

# Digital Transformation Strategy

Promoting sound progress for the benefit of the European Union economy, its citizens and businesses

EIOPA(2021)0060407  
10 December 2021



eiopa

European Insurance and  
Occupational Pensions Authority

## 1. INTRODUCTION

Digital transformation is generating a wave of change across economic and financial sectors, affecting the society at large.

This transformation has many aspects. Consumers increasingly demand products and services to be available from a single access point through their smart phones or computers, on a 24/7 basis and from any location. In addition, the processing of new datasets, such as those arising from the Internet of Things (IoT), by increasingly accurate and granular Artificial Intelligence (AI) systems offers the opportunity to develop more efficient, timely and automated processes. Digitally native InsurTech start-ups and broader technology companies (including the so-called “BigTech” companies) are entering financial markets with novel offerings, while incumbents are transforming their value chains.

Certainly, the pace and breadth of activity raises major challenges which supervisory authorities need to take into account – justifying a reflection on how to respond to changes which can otherwise seem difficult to manage.

In recent years EIOPA has undertaken horizon scanning, publishing consultation papers, reports, and regulatory guidance on topics such as AI, cloud computing, open insurance, Blockchain or licensing requirements in an InsurTech context. EIOPA has also organised several InsurTech roundtables and created a dedicated stakeholder expert group on digital ethics to discuss these topics from a broader perspective. In parallel to these activities, the European Commission has also recently launched an ambitious digital agenda (e.g. Digital Finance Strategy, Data Strategy, Retail Investment Strategy, Artificial Intelligence Act, Digital Markets Act, etc.) seeking to update the legislative framework to the digital age.

The objective of the present strategy is not to overlap EIOPA’s normal work planning process, but rather to set out how EIOPA, with its European perspective, can contribute best to the a sound transformation of the EU insurance and pensions markets and their supervision, how EIOPA can approach the prioritisation of its work on digital transformation topics, and how EIOPA can best add value for its Members (National Competent Authorities (hereinafter NCAs)). EIOPA aims to achieve these objectives having regard of its given mandate and following the principle of technological neutrality and maintaining a level playing field. The strategy sets out what EIOPA stands for in this time of change.

## 2. EIOPA'S DIGITAL TRANSFORMATION STRATEGIC PRIORITIES AND OBJECTIVES

EIOPA's supervisory and regulatory activities are always underpinned by two overarching objectives: promoting consumer protection and financial stability. The digital transformation strategy aims at identifying areas where, in view of these overarching objectives, EIOPA can best commit its resources in view of the challenges posed by digitalisation, while at the same time seeking to identify and remove undue barriers that limit the benefits.

This strategy sits alongside EIOPA's other forward thinking prioritisation tools – the union-wide strategic supervisory priorities,<sup>1</sup> the Strategy on Cyber Underwriting,<sup>2</sup> the Suptech Strategy<sup>3</sup> – but its focus is less on the specific actions needed in different areas, and more on how EIOPA will support NCAs and the pensions and insurance sectors in facing digital transformations following a technologically-neutral, future-proof, ethical and secure approach to financial innovation and digitalisation.

Five key long-term priorities have been identified, which will guide EIOPA's contributions on digitalisation topics:

1. Leveraging on the development of a sound European data ecosystem
2. Preparing for an increase of Artificial Intelligence while focusing on financial inclusion
3. Ensuring a forward looking approach to financial stability and resilience
4. Realising the benefits of the European single market
5. Enhancing the supervisory capabilities of EIOPA and NCAs.

These five long-term priorities are described in the following sections. Each relates to areas where work is already underway or planned, whether at national or European level, by EIOPA or other European bodies.

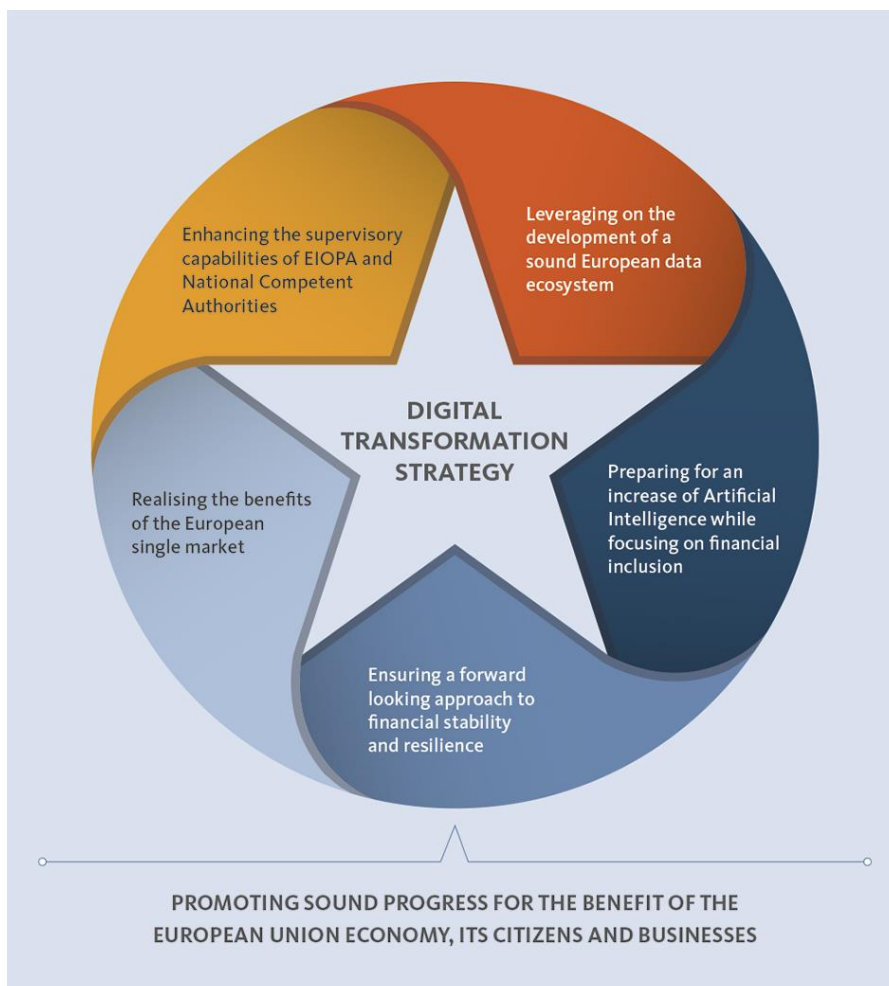
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<sup>1</sup> EIOPA, Union-wide strategic supervisory priorities, January 2021, [https://www.eiopa.europa.eu/content/union-wide-strategic-supervisory-priorities\\_en](https://www.eiopa.europa.eu/content/union-wide-strategic-supervisory-priorities_en)

<sup>2</sup> EIOPA, Strategy on Cyber Underwriting, February 2020, [https://www.eiopa.europa.eu/sites/default/files/publications/cyber-underwriting-strategy-february-2020\\_0.pdf](https://www.eiopa.europa.eu/sites/default/files/publications/cyber-underwriting-strategy-february-2020_0.pdf)

<sup>3</sup> EIOPA, Supervisory Technology Strategy, February 2020, [https://www.eiopa.europa.eu/content/supervisory-technology-strategy\\_en](https://www.eiopa.europa.eu/content/supervisory-technology-strategy_en)

The aim is to focus on priority areas where EIOPA can add value so as to enhance synergies and improve overall convergence and efficiency in our response as a supervisory community to the digital transformation.



## 2.1. LEVERAGING ON THE DEVELOPMENT OF A SOUND EUROPEAN DATA ECO-SYSTEM

### 2.1.1. ACCOMPANYING THE DEVELOPMENT OF AN OPEN FINANCE AND OPEN INSURANCE FRAMEWORK

Trends in the market show that the exchange of both personal and non-personal data through Application Programming Interfaces (APIs) is a leading factor leading to transformation and integration in the financial sector. By enabling several stakeholders to “plug” to an API to have access to timely and standardised data, insurance undertakings in collaboration with other service

providers can timely and adequately assess the needs of consumers and develop innovative and convenient proposals for them. Indeed, there are multiple types of use cases that can be developed as a result of enhanced accessing and sharing of data in insurance.

Examples of potential use cases include pension tracking systems (see further below), public and private comparison websites, or different forms of embedding insurance (including micro insurances) in the channels of other actors (retailers, airlines, car sharing applications, etc.). Another use case could consist in allowing consumers to conveniently access information about their insurance products from different providers in an integrated platform / application and identify any protection gaps (or overlaps) in coverage that they may have.

In addition to having access to a greater variety of products and services and enabling consumers to make more informed decisions, the transfer of insurance-related data seamlessly from one provider to another in real-time (data portability) could facilitate switching and enhance competition in the market. Supervisory authorities could also potentially connect into the relevant APIs to access anonymised market data so as to develop more pre-emptive and evidence-based supervision and regulation. However, it is also important to take into account relevant risks such those linked to data quality, breaches and misuse. ICT/cyber risks and financial inclusion risks are also relevant, as well as issues related to a level playing field and data reciprocity.<sup>4</sup>

EIOPA considers that, if the risks are handled right, several open insurance use cases can have significant benefits for consumers, for the sector and its supervision and will use the findings of its recent public consultation<sup>5</sup> on this topic to collaborate with the European Commission on the development of the financial data space and/or open finance initiatives respectively foreseen in the Commission's Data Strategy<sup>6</sup> and Digital Finance Strategy,<sup>7</sup> possibly focusing on specific use cases.

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<sup>4</sup> The potential entry of new market players into the area of financial services has triggered concerns as to whether existing financial service providers may be faced with unfair competition due to the data sharing requirements imposed on them and a lack of reciprocity to respect this principle in other sector.

<sup>5</sup> EIOPA, Discussion paper on Open Insurance: Accessing and Sharing insurance-related data, 2021, <https://www.eiopa.europa.eu/sites/default/files/publications/consultations/open-insurance-discussion-paper-28-01-2021.pdf>

<sup>6</sup> European Commission COM/2020/66 (2020). A European strategy for data. <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1593073685620&uri=CELEX%3A52020DC0066>

<sup>7</sup> European Commission COM(2020) 591 (2020). Digital Finance Strategy for the EU. <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0591&from=EN>

### 2.1.2. ADVISING ON THE DEVELOPMENT OF PENSIONS DATA TRACKING SYSTEMS IN THE EU

European public pension systems are facing the dual challenge of remaining financially sustainable in an aging society and being able to provide Europeans with an adequate income in retirement. Hence, the relevance of supplementary occupational and personal pension systems is increasing. The latter are also seeing a major trend influenced by the low interest environment consisting on the shift from Defined Benefit (DB) plans, which guarantee citizens a certain income after retirement, to Defined Contribution (DC) plans, where retirement income depends on how the accumulated contributions have been invested. As a consequence of these developments, more responsibility and financial risks are placed on individual citizens for planning for their income after retirement.

In this context, Pensions Tracking Systems (PTS) can provide simple and understandable information to the average citizen about his or her pension savings in an aggregated manner, typically conveniently accessible via digital channels. PTS are linked to the concept of Open Finance, since different providers of statutory and private pensions share pension data in a standardised manner so that it can be aggregated so as to provide consumers with relevant information for adopting informed decisions about their retirement planning.

EIOPA considers that it is increasingly important to provide consumers with adequate information to make informed decisions about their retirement planning, as it is reflected in EIOPA's technical advice to the European Commission on best practices for the development of Pension Tracking Systems.<sup>8</sup> EIOPA remains ready to further assist on this area, as relevant.

### 2.1.3. TRANSITIONING TOWARDS A SUSTAINABLE ECONOMY WITH THE HELP OF DATA AND TECHNOLOGY

Technologies such as AI, Blockchain, or the Internet of Things can assist European insurance undertakings and pension schemes in the implementation of more sustainable business models and investments. For example, greater insights provided by new datasets (e.g. satellite images or images taken by drones) combined with more granular AI systems may allow to better assess climate change-related risks and provide advanced insurance coverage. Indeed, as highlighted by the Commission's strategy on adaptation to climate change, actions aimed to adapt to climate change should be informed by more and better data on climate-related risks and losses accessible to everyone as well as relevant risks assessment tools.

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<sup>8</sup> EIOPA, Technical advice on the development of pension tracking systems, December 2021, [https://www.eiopa.europa.eu/document-library/advice/technical-advice-development-of-pension-tracking-systems\\_en](https://www.eiopa.europa.eu/document-library/advice/technical-advice-development-of-pension-tracking-systems_en)

This would allow insurance undertakings to contribute to a wider inclusion by incentivising customers to mitigate risks via policies whose pricing and contractual terms are based on effective measurements, e.g. with the use of telematics-based solutions in home insurance. However, there are also concerns about the impact on the affordability and availability of insurance for certain consumers (e.g. consumers living in areas highly exposed to flooding) as well as regarding the environmental impact of some technologies, notably concerning the energy consumption of certain data centres and crypto-assets.

Promoting a sustainable economy is a core priority for EIOPA. For this purpose, EIOPA will specifically develop a Sustainable Finance Action Plan highlighting, among other things, the importance of improving the accessibility and availability of data and models on climate-related risks and insured losses and the role that EIOPA can play therein, as highlighted by the Commission’s strategy on adaptation to climate change and in line with the Green deal data space foreseen in the Commission’s Data Strategy.

## 2.2. PREPARING FOR AN INCREASE OF ARTIFICIAL INTELLIGENCE WHILE FOCUSING ON FINANCIAL INCLUSION

### 2.2.1. TOWARDS AN ETHICAL AND TRUSWORTHY ARTIFICIAL INTELLIGENCE IN THE EUROPEAN INSURANCE SECTOR

The take-up of AI in all the areas of the insurance value chain raises specific opportunities and challenges; the variety of use cases is fast moving, while the technical, ethical and supervisory issues thrown up in ensuring appropriate governance, oversight, and transparency are wide ranging. Indeed, while the benefits of AI in terms of prediction accuracy, cost efficiency and automation are very relevant, the challenges raised by the limited explainability of some AI systems and the potential impact on some AI use cases on the fair treatment of consumers and the financial inclusion of vulnerable consumers and protected classes is also significant.

A coordinated and coherent approach across markets, insurance undertakings and intermediaries, and between supervisors is therefore of particular importance, also given the potential costs of addressing divergences in the future.

EIOPA acknowledges that AI can play a pivotal role in the digital transformation of the insurance and pension markets in the years to come and therefore the importance of establishing adequate governance frameworks to ensure ethical and trustworthy AI systems. EIOPA will seek to leverage

the AI governance principles recently developed by its consultative expert group on digital ethics,<sup>9</sup> to develop further sectorial work on specific AI use cases in insurance.

### 2.2.2. PROMOTING FINANCIAL INCLUSION IN THE DIGITAL AGE

On the one hand, new technologies and business models could be used to improve the financial inclusion of European citizens. For example, young drivers using telematics devices installed in their cars or diabetes patients using health wearable devices reportedly have access to more affordable insurance products. In addition to the incentives arising from advanced risk-based pricing, insurance undertakings could provide consumers loss prevention / risk mitigation services (e.g. suggestions to drive safely or to adopt healthier lifestyles) to help them understand and mitigate their risk exposure. From a different perspective, digital communication channels, new identity solutions and onboarding options could also facilitate access to insurance to certain customer segments.

On the other hand, certain categories of consumers or consumers not willing to share personal data could encounter difficulties in accessing affordable insurance as a result of more granular risk assessments. This would be for instance the case of consumers having difficulties to access affordable flood insurance as a result detailed risk-based pricing enabled by satellite imagery processed by AI systems. In addition, other groups of potentially vulnerable consumers deserve special attention due to their personal characteristics (e.g. elderly people or in poverty), life-time events (e.g. car accident), health conditions (e.g. undergoing therapy) or people with difficulties to access digital services. Furthermore, the trend towards increasingly data-driven business models can be compromised if adequate governance measures are not put in place to deal with biases in datasets used in order to avoid discriminatory outcomes.

EIOPA will assess the topic of financial inclusion from a broader perspective i.e. not only from a digitalisation angle, seeking to promote the fair and ethical treatment of consumers, in particular in front-desk applications and in insurance lines of businesses that are particularly important due to their social impact.

EIOPA will routinely assess its consumer protection supervisory and policy work in view of impacts on financial inclusion, and ensuring its work on digitalisation takes into account accessibility or inclusion impacts.

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<sup>9</sup> EIOPA's Consultative Expert Group on Digital Ethics in insurance, Artificial intelligence governance principles: towards an ethical and trustworthy AI in the European insurance sector, June 2021, <https://www.eiopa.europa.eu/sites/default/files/publications/reports/eiopa-ai-governance-principles-june-2021.pdf>



## 2.3. ENSURING A FORWARD LOOKING APPROACH TO FINANCIAL STABILITY AND RESILIENCE

### 2.3.1. ENSURING A RESILIENT AND SECURE DIGITALISATION

Similar to other sectors of the economy, incumbent undertakings as well as InsurTech start-ups increasingly rely on information and communication technology (ICT) systems in the provision of insurance and pensions services. Among other benefits, the increasing adoption of innovative ICT allow undertakings to implement more efficient processes and reduce operational costs, enable data tracking and data backups in case of incidents, as well as greater accessibility and collaboration within the organisation (e.g. via cloud computing systems).

However, undertakings' operations are also increasingly vulnerable to ICT security incidents, including cyberattacks. Furthermore, the complexity of some ICT or a different governance applied to new technologies (e.g. cloud computing) is increasing as well as the frequency of ICT related incidents (e.g. cyber incidents), which can have a considerable impact on undertakings' operational functioning. Moreover, relevance of larger ICT service providers could also lead to concentration and contagion risks. Supervisory authorities need to take into account these developments and adapt their supervisory skills and competences accordingly.

Early on, EIOPA identified cyber security and ICT resilience as a key policy priority and in the years to come will focus on the implementation of those priorities, including the recently adopted cloud computing<sup>10</sup> and ICT guidelines,<sup>11</sup> and on the upcoming implementation of the Digital Operational Resilience Act (DORA).<sup>12</sup>

### 2.3.2. ASSESSING THE PRUDENTIAL FRAMEWORK IN THE LIGHT OF DIGITALISATION

The Solvency II Directive sets out requirements applicable to insurance and reinsurance undertakings in the EU with the aim to ensure their financial soundness and provide adequate protection to policyholders and beneficiaries. The Solvency II Directive<sup>13</sup> follows a proportional, risk-based and technology-neutral approach and therefore it remains fully relevant in the context of

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<sup>10</sup> EIOPA, Guidelines on outsourcing to cloud service providers, February 2020, [https://www.eiopa.europa.eu/content/guidelines-outsourcing-cloud-service-providers\\_en](https://www.eiopa.europa.eu/content/guidelines-outsourcing-cloud-service-providers_en)

<sup>11</sup> EIOPA, Guidelines on information and communication technology security and governance, October 2020, [https://www.eiopa.europa.eu/content/guidelines-information-and-communication-technology-security-and-governance\\_en](https://www.eiopa.europa.eu/content/guidelines-information-and-communication-technology-security-and-governance_en)

<sup>12</sup> European Commission (COM/2020/595) (2020). Proposal for a Regulation on digital operational resilience for the financial sector. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0595>

<sup>13</sup> Directive 2009/138/EC on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II);

digitalisation. Under this approach, all undertakings, including start-ups that wish to obtain a licence to benefit from Solvency II's pass-porting rights to access the Internal Market via digital (and non-digital) distribution channels need to meet the requirements foreseen in the Directive, including minimal capital.

A prudential evaluation respective digital transformation processes should consider that insurance undertakings are incurring in high IT-related costs, to be appropriately reflected in their balance sheet. Furthermore, Solvency II requirement on outsourcing and the system of governance requirements are also relevant, in light of the increasing collaboration with third-party service providers (including BigTechs) and the use of new technologies such as AI. Investments on novel assets such as crypto-assets as well as the trend towards the "platformisation" of the economy are also relevant from a prudential perspective and the type of activities developed by insurance undertakings.

EIOPA considers that it is important to assess the prudential framework in light of the digital transformation that is taking place in the sector, seeking to ensure its financial soundness, promote greater supervisory convergence and also assess whether digital activities and related risks are adequately captured and if there are any undue regulatory barriers to digitalisation in this area.

## 2.4. REALISING THE BENEFITS OF THE EUROPEAN SINGLE MARKET

### 2.4.1. SUPPORTING THE DIGITAL SINGLE MARKET FOR INSURANCE AND PENSION PRODUCTS

Digital distribution can readily cross borders and reduce linguistic and other barriers; economies of scale linked to offering products to a wider market, increased competition, and greater variety of products and services for consumers are some of the benefits arising from the European Internal Market. However, the scaling up the scope and speed of distribution of products and services across the Internal Market is an area where there is still a major untapped potential.

Indeed, while legislative initiatives such as the Insurance Distribution Directive (IDD),<sup>14</sup> Solvency II Directive, Packaged Retail and Insurance-based Investment Products (PRIIPs) Regulation,<sup>15</sup> or the Directive on the activities and supervision of institutions for occupational retirement provision

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<sup>14</sup> Directive (EU) 2016/97 on insurance distribution (IDD)

<sup>15</sup> Regulation (EU) No 1286/2014 on key information documents for packaged retail and insurance-based investment products (PRIIPs)

(IORP II)<sup>16</sup> have made considerable progress towards the convergence of national regimes in Europe, considerable supervisory and regulatory divergences still persist amongst EU Member States. For example, the IDD is a minimum harmonisation Directive.

Existing regulation does not always allow for a fully digital approach. For instance, the need to use non-digital signatures or paper-based requirements as established by Article 23 (1) (a) IDD and Article 14 (2) (a) PRIIPs Regulation can limit end-to-end digital workflows. It is critical that the opportunities – and risks, for instance in relation to financial inclusion and accessibility – that come with digital transformations are fully integrated into future policy work. In this context, the so-called 28<sup>th</sup> regime used in Regulation on a pan-European Personal Pension Product (PEPP)<sup>17</sup>, which does not replace or harmonise national systems but coexists with them, is an approach that could eventually be explored taking into account the lessons learned..

EIOPA supports the development of the Internal Market in times of transformation, through the recalibration where needed of the IDD, Solvency II, PRIIPs and IORP II from a digital single market perspective. EIOPA will also explore what a digital single market for insurance might look like from a regulatory and supervisory perspective. Furthermore, EIOPA will integrate a digital ‘sense check’ into all of its policy work, where relevant.

#### 2.4.2. SUPPORTING INNOVATION FACILITATORS IN EUROPE

In recent years many NCAs in the EU have adopted initiatives to facilitate financial innovation. These initiatives include the establishment of innovation facilitators such as ‘innovation hubs’ and ‘regulatory sandboxes’ to exchange views and experience concerning Fintech-related regulatory issues and enable the testing and development of innovative solutions in a controlled environment and to learn more as to supervisory expectations. These initiatives also allow supervisory authorities to gather a better understanding of the new technologies and business models taking place in the market.

At European level, the European Forum for Innovation Facilitators (EFIF), created in 2019, has become an important forum where European supervisors share experiences from their national innovation facilitators and discuss with stakeholders topics such as Artificial Intelligence, Platformisation, RegTech or crypto-assets. The EFIF will soon be complemented with the

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<sup>16</sup> Directive (EU) 2016/2341 on the activities and supervision of institutions for occupational retirement provision (IORP II), <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016L2341&rid=9>

<sup>17</sup> Regulation (EU) 2019/1238 of the European Parliament and of the Council of 20 June 2019 on a pan-European Personal Pension Product (PEPP), <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L .2019.198.01.0001.01.ENG>

Commission’s Digital Finance platform; a new digital interface where stakeholders of the digital finance ecosystem will be able to interact.

Innovation facilitators can play a key role in the implementation and adoption of innovative technologies and business models in Europe and EIOPA will continue to support them through its work in the EFIF and the upcoming Digital Finance Platform. EIOPA will work to further facilitate cross-border / cross-sector cooperation and information exchanges on emergent business models.

#### 2.4.3. ADDRESSING THE OPPORTUNITIES AND CHALLENGES OF FRAGMENTED VALUE CHAINS AND THE PLATFORM ECONOMY

New actors including InsurTech start-ups and BigTech companies are entering the insurance market, both as competitors as well as cooperation partners of incumbent insurance undertakings. Concerning the latter, incumbent undertakings reportedly increasingly revert to third-party service providers to gain quick and efficient access to new technologies and business models. For example, based on in EIOPA’s Big Data Analytics thematic review,<sup>18</sup> while the majority of the participating insurance undertakings using BDA solutions in the area of claims management developed these tools in-house, two thirds of the undertakings reverted to outsourcing arrangements in order to implement AI-powered chatbots.

This trend is reinforced by the platformisation of the economy, which in the insurance sector goes beyond traditional comparison websites and is reflected in the development of complex ecosystems integrating different stakeholders. They often share data via Application Programming Interfaces (APIs) and cooperate in the distribution of insurance products via platforms (including those of BigTechs) embedded (bundled) with other financial and non-financial services. In addition, in a broader context of Decentralised Finance (DEFI), Peer-to-Peer (P2P) insurance business models using digital platforms and different levels of decentralisation to interact with members with similar risks profiles have also emerged in several jurisdiction; although their significance in terms of gross written premiums is very limited to date, it is a matter that needs to be monitored.

EIOPA notes the opportunities and challenges arising from increasingly fragmented value chains and the platformisation of economy which will be reflected in the ESAs upcoming technical advice on digital finance to the European Commission, and will subsequently support any measures within its remit that may be needed to encourage innovation and competition, protect consumers, safeguard financial stability and ensure a level playing field.

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<sup>18</sup> EIOPA, Thematic review on the use of Big Data Analytics in motor and health insurance, 2019, [https://register.eiopa.europa.eu/Publications/EIOPA\\_BigDataAnalytics\\_ThematicReview\\_April2019.pdf](https://register.eiopa.europa.eu/Publications/EIOPA_BigDataAnalytics_ThematicReview_April2019.pdf)

## 2.5. ENHANCING THE SUPERVISORY CAPABILITIES OF EIOPA AND NCAS

### 2.5.1. LEVERAGING ON TECHNOLOGY AND DATA FOR MORE EFFICIENT SUPERVISION AND REGULATORY COMPLIANCE

Digital technologies can also help supervisors to implement more agile and efficient supervisory processes (commonly known as Suptech). They can support a continuous improvement of internal processes as well as business intelligence capabilities, including enhancing the analytical framework, the development of risk assessments and the publication of statistics. This can also include new capabilities for identifying and assessing conduct risks. With its European perspective, EIOPA can play a key role by enhancing NCAs data analysis capabilities based on extensive and rich datasets and appropriate processing tools.

As outlined in its SupTech strategy and Data and IT strategy, EIOPA has the objective to promote its own transformation to become a digital, user-focused and data driven organisation that meets its strategic objectives effectively and efficiently. Several on-going projects are already in place to achieve this objective.

### 2.5.2. INCREASING THE UNDERSTANDING OF NEW TECHNOLOGIES BY SUPERVISORS IN CLOSE COOPERATION WITH STAKEHOLDERS

Building supervisory capacity and convergence is a critical enabler for other benefits of digitalisation; without strong and convergent supervision, other benefits may be compromised. With the use of different tools available (innovation hubs, regulatory sandboxes, market monitoring, public consultations, desk-based reports etc.), supervisors seek to understand, engage and supervise increasingly technology-driven undertakings. Closely cooperating with stakeholders with hands-on experience on the use of innovative tools has proved to be useful tool to improve the knowledge by supervisors, and also for the stakeholders it is important to understand what are the supervisory expectations.

Certainly, the profile of the supervisors needs to evolve and they need to extend their knowledge into new areas and understand how new business models and value chains may impact undertakings and intermediaries both from a conduct and from a prudential perspective. Moreover, in view of the growing importance of new technologies and business models for insurance undertakings and pensions schemes, it is important to ensure that supervisors have access to relevant data about these developments in order to enable an evidence-based supervision.

EIOPA aims to continue incentivising the sharing of knowledge and experience amongst NCAs by organising InsurTech roundtables, workshops and seminars for supervisors as well as pursuing

further potential deep-dive analysis on certain financial innovation topics. EIOPA will also further emphasise an evidence-based supervisory approach by developing a regular collection of harmonised data on digitalisation topics. EIOPA will also develop a stakeholder engagement strategy on digitalisation topics to identify those actors and areas where the cooperation should be reinforced.

## ANNEX I - AN EVOLVING REGULATORY LANDSCAPE

In the last few years, the European Commission has published several legislative and non-legislative initiatives related to digitalisation which have an impact on the activities of insurance undertakings. They seek to promote the adoption of digital technologies in the European Union and address potential risks arising from them by adapting the legislative framework to the digital age. Some of these initiatives are cross-sectorial, thereby potentially affecting all sectors of activity, while others specifically focus on financial services.

The European Commission's Data Strategy, published in February 2020, highlights the role of data as an enabler to make better and more informed decisions, both in business and in the public sector, and announces a series of initiatives to foster the creation of a European Single Market of data. Among other initiatives, the Data Strategy foresees the creation of common European data spaces in strategic sectors and domains of public interest, one of them being the financial services sector. The aim is enable access to large pools of data in these sectors and domains, combined with the technical tools and infrastructures necessary to use and exchange data, as well as appropriate governance mechanisms.

As a follow-up of the Data Strategy, the Commission published the Digital Services Act,<sup>19</sup> a legislative proposal that aims to update the existing EU e-commerce Directive by adjusting the horizontal rules that define the responsibilities and obligations of providers of innovative digital services in the internal market, in particular regarding online practices. The Strategy also aims to set a robust and durable governance structure for the effective supervision of providers of intermediary services. This legislative proposal is complemented by the Digital Markets Act,<sup>20</sup> which seeks to address competitive issues arising from the increasing market power of certain platforms that can act as gatekeepers in the market. Furthermore, the Commission has also published the Data Governance Act,<sup>21</sup> which among other things lays down conditions for the re-use of certain categories of data held by public sector bodies. These legislative proposals will be complemented by the forthcoming

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<sup>19</sup> Proposal for a Regulation (COM(2020) 825 final) of the European Parliament and of the Council on a Single Market For Digital Services (Digital Services Act) and amending Directive 2000/31/EC, <https://eur-lex.europa.eu/legal-content/en/TXT/?qid=1608117147218&uri=COM%3A2020%3A825%3AFIN>

<sup>20</sup> Proposal for a Regulation (COM/2020/842 final) of the European Parliament and of the Council on contestable and fair markets in the digital sector (Digital Markets Act), <https://eur-lex.europa.eu/legal-content/en/TXT/?qid=1608116887159&uri=COM%3A2020%3A842%3AFIN>

<sup>21</sup> Proposal for a Regulation (COM(2020) 767 final) of the European Parliament and of the Council on European data governance (Data Governance Act) <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52020PC0767>

Data Act, aiming to further facilitate data access and use in both business-to business (B2B) and business-to-government (B2G) relationships.<sup>22</sup>

Also from a cross-sectorial perspective, in 2020, the European Commission published a new Cybersecurity Strategy to bolster Europe's collective resilience against cyber threats. The publication of the Cybersecurity Strategy was accompanied by two legislative proposals to address both cyber and physical resilience of critical entities and networks: a Directive on measures for high common level of cybersecurity across the Union (revised NIS Directive or 'NIS 2'),<sup>23</sup> and a new Directive on the resilience of critical entities (insurance undertakings are not included in the list of critical entities).<sup>24</sup> At the time of writing, the European Parliament and the Council are also discussing a new e-Privacy Directive,<sup>25</sup> which will complement the General Data Protection Regulation (GDPR)<sup>26</sup> in relevant areas for the insurance sector such as the use of telematics devices. Moreover, the Commission is also considering revising the Regulation on electronic identification and trust services (e-IDAS Regulation) to promote the dematerialisation of legal documents and signatures<sup>27</sup>.

In April 2021 the European Commission updated its coordinated plan on AI,<sup>28</sup> which provides a high-level overview of the initiatives the Commission plans to adopt in the coming years to strengthen the AI capabilities in the European Union. Among other initiatives, it foresees the promotion of AI through different funding and research tools, the creation of AI testing and experimentation facilities, as well as a network of European Digital Innovation Hubs that will help small and medium enterprises (SMEs) and public administrations to take up AI. It also makes reference to the Artificial

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<sup>22</sup> European Commission public consultation on Data Act & amended rules on the legal protection of databases, May 2021, [https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13045-Data-Act-&-amended-rules-on-the-legal-protection-of-databases\\_en](https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13045-Data-Act-&-amended-rules-on-the-legal-protection-of-databases_en)

<sup>23</sup> Proposal for a Directive of the European Parliament and of the Council on measures for a high common level of cybersecurity across the Union, repealing Directive (EU) 2016/1148, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2020:823:FIN>

<sup>24</sup> Proposal for a Directive (COM(2020) 829 final) from the European Parliament and the Council on the resilience of critical entities [https://ec.europa.eu/home-affairs/sites/default/files/pdf/15122020\\_proposal\\_directive\\_resilience\\_critical\\_entities\\_com-2020-829\\_en.pdf](https://ec.europa.eu/home-affairs/sites/default/files/pdf/15122020_proposal_directive_resilience_critical_entities_com-2020-829_en.pdf)

<sup>25</sup> Proposal for a Regulation concerning the respect for private life and the protection of personal data in electronic communications and repealing Directive 2002/58/EC (Regulation on Privacy and Electronic Communications), <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52017PC0010>

<sup>26</sup> Regulation (EU) 2016/679 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation)

<sup>27</sup> The European Commission is currently evaluating this regulatory framework and ran an open consultation from 24 July to 2 October 2020, <https://digital-strategy.ec.europa.eu/en/news/digital-identity-and-trust-commission-launches-public-consultation-eidas-regulation>

<sup>28</sup> European Commission COM (2021) 205 (2021). Coordinated Plan on Artificial Intelligence 2021 Review, <https://digital-strategy.ec.europa.eu/en/library/coordinated-plan-artificial-intelligence-2021-review>



Intelligence Act,<sup>29</sup> published in May 2021, which provides a risk-based framework for the development and use of trustworthy AI applications (no insurance-specific activities are included in the list of high-risk AI applications).

Specifically on financial services, in September 2020 the European Commission published its Digital Finance Strategy, which aims to support the digital transformation of finance in the coming years.<sup>30</sup> Accompanying the strategy document the Commission also published a legislative proposal for an EU regulatory framework on digital operational resilience (DORA), which addresses areas such as information and communication technologies (ICT), risk management, incident reporting and ICT third-party risk. The Commission also published a legislative proposal on markets in crypto-assets (MICA)<sup>31</sup> as well as a pilot regime for market infrastructures based on distributed ledger technology,<sup>32</sup> which will provide a legislative framework for these activities which were mostly outside the regulatory scope and increase consumer protection.

EIOPA is directly involved in the implementation of several of the initiatives foreseen in the Digital Finance strategy; for instance, EIOPA and the other ESAs are preparing a technical advice in response to the Commission's call for advice on digital finance, covering areas such as the fragmentation of value chains, digital platforms and risks of groups combining different activities. EIOPA is also actively involved in the development of a cross-border testing framework in the EFIF. Furthermore, EIOPA also participates in the Commission's Supervisory Roundtable, which is involved in the preparation of the Commission's upcoming Strategy on Supervisory Data, aiming to initiate a shift to a modern, efficient and effective approach to data collection for supervisory purposes. Finally, EIOPA is also cooperating with the Commission on the development of the Financial Data Space, including the development of a European Single Access Point to public disclosures of financial data or supervisory reporting data, and to facilitate accessing and sharing of financial data (commonly known as open finance).

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<sup>29</sup> European Commission 2021/0106 (COD) (2021). Proposal for a Regulation on the harmonisation of rules on artificial intelligence (Artificial Intelligence Act). <https://digital-strategy.ec.europa.eu/en/library/proposal-regulation-laying-down-harmonised-rules-artificial-intelligence-artificial-intelligence>

<sup>30</sup> European Commission COM(2020) 591 (2020). Digital Finance Strategy for the EU. <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0591&from=EN>

<sup>31</sup> Proposal for a Regulation (COM/2020/593 final) of the European Parliament and of the Council on Markets in Crypto-assets, and amending Directive (EU) 2019/1937, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0593c>

<sup>32</sup> Proposal for a Regulation (COM/2020/594 final) of the European Parliament and of the Council on a pilot regime for market infrastructures based on distributed ledger technology, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0594>

## ANNEX II – EIOPA’S DIGITALISATION ACTIVITIES TO DATE

In addition to the regular monitoring of financial innovation trends in its annual Consumer Trends, in recent years EIOPA has developed several activities specifically in the area of InsurTech. In 2019 EIOPA published a Report on Best Practices on licensing requirements, peer-to-peer insurance and the principle of proportionality in an InsurTech context<sup>33</sup>, which among other things identified different types of peer-to-peer insurance (P2P) business models involving different forms of intermediation and risk-sharing arrangements, often not different to those of traditional mutual insurers. In 2020 EIOPA also published a Discussion paper on (re)insurance value chain and new business models arising from digitalisation,<sup>34</sup> confirming the increasing fragmentation of the insurance value chain.

Moreover, in May 2019 EIOPA published a thematic review on the use of Big Data Analytics (BDA) in motor and health insurance, which showed that Big Data Analytics tools such as Artificial Intelligence (including machine learning), were already in use by one third of the participating insurance undertakings across all the areas of the insurance value chain. As a follow-up of the publication of the thematic review, EIOPA convened a Consultative Expert Group on Digital Ethics in insurance, which in June 2021 developed six governance principles and accompanying guidance to promote an ethical and trustworthy artificial intelligence in the European insurance sector.

In June 2021 EIOPA published a public consultation Blockchain and Smart Contracts in insurance,<sup>35</sup> complementing EIOPA’s regular monitoring of crypto assets development in the insurance sector. Earlier in 2021 EIOPA had published to public consultation on open insurance, which together with the findings of EIOPA’s consultation on pension tracking services<sup>36</sup> will enable EIOPA to support the

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<sup>33</sup> EIOPA, Report on Best Practices on licensing requirements, peer-to-peer insurance and the principle of proportionality in an InsurTech context, 2019, <https://register.eiopa.europa.eu/Publications/EIOPA%20Best%20practices%20on%20licencing%20March%202019.pdf>

<sup>34</sup> EIOPA, Discussion paper on (re)insurance value chain and new business models arising from digitalisation, April 2020, <https://www.eiopa.europa.eu/sites/default/files/publications/consultations/discussion-paper-on-insurance-value-chain-and-new-business-models-arising-from-digitalisation.pdf>

<sup>35</sup> EIOPA, Discussion Paper on Blockchain and Smart Contracts in insurance, 2021, <https://www.eiopa.europa.eu/sites/default/files/publications/consultations/eiopa-discussion-paper-on-blockchain-29-04-2021.pdf>

<sup>36</sup> EIOPA, Consultation on technical advice on pension tracking services, September 2021, [https://www.eiopa.europa.eu/document-library/consultation/consultation-technical-advice-pension-tracking-services\\_en](https://www.eiopa.europa.eu/document-library/consultation/consultation-technical-advice-pension-tracking-services_en)

European Commission on the development of financial data space and open insurance framework foreseen in the Commission’s Data Strategy and Digital Finance Strategy.

As far as cyber security and ICT risks are concerned, early on EIOPA identified these topics as a policy priority; following the publication of the report Understanding Cyber Insurance - A Structured Dialogue with Insurance Companies<sup>37</sup> and the report Cyber Risks for Insurers – Challenges and Opportunities,<sup>38</sup> in February 2020 EIOPA developed its Strategy on Cyber Underwriting<sup>39</sup> setting out its strategic priorities in this area. Moreover, in October 2020 EIOPA developed Guidelines on information and communication technology security and governance, which complemented previous Guidelines on outsourcing to cloud service providers issued earlier that year.

EIOPA’s Suptech Strategy<sup>40</sup> and Data and IT strategy identified as a strategic priority the need to improve efficiency and effectiveness of the Supervisory Review Process while taking advantage of new technological developments. In this context, EIOPA has implemented or is in the process of implementing several initiatives aiming to up-grade its Business Intelligence and data analytics framework, including the collection and analysis of EMIR data via the TRACE system. EIOPA has also implemented a code sharing platform between EIOPA and NCAs to share knowledge and experience amongst supervisors (namely regarding Machine learning), and is also currently working together with EBA on a Digital Regulatory Reporting (DRR) project which aims to deliver a robust solution for the continuous EBA and EIOPA reporting framework development process, including Data Point Model (DPM) releases, the full validation rules lifecycle, and the XBRL taxonomy packages.

EIOPA has also assessed how the use of different technology-enabled solutions could improve the information included in the Insurance Register of insurance undertakings,<sup>41</sup> in particular with regards to cross-border activity, and has set-up a conduct of business Suptech workstream which is working on a project to leverage on AI systems (Natural Language Processing) to analyse PRIIPS KIDs. EIOPA also organises workshops and seminars for supervisors in topics such as Suptech or cyber security issues, and is currently cooperating with the ESAs and DG REFORM from the European Commission in the creation of a ‘Digital Finance Supervisory Academy’ under the structural reforms support programme (SRSP).

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<sup>37</sup> EIOPA, Understanding Cyber Insurance - A Structured Dialogue with Insurance Companies, 2018  
[https://www.eiopa.europa.eu/sites/default/files/publications/reports/eiopa\\_understanding\\_cyber\\_insurance.pdf](https://www.eiopa.europa.eu/sites/default/files/publications/reports/eiopa_understanding_cyber_insurance.pdf)

<sup>38</sup> EIOPA, Cyber Risks for Insurers – Challenges and Opportunities, 2019,  
[https://www.eiopa.europa.eu/sites/default/files/publications/reports/eiopa\\_cyber\\_risk\\_for\\_insurers\\_sept2019.pdf](https://www.eiopa.europa.eu/sites/default/files/publications/reports/eiopa_cyber_risk_for_insurers_sept2019.pdf)

<sup>39</sup> EIOPA, Strategy on Cyber Underwriting, February 2020, [https://www.eiopa.europa.eu/sites/default/files/publications/cyber-underwriting-strategy-february-2020\\_0.pdf](https://www.eiopa.europa.eu/sites/default/files/publications/cyber-underwriting-strategy-february-2020_0.pdf)

<sup>40</sup> EIOPA, Supervisory Technology Strategy, February 2020, [https://www.eiopa.europa.eu/content/supervisory-technology-strategy\\_en](https://www.eiopa.europa.eu/content/supervisory-technology-strategy_en)

<sup>41</sup> Register of Insurance Undertakings, <https://register.eiopa.europa.eu/registers/register-of-insurance-undertakings>

Finally, EIOPA is also currently involved in the implementation of several of the initiatives foreseen in the Digital Finance strategy; for instance EIOPA is cooperating with the other ESAs in responding to the Commission's call for advice on digital finance<sup>42</sup>, which includes assessing the fragmentation of value chains, platforms and bundling of various financial services, as well as the risks of groups combining different activities. EIOPA is also actively involved in the development of a cross-border testing framework in the European Forum of Innovation Facilitators (EFIF).

Furthermore, EIOPA also participates in the Commission's Supervisory Roundtable which is involved in the preparation of the Commission's Strategy on Supervisory Data - expected in the fall of 2021 - aiming to initiate a shift to a modern, efficient and effective approach to data collection for supervisory purposes. In addition, EIOPA is also cooperating with the Commission on the development of the Financial Data Space, including the development of a European Single Access Point (ESAP) to public disclosures of financial data or supervisory reporting data, and to facilitate accessing and sharing of financial data (commonly known as open finance).

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<sup>42</sup> Commission Call for advice to the ESAs on Digital Finance, February 2021, [https://ec.europa.eu/info/sites/default/files/business\\_economy\\_euro/banking\\_and\\_finance/documents/210202-call-advice-esas-digital-finance\\_en.pdf](https://ec.europa.eu/info/sites/default/files/business_economy_euro/banking_and_finance/documents/210202-call-advice-esas-digital-finance_en.pdf)

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