News release

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AI to drive GDP gains of $15.7 trillion with productivity improvements

- *Global GDP will be 14% higher in 2030 as a result of AI*
- *Productivity improvements are expected to account for half of all gains to 2030*

Global GDP will be 14% higher in 2030 as a result of AI – the equivalent of an additional $15.7 trillion. This makes it the biggest commercial opportunity in today's fast changing economy according to new research by PwC.

Drawing on a detailed analysis of the business impact of AI, *Sizing the prize* outlines the economies that are set to gain the most from AI.

AI will contribute $15.7 trillion to the global economy in 2030, more than the current output of China and India combined.

Labour productivity improvements are expected to account for over half of all economic gains from AI over the period 2016-2030. Increased consumer demand resulting from AI-enabled product enhancements will account for the rest. The greatest economic gains from AI will be in China (26% boost to GDP in 2030) and North America (14.5% boost), equivalent to a total of $10.7 trillion and accounting for almost 70% of the global economic impact.

- North America will experience productivity gains faster than China initially, driven by its readiness for AI and the high fraction of jobs that are susceptible to replacement by more-productive technologies.
- China will begin to pull ahead of the US's AI productivity gains in ten years, after it catches up on a slower build up to the technology and expertise needed.
- Europe and Developed Asia will also experience significant economic gains from AI (9-12% of GDP in 2030)
- Developing countries will experience more modest increases (less than 6% of GDP) due the much lower rates of adoption of AI technologies expected (including Latin America, Africa).

"The analysis highlights how the value of AI enhancing and augmenting what enterprises can do is large, if not larger than automation. It demonstrates how big a game changer AI is likely to be – transforming our lives as individuals, enterprises and as a society", stated Florin Deaconescu, Assurance Partner, member of the integrated services team for the Technology, Media and Telecommunications industry, PwC Romania.

Included in the analysis, the *PwC AI Impact Index* pinpoints three business areas with the greatest AI potential in each of eight sectors. Areas identified include image-based diagnostics, on demand production and autonomous traffic control.

Overall, the biggest absolute sector gains will be in retail, financial services, and healthcare as AI increases productivity, product value and consumption. By 2030, an additional $9trn of GDP will be added from product enhancements and shifts in consumer demand, behaviour, as AI driven consumption gains overtake those of productivity.

"No sector or business is in any way immune from the impact of AI. The impact on productivity alone could be competitively transformational and even disruptive. Businesses that fail to apply AI, could quickly find themselves being undercut on turnaround times as well as costs and experience, and may lose a significant amount of their market share as a result", added Ionuţ Sas, Tax Partner, member of the integrated services team for the Technology, Media and Telecommunications industry, PwC Romania.

"The big challenge is how to secure the right talent, technology and access to data to make the most of this opportunity", pointed out Florin Deaconescu.

"In this context in which the revolutionary effect of AI in the economy is quantifiable, Romania can adopt a strategic decision to capture the potential effects of these technologies and catch up with the developed western economies. Generaly speaking this will require putting into practice the National Strategy for the Digital Agenda, adopted in 2015. Specifically, to name just a few examples, we are talking about developing the communications infrastructure, the increase in the number of households that have an internet connection and in the digital education of the population, which together could have a multiplying effect in the economy", added Florin Deaconescu.

The analysis underlines how the scale of the opportunity of AI needs to be underpinned by both more robust governance and new operating models to realise its full potential. A recent paper from PwC UK on Responsible AI warned effective controls need to be built into the design and implementation phase to ensure AI's positive potential is secured, and address stakeholder concerns about it operating beyond the boundaries of reasonable control.

Notes

1. The report draws on input from sector experts and partners at Fraunhofer, a global leader in emerging technology research and development. Future reports will focus on specific sectors, along with functional areas such as marketing, finance and talent management. We'll also be publishing the detailed economic projections.

2. In the PwC AI Impact Index, three areas with the biggest potential for AI impact are identified in eight sectors.

    a. Healthcare: Data-driven diagnostic support: Pandemic identification: Imaging diagnostics (radiology, pathology)
    b. Automotive: Autonomous fleets for ride sharing; Smart cars/driver assist; Predictive and autonomous maintenance
    c. Financial services: Personalised financial planning; Fraud detection and anti-money laundering; Transaction automation
    d. Retail: Personalised design and production; Customer insights generation; Inventory and delivery management
    e. Technology, communications and entertainment: Media archiving and search; Content creation (marketing, film, music, etc.); Personalized marketing and advertising
    f. Manufacturing; Enhanced monitoring and auto-correction ; Supply chain and production optimisation; On-demand production
    g. Energy: Smart metering; More efficient grid operation and storage; Intelligent infrastructure maintenance

h. Transport and logistics; Autonomous trucking and delivery: Traffic control and reduced congestion; Enhanced security
3. 'A Strategist's Guide to Artificial Intelligence' published by PwC Strategy & Business details how organizations to get ready to exploit the opportunities from AI. Find out more here https://www.strategy-business.com/article/A-Strategists-Guide-to-Artificial-Intelligence?gko=0abb5
4. PwC Responsible AI framework is designed to strengthen confidence in how to effectively deploy AI solutions and have trust in their outputs. It provides a practical mechanism for ensuring effective monitoring and stewardship of AI outcomes. Find out more here https://www.pwc.co.uk/services/audit-assurance/insights/responsible-ai-how-to-build-trust-and-confidence.html
5. Methodology: To estimate AI impact, our team conducted a dual-phased top-down and bottom-up analysis combining a detailed assessment of the current and future use of AI and an exploration of the economic impact in terms of new jobs, new products, and other secondary effects. Further details can be found at http://press.pwc.com

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