European statistics in the era of Artificial Intelligence challenges and ways forward

Keynote speech by Gallo Gueye, Deputy Director General of Eurostat, National Conference on Statistics

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Dear Minister, Dear ISTAT President, Dear Francesco, esteemed ISTAT colleagues, and distinguished guests,

I am very honoured and grateful for this invitation from ISTAT to participate in the National Conference on Statistics. I would like to congratulate ISTAT for having selected the highly topical issue of "official statistics in times of artificial intelligence". This is testimony to the innovative spirit of ISTAT, an institution that stands at the forefront of innovation in official statistics, championing high scientific standards and methodological rigor. ISTAT's pursuit of excellence has fortified the foundations of Italian statistics and has made substantial contributions to the wider European Statistical System. Eurostat fully shares the view that Artificial intelligence represents a strategic topic for the future of official statistics in Europe. Indeed, AI is generating a diverse array of new statistical demands. Our ability to respond swiftly and effectively to these demands will be a measure of our success in this AI-driven landscape.

Artificial intelligence offers a wide range of opportunities for official statistics.

AI is transforming economic activities across the globe, and official statistics is no exception. Official statistics must inform these new phenomena, and it must transform itself, innovate and take advantage of the new opportunities offered by AI.

AI can improve our approach to data collection, classification, and processing, enabling us to extract information and insights from websites and other data sources such as social media, satellite imagery, and text. By tapping into and integrating new and diverse data sources, it will be possible to create more customized statistical products to meet specific needs and provide deeper insights into complex phenomena for which the economic, environmental, social, and demographic aspects are closely intertwined. AI can help to improve the timeliness of our key indicators by using web scraping or predictive analytics and by significantly reducing the time from data collection to publication. Automated quality checks will enable us to reinforce the quality of our processes and our outputs and will enhance efficiency. AI can help us in expanding our products and services faster, ensuring that official statistics remains agile to meet future demands.

In summary, the adoption of AI is not a luxury but a necessity. It is key to maintaining the high standard of official statistics and to securing our role as a beacon in a global and competitive information market.

However, seizing those opportunities and integrating AI capabilities entail many challenges for official statistics, which need to be addressed.

Firstly, it is important to understand clearly and follow closely the technological trends to stay relevant and to not miss out in a rapidly evolving digital landscape. At the same time, we must identify and focus on those technological trends that have the greatest impact on official statistics; we must identify which uses may be

appropriate for implementing AI and which type of AI may bring benefits to official statistics.

Secondly, we need to ensure that our use of AI stands up to the rigors of legal scrutiny. We must abide by European law, in particular the new AI Act that has developed a risk-based approach to managing the use of AI.

Furthermore, the frameworks that govern how we use data are the foundation upon which trust in official statistics is built. The ethical use of AI is necessary to safeguard this trust. Ensuring that the AI models we use are transparent, understandable, and subject to human supervision is an essential first step in this direction. Recognizing that AI brings new threats to data privacy, we must adapt our approaches for the protection of privacy and statistical confidentiality. These are the areas where the statistical community can lead by example, building on our assets and standards in line with the European Statistics Code of Practice. We must also confront the skills challenges that AI introduces. It is imperative that we invest in training and knowledge sharing to attract, motivate and retain a workforce equipped to exploit the full potential of AI technologies.

Finally, the quality of our statistics is paramount. Embracing innovation will require us to adjust our quality frameworks to the new AI environment. We must also remain very vigilant to avoid biases that could derive from the non-monitored use of AI systems and to ensure our statistical independence and autonomy, preventing over-reliance on proprietary and non-transparent tools and on technology providers.

What are the ways forward in the European Statistical System?

Our vision is to integrate AI deeply into how we develop, produce, and communicate official statistics. It will impact our day-to-day operations, enabling our institutions to run more efficiently and to expand and improve our service. But more than that,

we know that AI will be a key ingredient for broader societal functions beyond the statistical domain, particularly in decision-making and policy formulation, monitoring and evaluation processes. In this context, we have a role to ensure that AI systems used in official statistics are fed and trained with trustworthy and reliable data.

As we navigate the broad horizon of Artificial Intelligence, the imperative for cooperation within the European Statistical System has never been greater. The scale of development required for this transformation cannot be achieved alone. Collaboration, shared knowledge, and pooled resources should be the hallmarks of our journey forward. By working together, we can overcome the limitations of individual efforts and create a robust, AI-enabled statistical system that serves all of Europe.

Our approach is based on pragmatically identifying use cases where AI can be used to add value and quality. For example, those use cases can relate to smart data collection and geolocation as well as data processing and classification, as I have mentioned before. They can also relate to the application of generative AI for improving dissemination and interaction with users whereby these tools are not just about presenting statistics but also about storytelling, making data accessible and engaging to all, thus contributing to increase statistical literacy.

Moving to the conclusions

Our mission is clear. We must harness the power of AI for the public good and set standards for its responsible use in official statistics. We need a collective commitment to this mission at the level of the European Statistical System. The terms and format of such collective commitment are still to be discussed within the European Statistical System.

Let us embrace the changes with open minds and collaborative spirits, ensuring that we not only adapt to the new landscape but also contribute to shaping it to serve the greater good.

The journey ahead will require us to be agile, innovative, and united. It will demand that we balance the pursuit of technological advancement with the preservation of our core values. But I am confident that together, we can meet these challenges head-on and emerge stronger, more connected, and more capable than ever before.

Let us work together to achieve the full potential of AI for statistics, to ensure that our statistics continue to inform, guide, and enlighten. Let us build a future where data serves the citizens, where technology enhances our capabilities, and where the integrity of our work remains the pillar of public trust.

Finally, I would like to finish by underlining again and reiterating Eurostat gratitude for the very active and constructive role taken by ISTAT colleagues in the European Statistical System, and particularly in the joint efforts towards integrating the many capabilities of AI for the benefit of high-quality European statistics.

Thank you very much for your attention and constant partnership on this journey.