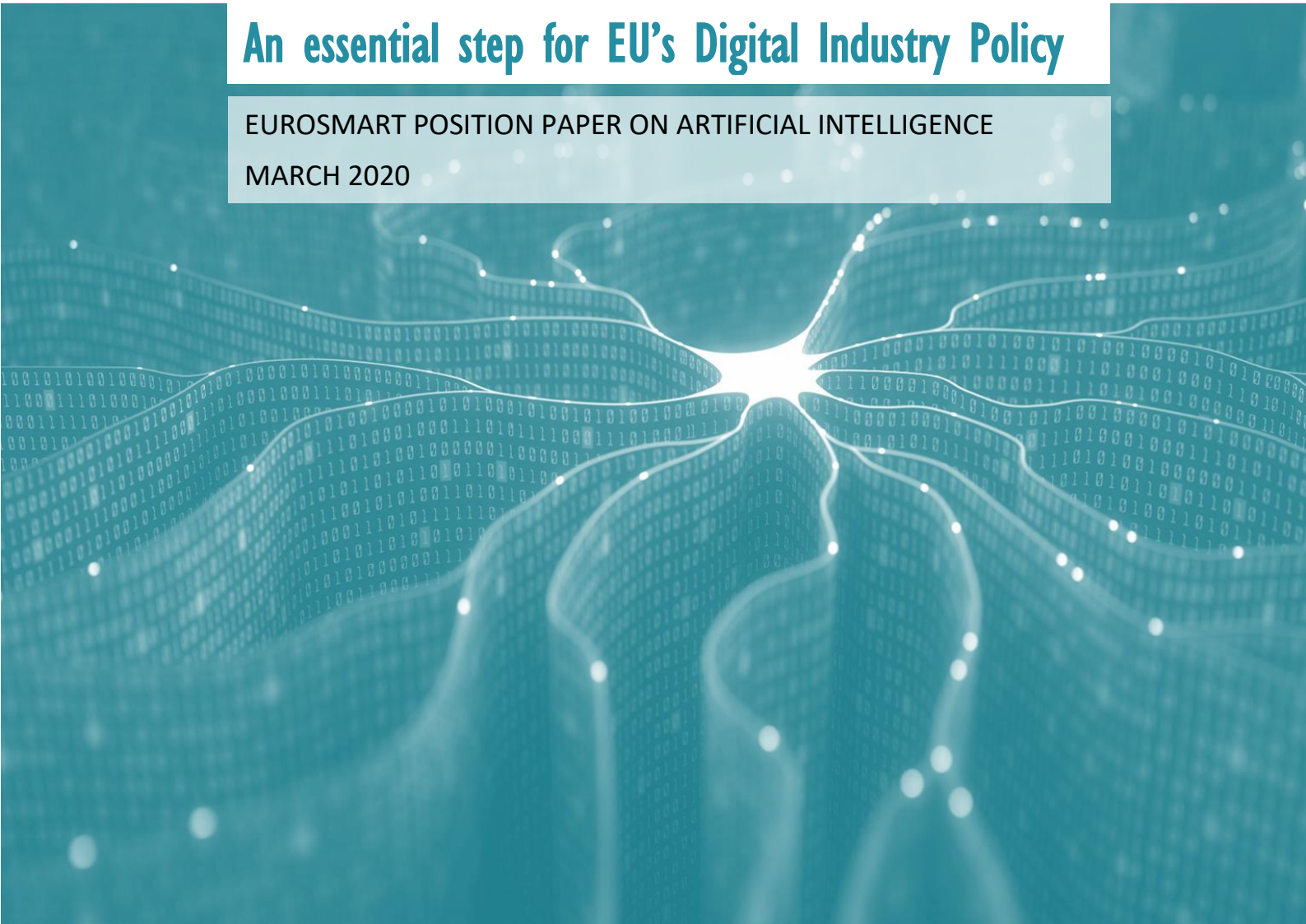
EUROSMART
The Voice of the Digital Security Industry

THE EP INTERGROUP ON AI AND DIGITAL:

An essential step for EU's Digital Industry Policy

EUROSMART POSITION PAPER ON ARTIFICIAL INTELLIGENCE

MARCH 2020



Introduction

Eurosmart welcomes the creation of the European Parliament's Intergroup on Artificial Intelligence and Digital. This initiative demonstrates the importance of enhancing the EU capabilities in emerging digital domains. Eurosmart is fully supportive of this MEPs' endeavour, which aims at providing citizens with advanced secure technologies and positioning Europe at the forefront of artificial intelligence (AI) technologies.

AI will challenge many current technologies; the Digital Security industry is ready to contribute actively to provide secure and trustworthy solutions. It is a matter of security, privacy and collective autonomy for Europe. AI has been identified as one of the EU Key Enabling Technologies by the European Commission. It is expected to increase capabilities in many ICT domains (automotive, energy, digital identity, cross border management…). Eurosmart considers that AI is definitively not a stand-alone technology and strongly encourages the European Union to take actions to leverage AI-related domains. An EU-wide answer is urgently needed to foster the "European Digital Sovereignty" as presented by President Ursula von der Leyen[1].

AI is a key enabling technology, we should promote solutions that aim at providing citizens with advanced secure technologies and positioning Europe at the forefront of artificial intelligence technologies.

The European Parliament as a catalyst for a coordinated AI strategy

One year ago, the previous European Parliament insisted[2] on the need to invest significantly in AI and to coordinate public and private investment. It underlined that Europe has a worldwide-recognised community of AI researchers but lamented many opted for expatriation as a result of better working conditions abroad. These observations are even truer today. Eurosmart believes that this Intergroup could play a crucial role in tackling these challenges by supporting a political approach that enhance both the EU research and the industry.

EU gathers talented and world class experts to deploy EU based innovations.

[1] Mission letter of 7 November 2019 to Thierry Breton, Commissioner for Internal Market
[2] European Parliament resolution of 12 February 2019 on a comprehensive European industrial policy on artificial intelligence and robotics (2018/2088(INI))

European Trustworthy AI requires cybersecurity by-design

Artificial intelligence is already omnipresent in our lives, it is having an enormous impact on us, making many of our choices easier and more convenient. AI presence is growing at speed in consumer's devices and services, in high-risk applications and critical infrastructures; hence, resilience to cyber-attack is of utmost importance. AI systems rely on software and hardware and can be embedded as components in larger systems. Cyber-attacks, such as data poisoning, could cause physical harms, result in loss of data and privacy violation. AI can have a direct impact on the behaviour of a device and/or machine and therefore autonomously impact physical life. The development of AI should go hand in hand with frameworks to assess (cyber)security and safety in order to guarantee that AI systems placed on the EU market are harmless, trustworthy, reliable and stay under control.

The AI resistance to potential attacks is a key area. AI systems are everywhere and rely on software and hardware which can be embedded as components in larger systems.

Standardisation and certification of AI

Therefore, cybersecurity standardisation and certification should be enhanced and used in Europe to ensure that AI systems are secure. In this regard, the *Cybersecurity Act* provides a useful cybersecurity certification framework where certification schemes should be elaborated, considering the level of criticality.

Moreover, the European Standardisation Organisations (ESOs) should develop and promote standards that support the European fundamental rights of security and privacy. Certification and standardisation are not a barrier to the take-off of AI in Europe, contrariwise they force the development of qualitative AI that respects the European values of security and privacy. This high-quality level is a competitive advantage for "made in EU" AI solutions, and protects the citizens and the digital market.

ESOs should develop and promote AI standards that support the European fundamental rights of security and privacy.

Furthermore, AI can contribute to the EU cyber-resilience. This technology can improve the cybersecurity lifecycle through prediction, prevention, detection and response. EU legislators should encourage its use in their legislations, initiatives and research projects. AI could be particularly valuable to raise the cyber-resilience level of critical infrastructure.

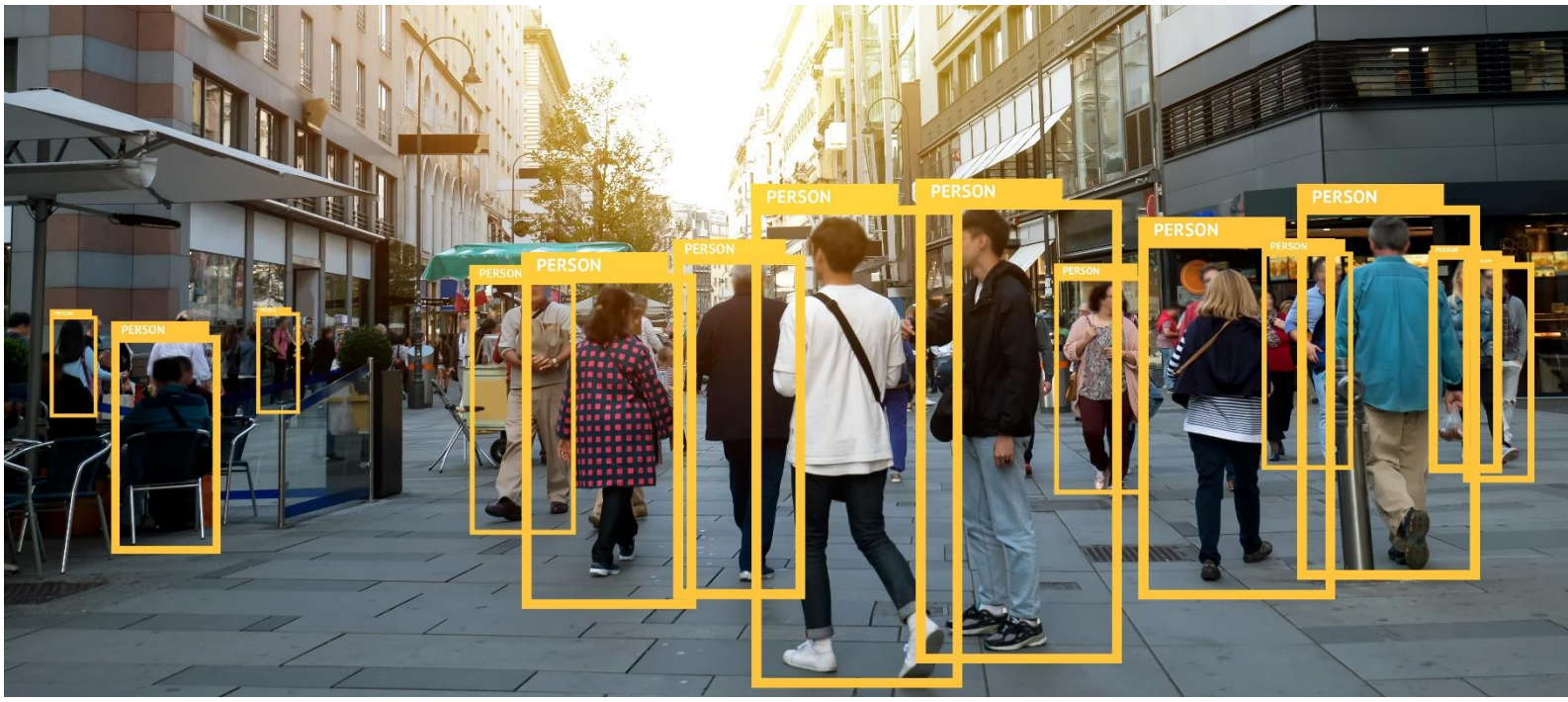


fig1. Biometric data sets combined with AI are able to quickly identify person walking on the street.

Liability for AI and software

Even the safest and most secure systems might fail at some point. Eurosmart believes that a clear legal definition of AI in specific environments is needed in the first place to tackle the liability question. The latest Commission's White Paper[3] on AI provides a first definition that should be improved. While it is true, as stated by the Commission, that "AI is a collection of technologies that combine data, algorithms and computing power", this approach misses a large part of the scope: purely reasoning mechanisms, machine learning, and their impacts on robotics and IoT. Eurosmart enjoins the legislator to refine legal definitions of AI according to their environment and their criticality. In the framework of the Product Liability Directive, a clarification of the concept of "product", e.g. with regards to software and AI as well as to updates and refurbishments, will therefore contribute to improving the effectiveness of the market.

In the course of the revision of EU liability rules, the right balance should be found between the protection of victims' right to compensation and adequate conditions for innovation. The potential financial burden resulting from new liability rules, including mandatory insurance for high-risk AI applications, should be carefully assessed.

When it comes to liability, a clarification of the concept of software is a perquisite to include AI system under the scope of the Product Liability Directive.

[3] White Paper of 19 February 2020 on Artificial Intelligence - A European approach to excellence and trust (COM(2020) 65)

AI and data as a milestone towards the European Digital Sovereignty

A trustworthy AI relies on the mastering of AI algorithms but also the set of data feeding the system. The origin and the reliability of these data is highly critical for the deployment of EU trustworthy AI. Eurosmart calls on the European Union to further investigate solutions to verify and assess data sets.

Eurosmart also supports the Commission's proposal to deploy and implement solutions such a common European Data Spaces for the exchange of personal, anonymised and raw data which are produced by European citizens and companies. These data are necessary for the take-off of EU AI solutions. Eurosmart welcomes the Commission's data strategy in this respect and calls on EU institutions to translate these words into actions. EU data are of great value and will support the competitiveness of European AI-based solutions.

Finally, AI is profoundly impacting privacy when it comes to AI-related identification and verification, including facial recognition. AI issues will challenge the eIDAS regulation, and it is essential for the citizens and the EU industry that Europe keeps control of online identity management. For instance, a European answer is urgently needed to tackle the world-class data brokers which propose well established online derivate identity solutions. Europe should break this downward circle where data provided by EU citizens over the internet nourished non-EU AI algorithms that are nearly out of control.

AI-based identification and authentication solutions can be coupled with biometrics. It offers the most convenient user experience but processes highly critical personal data. Eurosmart encourages solutions, which combine a high assurance level, privacy and efficiency. For these reasons, "one-to-one" identification solutions should prevail on "one-to-n" (identification against a database) to avoid an over-processing of personal and biometric data by third parties. At the same time, Eurosmart encourages the development of market-access solutions to evaluate the security and the safety of biometric technologies.

AI holds a large part of EU's digital sovereignty and will deeply impact eID and biometrics solutions.

About Eurosmart

Eurosmart, the Voice of the Digital Security Industry, is an **international non-profit association located in Brussels**, representing the **Digital Security Industry** for multisector applications. **Founded in 1995**, the association is committed to expanding the world's Digital secure devices market, developing smart security standards and continuously improving the quality of security applications.

Our members

Members are manufacturers of secure elements, semiconductors, smart cards, secure software, High Security Hardware and terminals; biometric technology providers; system integrators; application developers and issuers.

EUROSMART members are companies (**BCA**, **Fingerprint Cards**, **G+D Mobile Security**, **GS TAG**, **IDEMIA**, **IN Groupe**, **Infineon Technologies**, **Inside Secure**, **Internet of Trust**, **Linxens**, **Nedcard**, **NXP Semiconductors**, **+ID**, **Prove & Run**, **Qualcomm**, **Real Casa de la Moneda**, **Samsung**, **Sanoïa**, **Sarapis**, , **STMicroelectronics**, **Thales**, **Tiempo Secure, Trusted Objects**, **WISekey**, **Winbond, Xilinx**), Testing and Inspection and certification companies (**Bureau Veritas**, **SGS**,) laboratories and certification body companies (**JTSEC**, **Keolabs**, **Serma**, **Brightsight**, **Red Alert Labs**, **Cabinet Louis Reynaud, Trust CB**), research organisations (**Fraunhofer AISEC, Institut Mines-Telecom - IMT, ISEN - Institut Supérieur de l'Électronique et du Numérique Toulon**), associations (**SCS Innovation cluster**, **Smart Payment Association**, **SPAC**).

EUROSMART and its members are also active in many other security initiatives and umbrella organisations at EU-level, like CEN, ECIL, ETSI, ECSO, ESIA, ETSI, GP, ISO, SIA, TCG and others.

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www.eurosmart.com @Eurosmart_EU @Eurosmart

Rue de la Science 14b | B-1040 Brussels | Belgium
Tel +32 2 880 36 00 | mail eurosmart@eurosmart.com