

Towards an integrated European digital ecosystem. Digital Omnibus, Data Act, AI Act and the protection of human beings in data governance and Artificial Intelligence

Verso un ecosistema digitale europeo integrato. Digital Omnibus, Data Act, AI Act e tutela della persona umana nella governance dei dati e dell'Intelligenza Artificiale

ANTONIO FELICE URICCHIO 

Full Professor of Tax Law
University of Bari Aldo Moro
President of ANVUR

CLAUDIO CALDAROLA

Ph.D. student in Artificial Intelligence Health and Life Sciences
Campus Bio-Medico University of Rome
President of GP4AI

Abstract

The recent evolution of the European Union's regulatory framework on data, artificial intelligence, cybersecurity, and digital identity reveals a process of profound institutional transformation, one that goes far beyond the technical dimension of innovation to take on the characteristics of a true constitutional repositioning of the European legal order. Digitalization, far from being merely an instrumental phenomenon, becomes the ground on which the Union reaffirms its political and legal identity, defining a governance model capable of combining technological progress, the integrity of institutions, and the substantial protection of the human person. The result is an innovation law that is not peripheral to the fundamental architecture of the legal order, but is situated at its very center, as it is built on the quality of data, the transparency of algorithms, and public responsibility as an indispensable condition for democratic legitimacy. The set of recent interventions by the European Union constitutes a broad-reaching project, in which technological innovation, regulatory efficiency, and the protection of the individual are not placed in a dialectical or, much less, a conflicting relationship, but are integrated into a unified conception of digital development as an intrinsically value-driven process. Europe thus commits to building a model where technology does not operate as a factor of restriction of freedoms, but as a tool through which to more fully realize dignity, equality, and democratic participation. In this sense, digitalization is configured as the place where the capacity of the European legal order to govern its future is measured, while preserving the centrality of the individual and the solidity of institutions. This is the distinctive feature of the path taken: a modernity that advances not against the law, but through the law, and that finds in the rule of law, proportionality, and responsibility the means to ensure that technological progress remains, at all times, irreducibly Human.

* This article is the english version of the contribution AF Uricchio, C Caldarola, 'Towards an integrated European digital ecosystem. Digital Omnibus, Data Act, AI Act and the protection of human beings in data governance and Artificial Intelligence' in AI Law - International Review of Artificial Intelligence Law, 2026, 1, 146-169.



© The author(s) 2026, published by Suor Orsola University Press.

This contribution is licensed under a Creative Commons Attribution 4.0 International Licence CC-BY-NC-ND, all the details on the license are available at:

<https://creativecommons.org/licenses/by-nc-nd/4.0/>

Abstract

L'evoluzione recente del quadro regolatorio dell'Unione europea in materia di dati, intelligenza artificiale, sicurezza informatica e identità digitale rivela un processo di profonda trasformazione istituzionale che va ben oltre la dimensione tecnica dell'innovazione per assumere i tratti di un vero e proprio consolidamento giuridico attraverso un modello di governance capace di coniugare progresso tecnologico, assetto istituzionale e tutela sostanziale della persona. Ne emerge un diritto dell'innovazione che non è periferico rispetto all'architettura fondamentale dell'ordinamento, ma si colloca al suo stesso centro, poiché costruito sulla qualità dei dati, sulla trasparenza degli algoritmi e sulla responsabilità pubblica quale condizione imprescindibile di legittimazione democratica. L'insieme dei recenti interventi dell'Unione europea compone un progetto di ampio respiro, nel quale l'innovazione tecnologica, l'efficienza regolatoria e la tutela della persona non sono collocate in rapporto dialettico e meno che mai conflittuale, ma integrate in una concezione unitaria dello sviluppo digitale come processo intrinsecamente valoriale. L'Europa si impegna così a costruire un modello nel quale la tecnologia non operi come fattore di compressione delle libertà, bensì come strumento attraverso il quale realizzare in modo più pieno la dignità, l'eguaglianza e la partecipazione democratica. In questo senso, la rete si configura come il luogo in cui si misura la capacità dell'ordinamento europeo di governare il proprio futuro, preservando al contempo la centralità della persona e la solidità delle istituzioni. È questa la cifra distintiva del percorso intra-preso, una modernità che avanza non contro il diritto, ma mediante il diritto, e che trova nella regola, nella proporzionalità e nella responsabilità gli strumenti attraverso cui assicurare che il progresso tecnologico rimanga sempre essenzialmente e irriducibilmente Umano.

Keywords: human technology; innovation; AI; digital ecosystem; data act; AI Act; digital omnibus

Summary: [1. The complex construction of the European and internal regulatory framework.](#) – [2. Towards *governance* based on the quality of information, the interoperability of infrastructures and legal certainty.](#) – [3. The necessary balance between innovation and the protection of rights.](#) – [4. The European regulatory strategy as a necessary tool for ensuring digital identity and combating algorithmic opacity.](#) – [5. Conclusions.](#)

1. The complex construction of the European and internal regulatory framework.

The European Union has embarked on a path of progressive construction of a regulatory architecture capable of guiding digital transformation towards a stable balance between technological innovation and the protection of human beings. The evolution of the European digital ecosystem is characterised by a growing awareness of the need for a regulatory framework capable of organically integrating data, artificial intelligence, cybersecurity and digital identity, placing at its core a governance model based on responsibility, information quality and the guarantee of human dignity. This approach is clearly evident in the European Commission's Communication Data Union (Strategy: Unlocking Data for Artificial Intelligence, COM2025 835 final, 19

November 2025), according to which data accessibility and interoperability are essential prerequisites for the safe and transparent development of artificial intelligence systems and, more generally, a structural condition for generating economic and social value while respecting fundamental rights.

The European Commission also emphasises the need to overcome the fragmentation of the digital acquis, reducing administrative burdens and increasing regulatory predictability for citizens and businesses. This approach underpins the proposed regulation known as Digital Omnibus (European Commission, Proposal for a Regulation (Digital Omnibus), COM(2025) 837 final, 19 November 2025), which introduces simplification measures concerning artificial intelligence, cybersecurity and data governance, eliminating regulatory overlaps and coordinating sources in a more streamlined and coherent framework. The intervention is part of a broader programme of 'stress testing' the digital rulebook, aimed at verifying the consistency, effectiveness and cumulative impact of European rules on the functioning of the single market.¹ The Simplification is considered not as a reduction in protections, but as a strengthening of their effectiveness: this is because a more organic and readable body of legislation increases legal certainty and allows for a more uniform application of guarantees.

It is well known that the evolution of emerging technologies tends to expand the area of interference between law, technology and public organisation, prompting a rethinking of the role of regulatory sources and guarantees aimed at ensuring the protection of fundamental rights in a context dominated by automated decision-making processes. From this perspective, regulatory intervention cannot be limited to governing technology, preventing it from becoming an ordering model, but must above all preserve the sovereignty of law and with it the democratic principle that finds its foundation in the model of balancing the different powers of the state.²

¹ G De Minico, 'Le fonti del diritto: un argine all'intelligenza artificiale?' (2025) 3 Riv. AIC 76 ff., where it is highlighted how 'le fonti del diritto siano cambiate via via che le dinamiche di Internet e di intelligenza artificiale si evolvevano, presentando tre forme distinte che riflettono contesti storici, contemporanei e futuri. Inizialmente, l'analisi esplora la tradizionale autoregolazione, ricostruendone il percorso da semplice pratica autoregolativa a fonte del diritto, a condizione di rispettare i requisiti di legittimità posti dall'ordinamento europeo. Nel contesto contemporaneo, il lavoro approfondisce il ruolo dell'intelligenza artificiale, concentrandosi sui seguenti strumenti normativi individuati nell'A.I. Act: norme armonizzate e co-regolazione tra autorità pubbliche e privati. Queste fonti esemplificano una complessa interazione tra decisioni politiche e competenza tecnica, sollevando importanti questioni riguardo alla legittimità alla rappresentanza democratica e alla tutela dei diritti fondamentali. Guardando al futuro, l'Autrice discute il ruolo inedito della «tecnica come fonte del diritto», a model that diverges radically from traditional and self-regulated paradigms. See also M Tuozeo, 'Note intorno al (futuro) Artificial Intelligence Act. Prospettive costituzionali e sfide dell'immigrazione nell'ecosistema digitale' (2024) SI1 Dir. pubbl. eur. Rass. Online 213 ff.; J Black, *Rules and Regulations* (Oxford 1997) 71-80; A Ogus, 'Rethinking Self-Regulation' (1995) 15 Oxford JLS 97-108; O Pollicino, 'Regolazione e innovazione tecnologica nell'ordinamento della rete' (2025) 2 Riv. AIC 152 ff.; G De Gregorio, 'The Normative Power of Artificial Intelligence' (2023) 30 Indiana JGLS 73 ff.; E Celeste, 'Digital Constitutionalism: A New Systematic Theorisation' (2019) 33 Int. RLCT 76 ff.

² See U Ruffolo, 'L'AI Act e l'evoluzione dell'AI' in U Ruffolo (ed) *AI Act. La regolamentazione europea dell'intelligenza artificiale* (Rome 2025) 9, that the AI Act, 'considerato la prima e antesignana misura di sistematica regolazione dell'AI negli ordinamenti occidentali, spazio, tratta materia nella quale la velocità di evoluzione del fenomeno regolato può rischiare di rendere molti

That said, it should be noted that the EU's digital framework is based on three main regulations: the Data Governance Act (Regulation EU 2022/868), which establishes trust mechanisms for intermediation and promotes data altruism; the Data Act (Regulation EU 2023/2854), which regulates the rights of access and use of data generated by connected devices and strengthens the interoperability of cloud services; and the AI Act (Regulation EU 2024/1689), which introduces a multi-level system based on risk classification, algorithmic transparency and the responsibility of economic operators.³ This regulatory mosaic is consistent with the European vision of a secure, interoperable and human-centric digital environment, in which technology is governed by criteria of proportionality, documentation and supervision. The AI Act, in particular, defines a liability framework that integrates technical requirements and legal safeguards, providing for meaningful human control and stringent standards of quality and reliability for information acquisition and management processes.⁴

These tools are accompanied by the proposal for a regulation on European Business Wallets (European Commission, Proposal for a Regulation on European Business Wallets, COM2025 838 final), designed to create an interoperable EU infrastructure for identification, certification and document exchange between businesses. A key role is assigned to Data Labs (Supporting Infrastructure for High-Quality Data Spaces, in COM2025 835 final), designed to offer trust services for the preparation, pseudonymisation and sharing of data in secure environments. These are controlled spaces where processes to improve the quality of datasets mature and where information distortions that could compromise the reliability of AI systems are reduced.

The most recent thinking has highlighted how the semantic and structural quality of data influences that of algorithmic decisions. In this sense, it has been

approcci regolatori strutturalmente inadeguati a segnare il passo. È il dilemma della dialettica regolante-regolato in un settore così "mobile" la cui natura e ritmo di crescita esigerebbero dalla legal machinery, secondo i massimi esponenti delle altre scienze ("dure" e non: da Bostrom ad Acemoglu), una sapienza regolatoria proattiva e non semplice-mente reattiva'.

³ See, on this subject, G Finocchiaro, 'La proposta di regolamento sull'intelligenza artificiale: il modello europeo basato sulla gestione del rischio' (2022) *Dir. inf.* 303 ff.; L Floridi, 'The European Legislation on AI: A Brief Analysis of its Philosophical Approach' (2021) 34 *PhT* 215 ff.; G Mazzini, S Scalzo, 'The Proposal for the Artificial Intelligence Act: Considerations around Some Key Concepts' in C Camardi (ed) *La via europea per l'Intelligenza Artificiale* (Milan 2023) 21 ff.; L Gatt, MT Lo Conte, MG Mazzarella, 'L'ambito soggettivo ed oggettivo di applicazione dell'AI Act' in U Ruffolo (ed) *AI Act. La regolamentazione europea dell'intelligenza artificiale* (Rome 2025) 49.

⁴ A Alaimo, 'Il Regolamento sull'Intelligenza Artificiale: dalla proposta della Commissione al testo approvato dal Parlamento. Ha ancora senso il pensiero pessimistico?' (2023) 25 *Federalismi.it* 133 ff., according to which 'la valutazione dell'AI Act non deve rimanere isolata dal generale contesto normativo europeo e nazionale in cui la proposta è concepita, ma debba piuttosto inquadrarsi – per usare un'immagine – con un grandangolo, sì da tenere adeguatamente conto delle molte discipline vigenti e dei numerosi progetti normativi in corso. Ciò consente di intercettare i fili di una trama normativa unitaria che, in un'ottica complessiva di governo dell'ecosistema digitale, non sembra che stia del tutto confinando ai margini le questioni sociali rispetto agli imperativi economici. Il quadro complessivo lascia meno spazio al pessimismo iniziale e suggerisce di non confinare la valutazione del progetto di AI Act nel libro nero delle iniziative unicamente finalizzate a regolare il mercato unico'.

observed⁵ how significant the impact of artificial intelligence language is on the protection of fundamental rights, given that algorithmic opacity can affect the understanding of public decisions and the transparency of the exercise of power. The problem of AI language is linked to the need to develop a right to technological comprehensibility, capable of guaranteeing that automation does not compromise the right of defence and the very effectiveness of the principle of legality.

In other areas (administrative law, tax law),⁶ data integration and the use of predictive tools are redefining the relationship between public administrations (and therefore tax authorities) and citizens/taxpayers, shedding new light on the difficult balance between efficiency, legality and contributory capacity.⁷

⁵ A Simoncini, 'Il linguaggio dell'intelligenza artificiale e la tutela costituzionale dei diritti' (2023) 2 Riv. AIC 8, for whom 'un numero crescente di decisioni che interferiscono con la nostra sfera di libertà sono prese avvalendosi di sistemi di IA (che, inevitabilmente, tendono a sostituire e non solo a supportare la decisione). L'evoluzione di questo specifico settore tecno-logico sta portando alla sostituzione di modelli di inferenza causale con modelli logico-statistici basati sulla correlazione. Questa evoluzione rende in alcuni casi estremamente difficile, se non del tutto impossibile, comprendere il linguaggio e, dunque, le ragioni di tali decisioni. Alcuni, seppur rari, casi giurisprudenziali emblematici confermano/evidenziano i punti precedenti'; A Simoncini, 'L'uso delle tecnologie nella pandemia e le nuove disuguaglianze' in A Pajno, L Violante (eds.) *Biopolitica, pandemia e democrazia. Rule of law nella società digitale, II, Etica, comunicazione e diritti*, (Bologna 2021).

⁶ G Salanitro, 'Una prima lettura sull'impatto della legge IA nel diritto tributario' (2025) Riv. tel. dir. trib.; L Tosi, 'L'evoluzione digitale del sistema tributario' (2025) 1 Tax News 32 ff. For further information, see R Cordeiro Guerra, 'L'intelligenza artificiale nel prisma del diritto tributario' (2020) 1 Dir. prat. trib. 922 ff., according to which 'quando si affaccia al mondo del diritto un nuovo fenomeno o una nuova forma, anche embrionale, di entità prospetticamente configurabile quale centro di imputazione di diritti ed obblighi, quello tributario è tra i primi o comunque più solerti settori del sapere giuridico a scandagliarne le potenzialità, ovviamente nella prospettiva di dar vita ad un nuovo soggetto passivo da sottoporre a tassazione o al quale addossare obblighi strumentali al prelievo. Tale dinamica si sta ripetendo anche rispetto al fenomeno dell'intelligenza artificiale, per un verso con fughe in avanti costruite su una futura possibilità di tassare macchine capaci di autodeterminarsi e dunque anche di produrre ricchezza loro imputabile; e per l'altro, più realisticamente, con riferimento al trattamento fiscale da riservare ad imprese o privati che utilizzano forme di intelligenza artificiale in grado di sostituire, in tutto o in parte, il lavoro umano. In una diversa e ulteriore prospettiva, altrettanto fervida di sviluppo, l'interesse verso l'intelligenza artificiale si è poi appuntato sul potenziale impatto che essa potrà avere nell'implementazione e applicazione delle disposizioni tributarie: uno scenario al tempo stesso fecondo e sconfinato, considerata la mole delle disposizioni, la loro crescente complessità, il numero di soggetti coinvolti nella loro quotidiana attuazione negli attuali sistemi di fiscalità di massa. In quest'ultima chiave, in particolare, spiccano le potenzialità, ma anche le problematiche, che l'uso dell'intelligenza artificiale potrebbe comportare ai fini dei controlli sui contribuenti, orientando e rendendo più neutrale la scelta dei soggetti da sottoporre a verifica'. See also A Fidelangeli, F Galli, 'The Use of AI Technologies in the Tax Law Domain: An Interdisciplinary Analysis' (2022) Dir. prat. trib. int. 125-126; SA Parente, 'La soggettività tributaria delle macchine intelligenti e i nuovi modelli di tassazione dei processi produttivi automatizzati e interconnessi' (2021) 23 Iustus-Diritto e Finanza 111-112.

⁷ See S Dorigo, 'The 'Algorithmic Revolution': Fair Taxation, Social Pact and Global Governance' in M Belov (ed) *The IT Revolution and its Impact on State, Constitutionalism and Public Law* (Oxford 2021) 161 ff.; S Dorigo, 'Intelligenza artificiale e norme antiabuso: il ruolo dei sistemi 'intelligenti' tra funzione amministrativa e attività giurisdizionale' in S Dorigo (ed.) *Il ragionamento giuridico nell'era dell'intelligenza artificiale* (Pisa 2020) 123.

From a broader perspective,⁸ the use of digital technologies in production processes as in everyday life, it is giving rise to a profound transformation in lifestyles and therefore in the way we work, consume and generate wealth. The digital transition therefore requires a major technological, infrastructural, administrative and even regulatory effort.⁹ After moving from being simple consumers of digital services to prosumers, capable of being both users and producers of generated content, we are now facing a further evolution in which each of us has taken on a significant part of data production in the neo-industrial society, acquiring a new awareness of its value. The data economy then raises a further issue, which has been little explored to date: the generation of data, often free and spontaneous, becomes a value for the professional user, but remains with the user without any return to the user or to the community as a whole through general taxation instruments.

It is clear that the construction of the European digital ecosystem requires an institutional framework that views innovation not as uncontrolled acceleration but as an orderly process¹⁰ geared towards collective well-being, social sustainability and full respect for human dignity. In this context, Italy has distinguished itself for the speed with which it has transposed the European regulatory framework on artificial intelligence; Law No. 132 of 23 September 2025, provisions and delegated powers to the Government on artificial

⁸ For further information on the tax aspects of the digital economy, please refer to the book by F Gallo, AF Uricchio, *La tassazione dell'economia digitale* (Bari 2022); AF Uricchio, 'Evoluzione tecnologica e imposizione: la cosiddetta Bit Tax. Prospettive di riforma della fiscalità di internet', (2005) Dir. inf. 753; F Gallo, 'Fisco ed economia digitale' (2015) 1 Dir. prat. trib. 601; F Gallo, *Il futuro non è un vicolo cieco. Lo Stato tra globalizzazione, decentramento ed economia digitale* (Palermo 2019); L Del Federico, C Ricci (eds.), *La Digital Economy nel sistema tributario italiano ed europeo* (Padova 2015); L Del Federico (eds.), *Le nuove forme di tassazione della Digital Economy* (Rome 2017); L Del Federico, 'La tassazione nell'era digitale. Genesi, diffusione ed evoluzione dell'equalisation levy' (2020) Dir. prat. trib. int. 1431; L Carpentieri (ed), *Profili fiscali dell'economia digitale* (Torino 2020); R Cordeiro Guerra, S Dorigo (eds.), *Fiscalità dell'economia digitale* (Pisa 2022); A Di Pietro, P Santin (eds.), *La fiscalità dell'economia digitale tra Italia e Spagna* (Padua 2021); F Farri, *Tax Sovereignty and the Law in the Digital and Global Economy* (Turin 2021); S Dorigo (ed), *Il ragionamento giuridico nell'era dell'intelligenza artificiale* (Pisa 2020); A Persiani (ed), *La tassazione dell'economia digitale tra sviluppi recenti e prospettive future, Proceedings of the conference held on 29 November 2018* (2019) special issue of Law, Market, Technology NEU; G Corasaniti, 'La tassazione della "digital economy": evoluzione del dibattito internazionale e prospettive nazionali' (2020) 1 Dir. prat. trib. int. 1397; MC Fregni, 'Mercato digitale e tassazione: misure attuali e progetti di riforma' (2017) 1 Riv. dir. fin. 51; C Buccico, 'Problematiche e prospettive della tassazione dell'economia digitale' (2019) Dir. proc. trib. 255; FONDAZIONE BRUNO VISENTINI, *La tassazione dell'economia digitale*, 4 April 2019, 476; E Della Valle, G Fransoni (eds.), *L'imposta sui servizi digitali* (Padua 2021).

⁹ BJ Koops, 'Ten Dimensions of Technology Regulation', in MEA Goodwin, BJ Koops, RE Leenes (eds.) *Dimensions of Technology Regulation* (Nijmegen 2010) 309 ff.

¹⁰ See F Gallo, 'Cyberspazio, diritti e tutele', in AF Uricchio, C Caldarola (eds.), *L'intelligenza artificiale tra regolazione e esperienze applicative. AI ACT (regolamento UE) e disegno di legge governativo* (Bari 2025) 16, which emphasises the need for European institutions to define a clear regulatory framework for artificial intelligence, observing that, while on the one hand we now live in a sort of metaverse populated by 'intelligent' objects that talk to us, listen to us and assist us in a wide variety of daily activities, on the other hand, doubts are becoming increasingly pressing about the possible downsides of digitalisation, the 'artificial' nature of its fruits, the risks of manipulation, the absence of adequate controls and the potential decline in employment that it could produce. Hence the need for appropriate European legislation to prevent such effects over time.

intelligence, was recently approved definitively¹¹ which, for the first time in Europe, supplements the regulation with comprehensive national legislation, introducing specific elements, including an explicit reference to an anthropocentric and ethically oriented model, the promotion of research through cooperation between universities, public bodies and businesses, and the extension of the legislation to sectors such as public administration and disability. The new regulations do not merely incorporate the key principles set out by the EU, but reinforce them, intervening in a timely and binding manner in areas where EU law left room for discretion. Values such as respect for the individual and their dignity, personal freedoms and fundamental rights are fully affirmed. The national law also devotes specific attention to 'sensitive' sectors that are particularly important and delicate, such as public administration, health and disability – the latter not mentioned in the European Regulation. These are commendable and significant innovations, intended not only to affect legal regulation but also to guide the development of scientific research and technological evolution. It should be noted that neither the European Regulation nor Italian law adopts a repressive or stifling approach to technological innovation. On the contrary, the underlying awareness is that legislation can be an effective tool for promoting the informed and responsible use of artificial intelligence. As an ancient Chinese proverb reminds us, 'you cannot stop a river in flood with your hand, but you can build a dam'. The task of the legislator has therefore been precisely to outline these dams, so that artificial intelligence – a veritable raging river – does not overflow, but can be directed to generate growth, development and equity for our country.

In Italian law, Article 3, entitled 'General Principles', is significant. according to which the development, adoption and use of artificial intelligence systems and models for general purposes must comply with fundamental rights, constitutional freedoms and European Union law, as well as the principles of transparency, proportionality, security, personal data protection, confidentiality, accuracy, non-discrimination, gender equality and sustainability (first paragraph). This outlines an approach to artificial intelligence geared towards general purposes and interests, based on the principle of proportionality and a rigorous assessment. risk. From this perspective, digital security becomes an essential requirement, supported by targeted and stringent controls designed to ensure the necessary resilience of the system against possible alterations, manipulation or misuse of technologies. Particularly significant is the provision of paragraph 7 of the same article, which enshrines the right of persons with disabilities to full and effective non-discriminatory access to AI systems and related functionalities, in accordance with the 2006 UN Convention on the Rights of Persons with Disabilities, ratified in Italy by Law No. 18/2009. This is a formula that places technology within the horizon of dignity and substantive equality. In the legislative text, Chapter II is of crucial importance, setting out, in a precise and systematic manner, general principles and specific rules for the use of artificial intelligence in particularly sensitive sectors, where the impact of algorithmic decisions is likely to have significant and, in some cases, irreversible consequences on fundamental

¹¹ In Official Journal General Series No. 223 of 25 September 2025, No. 25G00143.

human rights. In this context, Article 7 expressly and strictly prohibits the use of algorithmic models based on manifestly discriminatory criteria, which could unexpectedly condition or unfairly limit access to healthcare services, thus constituting an essential and mandatory safeguard for the protection of universal, concrete and effective healthcare. Equally significantly, the amendment to Article 9 of the Italian Code of Civil Procedure is consistent with a perspective of certainty and guarantee, clearly and unambiguously attributing to the court the jurisdiction to hear disputes relating to the functioning of artificial intelligence systems, with the effect of definitively dispelling any interpretative uncertainty regarding the identification of the competent court.

In addition to strictly regulatory aspects, the law also introduces precise and significant active policy guidelines. In particular, Article 5 expressly entrusts the State with the task of promoting, in a systematic and consistent manner, the development and use of artificial intelligence as a privileged tool aimed at improving human-machine interaction, including through the advanced use of robotics, while promoting scientific research and encouraging virtuous cooperation between universities and businesses. These coordinates are essential hubs in the relationship between academic knowledge and the productive fabric, intended not only to strengthen the country's competitiveness in the long term, but also to catalyse strategic investments in key sectors of the national economy, within a comprehensive and dynamic framework that harmoniously combines innovation, sustainable growth and the greater public interest.

2. Towards governance based on the quality of information, the interoperability of infrastructure and legal certainty.

The evolution of the European Union's regulatory framework on data, artificial intelligence, cybersecurity and digital identity reveals a process of progressive consolidation aimed at creating a unified, comprehensible regulatory system capable of supporting technological development while respecting the fundamental values of the legal system. The Union's digital architecture, although based on heterogeneous sectoral sources, is gradually taking the form of a genuine 'law of technological integration', in which each regulation does not operate in isolation but contributes to the construction of a unified framework. This evolution reveals a transformation in the role of the European legislator, who is called upon not only to regulate new markets but also to oversee the systemic quality of digital interactions between institutions, citizens and economic operators. From this perspective, the governance of data and artificial intelligence is not a set of technical acts, but rather a process of institutional engineering destined to affect the very structure of the single market and the configuration of public powers in the algorithmic era. This process is part of a broad institutional strategy in which the European Commission has gradually outlined a governance model based on the quality of information, the interoperability of infrastructure and legal certainty, recognising that the reliability of digital systems is an essential

prerequisite for the proper functioning of the single market. The *Data Union Strategy* emphasises that regulatory fragmentation is one of the main obstacles to the maturation of digital ecosystems and that, therefore, the construction of a single architecture must proceed through the harmonisation of disciplines, the coordination of sources and the simplification of administrative procedures.¹² The strategy attributes systemic value to data quality, highlighting how its availability in an interoperable form is an essential condition for the safe and responsible adoption of artificial intelligence and for the dissemination of inclusive and sustainable innovation models.

The first pillar of this architecture is represented by *the Data Governance Act*,¹³ which introduces an institutional model based on trust in data sharing. The regulation establishes intermediation services, conceived as neutral entities responsible for facilitating the voluntary and controlled transfer of data between holders and users, and regulates data altruism, defined as the voluntary and unpaid provision of information for purposes of general interest. The act also defines uniform procedures for the reuse of information held by the public sector, strengthening administrative transparency and laying the foundations for the creation of reliable and interoperable European data spaces. The fiduciary dimension of information, repeatedly referred to in doctrine, is linked to issues relating to public accountability in the management of digital infrastructure and the role of national authorities in ensuring that data circulation takes place in conditions of security, transparency and legal certainty.¹⁴

The second pillar is the *Data Act*,¹⁵ which defines rights and obligations relating to access to data generated by connected devices and digital services. The regulation recognises the user's right to access data produced by the object and imposes obligations of transparency, contractual predictability and interoperability. The regulation extends to cloud and edge services, imposing technical standards aimed at ensuring portability between providers, reducing the risks of technological lock-in and promoting data mobility. Interoperability, data quality and certainty of contractual conditions are essential for a fair and

¹² European Commission, *Data Union Strategy: Unlocking Data for Artificial Intelligence*, COM(2025) 835 final, 19 November 2025 on the systemic value of information quality and data governance in the European framework, see Gallo (n 10) 9, where data quality is considered a prerequisite for the protection of rights and the democratic legitimacy of digital processes.

¹³ Regulation (EU) 2022/868 (*Data Governance Act*); on the institutional dimension of data sharing and the role of public *governance*, see AF Uricchio, 'Il fisco dinanzi all'intelligenza artificiale e alla digital transformation' in AF Uricchio, C Caldarola (eds.) *L'intelligenza artificiale tra regolazione e esperienze applicative. AI ACT (regolamento UE) e disegno di legge governativo* (Bari 2025) 197 ff., which describes data *governance* as the organising infrastructure of the digital system.

¹⁴ On the link between trust, data quality and public accountability, see DU Galletta, B Cappello, 'Il Regolamento UE sull'intelligenza artificiale e le amministrazioni pubbliche' in AF Uricchio, C Caldarola (eds.), *L'intelligenza artificiale tra regolazione e esperienze applicative. AI ACT (regolamento UE) e disegno di legge governativo* (Bari 2025) 59 ff., in relation to the risks of opacity and the need for algorithmic transparency.

¹⁵ Reg. (EU) 2023/2854 (*Data Act*); for a civil law interpretation of the effects of data access and interoperability on traditional categories, see U Ruffolo, 'Artificial intelligence and responsibility: are new rules (always) needed for this new phenomenon?' in AF Uricchio, C Caldarola (eds.), *L'intelligenza artificiale tra regolazione e esperienze applicative. AI ACT (regolamento UE) e disegno di legge governativo* (Bari 2025) 93 ff.

competitive market and, in particular, for a balanced relationship between economic operators, citizens and public administrations.¹⁶

The third pillar is the AI Act,¹⁷ the European Union's first comprehensive regulation dedicated to artificial intelligence. The text introduces a graduated and differentiated risk model into prohibited systems, high-risk systems and systems subject to transparency obligations, outlining technical requirements, documentation obligations and differentiated compliance procedures. The regulation assigns to humans the role of active supervisors of high-risk systems, recognising that, even in the presence of complex automated processes, human intervention must remain the cornerstone of democratic control. This is because the sustainability of artificial intelligence depends on the ability of the legal system to ensure a harmonious balance between technical autonomy, operator responsibility and substantive and procedural safeguards.

The regulatory simplification initiatives adopted by the European Commission play a significant role in building the digital ecosystem. The Digital Omnibus¹⁸ proposes a systemic integration of sectoral acts on data, artificial intelligence and cybersecurity, brought together in a unified corpus. The proposal introduces technical adjustments to ensure coordination, clarity and uniform application, as well as providing for the establishment of a single European point of notification for cybersecurity incidents, aimed at reducing the duplication of reporting obligations and improving coordination between national authorities and European bodies.¹⁹ The intervention is part of a broader effort to review the consistency of the EU digital framework, with the aim of reducing regulatory complexity and strengthening the predictability of the law.

The European Company Wallets Regulation²⁰ completes the picture, establishing a unified infrastructure for managing companies' digital identities and for the cross-border sharing of legally valid certificates. This instrument responds to the need, identified by economic and administrative doctrine, to create a reliable environment for digital interactions, reducing bureaucratic

¹⁶ On the relationship between interoperability, legal certainty and fair market functioning, with reference to taxation and administration, see Uricchio (n 13) 201 ff., where data quality is indicated as a condition for the sustainability of digitised public systems.

¹⁷ Reg. (EU) 2024/1689 (AI Act); for a systematic reconstruction of the risk architecture and its effects on administrative action, see C Caldarola, 'The AI Act: the new European regulation on artificial intelligence' in AF Uricchio, C Caldarola (eds.) *L'intelligenza artificiale tra regolazione e esperienze applicative. AI ACT (regolamento UE) e disegno di legge governativo* (Bari 2025) 87 ff.; M Corradino, *Potere pubblico e intelligenza artificiale* in AF Uricchio, C Caldarola (eds.) *L'intelligenza artificiale tra regolazione e esperienze applicative. AI ACT (regolamento UE) e disegno di legge governativo* (Bari 2025) 39 ff.

¹⁸ European Commission, Proposal for a Regulation on Artificial Intelligence, Cybersecurity and Data Governance (Digital Omnibus), COM (2025) 837 final; on regulatory simplification and the need for systemic consistency in European digital law, see AF Uricchio, *Postfazione*, in AF Uricchio, C Caldarola (eds.) in AF Uricchio, C Caldarola (eds.) *L'intelligenza artificiale tra regolazione e esperienze applicative. AI ACT (regolamento UE) e disegno di legge governativo* (Bari 2025) 467 ff.

¹⁹ European Commission, *SWD (2025) 836 final – Digital Simplification Agenda*; Reg. (EU) 2024/1183 on the European Digital Identity Framework; on the role of trust infrastructures and information verifiability in digital economic relations. See JD Lohr, WJ Maxwell, P Watts, *Legal Practitioners' Approach To Regulating Ai Risks* in K Yeung, M Lodge (eds.) *Algorithmic Regulation*, (Oxford 2019) 242 ff.

²⁰ Regulation (EU) 2024/1183.

burdens, strengthening the verifiability of information and supporting the integration of the internal market.²¹

The evolution of the digital *acquis* cannot be interpreted as a mere technical recomposition of sources, as it is closely linked to the axiological dimension of European law, expressing the relationship between regulation, technology and constitutional values in which the law does not suffer from technology, but governs it, directing innovation towards the protection of the individual and the safeguarding of democratic principles.²² In light of these considerations, the construction of the European digital ecosystem is an essential component of the process of geopolitical integration,²³ since technological transformation changes not only economic relations and fundamental legal categories but also relations between states. Through the coordination of data, digital identity and artificial intelligence, European law is therefore gradually tending to define a new institutional architecture geared towards transparency, reliability and sustainability, which is also capable of influencing international geopolitical scenarios.

3. The necessary balance between innovation and the protection of rights.

As highlighted, the European Union's digital policy is moving towards a model in which technological development and the protection of fundamental rights are not opposed but complementary, since fairness in decision-making processes, data quality and system reliability are necessary conditions for innovation that is truly geared towards collective progress.²⁴

²¹ See VS Poli, 'Il rafforzamento della sovranità tecnologica europea e il problema delle basi giuridiche' (2021) 5 Quaderni AISDUE; VM Inglese, 'Il Regolamento sull'intelligenza artificiale come atto per il completamento e il buon funzionamento del mercato interno?' (2024) 2 Quaderni AISDUE; A Adinolfi, 'L'intelligenza artificiale tra rischi di violazione dei diritti fondamentali e sostegno alla loro promozione: considerazioni sulla (difficile) costruzione di un quadro normativo dell'Unione' in A Pajno, F Donati, A Perrucci (eds.) *Intelligenza artificiale e diritto: una rivoluzione?* (Bologna 2022) 133 ff.; G Mobilio, 'L'intelligenza artificiale e i rischi di una 'disruption' della regolamentazione giuridica' (2020) Bio LJ 401 ff.

²² See L Mezzetti, S Romano, 'Intelligenza artificiale, Costituzione, libertà', in U Ruffolo (ed) *AI Act. La regolamentazione europea dell'intelligenza artificiale* (Rome 2025) 35, according to which la dimensione dinamica che spinge l'innovazione tecnologica si infrange sullo schermo statico della tutela dei principi e dei valori fondamentali che dovrebbero riverberarsi in tecniche di normazione che tengano conto dei principi-guida per un design etico della rivoluzione digitale'.

²³ See F Giancotti, 'Strategia e strategie IA: manca quella militare' in AF Uricchio, C Caldarola (eds.) *L'intelligenza artificiale tra regolazione e esperienze applicative. AI ACT (regolamento UE) e disegno di legge governativo* (Bari 2025) 355 ff., on the role of artificial intelligence in redefining geopolitical balances and digital sovereignty, and also M Caligiuri, 'L'intelligenza artificiale tra regolamentazione europea e strategie nazionali' in AF Uricchio, C Caldarola (eds.) *L'intelligenza artificiale tra regolazione e esperienze applicative. AI ACT (regolamento UE) e disegno di legge governativo* (Bari 2025) 475 ff.

²⁴ On this subject, see JR Reidenberg, 'Lex Informatica: The Formulation of Information Policy Rules through Technology' (1997) 76 Texas LR 555, who highlights how 'le capacità tecnologiche e le scelte di progettazione dei sistemi impongano regole ai partecipanti'. This approach was subsequently taken up and systematised by L Lessig, 'Code Is Law' (2000) Harvard M, according to which computer code is a form of 'law', in that it is capable of affecting individual freedoms and shaping the exercise of rights in the digital space.

Data Union Strategy aims to ensure the construction of a sustainable digital ecosystem that respects human dignity and is consistent with the principles of the Charter of Fundamental Rights of the European Union.²⁵ With this in mind, the Commission identifies 'responsible governance' as a key element in preventing technological abuses that could undermine user trust and the democratic legitimacy of digital processes.

The European Union outlines a regulatory model in which the protection of fundamental rights is not merely a subsequent step to technological processes, but rather takes on a fully propulsive function, guiding the very design of digital ecosystems. The principle of dignity, the guarantee against all forms of discrimination, the right to informed participation, and in some respects even the right to truth,²⁶ therefore do not act as external limits or brakes on innovation, but constitute substantive parameters intended to guide the entire life cycle of technologies, from conception to implementation²⁷. This results in a significant transformation of the traditional relationship between law and technology, since it is no longer the law that pursues technological evolution, but innovation that is called upon to develop within a defined and non-negotiable regulatory framework inspired by shared values and fundamental principles inherent in the structure of the European legal system and the constitutional principles of Member States. The principle of technological responsibility translates into the need to ensure that automation remains understandable, contextualised and verifiable, so that algorithmic complexity does not create opaque spaces that elude human control or reduce the ability to verify the consistency of decisions with the principles of law.

The European Commission highlights that one of the main interpretative issues concerns the availability of suitable data to support the training of artificial intelligence systems. The scarcity of adequate, accurate and representative datasets is a significant obstacle to the maturation of algorithms and requires trustworthy infrastructures capable of guaranteeing the quality of information and the protection of individuals. In this context, Data Labs are particularly important. These are designed as secure

²⁵ European Commission, *Data Union Strategy: Unlocking Data for Artificial Intelligence*, COM(2025) 835 final, 19 November 2025; on the relationship between human dignity, data quality and the democratic legitimacy of digital processes.

²⁶ See CM Reale, M Tommasi, 'Libertà di espressione, nuovi media e intelligenza artificiale: la ricerca di un nuovo equilibrio nel nuovo ecosistema costituzionale' (2022) 1 DPCE online 326 ff. The authors highlight how technological innovation, and in particular the use of AI in communication processes, requires a reinterpretation of traditional constitutional parameters, calling for a balance between the expansion of expressive possibilities and the new threats arising from phenomena such as algorithmic disinformation and the opacity of automated decision-making systems.

²⁷ On the transformative nature of society as a result of technology, see L Floridi, F Cabitza, *L'intelligenza artificiale: l'uso delle nuove macchine* (Milan 2021) 9, which highlights how 'l'intelligenza artificiale è una delle forze più trasformatrici del nostro tempo ed è destinata a modificare profondamente il tessuto della società'. See also AF Uricchio, G Riccio, U Ruffolo (eds.), *Intelligenza Artificiale tra etica e diritti. Prime riflessioni a seguito del libro bianco dell'Unione europea* (Bari 2020), which highlights the need for a regulatory and ethical approach capable of accompanying the development of AI, averting potentially harmful abuses of fundamental rights and, at the same time, enhancing its potential to serve the economy and society. See also: Finocchiaro (n 3); O Pollicino, P Dunn, *op. cit.*; Pajno, Donati, Perrucci (n 21); A D'Aloia, *Intelligenza Artificiale e diritto. Come regolare un mondo nuovo* (Milan 2021).

environments in which data can be prepared, cleaned, validated and pseudonymised in order to increase the reliability of artificial intelligence systems and reduce the risk of discrimination or systemic bias. Their central role in the European model is directly linked to the principle of technological neutrality, referred to in constitutional doctrine, according to which the structure of algorithmic language affects the conformity of decisions with the principles of equality, impartiality and predictability.²⁸

The Digital Omnibus clearly shows the Commission's desire to support technological development by reducing the administrative burdens that weigh particularly heavily on small and medium-sized enterprises and small mid-caps. Simplification is intended as a tool to promote a proportionate application of the obligations under the AI Act, without altering the level of protection. The text proposes the extension of measures to reduce documentation requirements, the introduction of technical and contractual guidelines, and the strengthening of regulatory experimentation mechanisms, among which regulatory sandboxes are particularly important. These are designed as controlled environments in which to test innovative solutions while ensuring the protection of users' rights and supervision by the competent authorities.²⁹ These instruments, already used in other regulated sectors, allow for a flexible approach to the discipline, preserving the essential core of safeguards without hindering technological evolution.³⁰

The necessary balance between innovation and the protection of rights is also reflected in the structure of the AI Act, which imposes requirements for transparency, human oversight and traceability of decision-making processes for high-risk systems. The regulation establishes the AI Office, a supranational body with coordination, supervisory and interpretative functions, designed to ensure uniform application of the regulatory framework and to support Member States in implementing the provisions relating to advanced artificial intelligence models.³¹ The choice of centralised supervision responds to the need to avoid divergences in application that could compromise the unity of

²⁸ On the link between algorithmic language, technological neutrality and the principles of equality, impartiality and predictability, see DU Galetta, B Cappiello, 'Il Regolamento UE sull'intelligenza artificiale e le amministrazioni pubbliche' in AF Uricchio, C Caldarola (eds.), *L'intelligenza artificiale tra regolazione e esperienze applicative. AI ACT (regolamento UE) e disegno di legge governativo* (Bari 2025) 59 ff., with reference to the risks of opaque decision-making and the need for transparency.

²⁹ European Commission, *Proposal for a Regulation on Artificial Intelligence, Cybersecurity and Data Governance (Digital Omnibus)*, COM (2025) 837 final; on the role of flexibility and regulatory experimentation tools in the implementation of the AI Act, see C Caldarola, *op. cit.*, 87 ff.

³⁰ M Ebers, 'Truly risk-based regulation of artificial intelligence: how to implement the EU's AI Act', in *EJRR*, 16, 2025, pp. 684-703. The author observes that the emergence of risk-based regulatory approaches to artificial intelligence systems, both in the European Union and in other jurisdictions, raises the question of the meaning attributed to the concept of 'risk' by the legislator. In general terms, risk can be defined as *la probabilità che una fonte di pericolo si traduca in un danno effettivo*. See also C Novelli, F Casolari, A Rotolo, M Taddeo, L Floridi, 'AI Risk Assessment: A Scenario-Based, Proportional Methodology For The AI Act', in *Dig. Soc.*, 3:2, 2024; M Kaminski, 'Regulating the risks of AI', in *Boston ULR*, 2023, p. 103.

³¹ Reg. (EU) 2024/1689 (AI Act); on the establishment of the AI Office and the role of centralised supervision for the uniform application of the regulatory framework, see Caldarola (n 17) 91 ff.; Corradino (n 17) 39 ff.

the market and generate uncertainty for businesses and citizens, as the algorithm must operate within a well-defined legal perimeter.³²

The Commission also acknowledges that the complexity of the regulatory framework may hinder innovation, especially in sectors where compliance obligations from different regulations accumulate. For this reason, the Digital Omnibus proposes the establishment of a single European point for reporting cybersecurity incidents, intended to replace the multiple obligations under the GDPR, the NIS2 Directive and the DORA Regulation, reducing the administrative burden and improving cooperation between national authorities.³³ This solution has been positively received in initial analyses conducted in the tax field, where it has been observed that the proliferation of digital compliance requirements calls for a consistent balance between operational efficiency, legal certainty and procedural guarantees.³⁴

The European vision therefore tends to identify a model of 'governed innovation', in which technology develops within a regulatory framework capable of ensuring legal certainty, sustainability and the protection of rights. The regulation of artificial intelligence becomes the legal environment in which the various levels of law converge: public law, which sets limits and non-negotiable values; private law, which regulates liability, contractual relationships and the circulation of digital assets; security law, which protects the essential interests of the state; and geopolitical law, which places artificial intelligence in the context of the competition between global powers; and tax law, which on the one hand values and uses data to combat tax evasion, and on the other hand is called upon to assess new taxable cases.

This results in a strong commitment by the European Union to pursue a balance between technological competitiveness and the protection of individuals, as a condition for ensuring that private citizens, businesses and institutions have confidence in digital tools, responsible use, and therefore data security and quality.

4. The European regulatory strategy as a necessary tool for ensuring digital identity and combating algorithmic opacity.

The European Union's regulatory strategy on data, artificial intelligence and digital identity is part of a trajectory that goes beyond the mere sectoral regulation of emerging technologies, taking the form of a comprehensive

³² On the principle of the centrality of the human person and the impossibility of considering the algorithm as a self-referential subject, see AF Uricchio, F Mazzotta, 'Metaverso, fiscalità e intelligenza artificiale: prime considerazioni alla luce del recente disegno di legge in materia', in AF Uricchio, C Caldarola (eds.), *L'intelligenza artificiale tra regolazione e esperienze applicative. AI ACT (regolamento UE) e disegno di legge governativo* (Bari 2025) 225 ff., where human control is regarded as an essential safeguard of constitutional legality.

³³ European Commission, *SWD (2025) 836 final – Digital Simplification Agenda*; on the coordination of cybersecurity notification obligations and the reduction of regulatory fragmentation, see Gallo (n 10) 23 ff.

³⁴ On the relationship between the simplification of digital compliance, legal certainty and operational efficiency, with specific reference to the tax field, see Uricchio (n 13) 201 ff.

digital sovereignty project.³⁵ From this perspective, European standardisation not only performs an organisational or corrective function in the markets, but also becomes the tool through which the Union reaffirms its ability to govern technological transformations, preserving the unity of the internal market and the consistency of public action in a context characterised by the growing pervasiveness of automated decisions.³⁶

In the global context, the European approach stands out for its marked institutional focus³⁷. Compared to models that favour, on the one hand, regulatory flexibility and market self-regulation, as in the US experience, and, on the other, centralised political control of digital infrastructure, as in the Chinese model, the European Union pursues a path based on binding rules, harmonised standards and supranational supervisory mechanisms.³⁸ Even compared to the British approach (which adopts the principles of safety, transparency, fairness, accountability and contestability), geared towards regulation by principles and the empowerment of sectoral authorities, the European model is characterised by its ambition to build a unified regulatory framework capable of ensuring uniform application and legal certainty in a structurally transnational technological ecosystem.³⁹ In this context, data governance takes on an eminently strategic value.⁴⁰ European data spaces are conceived not merely as environments for the exchange of information, but as infrastructures of general interest, intended to support innovation, the integration of the internal market and the modernisation of public action.⁴¹ The interoperability of infrastructures, the adoption of common standards and the semantic quality of information are essential prerequisites for ensuring that data circulation can translate into economic and social value without generating information asymmetries, regulatory fragmentation or systemic risks for the functioning of the single market.⁴² From this perspective, data quality is not merely a technical objective, but a structural condition for the overall reliability of European digital ecosystems.

The European regulatory strategy addresses the issue of algorithmic opacity as an eminently institutional matter, and not merely as a problem of individual protection.⁴³ The lack of transparency and traceability in automated decision-making processes, as a factor of uneven application, directly affects confidence in the market and the ability of public authorities to exercise control functions and on the very unity of the European legal system.⁴⁴ From this perspective, algorithmic opacity takes on the appearance of a systemic risk, capable of

³⁵ European Commission, *Data Union Strategy – Unlocking Data for AI*, cit.

³⁶ Regulation (EU) 2024/1689 (*AI Act*), initial recitals; SWD (2025) 836 final, Introduction and § 1.1; De Minico (n 1) Part II.

³⁷ Gallo (n 10) 15 ff.

³⁸ Gallo (n 10) 15 ff.; N Maccabiani, 'Data processing and algorithms: a constitutionally oriented AI?' (2025) *AI Law* 1 ff.

³⁹ European Commission, *Digital Omnibus*, COM (2025) 837 final, Explanatory Memorandum.

⁴⁰ European Commission, COM (2025) 835 final, §§ 1 and 3.

⁴¹ European Commission, COM (2025) 835 final, § 2; Commission Staff Working Document on Common European Data Spaces, SWD (2024) 21 final.

⁴² European Commission, COM (2025) 835 final, § 3; SWD (2025) 836 final, § 1.1.2.

⁴³ Simoncini (n 2); De Minico (n 1)

⁴⁴ Regulation (EU) 2024/1689 (*AI Act*), Articles 13 and 50; SWD (2025) 836 final, § 1.2.2.7.

compromising the consistent application of rules and generating divergences between Member States, with distorting effects on competition and legal certainty.⁴⁵

It is in this context that the AI Act comes into play, introducing a multi-level regulatory model based on risk management, system transparency and operator responsibility⁴⁶. Of particular significance is the establishment of the AI Office, which is called upon to perform coordination, supervision and interpretative guidance functions at supranational level.⁴⁷ The centralisation of these powers responds to the need to avoid fragmentation in application and to ensure uniform implementation of the regulation, ensuring that artificial intelligence operates within a clear, predictable and controllable legal framework.⁴⁸

However, the role of the AI Office is not limited to the internal dimension of the European legal system, but extends to the international level, helping to consolidate the Union's role as a regulatory power in the global governance of artificial intelligence.⁴⁹ Through the definition of technical standards, risk assessment criteria and multi-level governance models, the Union exercises an influence based on the strength of the single market and the consistency of its legal framework, offering an alternative regulatory paradigm in a context of growing technological and geopolitical competition.⁵⁰

This framework also includes the regulation of corporate digital identity, which finds in European Company Wallets a tool aimed at strengthening legal certainty and trust in cross-border economic transactions.⁵¹ The creation of an interoperable infrastructure for the management of legally relevant certifications reduces administrative burdens, prevents fraud and promotes the integration of the internal market, contributing to the creation of a reliable and competitive digital environment.⁵² Digital identity thus takes on a systemic function, acting as a link between technological innovation, the security of legal relations and European economic integration.⁵³

Taken together, these instruments outline a regulatory strategy that does not merely react to innovation, but guides its development according to a long-term vision, in which the quality of digital infrastructure, transparency of decision-making processes and consistency of rules are essential conditions for the competitiveness and sustainability of the European economy.⁵⁴ Regulation

⁴⁵ Gallo (n 10) 15 ff.; European Commission, COM (2025) 837 final, reasons for the need for uniform application of the internal market.

⁴⁶ Regulation (EU) 2024/1689 (AI Act); SWD (2025) 836 final, § 3.

⁴⁷ Regulation (EU) 2024/1689 (AI Act), Articles 64 et seq.; European Commission, COM (2025) 837 final; EU Commission press release, 19 November 2025.

⁴⁸ European Commission, COM (2025) 837 final, *Explanatory Memorandum*; SWD (2025) 836 final, § 3.2.

⁴⁹ European Commission, COM (2025) 835 final, § 3.3.

⁵⁰ Gallo (n 10); Maccabiani (n 38).

⁵¹ European Commission, Proposal for a Regulation on *European Business Wallets*, COM (2025) 838 final.

⁵² European Commission, COM (2025) 838 final; Technical Annex to *European Business Wallets*.

⁵³ AF Uricchio, C Caldarola (eds.), *L'intelligenza artificiale tra regolazione e esperienze applicative. AI ACT (regolamento UE) e disegno di legge governativo* (Bari 2025); European Commission, COM (2025) 835 final, Conclusions.

⁵⁴ Uricchio, Caldarola (n 53); European Commission, COM (2025) 835 final, Conclusions.

is therefore not an external constraint, but an enabling factor, capable of strengthening confidence in digital ecosystems and consolidating the European Union's role as a central player in the governance of global technological transformations.⁵⁵

5. Conclusions.

The reconstruction of the European digital innovation framework highlights how the Union has developed a vision in which regulation is not a counterweight to technology or an external constraint on its expansion, but rather an intrinsic condition of its legitimacy and long-term sustainability. From the Data Union Strategy to the Digital Omnibus, from the AI Act to the Data Act, from the Data Governance Act to the proposal on European Business Portfolios, a common paradigm emerges, since digital transformation can only produce economic and social value if it is built on infrastructures of trust, data quality, process transparency and the centrality of the human person.⁵⁶ In this perspective, regulation takes on a systemic function and defines the perimeter within which innovation can develop without technical degeneration, which ultimately leads to rent-seeking behaviour, information asymmetries and, above all, the erosion of constitutional guarantees.

The COM and SWD documents of 2025 confirm that the Union's objective is not to proliferate regulations, but rather to build a coherent and interoperable set of legal instruments. The Digital Omnibus inaugurates a logic of evolutionary maintenance of the digital rulebook, aimed at verifying its effectiveness, rationalising redundancies and ensuring uniform application. This is not merely a technical operation, as simplification becomes an instrument of regulatory justice: it allows operators to access a clearer and more proportionate framework, reduces compliance costs and increases the reliability of public action. The single European point of notification for cybersecurity incidents is a particularly significant example, as it does not reduce the level of protection for those concerned, but strengthens its effectiveness through more coordinated and efficient management of reports. From this perspective, innovation is not a neutral phenomenon, as it affects the physiology of public decisions, the balance of power between private individuals, the measurability of responsibility, administrative efficiency, collective security and even geopolitical balances. The sustainability of the digital transition therefore requires European law to play a constant supervisory role, capable of preventing marginalisation, automatisms that undermine rights and uncontrolled concentrations of informational power.

⁵⁵ F Gallo (n 10) 15 ff.; European Commission, COM (2025) 837 final and COM (2025) 838 final.

⁵⁶ On the unified paradigm of European regulation of digital innovation, based on trusted infrastructure, data quality, process transparency and a person-centred approach, see A F Uricchio, Presentation, in AF Uricchio, C Caldarola (eds.), *L'intelligenza artificiale tra regolazione e esperienze applicative. AI ACT (regolamento UE) e disegno di legge governativo* (Bari 2025) 9 ff., where regulation is described as an intrinsic condition for the legitimacy and sustainability of technological transformation.

Consequently, the protection of individuals and the quality of institutions are key criteria administrators of the entire digital infrastructure of the Union.

The process of regulating the European digital ecosystem ultimately represents a test of institutional maturity, as it calls on the Union to demonstrate that technological transition can be governed without sacrificing the centrality of the individual and the rationality of the law. The ability to integrate constitutional values, market needs and geopolitical dynamics into a coherent regulatory framework is the test of its authority in the new global digital order. Not only will Europe's competitiveness depend on this ability, but also the democratic quality of the decision-making processes that will accompany the algorithmic transformation of contemporary societies.

The future of digital Europe will therefore depend on the ability of institutions to maintain consistency, vision and responsibility in governing the transition. technological transformation. Innovation is not interpreted as a directionless race, but as a path through which the European Union intends to establish a human-centred, sustainable model of digital development that is fully compliant with the democratic values that form its foundation. If this direction is maintained and strengthened, the European legal system will not only be able to govern its own technological transformation, but also offer an international paradigm in which progress, equity and security coexist harmoniously.