technologies

Olivier Boutellis-Taft CEO, Accountancy Europe

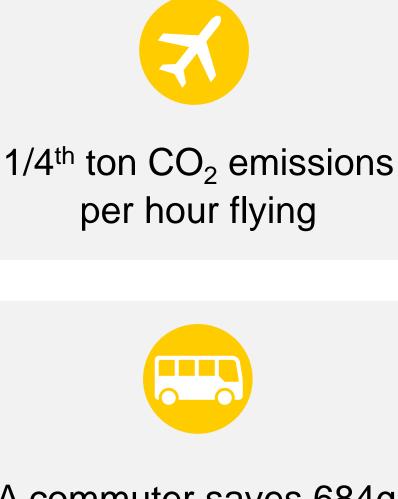
#DIGITALDAYEU

LUNCH

12:20-13:30







A commuter saves 684gCO₂ by travelling 12 km by bus instead of car to work CHECK YOUR PERSONAL CARBON FOOTPRINT HERE:



https://www.carbonfootprint.com /calculator.aspx

RESET: TOWARDS THE NEXT SESSION

Dana Eleftheriadou

Head of Advanced Technologies Team, DG GROW, European Commission





Digital Day 2019: What does innovation cost?

Brussels, 19 November 2019

Dana Eleftheriadou *Head of Advanced Technologies Team*

DG Internal Market, Industry, Entrepreneurship and SMEs European Commission





A European Green Deal
 An economy that works for people
 A Europe fit for the digital age

We aim to identify opportunities for public policy

Al holds considerable potential for Europe...

Up to **13.5 percent of incremental GDP growth** in the EU-28 economies by 2030¹

Society (e.g., provision of healthcare services) and the **environment** (e.g., resource efficiency) **benefit**

Impact dependent on economies' ability to absorb the technology

EU facing the **risk of falling behind the US and China**, whose economies are structurally more poised to reap the benefits of Al² ... but SMEs face specific challenges in its adoption...

Almost 60% of value creation and two thirds of employment attributable to SMEs³

Development and uptake of AI amongst SMEs often hindered by⁴

- Limited access to Al-enabling technologies
- Limited access to Al talent
- Lower innovation capacity

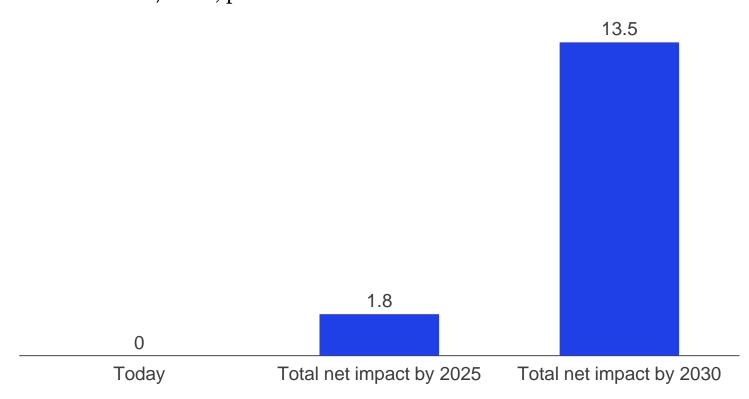
... that the Commission aims to:

Accelerate the development and deployment of AI among European SMEs through action in targeted policy domains

Sources: 1 McKinsey Global Institute AI Diffusion Model; 2 Notes from the AI frontier: Modeling the impact of AI on the world economy, 2018; 3 Figures exclude public, health and financial sector, EU SBA Fact Sheet (EC, 2018); 4 See e.g., Digital Economy and Society Index Report (EC, 2019)

1: AI and automation are expected to have a positive impact on GDP by 2025, with impact accelerating up to 2030 as adoption spreads

Incremental GDP impact, EU-28 countries, base case scenario¹ Growth vs 2017 GDP, percent



Comments

Absorption of AI and automation technologies requires major **transformational processes;** these are **costly** and **take time** to unfold to full potential

By 2025 (i.e. while the transformation is still under way), AI's cumulative incremental GDP impact is therefore relatively modest at **1.8%** growth vs 2017 GDP

By 2030, cumulative incremental GDP impact reaches **13.5 % growth vs 2017 GDP**, due to the **accelerating diffusion** of AI and automation technologies

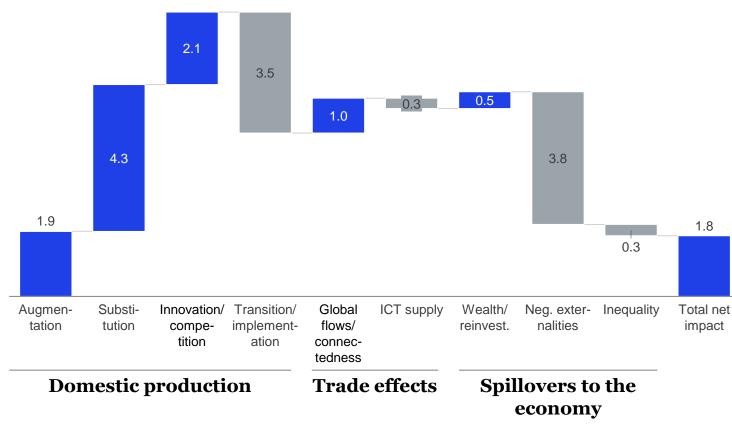
^{1.} Assumes no changes to underlying sector composition through 2030

Source: McKinsey Global Institute AI Impact Model; McKinsey Global Institute analysis; project team

1: This impact can be broken down to 9 impact channels, covering effects from domestic production and trade to spillovers

Incremental GDP impact, EU-28 countries, 2025, base case scenario¹

Growth vs 2017 GDP, percent



Positive contribution Negative contribution

Comments

By 2025, AI is expected to generate **significant benefits for domestic production** (through augmentation, substitution and innovation) but also **major costs to firms and society** (in the form of transition/implementation costs and negative externalities).

The **net positive effect** within domestic production provides an **incentive for firms** to adopt AI.

At the same time, the **spillovers to the economy** have a **net negative effect**, driven by **negative externalities** (i.e. loss of production due to unemployment, loss of consumption, unemployment benefits and reskilling cost).

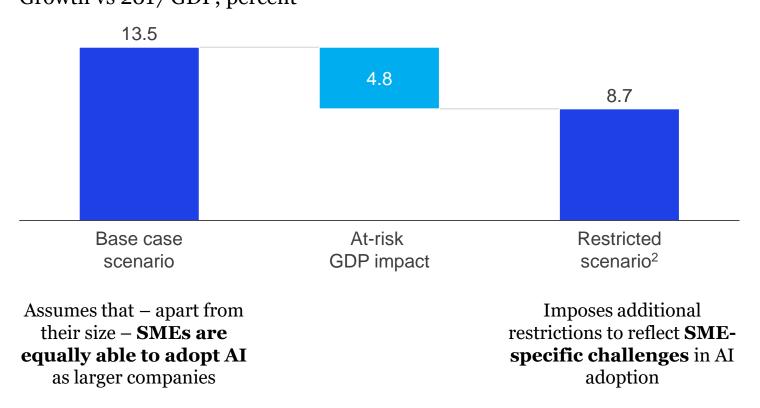
1. Vs total GDP in EU-28 in 2017; assumes no changes to underlying sector composition through 2030

Source: McKinsey Global Institute AI Impact Model; McKinsey Global Institute analysis; project team

1: A considerable share of this GDP impact is at risk if SMEs fail to adopt AI

Preliminary

Incremental GDP impact, EU-28 countries, 2030¹ Growth vs 2017 GDP, percent



Comments

We imposed **additional restrictions** to model SME-specific challenges, namely

Limited access to AI-enabling technologies

Limited access to AI talent and skills

Limited innovation capabilities

SMEs' failure to adopt AI would **reduce incremental impact** in all channels

The most significant reductions take place in the **innovation and wealth creation** channels, as **social and environmental impact from innovation would be lost**

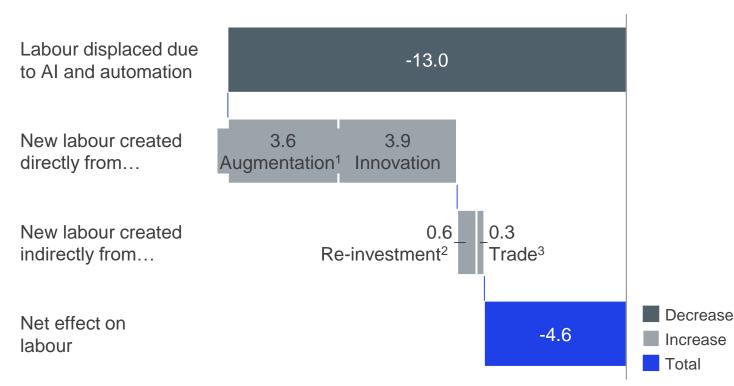
1. Assumes no changes to underlying sector composition through 2030; 2. All 3 restrictions applied simultaneously

Source: McKinsey Global Institute AI Impact Model; project team

1: As AI adoption spreads, some automatable tasks likely to disappear – at the same time, emergence of new tasks expected to create new labour

Incremental impact on labour, EU-28 countries, 2025

Cumulative change vs 2017 FTE, percent



Labour productivity being augmented by technology/capital;
 Labour gains from wealth creation and re-investment;
 Labour gains from global flows;
 Al's impact on number of jobs will depend on how occupations are affected by changing skill profiles, and e.g. the share of part-time vs full-time jobs;
 Analysis based on MGI research on the potential impact of automation on employment, covering 46 countries, 800 occupations (jobs), and 2,000 work activities;
 Occupations necessitating higher cognitive, social/emotional and technological skills likely to grow, physical and manual tasks likely to shrink

Comments

We analysed **labour effects in terms of FTE** (i.e. hours worked in a full-time position), which is **different from AI's impact on the number of jobs.**⁴

The adoption of AI and automation technologies may cause numerous **automatable tasks** (and thus hours worked) **to disappear.** At the same time, AI adoption is likely to create **new tasks** (and hours worked) **through augmentation and innovation.**

While less than 5% of occupations are fully automatable, about 60% of occupations have at least 30% of automatable activities.⁵ Thus most occupations are **unlikely to disappear completely** but could see **major shifts in their skill/task profiles.**⁶

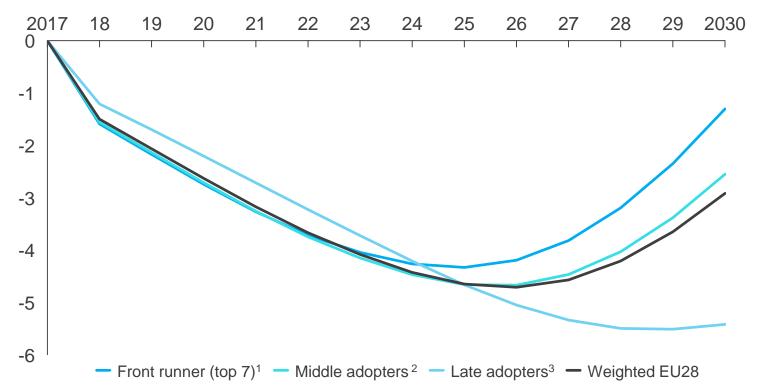
Source: McKinsey Global Institute analysis; MGI report A future that works: Automation, employment, and productivity (January 2017); project team

1: There are large difference in employment effects by country archetypes

Preliminary

Incremental impact on labour, by country groups, until 2030

Cumulative change vs 2017 FTE, percent



Front runners: Denmark, Estonia, Finland, Germany, Netherlands, Sweden, United Kingdom
 Middle adopters: Austria, Belgium, France, Ireland, Lithuania, Luxembourg, Malta, Portugal, Slovenia, Spain
 Late adopters: Bulgaria, Croatia, Cyprus, Czech Republic, Greece, Hungary, Italy, Latvia, Poland, Romania, Slovakia

Comments

We split countries into **3 archetypes** to assess the effect of early vs late adoption of AI.

Until 2025, few differences in labour

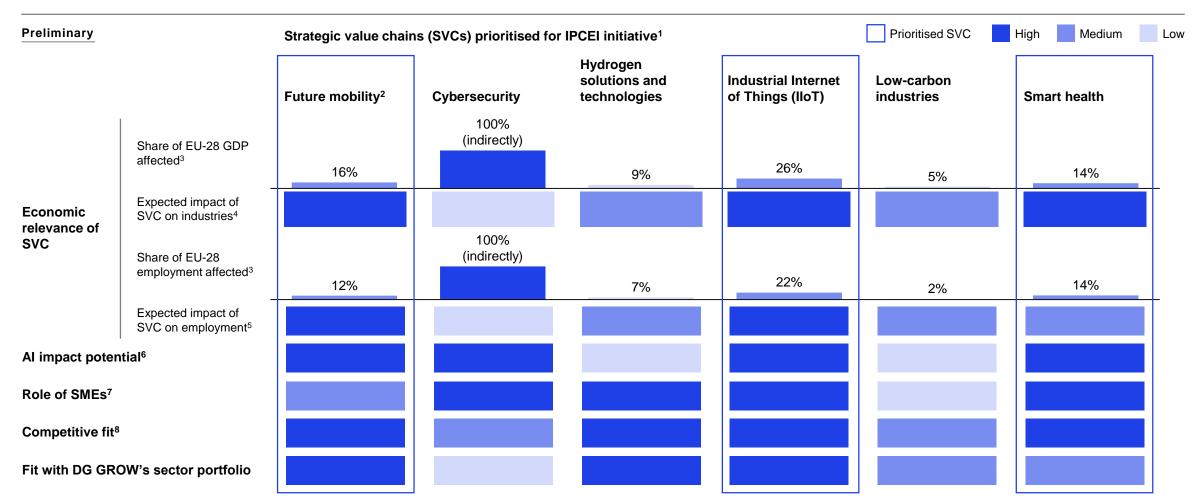
impact (in FTE): regardless of country archetype, negative impact on labour is estimated at

~4-5% compared to 2017 FTE.

Until 2030, **front runners** are expected to **experience a recovery** and could end with a slight negative impact of ~1% compared to 2017 FTE.

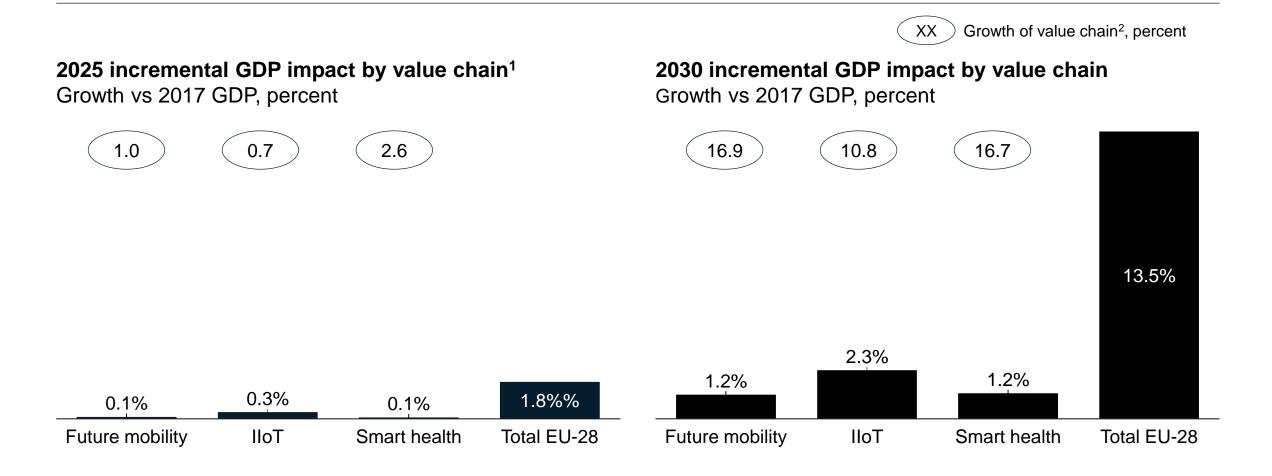
For **late AI adopters,** the **negative impact** on labour is expected to **deepen further:** they could end up losing more than 5% compared to 2017 FTE.

2: We prioritised 3 out of 6 SVCs based on their relevance for accelerating AI adoption among SMEs



Reflects strategic relevance for EU; 2. IPCEI value chain 'Connected, clean, autonomous vehicles' (CCAV), expanded to include broader notion of transportation; 3. Based on 2016 data. High: >50%; medium: 10-50%; low: <10%;
 High: fundamental shifts, medium: transformational but not fundamental change; low: adaptation needed but no major change; 5. High: fundamental shifts (incl. risk of lost employment), medium: transformational but not fundamental change; 6. High: AI as key enabler to the SVC; low: little relevance to the SVC; 7. High: SMEs/start-ups as innovation drivers; medium: strong SMEs but without innovation leadership; low: little relevance to the SVC; 8. High: strong existing ecosystems and technological capabilities; medium: relevant existing industries but without competitive edge; 9. High: core of DG GROW's portfolio; medium: within portfolio but not core/overlap with other DGs; low: not directly in DG DROW's portfolio

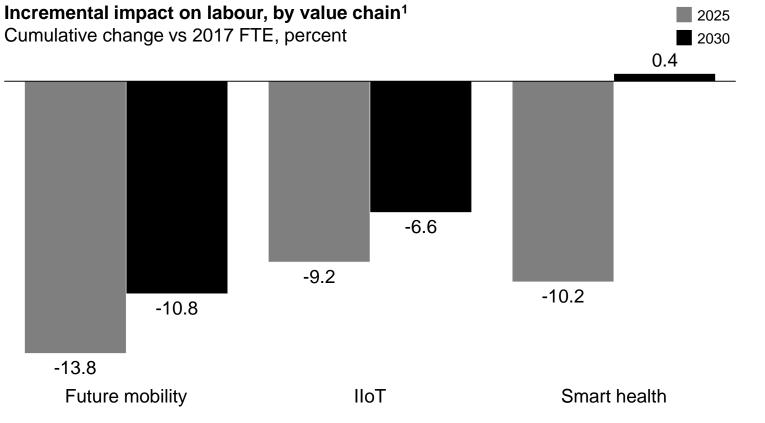
2: Incremental AI impact is expected to be highest for IIoT, while smart health and future mobility see stronger relative growth



1. Assumes no changes in underlying relative sector composition through 2030; 2. Baseline is 2017 GDP (value added) of the respective value chain

2: Future mobility is expected to see the strongest negative impact on labour, impact on smart health could be positive in the long run

Preliminary



Comments

The automation potential of tasks varies widely between industry sectors. Thus, the **labour impact** of AI and automation (in terms of FTE) within the value chains varies depending on the underlying sector composition.

Future mobility is expected to experience transformational change that has **a negative effect on labour even in the longer term**; automation in labour-intensive tasks like **driving** is a major contributor.

IIoT is expected to see **significant negative impact** on labour due to AI and automation in **manufacturing and logistics.**

Smart health could see a **net FTE gain in the long run**, driven by FTE growth in the **health**, **professional services and ICT sectors**.²

1. Labour impact includes FTE losses from automation as well as new FTE created directly and indirectly; scenario assumes no changes in underlying sector composition through 2030; 2. The ICT sector is part of all 3 SVCs but plays a relatively larger role as input to the smart health value chain (4% vs 2-3% for the other value chains). Thus, its positive impact is most visible in the smart health value chain

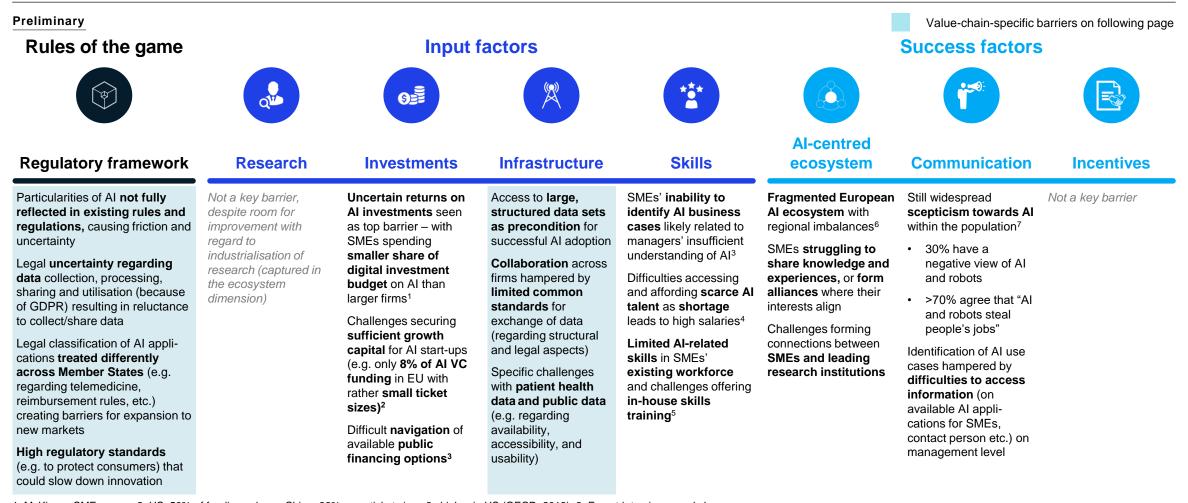
Source: McKinsey Global Institute AI Impact Model; project team

3: Pre-selected AI applications were assessed along the 3 dimensions of social, environmental and economic impact

Example assessment for future mobility

AI application	Social impact	Environmental impact	Economic impact
Predictive service	Enhanced road safety and fewer traffic accidents due to reduction of faulty cars in traffic	Improved product life cycles	Reduced maintenance cost, because faults are repaired before car breaks down
			Increased customer satisfaction
L4/L5 autonomous driving	Inclusive mobility through removal of barriers, e.g. mobility for the elderly and disabled	Reduced energy consumption of individual vehicles Reduced congestion Reduced pollution	Enhanced productivity of drivers/commuters
	Inclusive mobility through reduced mileage cost, thus higher overall affordability of mobility		Less fuel spending
	Enhanced road safety and fewer traffic accidents		Less maintenance spending, due to smoothness/consistency of vehicle operation
	Re-purposing of public areas and roads, as on-demand mobility may lower absolute number of cars in operation		
Mobility planning and analytics	Time savings for commuters	Reduced congestion	Shorter routes
	Cost savings for commuters, through all-in-one bookings and thus more inclusive mobility	Reduced pollution	Enhanced customer satisfaction
		Higher integration/visibility of environmentally friendly transport modes	Enhanced visibility for local operators
Robo-delivery	Fast delivery times and customer satisfaction	Potential to reduce pollution	Improved unit economics for last-mile delivery
	Improved health and safety for delivery drivers, where autonomous ground vehicles act as enabler instead of replacement		providers
			New business opportunities for companies who traditionally relied on third-party distributors
Fleet management	Inclusive mobility through reduced mileage cost, thus higher overall affordability of mobility	Less pollution through optimised routing and vehicle behaviour	Higher asset utilisation
	Enhanced customer experience through improved reliability and availability of service		Improved unit economics
	Faster pick-up times		
Traffic	Enhanced road safety	Reduced congestion	Reduced overall spend
management			

4: Common barriers focus on investments, skills, an AI-centred ecosystem and AI-related communication¹



1. McKinsey SME survey; 2. US: 50% of funding volume, China: 36%; avg. ticket size ~3x higher in US (OECD, 2018); 3. Expert interviews, workshop discussions, McKinsey SME survey; 4. MMC Ventures: State of AI (2019); 5. Lack of access to digital/technical skills as second most important barrier to AI adoption (McKinsey SME survey); 6. Notes from the AI frontier: Tackling Europe's gap in digital and AI (McKinsey Global Institute, 2019); 7. Special Eurobarometer (2017)

Our research shows that there is already a good base of existing policy measures – the key is to increase focus and coordination

Good base of existing policy measures¹...

All relevant policy areas covered with a range of policies on EU level that aim to solve specific, existing challenges

Numerous **ambitious ideas and successful initiatives on Member State level** that could serve as inspiration

Many **initiatives already under way** to address current shortcomings, e.g. eHealth Digital Service Infrastructure

...but challenges regarding focus, level of ambition and coordination

Many initiatives (especially in financing, infrastructure and ecosystem) **scoped rather broadly** – need to increase **focus on strategic priorities** in terms of **value chains** and **critical AI applications** within them

Currently risk of duplicating efforts throughout the ecosystem – need to coordinate existing initiatives better, clarify roles of different actors, and ensure transfer of best practices

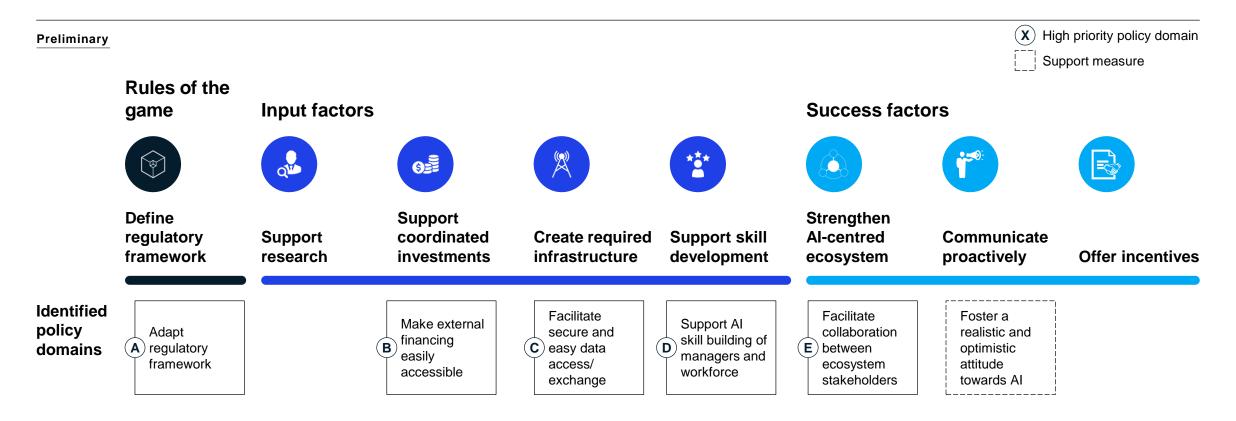
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We know all the relevant policy measures. What we need to do now is to apply them ambitiously and in a coordinated manner. **99**

Expert interview

1. See policy baseline report for details

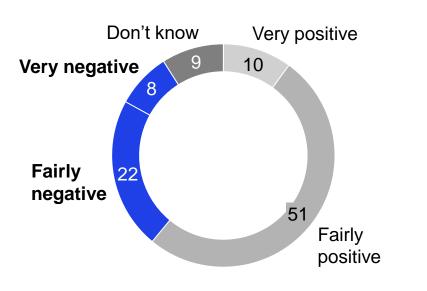
5 high-priority policy domains could address the most pressing needs for action – supported by complementary communication



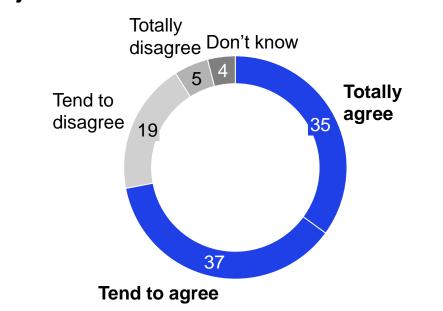
The adoption of AI is hampered by widespread scepticism within the population and limited knowledge about AI use cases on SME management level

Survey responses, percent

Generally speaking, do you have a very positive, fairly positive, fairly negative or very negative view of robots and artificial intelligence?¹



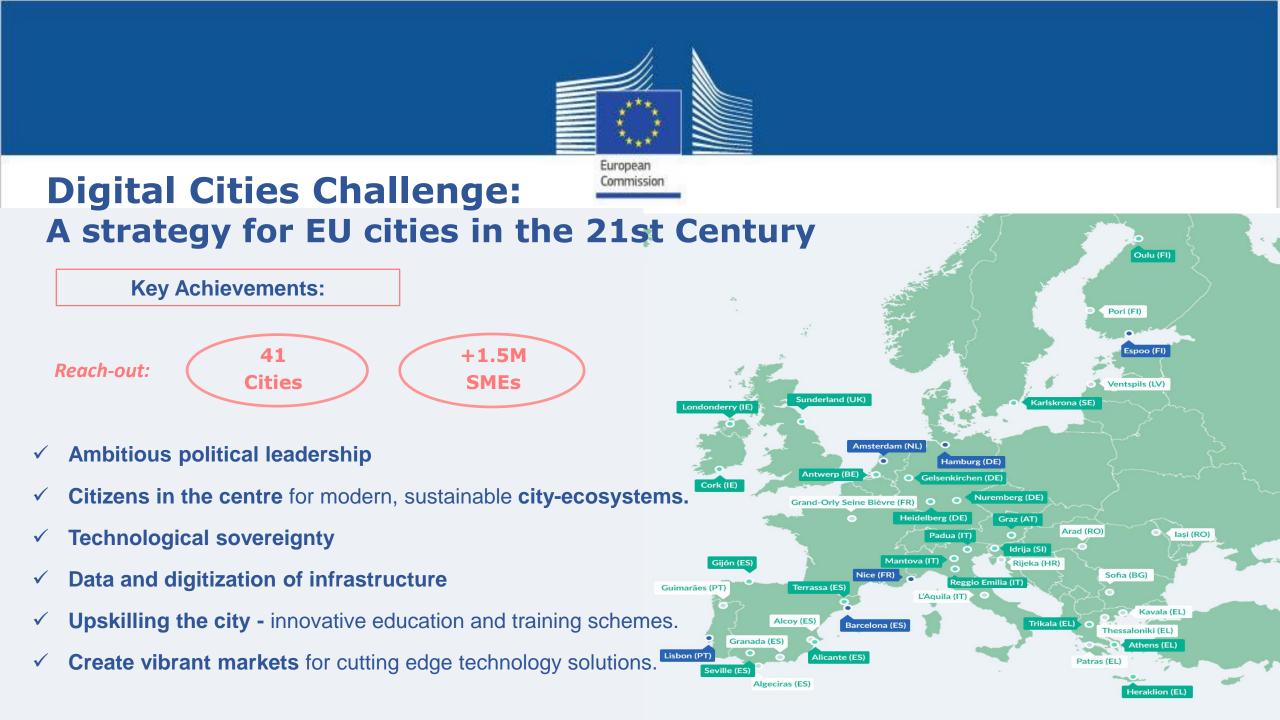
To what extent you agree or disagree with the following statement: "Robots and artificial intelligence steal peoples" jobs"¹



What are the most important barriers or problems that you are experiencing or expect to experience in adopting AI technology?²

#6

We are not convinced there is a business case for this technology³



Digital Cities Challenge Outcome

At the end of the initiative, participating cities have:

Set an ambitious vision for their city in the 21st century, shared by citizens, authorities, businesses and organisations

Built a community of local stakeholders

committed to engage in the transformation of their city to a better place to live, thanks to advanced tech

> Built a network of European peers and partners able to offer mutual support and advice in the future

Developed and started implementing a strategy This includes tangible, achievable and measurable steps to be taken in the short, medium and long term

Gained exposure at European level and established itself as a beacon for the transformative power of digitalisation

Next steps: The 100 Intelligent Cities Challenge

- Expand the current network of cities to
 reach a cohort of **100 Intelligent cities**.
- International dimension: 10 non-EU cities.
- > Budget & duration: €7.5 million over a 30month period.
- Planned launch of the call for Eol for new cities to join: by January 2020.

Expand the scope to **Reinforce and** expand the existing include new technologies, network to reach notably AI **100 cities** Support cities in industrial **Create a dialogue** transformation, and cooperation circular economy, between cities clean tech and resource efficiency



Thank you for your attention

iordana.eleftheriadou@ec.europa.eu



DIGITAL ECONOMY: DIGITAL IN PROPORTION WITH OUR BUSINESS NEEDS

Louis van Garderen Founder, JOINSON&SPICE

Aynsley Damery CEO, Clarity

Sebastiano Toffaletti Secretary General, Digital SME Alliance

#DIGITALDAYEU

COFFEE BREAK

15:00-15:15



DIGITAL ACCOUNTANTS: HOW TO MEASURE INNOVATION

Jeanne Boillet Global Assurance Innovation leader, EY Bart Van Coile IAB/IEC

#DIGITALDAYEU

DIGITALISATION AWARDS 2019

Presented by Eva Kaili Member of the European Parliament

#DIGITALAWARDSEU



VUDITORES



Consiglio Nazionale dei Dottori Commercialisti e degli Esperti Contabili







Körperschaft des öffentlichen Rechts

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BRONZE

DIGITALISATION



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revisorforeningen

NORWAY DIGITALIZATION ACADEMY





IRELAND

CPD - DIGITAL LEARNING & DEVELOPMENT FOR MEMBERS

GIZZLISZ TION AWZR





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Diploma in Data Analytics

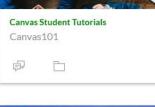
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Online Diploma in US GAAP USGAAP-001

Diploma in Forensic Accounting

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Courses

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⊬

SME TOOLS



BRONZE



BELGIUM

UNIFIED BY INVOICING



SILVER



TURKEY

DIGITALISATION





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ITALY

HUB B2B E-INVOICING PORTAL

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BELGIUM **ELECTRONIC SECURITIES** REGISTER

ALISATION

be tax advisors accountants



Consiglio Nazionale dei Dottori Commercialisti e degli Esperti Contabili

ITALY

HUB B2B E-INVOICING PORTAL



Consiglio Nazionale dei Dottori Commercialisti e degli Esperti Contabili



ELECTRONIC INVOICING PLATFORM

HUB B2B



The service proposed is a b2b e-invoicing portal set up by Cndcec for the benefit of its members and for the clients of Commercialisti.

1) It is a tailor made solution in line with most recent regulation imposing digitalisation in the taxation field.

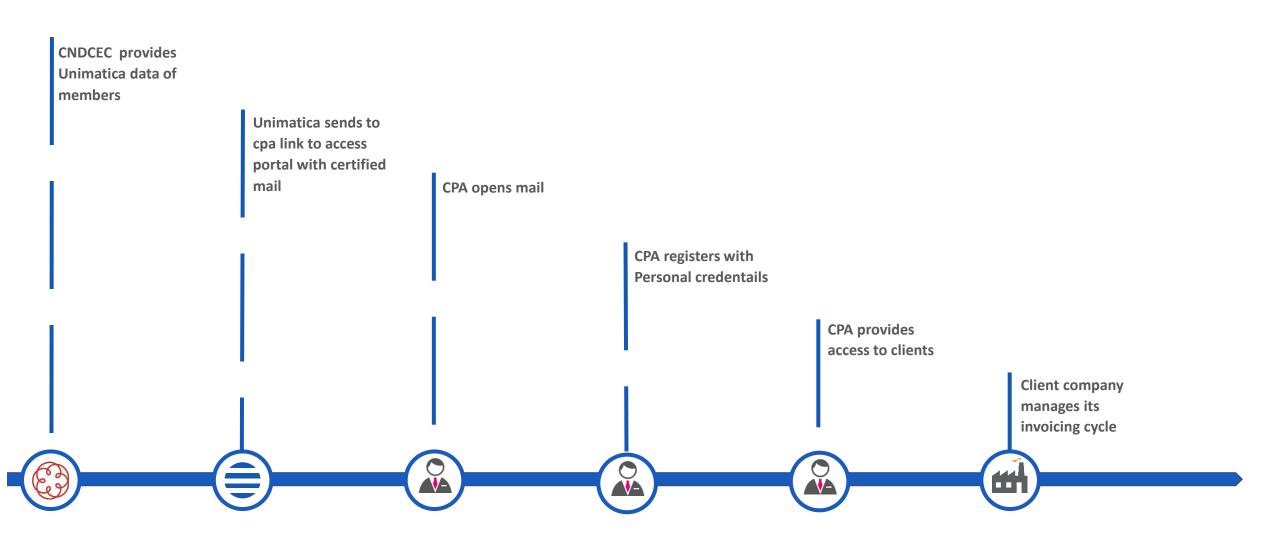
2) It represents a concrete approach to the challanges of responding, as a profession, to simplifying admin burden.

3) It is a system that is branded with the logo of our profession.

4) The flow of document is also transferred to the Italian tax authority (SDI). This allows to enhance the anti-elusion function of this project and facilitation tax collection.

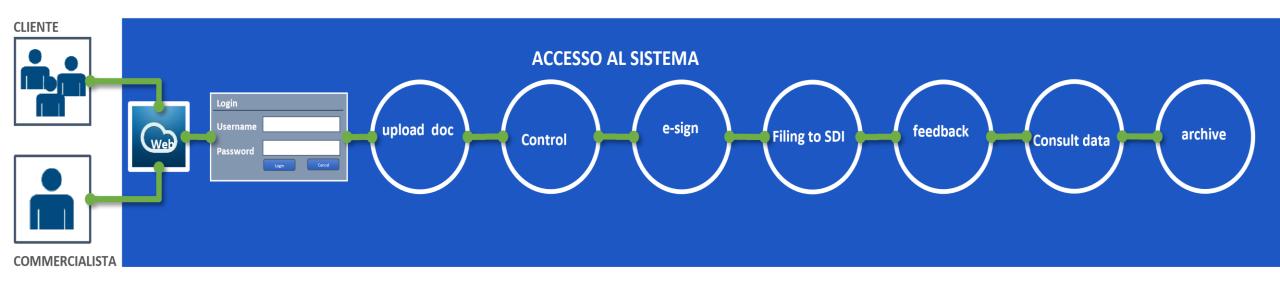


GENERAL PROJECT CYCLE





FUNCTIONS OF THE PORTAL



GOLD WINNER

be tax advisors accountants BELGIUM **ELECTRONIC SECURITIES REGISTER**

PIGITALISATION



Pourquoi? Avantages Obligations UBO

BO Obtenir un registre Contact



Nederlands

eStox, le registre électronique des actions sécurisé de votre société

Un service qui vous est proposé par les notaires, experts-comptables et conseils fiscaux.

Vertice Average My Company Source (E18.60) Unite * Average Source (E18.60) Unite * Based Source (E18.60) Unite * Based Source (E18.60) Unite * Based Source (E18.60) Unite * Based Source (E18.60) Unite * Based Source (E18.60) Unite * Based Source (E18.60) Unite * Based Source (E18.60) Unite * Based Source (E18.60) Unite * Based Source (E18.60) Unite * Based Source (E18.60) Unite * Based Source (E18.60) Unite * Based Source (E18.60) Unite * Based Source (E18.60) Unite * Based Source (E18.60) Unite * Based Source (E18.60) Unite * Based Source (E18.60) Unite * Based Source (E18.60) Unite * Based Source (E18.60) Unite * Based Source (E18.60) Unite * Based Source (E18.60) Unite * Based Source (E18.60) Unite * Based Source (E18.60) Unite * Based Source (E18.60) Unite * Based Source (E18.60) Unite * Based Source (E18.60) Unite * Based	C eStox	My Company >				P Thomas Janssens >
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Actionalres Droits de vote		Actionnaires			roite de unte	Numéro d'entreprise

eStox Securities Register

Joint project with the Belgian Federation of Notaries FEDNOT

- Replaces the classic paper register (legal obligation)
 - All Belgian company types included (new Belgian company code)
 - all possible share transactions
 - shares, bonds, warrants, options, futures or any other securities
 - Facilitates corporate housekeeping (General assemblies,...)
 - No more unreadable/lost registers
 - No more forgotten transactions







eStox Securities Register

Joint project with the Belgian Federation of Notaries FEDNOT

- Facilitates UBO-registration
 - User friendly tool connected by API to the State's UBO-register
 - Annual confirmation generated automatically



Adds Trust:

- Creates the possibility for companies to have their online register certified by an accountant/notary
- This assurance is of great added value for the company:
- Easier to get funding,
- Assurance for new transactions (merge, acquisition, ...)
- Proof of ownership
- Accountants/notaries enhancing trust
- Discretion guaranteed by professional ethics and professional privilege



eStox Securities Register

Joint project with the Belgian Federation of Notaries FEDNOT

eStox

Le registre électronique des actions sécurisé de votre société



www.estox.be

Questions?





LOC OUT

Olivier Boutellis-Taft CEO, Accountancy Europe



HOW HONEST ARE WE?

DIGITAL DAY 2019

WHAT DOES INNOVATION COST?





DIGITAL DAY 2019

+/-19 MT CARBON EMISSIONS

Source : https://www.terrapass.com/carbon-footprint-calculator

EQUIVALENT TO:

= 2.3 homes' energy for 1 year (
$$CO_2$$
 emissions)

= +/-10 kg of coal burned (CO₂ emissions)

Source : https://www.terrapass.com/carbon-footprint-calculator



59

How to offset?



OUR CORPORATE SOCIAL RESPONSIBILITY

- No more plastic
- Reduce food waste
- Vegetarian meals
- Volunteer for society
- Use what is available



WHAT MORE CAN WE DO?



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