OPEN INSURANCE: ACCESSING AND SHARING INSURANCE-RELATED DATA

DISCUSSION PAPER

eiopa
European Insurance and Occupational Pensions Authority

#INSURANCE #INSURTECH

https://www.eiopa.europa.eu

PDF ISBN 978-92-9473-279-8 doi:10.2854/013491 EI-06-20-229-EN-N

Luxembourg: Publications Office of the European Union, 2021

OPEN INSURANCE: ACCESSING AND SHARING INSURANCE-RELATED DATA

Discussion Paper

CONTENTS

TABLE OF FIGURES, TABLES AND BOXES

RESPONDING TO THIS DISCUSSION PAPER

EIOPA welcomes comments on the 'Discussion Paper on open insurance: accessing and sharing insurance-related data'.

Comments are most helpful if they:

- respond to the question stated, where applicable;
- contain a clear rationale; and
- describe any alternatives EIOPA should consider.

Please send your comments to EIOPA by **28 April 2021** responding to the questions in the survey provided at the following link:

https://ec.europa.eu/eusurvey/runner/EIOPA_Open_Insurance

Contributions not provided using the survey or submitted after the deadline will not be processed and therefore considered as they were not submitted.

PUBLICATION OF RESPONSES

Contributions received will be published on EIOPA's public website unless you request otherwise in the respective field in the EU Survey Tool.

Standard confidentiality statements in an email message will not be treated as a request for non-disclosure.

Please note that EIOPA is subject to Regulation (EC) No 1049/2001 regarding public access to European Parliament, Council and Commission documents and EIOPA's rules on public access to documents.

Contributions will be made available at the end of the public consultation period.

DATA PROTECTION

Please note that your personal contact details (such as names, email addresses and phone numbers) will not be published. They will only be used to request clarifications, if necessary, on the information you supplied.

EIOPA will process any personal data in accordance with Regulation (EU) 2018/1725 on the protection of national persons with regard to the processing of personal data by Union institutions, bodies, offices and agencies and on the free movement of such data, and repealing Regulation (EC) No 45/2001 and Decision No 1247/2002/EC. More information on how EIOPA will treat your personal data can be found in the privacy statement

https://www.eiopa.europa.eu/content/privacy-statement_en.

EXECUTIVE SUMMARY

There has been an increasing focus in debates on the future evolution of the European insurance sector on whether market-led, regulatory or supervisory measures are needed to facilitate an appropriate data ecosystem.

Data broadly understood is critical for insurance, as it is the foundation of sound risk identification and pricing. Insurers are typically data rich. New kinds of data and data sources (e.g. social media) and new questions on who should ultimately decide on the use of data (e.g. the policyholder) are however introducing new players and challenges, disrupting this picture. In addition, questions are arising on whether and how far insurance value chains should be 'opened', i.e. whether and how far insurance-related data should be shared with other insurance or non-insurance operators, to put flesh on the bones of policyholder rights and to allow for innovation in products and services.

Recent EU policy initiatives such as the General Data Protection Regulation[1] (GDPR), revised Payment Services Directive[2] (PSD2), European Commission Data Strategy[3], and Digital Finance Strategy[4] (DFS) recognise the importance of data-driven innovation and data flows within the European Union internal market. A discussion around open finance has been in place for some time, focusing so far mainly on the banking sector and PSD2 (open banking). However, the DFS announced that the Commission will present a legislative proposal for a new open finance framework by mid-2022, building on and in full alignment with broader data access initiatives.

There is no uniform definition of open insurance. EIOPA has considered open insurance in its work so far in the broadest sense, covering the access to and sharing of personal and non-personal insurance-related data, usually via Application Programming Interfaces (APIs) and has sought to look it from consumer, supervisory and industry angle.

Initial analysis indicates that data exchange (both personal and non-personal data) through (open) APIs has started to emerge in the insurance sector, and that it can facilitate industry-wide innovation and increase the agility of businesses in responding to changes in customer needs and expectations. Internal APIs in insurance for example for back-end communications and interactions with third parties have been in place for some time and recently some initiatives have focused on opening up these APIs to the

1 Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 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) (OJ L 119, 4.5.2016, p. 1).

2 Directive (EU) 2015/2366 of the European Parliament and of the Council of 25 November 2015 on payment services in the internal market, amending Directives 2002/65/EC, 2009/110/EC and 2013/36/EU and Regulation (EU) No 1093/2010, and repealing Directive 2007/64/EC (OJ L 337, 23.12.2015, p. 35–127)

3 Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions on A European Data Strategy, COM(2020) 66 final, 19.02.2020

4 Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions ' Digital Finance Strategy for Europe', COM(2020)591 http://ec.europa.eu/finance/docs/law/200924-digital-finance-strategy_en.pdf

outside world to offer better services to policyholders and/or greater market competition.

Consequently the infrastructure for some services similar to open insurance is partly in place – though in a partial and local manner (e.g. some companies are focused on providing white-label and 'insurance-as-a-service' solutions, building sometimes on open banking data; some firms are providing open APIs; some jurisdictions are facilitating dashboards/aggregators, for example in the pension or motor insurance sector).

Currently developing such services entails bilateral negotiations, agreement and contracts, and working to bridge different standards since there is insufficient interoperability (standardisation) in the absence of any regulatory or self-regulatory requirements of such a nature (other than the GDPR data portability rules). Open insurance, on the other hand would seem to entail standardisation and/or possible compulsory data sharing requirements for the insurance industry (based on the explicit consent of the customer) and would provide controlled security and could be developed to ensure better consumer protection.

Enhanced data sharing and openness, in compliance with data protection and competition rules, could arguably enable the insurance sector to fully embrace data-driven innovation, including encouraging the creation of innovative products for consumers (e.g. easier for consumers to compare offerings and switch providers; new advice services) and for businesses (e.g. increased efficiency and interaction with third parties or more efficient compliance practices - RegTech). It could also provide opportunities for supervision (SupTech and more effective and responsive oversight capabilities).

However, this could also give rise to new/amplified risks such as data security, cyber risks, interoperability, liability, ethical issues and broader consumer protection risks. Collecting and sharing data about insurance policies or other open insurance-related data can reveal sensitive information about the health, sexuality, and political views or other personal details of a person. Increased data sharing, especially if combined with Artificial Intelligence/machine learning tools, could also increase financial exclusion. It could also raise the question of level playing field (e.g. the question of providing equal access to data for all insurance undertakings/intermediaries, including small ones and/or through reciprocity in the sharing of consumer data between all market participants). Additionally, insurance is complex in its nature and varies by lines of business and by products, which could also have different degrees of concentration and heterogeneity. Hence the economies of scale required to realise the full potential of open insurance could arguably develop at different pace in different lines of business and products.

Therefore overall consequences regarding open insurance might be rather different than regarding open banking. These considerations should be kept in mind in the discussion on open insurance. There might be also a need for integrations in the regulatory framework and for supervisory practices to be adapted. In the meantime, the sectoral legislation already in place continues to apply to open insurance use cases falling within the respective scope.

While the wider strategic approach to open insurance is a broader policy question to be considered in other fora, it is relevant to set out already certain high-level and interlinked areas, from supervisory perspective, where further elaboration may be needed, so as to ensure open insurance initiatives can be properly grounded technically and practically, to promote coherence with overall consumer protection, financial stability and sound prudential regulation objectives.

Those high-level and interlinked areas highlighted in this Discussion Paper include:

- Broader discussion and impact assessment on different open insurance approaches from regulatory/supervisory perspective
- Proper oversight and supervision
- Data protection and digital ethics
- Interoperable data sharing framework and API standards
- Level playing field and data reciprocity

EIOPA considers that there might be potential on open insurance for consumers, for the sector and its supervision, if handled right. A key consideration on possible open insurance solutions is how to find a balance between data protection, insurance, and competition regulations while supporting innovation, efficiency, consumer protection and financial stability. EIOPA could play a key role in the broader discussion on a smart - balanced, forward-looking, ethical and secure – EU approach on open insurance, which could contribute to a more integrated and efficient EU insurance market and could ultimately be a role model for other jurisdictions outside of the EU.

EIOPA is expecting from interested parties their views on this Discussion Paper. Specific questions are asked at the end of each chapter.

EIOPA will assess the feedback to this Discussion Paper in order to better understand open insurance developments and risks and benefits related to that. This could also help to provide informed insurance supervisory specific input for the upcoming legislative initiatives foreseen in the European Commission Data Strategy and Digital Finance Strategy. It could also supplement EIOPA´s ongoing work on areas such as (re)insurance value chain and new business models arising from digitalisation, insurance platforms and ecosystems, digital ethics, RegTech/SupTech and blockchain.

EIOPA will work further on this together with NCAs on supervisory responses to further support supervisors and supervisory convergence while maintaining a strong and open dialogue with all the stakeholders.

1. INTRODUCTION

BACKGROUND AND RATIONALE

The increased use of data and technology is changing how financial markets work for insurance undertakings (including intermediaries) and consumers. The discussion around the benefits and risks of so-called 'open finance' has taken place in many different jurisdictions for some time, focusing so far mainly on the banking sector (open banking).

Recent EU policy initiatives recognise the importance of data-driven innovation and data flows within the European Union (EU) internal market.

The General Data Protection Regulation[5] (GDPR) imposes rules that seek to protect natural persons in relation to the processing of their personal data. The most important building block of the GDPR is that natural persons should have control of their own personal data. As part of this, the free movement and portability of personal data is recognised in Article 20 of the GDPR[6], which empowers consumers to transfer their personal data from one provider to another. Data portability is also driven by antitrust law considerations although it is applicable irrespective of the existence of a real dominant position.[7]

The approach in the GDPR is reinforced further for the banking industry in the context of revised Payment Services Directive[8] (PSD2) which marked an important step towards the sharing and use of customer-permissioned data by banks and third party providers to create new services.[9] This has been more recently further brought under discussion in the European Commission Data Strategy[10] , Digital Finance Strategy[11] (DFS) and to a certain extent in the Commission Capital Markets Union new Action Plan[12] (CMU Action Plan).

The Data Strategy´s ambition is to enable the EU to become the most attractive, most secure and most dynamic data-agile economy in the world – empowering Europe with data to improve decisions and better the lives of all of its citizens.

The DFS further highlights as one priority to create a European financial data space to promote data-driven innovation, including enhanced access to data and data sharing within the financial sector. This includes facilitating real-time, standardised and machine-readable access

5 Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 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) (OJ L 119, 4.5.2016, p. 1).

6 Article 20 of the GDPR stipulates that the data subject shall have the right to receive the personal data concerning him or her, which he or she has provided to a controller, in a structured, commonly used and machine-readable format and have the right to transmit those data to another controller without hindrance from the controller to which the personal data have been provided, where the processing is based on consent pursuant to point (a) of Article 6(1) or point (a) of Article 9(2) or on a contract pursuant to point (b) of Article 6(1); and the processing is carried out by automated means.

Any natural person can ask the current data controller to transfer the data gathered, stored and processed to another controller in a structured, commonly used and machine-readable format without hindrance from the current controller.

7 Zetzsche, Dirk Andreas and Arner, Douglas W. and Buckley, Ross P. and Weber, Rolf H., The Future of Data-Driven Finance and RegTech: Lessons from EU Big Bang II (March 27, 2019). European Banking Institute Working Paper Series 2019/35.

8 Directive (EU) 2015/2366 of the European Parliament and of the Council of 25 November 2015 on payment services in the internal market, amending Directives 2002/65/EC, 2009/110/EC and 2013/36/EU and Regulation (EU) No 1093/2010, and repealing Directive 2007/64/EC (OJ L 337, 23.12.2015, p. 35–127)

9 PSD2 requires banks to share account information data and payment initiation capabilities with third parties with the objectives to make payments safer, increase the consumer protection, foster innovation and competition through clear technical rules for third parties accessing this consumer data. See in general about business model change and interaction wiht BigTech companies in banking in EBA thematic report on the impact of FinTech on payment institutions' and electronic money institutions' business models https://eba.europa.eu/-/eba-assesses-impact-of-fintech-on-payment-institutions-and-e-money-institutions-business-models

10 Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions on A European Data Strategy, COM(2020) 66 final, 19.02.2020

11 Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions ' Digital Finance Strategy for Europe', COM(2020)591 http://ec.europa.eu/finance/docs/law/200924-digital-finance-strategy_en.pdf

12 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - A Capital Markets Union for people and businesses-new action plan, COM(2020)590

to all regulated financial information publically released under EU financial services legislation and also refers to promoting innovative IT tools to facilitate reporting and supervision (RegTech and SupTech) as well as promoting the sharing of data between national supervisory authorities (NCAs).

The DFS also states that the Commission will present a legislative proposal for a new open finance framework by mid-2022, building on and in full alignment with broader data access initiatives. This will also build on the initiatives on digital identities mentioned in the DFS. Namely, the Commission intends to enable that digital identities can be used, for example, for 'on-boarding' with another financial institution. This could for example include elements linked to investor suitability assessment or customer credit profile.

Finally, new CMU Action Plan[13] states that in order to facilitate access to individualised pension information and raise people's awareness as regards their future retirement income, the Commission will seek to develop best practices for the set-up of national tracking systems[14], another initiative that can be seen broadly related to open insurance.

There is no uniform definition of open insurance (see more in chapter 2). The scope of PSD2 is currently limited to payment accounts. There is no PSD2-type of legislation for pension savings or insurance products.

As a response to EIOPA´s recent consultation on (re)insurance value chain and new business models arising from digitalisation, some stakeholders highlighted that consumer data is a key business and competitive advantage. Due the strong presence of network effects in the digital framework, which is strongly data-driven based, consumers and insurers might be locked in ecosystems that are controlled by few market players (entry barrier; restricted competition). It was proposed that data portability should be at the core of the regulatory framework. However, it was also noted that without regulatory thrust, open insurance could be subjected to many challenges such as consumer data privacy issues, consumer consent issues, liability risk and risk of APIs.[15]

In addition to the current and upcoming EU regulatory developments, industry-lead open insurance approaches and coordination on API standardisation seems to be also developing. For example, in Germany a non-profit Free Insurance Data Initiative[16] (FRIDA) aims to establish an industry-wide interface standard for fast and secure data exchange while reducing process and operating costs. Similarly, the Open Insurance Initiative[17] (OPIN) aims to coordinate and lead the activities progressing the adoption of open insurance around the world, including to allow for data to be securely shared with third parties using open APIs.[18]

Initial analysis indicates that data exchange (both personal and non-personal data) through (open) APIs has started to emerge in the insurance sector, and that it can facilitate industry-wide innovation and increase the agility of businesses in responding to changes in customer needs and expectations. Internal APIs in insurance for example for back-end communications and interactions with third parties have been in place for some time and recently some initiatives have focused on opening up these APIs to the outside world to offer better services to policyholders and/or greater market competition. Existing data sharing examples in insurance also include, for example, sharing risk statistics between national insurance association´s members, data sharing on claims settlement as well as access to open data such as meteorological data. Some jurisdictions are also facilitating public dashboards/aggregators, for example in the pensions or motor insurance sector.

Consequently the infrastructure for some services similar to open insurance is partly in place – though in a partial and local manner. However, currently developing such services entails bilateral negotiations, agreement and contracts, and working to bridge different standards – there is insufficient interoperability (standardisation) in the absence of any regulatory or self-regulatory requirements of such a nature (other than the GDPR data portability rules). Open insurance, on the other hand would seem to

13 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - A Capital Markets Union for people and businesses-new action plan, COM(2020)590

14 The Commission will send a call for advice to European Insurance and Occupational Pensions Authority (EIOPA) by Q4 2020 to (i) identify the data that providers of occupational pensions should report to make it possible to develop pension dashboards with indicators and (ii) seek its input on the development of best practices for the set-up of national tracking systems. The deadline for receiving EIOPA's technical advice will be set as Q4 2021.

15 https://www.eiopa.europa.eu/content/discussion-paper-reinsurance-value-chain-and-new-business-models-arising-digitalisation

16 http://www.friendsurance.com/wp-content/uploads/2020/01/Friendsurance-Press-Release-FRIDA-20200107-English.pdf

17 https://openinsurance.io/about/

18 An API is a set of set of functions and procedures allowing the creation of applications that access the features or data of an operating system, application, or other service. Basically, an API specifies how software components should interact.

entail standardisation and/or possible compulsory data sharing requirements for the insurance industry (based on the explicit consent of the customer) and would provide controlled security and could be developed to ensure better consumer protection.

EIOPA has conducted a National Competent Authorities (NCAs) survey on open insurance in Q2 2020. The aim of this Discussion Paper is to give an overview of the NCA survey and to provide a high-level overview of possible open insurance approaches and options regarding accessing and sharing insurance-related data to further facilitate broader multi-stakeholder discussion on sound approach to open insurance and to get a better picture on the development of open insurance in the EU.

LEGAL BASE

Article 1(6) of the Regulation establishing the EIOPA (Regulation (EU) No 1094/2010)[19] requires the EIOPA to contribute to promoting a sound, effective and consistent level of regulation and supervision, ensuring the integrity, transparency, efficiency and orderly functioning of financial markets, preventing regulatory arbitrage and promoting equal competition. In addition, Article 9(2) requires the EIOPA to monitor new and existing financial activities. The above is key motivation underpinning EIOPA´s work on digitalisation.

19 Regulation (EU) No 1094/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Insurance and Occupational Pensions Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/79/EC (OJ L 331, 15.12.2010, p. 48).

2. OPEN INSURANCE DEFINITION

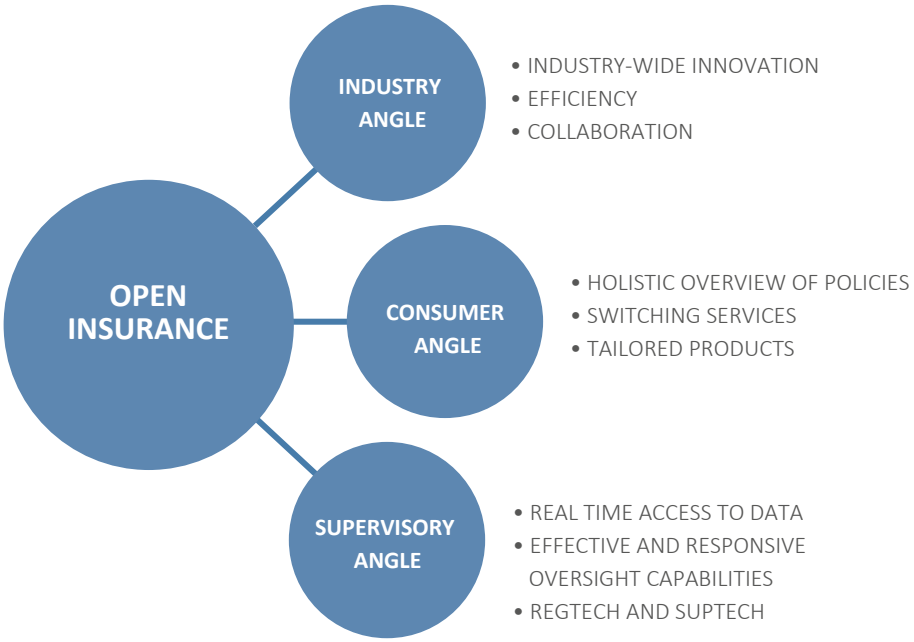
There is no uniform definition of open insurance or open finance, nor is there sufficient settled academic or expert literature on this, as these developments are relatively new. In available sources (e.g. Position Papers, industry papers) and in practice it is sometimes understood narrowly, referring to compulsory personal data sharing based on the explicit consent of consumer (so-called 'PSD2' type of approach). On the other hand it is also used to describe broader information sharing via APIs between different insurance market players, including in the back office and in a way that might not be directly 'visible' for the consumers (sometimes also referred as 'API insurance', 'Open API' or 'connected insurance' (e.g. interaction between insurers and intermediaries or other third parties/outsourcing partners, including Internet of Things (IoT) providers). This could include both personal data and non-personal data.

As the phenomenon is new and carries both risks and benefits for consumers, NCAs and for the industry, **EIOPA has considered open insurance in its work so far in the broadest sense, covering accessing and sharing insurance-related personal and non-personal data usually via APIs**, explained in detail below.

This is also approach followed in this Discussion Paper, while EIOPA acknowledges that more detailed work could be done on all different angles, including work on an exact definition. Such work would be necessary in view of any future regulatory measures or higher-level legislative interventions. The purpose at this stage is more diagnostic and thereby broad in focus.

Open insurance could broadly be looked from three interlinked angles.

Figure 1. Open insurance



Source: EIOPA

CONSUMER ANGLE

Open insurance could be defined as accessing and sharing consumers´ insurance services-related data (e.g. their insurance policies data such as insured object, coverages, claims history, and Internet of Things data etc.) between insurers, intermediaries or third parties to build applications and services. This could include:

- Insurance Policy Information Services where insurers could be required to provide other insurers/intermediaries or third-party providers seamless access (via standard APIs) to their users' underwritten insurance policies e.g. information such as insured object, coverages, claims history, data on suitability assessment, know your customer (KYC) data etc.
- Better switching services that encourage consumers to compare the market and shop around.
- The integration of data, technology and new services could result in insurance products and services more tailored to the demands and needs of consumers.

INDUSTRY ANGLE

Increased data exchange through APIs can facilitate industry-wide innovation, openness and collaboration and will arguably enable the insurance sector to fully embrace data-driven innovation, including encouraging the creation of innovative products for consumers and increase efficiency and interaction with third parties (e.g. better interaction with insurance platforms and ecosystems). In addition, it could facilitate the emergence of greater competition within the value-chain as new players and business models emerge, possibly driving down some costs through efficiency gains.

Linked to the consumer and supervisory angle, open insurance could also require insurers and intermediaries to make standardised insurance product information available to the public (e.g. to consumers, supervisors and third parties) to facilitate like-for-like comparison of products (e.g. cost, fees, product features). This would support product comparisons and facilitate guidance or advice – both individuals and advisors/providers themselves could have, in one place, a comprehensive view of the consumer's financial situation and all the information they may need to go through a financial planning process. It could also make it easier for consumers to receive proposals to compare the costs and product features and switch between providers, in turn improving competition between financial services providers as well as spurring the creation of innovative new services or tools for consumers. This could facilitate uptake of public comparison websites and aggregators and support supervision.

SUPERVISORY ANGLE

Open insurance could also open doors to new supervisory tools. EIOPA has published a Supervisory Technology (SupTech) Strategy[20] explaining the use of technology by supervisors to deliver innovative and efficient supervisory solutions that will support a more effective, flexible and responsive supervisory system.

Different open insurance solutions could further facilitate the uptake of SupTech as it may require that supervisors access consumer insurance services-related data and/or product information data, including ultimately on a ***real-time*** basis, to improve their oversight capabilities. This may allow compliance with regulatory goals to be automatically monitored by reading the data that is exchanged by providers via standardised APIs, thus reducing the need to actively collect, verify and deliver data for supervision, in particular for conduct of business supervision. In addition to data included in the Insurance Product Information Document (IPID) established by the Insurance Distribution Directive[21] (IDD) or Key Information Document (KID) established by the Packaged Retail Investment and Insurance Products (PRIIPs) Regulation[22] or existing supervisory reporting data, this could include for example 'live' overviews of exact product information bought (costs, fees, features), underwritten policies information, real time claims data and consumer complaints data as well as data on commissions.

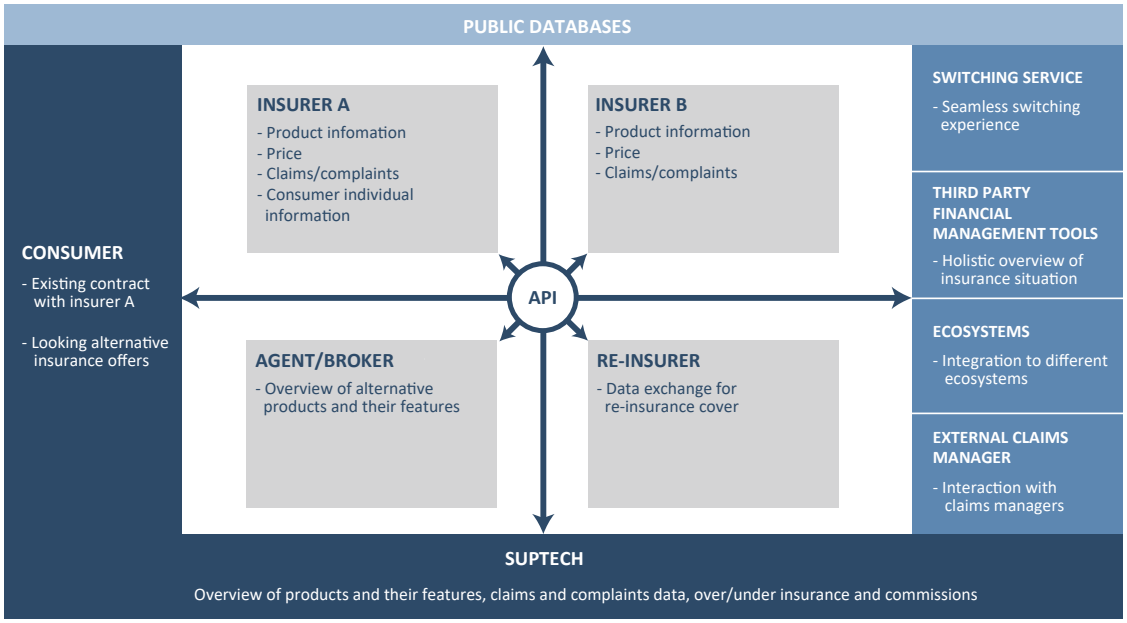
Taking into account the different angles (consumer, industry and supervisory) of open insurance, its theoretical implementation could be imagined in the graph below, explaining how APIs can be generally used for personal and non-personal data access, gathering and exchange throughout the insurance ecosystem, facilitating interac-

20 https://www.eiopa.europa.eu/content/supervisory-technology-strategy_en

21 Directive (EU) 2016/97 of the European Parliament and of the Council of 20 January 2016 on insurance distribution (OJ L 26, 2.2.2016, p. 19–59)

22 Regulation (EU) No 1286/2014 of the European Parliament and of the Council of 26 November 2014 on key information documents for packaged retail and insurance-based investment products (PRIIPs) (OJ L 352, 9.12.2014, p. 1–23)

Figure 2. Open insurance ecosystem based on motor insurance example



Source: EIOPA

tion between insurers, agents and brokers as well as third parties such as external claims managers or new service providers as well as for supervisory needs (SupTech). Exact API functionalities as well as data sets that could be exchanged between different parties varies in practice (e.g. comparison tool provider versus re-insurer). Possible use cases are explained more in detail throughout this paper.

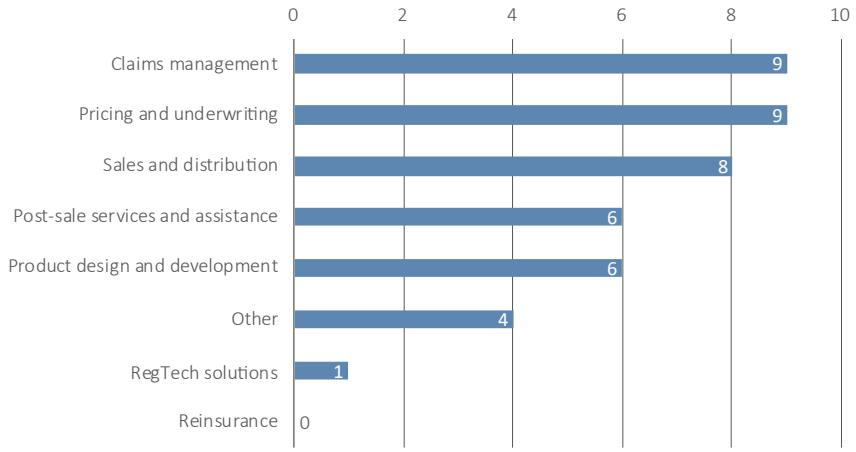
QUESTIONS TO STAKEHOLDERS

1. Do you agree with the definition and the approach to open insurance highlighted in the Discussion Paper? If not, please describe what aspects would be essential to consider additionally?

3. OPEN INSURANCE USE CASES IN THE EU INSURANCE MARKET

In practice, 17 out of 27 responding NCAs reported they see open insurance developments in their jurisdiction. However, most of the examples highlighted seems to be based on the broad definition on 'accessing and sharing personal and non-personal insurance-related data usually via APIs' and there were not so many examples on classical open banking-type of examples, e.g. where policyholder or prospective policyholder instructs another contractual partner to access data and the insurance undertaking has to provide or has agreed to provide that data.

Figure 3. Open insurance use cases throughout the value chain

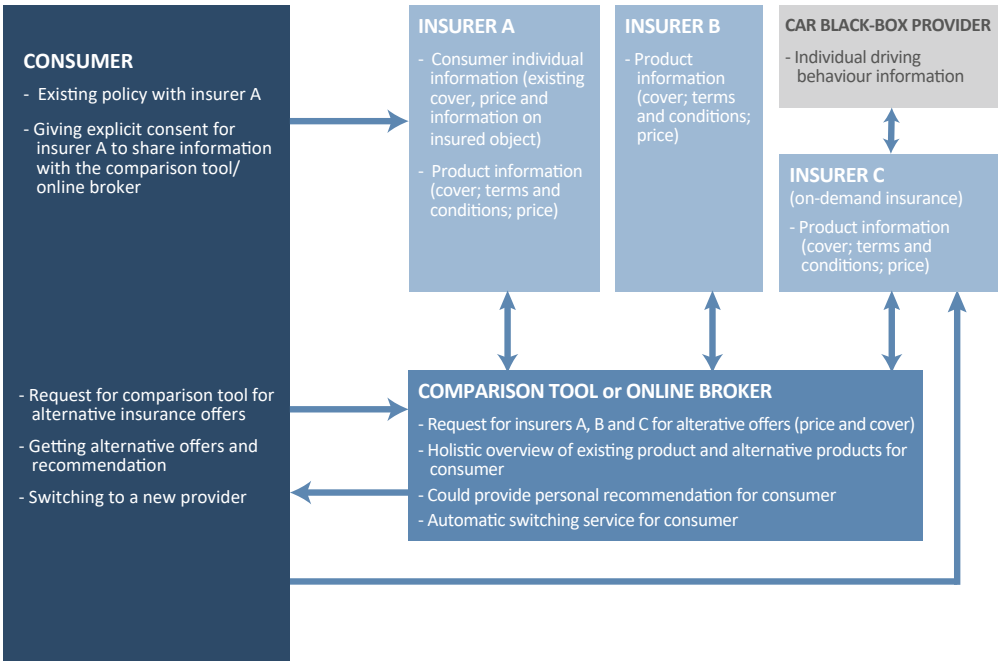


Source: EIOPA NCA survey on open insurance

Main use cases seems to appear in pricing and underwriting, sales and distribution (e.g. including facilitating the data gathering) and claims management (automated claims processes), including cross-selling of various financial services as well as product comparison and aggregation platforms and online brokerage solutions offered by intermediaries, which arguably also offer new forms of advisory services (e.g. to get better overview of insured risks and alternative offers in the market) as well as access to public registers and solutions for better interaction between undertaking and technology providers. The latter could include interaction with Internet of Things (IoT) providers such as health or motor telematics or offering of white-labelled insurance products that can be integrated to other digital business model for selling.

The scheme below aims to explain, based on the motor insurance example, how this data exchange through APIs could work in practice.

Figure 4. Possible data exchange in motor insurance based on APIs



Source: EIOPA

Box 1 below aims to give an overview of examples of open insurance use cases reported by the NCAs

BOX 1. EXAMPLES OF OPEN INSURANCE USE CASES REPORTED BY THE NCAS

PRODUCT DESIGN AND DEVELOPMENTS

In **Austria** there is a health-telematic project including health promotion with the granting of remunerations (e.g. voucher, cashback). In **Italy** the use cases include aggregation, dashboards, execution (under customer's authorisation), instant insurance and better identification of protection gaps. A **Belgium** InsurTech offers customers an IT infrastructure and software which allows to create and offer insurance products in multiple countries in Europe in short term. They build their own insurance products and make them available in real time through open APIs. Any digital business model can embed or sell those products within minutes.[23]

PRICING AND UNDERWRITING

In **Austria** premium reduction regarding car insurance is offered, if emergency call and location functions are accepted by consumer. In **Spain** there is a platform that is made available to insurance brokers[24] to facilitate their contact with clients. In contact with the Broker's clients and in view of the data provided by the client, it alerts them of the renewal of insurance, of the need to do the car technical check-up or of other procedures, etc. It also gives the client prices to contract other insurances, although finally it is the broker who has to contact the client and resolve their doubts and contract. In **Belgium** an InsurTech uses AI to identify car brand and model based on picture and creates an offer in 60 seconds via mobile app.

SALES AND DISTRIBUTION

In **Austria** E-Identity Identification (via Online-Banking) is used in customer portals, apps and chatbot. Additionally in Bankassurance, based on a bank's web platform, customer interactions can be used as a basis to offer insurance policies.

In **Poland** insurance distributors are being gradually equipped with online contact tools serving for mutual settlements and other settling matters with insurance undertakings. In **Spain** the technology consultancy and the insurance brokerage have launched cyber-insurance platform aimed at SMEs and freelancers to whom it will offer advice on cybersecurity and commercialisation of cyber risk policies. The platform provides information on the level of exposure to cyber risks and provides recommendations to improve the level of protection in terms of cybersecurity of businesses. In **Belgium** a company performs a risk analysis for the consumer and makes a comparative analysis of product offers from different insurers.

POST-SALE SERVICES AND ASSISTANCE

In **Spain** a company uses its technology to improve the insurers service; car damage assessments can be made in 3 minutes due to Artificial Intelligence (AI). This technology is being used to accurately assess vehicle damage with photos sent through a web application, so that insurer can generate immediate payment offers to its policyholders. The AI completes the complex tasks that an expert would normally perform and produces a damage assessment in seconds, often without the need for further review. By submitting photos to the app while declaring an accident, policyholders can resolve their claims in minutes, even while on their initial phone call. Another **Spanish** company's healthcare network has incorporated a virtual health assistant that uses AI to facilitate, automate and improve communication with patients. Another company has launched a digital medicine platform to offer solutions to the needs arising from the Covid-19. In **Belgium** the examples include assistance in car insurance for damage expert assessments. Another **Belgium** company contains an overview of all underwritten insurance policies for the consumer.

CLAIMS MANAGEMENT AND FRAUD DETECTION

In **Austria** there are pilot projects and co-operations with start-ups regarding automation of smaller claims. Similarly in **Spain**, there is a platform for claims management, used by insurers. Similarly in **Belgium**, insurers are delegating claims

23 It is currently focused on rent insurance and liability insurance for food delivery bike riders.

24 They are currently working with 2 or 3 brokers. However, they are developing another more ambitious system with 200 brokerages in which, taking into account the customer's data and the insurance they have, they would be offered other insurance almost automatically.

handling to brokers offering them extra fee business. In **Norway** there is a project in which the private sector may access public registers digitally. A few of the largest life insurance undertakings have participated in the project, which is still in the beta phase. It is expected that the project may significantly reduce processing time with regard to the handling of disability claims. In one case, the processing time in one life insurance undertaking was reduced from 128 to 10 days. In **Romania**, insurance undertakings change information related to claim files if there is any doubt with the damages presented by a vehicle (e.g. the damage was endorsed to another undertaking). In **Belgium**, an insurance broker offers a platform which serves as an automatised claims handling. In the **Czech Republic**, a start-up is cooperating with insurance companies and uses AI for the detection of duplicate claims or connected claims and when it finds one, it uses alerting system. The company extract information from photographs. Its technology reads VIN number or car model, which is automatically compared with the data in the insurance contract and the credibility of the photo documentation is immediately verified. It has created its own ML models, but also uses models from other insurance companies.

REGTECH SOLUTIONS

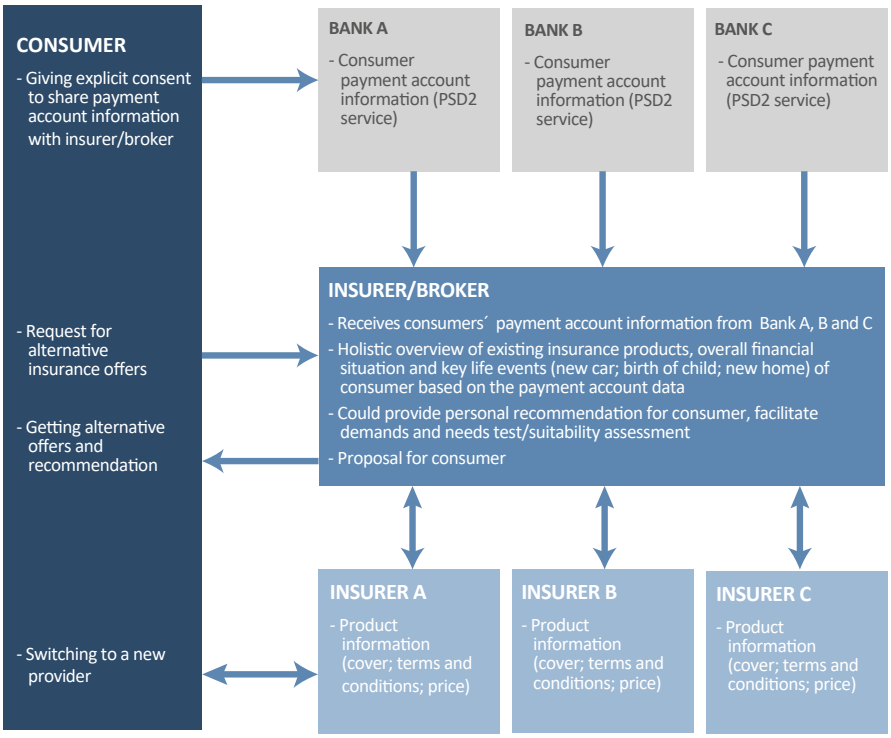
In **Liechtenstein** one insurance undertaking uses a software monitoring different data including SCR-calculation and has provided the FMA with a login option, so that the FMA can login and monitor these calculations anytime.

Source: EIOPA NCA survey on open insurance

In some cases cross-sectorial open finance solutions are developed, either by strategic co-operation between banks and insurers and/or leveraging on PSD2 data, e.g. account information is analysed for suitability assessment when providing life insurance products (e.g. to understand key life events such as buying a new car or house or birth of child, overall financial situation and availability of other insurance and pension products).

While the exact business models could vary, the overall functioning of those kind of services can be seen in the graph below.

Figure 5. PSD2 information and insurance



Source: EIOPA

BOX 2. EXAMPLES OF CROSS-SECTORIAL USE CASES REPORTED BY THE NCAS

In Lithuania a company uses open banking data to provide customers with similar life insurance contracts with reportedly lower premiums.

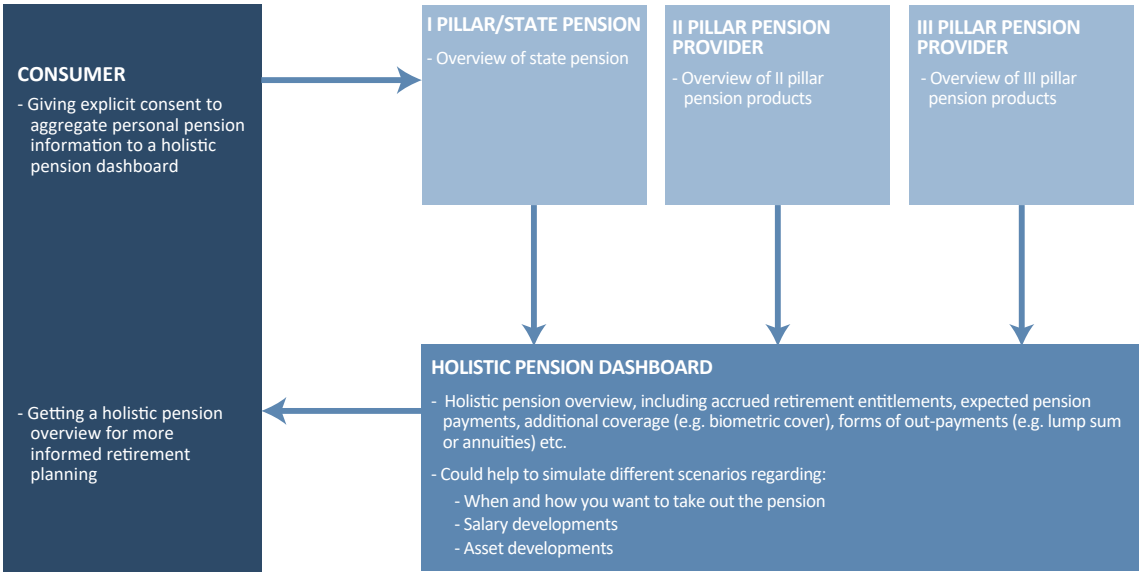
In Germany, an insurer developed together with a bank a so-called digital insurance manager. This software analyses the account information and checks whether the insurances held by the account owner are still up-to-date with his/her actual living situation. When analysing accounts, the system does not only examine significant life changes, but also existing insurance contracts. E.g. if contributions for a liability insurance are debited, the software also examines the contract details, evaluates them and compares them to market offers whether there are better ones out there.

In Germany, another company offers online insurance platform aimed at all companies that wish to offer their customers digital insurance solutions (e.g. banks or insurance undertakings themselves). The solutions are integrated modularly into the online offerings. Consumer can hold all their insurance policies in a single place on the platform, even those from other insurers. To make it easy for customers, the company, leveraging on PSD2, uses an API to scan a customer's bank account and look for insurance contracts. From this, they can identify policy details and add them to the central folder. This is all enabled because of PSD2 and the API solution, which has licence to scan customer data. It also acts as a digital insurance folder, which simplifies the administration and optimisation of insurance policies for both customer and provider. The platform also looks for signs of key life events, such as new child benefit payments or change of address. These events can trigger an insurance conversation between the customer and a personal advisor.

Source: EIOPA NCA survey on open insurance

Similarly to private aggregators/comparison tools, different public comparison solutions, mainly on Motor Third Party Liability (MTPL) insurance and in pensions seem to be popular. Public comparison tools have the advantage of being independent (e.g. run by NCAs or consumer associations) and often the scope is wider, allowing consumers to easily compare products available on the market. This is increasing market transparency. The overall functioning of those tools can be seen in the graph below while exact business models and functionalities can again vary.

Figure 6. Possible public pension dashboard functionality



Source: EIOPA

BOX 3. PUBLIC COMPARISON WEBSITES AND AGGREGATORS

In Estonia, Latvia, Lithuania, Finland, Austria and Romania different MTPL functionalities are offered to consumers. Although the exact functionality varies, this could include:

- Motor insurance calculator - the possibility to compare the motor insurance premiums of different insurance undertakings.

- Traffic damage history of a vehicle - the possibility to check whether the vehicle has been involved in an insured event of motor insurance.

- Insured events on the map - the possibility to view on a map where motor insurance events have occurred

- Motor insurance history - the possibility to check your motor insurance history

- Vehicle without an insurance contract - the possibility to search whether a person owns vehicles not covered by insurance contracts.

Public pension dashboards/calculators are available for example in Sweden, Finland, Denmark and Estonia.

-Danish 'PensionsInfo' is an industry initiative where every person has access to a complete overview of his or her pension data, especially on the expected pension payments.[25] Data is not stored anywhere but is made available to the individual consumer. Recently it has been possible for the consumer to give certain third parties access to the data.

- In Estonia, public website operated by 'Pensionikeskus' offers mandatory funded pension pay-out calculator of insurance undertakings and mandatory funded pension contribution calculator that will calculate consumer´s monthly contribution amount, which will be transferred to the client's pension account monthly after subscribing to the system.

Source: EIOPA NCA survey on open insurance

25 However, it does not work with API's. The insurance undertaking decide whether they will participate and fund it.

QUESTIONS TO STAKEHOLDERS

2. In addition to those described in this paper, including in Annex 1, do you see other open insurance use cases or business models in the EU or beyond that might be worth to look at further from supervisory/consumer protection perspective?
3. Do you think regulators/supervisors should put more focus on public comparison websites where the participation is compulsory for undertakings? What lines of business could be subject for that? What risks, benefits and obstacles do you see?
4. Please describe your own open insurance use case/business model and challenges you have faced in implementing it, if any.

4. OPEN INSURANCE AND SUPTECH

Open insurance could also open doors to new supervisory tools. EIOPA has published a SupTech Strategy[26] where the use of technology by supervisors to deliver innovative and efficient supervisory solutions that will support a more effective, flexible and responsive supervisory system is addressed. As part of the implementation of this Strategy EIOPA has identified the need to work on a dashboard for retail risk indicators (RRIs), based on already existing Solvency II Directive[27] prudential data (such as claims ratios, claims rejected, commission rates etc.) in combination with consumer complaints data and other publicly available data as well as the identification of missing information and efficient ways of gathering that data.

As part of this work on RRIs, a tool to automate the assessment of the information available in the KID established by the PRIIPs Regulation or in the IPID established by the IDD that would support market monitoring from a conduct of business perspective is to be considered. Machine-readable KID information could significantly ease this.

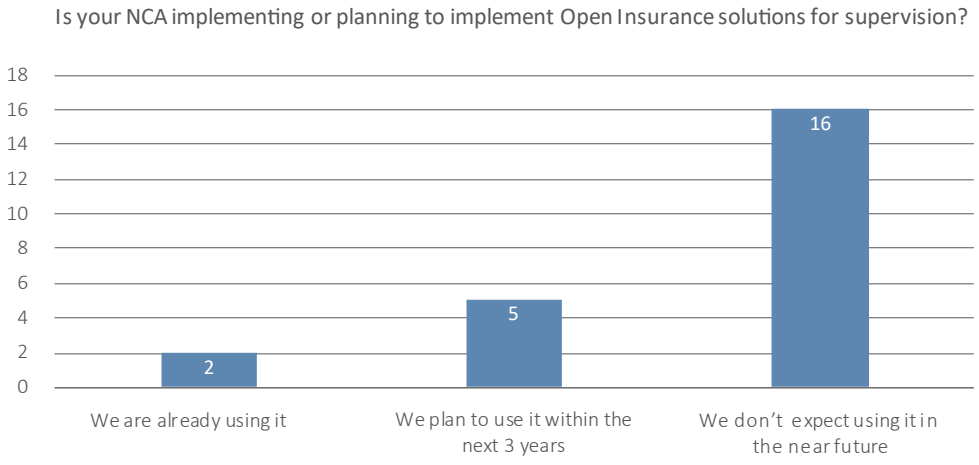
Different open insurance solutions could further facilitate the uptake of SupTech as they can enable supervisors to access consumer insurance services-related data and/or product information data at a high level of granularity, and on a ***real-time or near real-time*** basis, enabling more effective and responsive oversight capabilities. This can allow for a more outcome-focused supervisory and regulatory approach, rooted in an automatic monitoring of data against risk indicators and benchmarks and, perhaps at some point, individualised risk thresholds at customer level, all on the basis of data exchanged by providers via standardised APIs, thus reducing the need to actively collect, verify and deliver data for supervision, in particular for conduct of business supervision. In addition to KID data this could include for example a 'live' overview of exact product information bought (costs, fees, features), underwritten policies information, real time claims data and consumer complaints data as well as data on commissions.

Although arguably several open insurance use cases can be considered in light of different SupTech tools, as supervisors could potentially access the same data on a real

26 https://www.eiopa.europa.eu/content/supervisory-technology-strategy_en

27 Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II) (OJ L 335, 17.12.2009, p.1)

Figure 7. Open insurance and supervision



Source: EIOPA NCA survey on open insurance

time basis 'linking' with the same APIs to improve their oversight capabilities, developments will take time to emerge as relevant open insurance ecosystems develop.

In addition, caution is always needed in view of data relevance and quality and in view of developing the right metrics for assessing and interpreting the data being gathered. The possibility for supervisors to obtain a whole new range of information previously not available in a standardised and accessible format would also require to insurance undertaking a stronger data governance to ensure timeliness and quality. On top of this, SupTech developments should always be considered in the context of the continued responsibility and liability of supervised entities for their own compliance with regulatory obligations: the aim of SupTech is not to alter this balance of responsibilities.

NCAs who are using it referred to supervisory reporting. E.g. in Liechtenstein annual and quarterly reporting are transmitted to the FMA via an e-Service. The data can be used for regular and ad-hoc evaluations. In Italy neural networks are used for fraud detection and text analysis, APIs and blockchain are under consideration for better supervision.

NCAs who are planning to use open insurance solutions for supervision in the future expect real-time data from insurance undertakings to be very useful as it could provide options for digitalisation of correspondence, automatised product risk verification, digital access to official records and interactive knowledge sharing. However, NCAs are still at the beginning of investigating how to collect such data in an efficient and proportionate manner.

QUESTIONS TO STAKEHOLDERS

5. Do you see other open insurance use cases in RegTech/SupTech that might be worth to look at further from supervisory/consumer protection perspective?
6. Please describe your own open insurance use case/business model in RegTech/SupTech and the challenges you have faced in implementing it, if any.

BOX 4. OPEN INSURANCE SOLUTIONS FOR SUPERVISION UNDER DEVELOPMENT

The Norwegian NFSA is working on implementing a platform that could make the collection of information in relation to inspections more effective.

Bank of Lithuania has introduced a RegTech solution prototype, which will automate reporting procedures and reduce the administrative burden for financial market participants. The solution will use APIs. The prototype has been tested with electronic money institutions and it could automate reporting procedures for many other financial market participants.[28]

28 The plan is to launch a public consultation on this reporting solution. The application scope and implementation timeline of this solution will be assessed in the course of 2020.

Hungary is planning to develop a register, based on distributed ledger technology. The register may contain data on property insurance for real estate used as collateral for mortgage loans.

Some NCAs are also analysing the possible impact in insurance and banking. E.g. in the context of banking, **BaFin** conducts a research project at the moment to analyse how open banking might influence the value chain in the financial sector and possibly promote its fragmentation. The project aims at identifying possible developments in the market in the next 3 to 5 years and how these could impact the banking supervision, especially the ICT and cyber supervision.

Source: EIOPA NCA survey on open insurance

When asked about areas related to prudential and conduct supervision where NCAs expect open insurance theoretically to have the biggest impact in the next 3 years, the biggest impact was seen as on 'Supervisory reporting and other data/document collection' on an aggregated level. One NCA pointed out that the biggest impact theoretically can occur in the area of broader 'open finance', e.g. cross-sectoral applications.

5. RISKS AND BENEFITS OF OPEN INSURANCE

5.1. OPEN INSURANCE-RELATED RISKS

It is very hard to accurately foresee how the different potential impacts and forms of open insurance might affect the insurance industry, consumers and supervisors considering also that the long-term consequence of PSD2 is yet to be seen. Possible risks (and consequently, necessary safeguards) depends on the specific interpretation and use case of open insurance, including actual 'level of openness', type of data (personal or non-personal) and parties who will get the access to the data as well as possible regulatory course taken, and further evolution of the market of open insurance in future, including exact business case. Hence, any detailed classification of both risks and benefits can be seen as indicative only, although general potential risks associated with the increased sharing of data, especially personal data, that deserve scrutiny and adequate safeguards can be highlighted.

OPEN INSURANCE-RELATED RISKS FOR CONSUMERS

The wider sharing of data with more parties raises the risks of a **data breach, misuse and fraud**, including obtaining unauthorized knowledge about facets of consumers´ lives, including sensitive data concerning the customer's health, location, or financial status. **Data quality** and how it would be measured and enforced might be another possible challenge in this regard.

More openness in relation to the data gathered, processed and exchanged for insurance purposes could also increase **ICT/cyber risks and API security risk,** including opening leeway for malpractices, such as phishing or malware/ransomware (this is also linked to data breaches).

Financial exclusion could be seen as another major concern. The more information insurance undertakings have and share about the individual, the higher the probability that some parameters or combination of parameters can be used as a disqualifier or proxy for a traditional parameter[29]. Consequently it might be difficult to protect clients who do not get insurance or have to pay unreasonably high insurance premiums due to their 'unfit' risk profile. This is also linked to EIOPA´s work on 'Digital Ethics'.[30] Some undertakings can also discontinue products sold in traditional ways, possibly excluding customers not used to new distribution channels or consumers who are not tech savvy.

From a **consumer protection** angle, traditional risks related to increased digitalisation and platformisation seems to prevail, such as risks of not being properly advised before the conclusion of a contract, aggressive targeted marketing strategies or **market fragmentation** that may mislead the consumer about the ultimate insurer responsible for risk coverage. In the context of price comparison websites, there is a risk that consumers would tend to **focus on headline prices** or other selection/ranking criteria rather than cover when choosing their insurance product or they might not be aware that the platform or comparison website does not include all offers in the market. There can also be lock-in related risks for consumers with platforms.

More granular consumer data combined with AI may also increase the ability of undertakings to identify opportunities to charge differential amounts to groups of consumers that are similar in terms of risk and cost to serve. Undertakings may be able to understand aspects such as consumers' price sensitivity and their likelihood to shop around and switch at point of renewal. This can increase **the use of price optimisation practices** when setting premiums and can lead to potential unfair treatment of some groups of consumers. This could be particularly concerning where the groups of consumers that suffer most are more vulnerable consumers (e.g. old age, low income), or are suffering because of potentially unfair discriminatory practices.[31]

---

29 E.g. reducing the need to collect traditional sensitive data as this might be excluded by industry norm or law

30 https://www.eiopa.europa.eu/content/eiopa-establishes-consultative-expert-group-digital-ethics-insurance_en

31 See more in detail on price optimisation practices in EIOPA, Big Data Analytics in Motor and Health Insurance: A Thematic Review, 2019.

In addition, the accuracy and reliability of external data sources can vary greatly, in particular taking into account that external data sources are often provided by entities that are not subject to regulatory oversight. Moreover, some **new datasets can be closely correlated with protected characteristics** such as race, religion, gender or political orientation. For example regarding bank account and credit card data, the purchase of certain pharmaceutical products can be highly correlated with gender. Therefore the use of new datasets, especially in combination with more powerful algorithms such as AI/ML to identify patterns in data (the major strength of AI/ML algorithms is the desired capability to find and discriminate classes in training data) could increase the risks of unlawful discrimination if there are no adequate governance frameworks in place.

Finally, the **costs of developing open insurance** might be shifted on to end-consumers which consequently has effect on product pricing and/or quality – impacting value for money for consumers. In addition, open insurance can be expected to correlate with higher intermediation in the value chain (more actors), which can also be expected to correlate with greater complexity – depending on market efficiency and business model evolution, in the absence of appropriate regulatory and supervisory measures this could drive costs up.

OPEN INSURANCE-RELATED RISKS FOR UNDERTAKINGS

Managing risks around **data security and privacy,** including processing and storing data in strict accordance with consumer consent is likely to be the greatest challenge also for insurance undertakings. This could also lead to **regulatory fines** and **increase reputational risk** in case of data breaches or if certain data is put on public domain making the insurance undertaking look bad in the eye of consumers (losses, cost ratios, etc.). **Data quality and integrity** are also crucial as in more open data ecosystem, service outages at one company may influence other company if they rely on open insurance data.

ICT/Cyber risk could also increase requiring i.a. substantial investment from undertakings to ensure that new systems would satisfy the applicable regulatory requirements and are fully compatible with their legacy IT systems. Taking into account the lessons learned from open banking, this could lead to **interoperability risk**, e.g. the lack of interoperable APIs may result in incompatibility issues and slower integration within the insurance sector. This might also lead to **market fragmentation**. Moreover from a prudential perspective the increase in digitalisation might also lead to an increase in interconnectedness. This could render extreme **cyber attacks** more plausible and more impactful for insurance undertakings and for the economy at large

Concentration risk and **dependency on third parties** is also likely to increase if incumbent insurance undertakings agree upon a (closed) standard and smaller undertakings are left out or have limited negotiation power, and may introduce risk that become points of failure affecting large portions of the entire industry. It can also importantly arise via platforms given the market weight of some non-insurance parties, leading to lock-in and reverse outsourcing types of issues.

Development of new business models and different regulatory expectations and practices in different Member States may result in confusion and may increase **regulatory perimeter risk** and **legal risk** for undertakings.

In addition, risks relating to **fair competition** between the different market players should also be taken into account (see chapter 7 on data reciprocity).

OPEN INSURANCE-RELATED RISKS FOR SUPERVISORS

Supervising open insurance developments might require specific competence as it might force NCAs to assess data governance policies, to understand better the interaction with insurance and data protection regulation and to deal with other data/systems issues, with new possible behaviour of insurers and consumers. Hence there might be a need for current supervisory practice to be adapted and modified. Some NCAs also referred to regulatory uncertainty when launching new products based on innovative technologies. Hence legal clarifications on an open insurance framework would be required. Furthermore, role of authorities in other areas may be of great importance for this issue (e.g. data protection and competition authorities).

From a SupTech angle, supervisory processing and storing of data transmitted through open insurance should be commensurate with supervisory needs and legal bases.[32] With increased access of data, supervisors may become target for cybercriminals. NCAs are responsible to main-

32 NCA jurisdictions should be respected even though technically, the cross border access to relevant consumer data may become easier. NCAs may request access to certain data in another Member State or under the jurisdiction of another NCA in the same Member State – providing such access and handling such requests may pose a challenge.

tain certain registers – the importance of such authentic records will increase with the introduction of open insurance, and consequently proper data storage and security management is crucial.

Managing operational risks, including **data security, privacy and ICT/cyber** risk is likely to be also a challenge as those risks can amplify due to increased data sharing and larger amount of data available. On the other hand, it also depends on possible developments of open insurance, e.g. proper licensing framework, standardised API protocols and clearly defined data sets could help to mitigated some of those risks by design. NCAs will also have an important role in incident management, and potential extensions of supervisory audits to ICT issues will probably be more prevalent, since the market impact of a potential ICT/cyber incident is likely to increase. Similarly, there might be **interoperability risk**, as seen in light of PSD2 due to the fact that the market developed their own standards because of the lack of common API standards and guidance.

Market/vendor concentration introduces risks to undertakings and the market stability, and therefore, NCAs should seek ways to obtain assurance on the compliance and working of controls at such service providers. The situation where only some undertakings decide to move to open insurance could weaken competition and innovation, contradictory to the broader aim of open insurance. Some NCAs may even seek to use such services themselves, thus becoming dependent to a degree from these service providers.

From a **consumer protection** angle, a concern was raised that due to the freedom of contracts, it is difficult to protect clients who do not get insurance or have to pay unreasonably high insurance premiums due to their 'unfit' risk profile. Finally, **market fragmentation** can lead to changes in insurance market reinforcing BigTechs[33] and impairing insurance undertakings.

33 BigTech refers to large established technology companies.

5.2. OPEN INSURANCE-RELATED BENEFITS

OPEN INSURANCE-RELATED BENEFITS FOR CONSUMERS

If more information is exchanged between insurance undertakings and consumers, more information is available, including on the demands and needs of consumers, and consequently consumers arguably mainly benefit through **new and more transparent products and services**, including advice services. Insurers could be required to provide other insurers/intermediaries or third-party providers seamless access (via standard APIs or Distributed Ledger Technology applications) to their users' underwritten insurance policies e.g. information such as insured object, coverages, claims history, data on suitability assessment, KYC data etc. Access to policies and related information would make it easier for third-party service providers and/or insurance intermediaries to develop tools such as insurance and financial management dashboards. This would enable consumers to have control of their own personal data, as well as to provide an overview of their active policies, help them manage their risks, get better prices and assist in the avoidance of double insurance or under-insurance. It could also facilitate on-boarding into insurance platforms and ecosystems, faster identity verification and automatic or semi-automatic switching, encouraging consumers to compare the market and shop around.

The integration of data, technology and new services could also result in **more tailored insurance products** related to specific events and could lead to a 'push' business model where new policies are recommended to the consumer via an app, different from the traditional 'pull' model where the insurer is waiting for a coverage requests from their clients. This could include e.g. travel policies offered when buying a ticket or walking into an airport, if detected by GPS coordinates, or health/life insurance products after giving birth or reaching a certain age.

Automatic open insurance data processing could **reduce costs**, including marketing and administrative costs. E.g. systematic open insurance data processing makes it possible to detect signals of insurance fraud and increase the profitability of products, which makes it possible to offer them at a lower price. Increased competition could also ultimately lead to cheaper prices for consumers. In addition, more tailored product offers taking into account the specific needs of consumers could reduce the situation of paying for product features that are of little value.

OPEN INSURANCE-RELATED BENEFITS FOR UNDERTAKINGS

Open insurance could **facilitate digital sales processes** with increased speed and flexibility, and arguably easier access to new markets. It could also assist undertakings in further reducing administrative and operational costs, ultimately increasing efficiency.

Open insurance could also **facilitate the adoption of a consumer-centric approach** by insurance undertakings throughout the entire product oversight and development process as insurance undertakings would be able to assess better evolving customer needs and develop new products and services accordingly, leveraging also more innovative solutions (e.g. new advice and switching services). It could also help to reach new consumers and work against financial exclusion, e.g. by offering new/increased coverage. If consumers get more information on insurance products of more different insurance undertakings, competition will improve. Open insurance could also **lower entry barriers**, allowing new players such as start-ups or tech companies to enter insurance market, again arguably increasing the competition.

Real-time data sharing/access to data will enable a **more efficient flow and exchange of information** between insurers and their distribution network. Insurers will also have a better real-time oversight of distribution networks and the distribution of their products, particularly in cross-border operations, enabling more robust handling of conduct risks, including monitoring whether products are sold within the target market. Open insurance data processing makes it possible to detect signals of insurance fraud and consequently reduce the cost for consumers.

OPEN INSURANCE-RELATED BENEFITS FOR SUPERVISORS

Increased access to data in a more timely fashion, **increased transparency and standardisation** could facilitate real-time data sharing and access to regulated undertakings subject to the supervision of the NCAs. **SupTech and RegTech solutions** could be build on that and this would enable the NCAs to have a more effective supervisory review process and obtain updated information on insurance products and transactions. This will enable to improve oversight of regulated entities, as well as to flag conduct risks and take a more pro-active approach in its risk-based supervision.

NCAs would look favourably that this will facilitate undertakings to focus more on a **consumer-centric product design and development process**.

QUESTIONS TO STAKEHOLDERS

7. Do you agree the potential benefits for the a) industry, b) consumers and c) supervisors are accurately described?
8. Are there additional benefits?
9. What can be done to maximise these benefits?
10. Do you agree the potential risks for the a) industry, b) consumers and c) supervisors are accurately described?
11. Are there additional risks?
12. Do you consider that the current regulatory and supervisory framework is adequate to capture these risks? If not, what can be done to mitigate these risks?

6. REGULATORY BARRIERS IN RESPECT OF OPEN INSURANCE

Most NCAs did not report on regulatory barriers in respect of open insurance, although in some jurisdictions the assessment is on-going and there are no detailed results yet.

It was however highlighted that it is often not clear how certain services should be treated and what regulation should be applied, or whether a new regulation has to be developed or whether the service may be unregulated; legal uncertainty can be seen as a barrier. As overall risks regarding open insurance might be much more severe than regarding open banking, e.g. regarding health data, clarifications on an open insurance framework seem to be required. Market participants can also be expected to be reluctant to disclose what they consider proprietary information to competitors.

Consequently, so far most of the NCAs have not undertaken any specific measures related to open insurance other than using innovation facilitators as a fora for discussing possible open insurance developments and engaging with the industry to build technical capacity and identify significant risks. Additional engagement with the industry seems to be mainly through traditional ad-hoc dialogue with the companies or industry bodies to i.a. find out what interests market participants have with regard to open finance. Some NCAs are in contact with stakeholders to get information of insurance undertakings in machine-readable forms. Others are stepping further, discussing cooperation opportunities in the areas of data exchange between financial market participants and product development, or access to information about services and its provision to the customer in one place with the aim to help to assess the e.g. customer's creditworthiness and his financial behaviour.

However, additional measures could be taken in future depending on how open insurance activity would be applied in respective jurisdictions. It was referred that looking at the lessons learned from PSD2/Open banking implementation, the industry has needed support and guidance from the NCAs to build the APIs and also proper supervision is needed to ensure the operation of the APIs. Therefore, the industry would be needing guidance and support also in case that APIs would be getting more common in the insurance sector.

NCAs noted that there may be a need to clarify the rules, depending on the development of the open insurance initiatives. Some NCAs explicitly noted that more harmonisation is considered necessary at European level in this area and not only at sectoral level but across sectors (e.g. data sharing standards). However, it was noted that as more sensitive data might be included in open insurance comparing with open banking, potential new rules would have to be much stricter and more detailed than in the banking sector. From the SupTech side, one NCA also noted that although insurance undertakings may provide NCAs with access to some of their data, this possibility also requires the time and ability to understand the system that is used by the insurance undertaking. As long as there is no market-wide standard, NCAs will have problems to make use of the open insurance systems provided by insurance undertakings.

Specifically on price comparison websites the need for clarification on insurance distribution definition in the IDD was also mentioned.[34] In the context of insurance price calculators there is a need to define what an indirect conclusion of a contract entails, e.g. in an evolving e-environment, how many clicks need to be made or moved to another website or data re-entered so that the contract is not 'indirectly concluded'.

34 The IDD defines 'insurance distribution' as the activities of advising on, proposing, or carrying out other work preparatory to the conclusion of contracts of insurance, of concluding such contracts, or of assisting in the Insurance distribution is defined as administration and performance of such contracts, in particular in the event of a claim, including the provision of information concerning one or more insurance contracts in accordance with criteria selected by customers through a website or other media and the compilation of an insurance product ranking list, including price and product comparison, or a discount on the price of an insurance contract, when the customer is able to directly or indirectly conclude an insurance contract using a website or other media.

QUESTIONS TO STAKEHOLDERS

13. Do you agree with the barriers highlighted in this chapter? What additional regulatory barriers do you see?
14. What additional regulatory barriers do you see?

7. POSSIBLE AREAS TO CONSIDER FOR A SOUND OPEN INSURANCE FRAMEWORK

The broad aim of a possible open insurance framework could include:

- Contribute to a more integrated and efficient European insurance market;
- Improve the level playing field (e.g. through providing equal access to data for all insurance undertakings/ intermediaries, including small ones and/or through reciprocity in the sharing of consumer data between all market participants);
- Increase competition with the entrance of new players;
- Make insurance service/underwriting more transparent and accessible (e.g. commoditisation);
- Help to ensure that insurance products produce good consumer outcomes – i.e., that products are aligned with the needs, objectives, and characteristics of a sufficiently granular target market[35];
- Empower consumers;
- Foster innovation;
- Strengthen market supervision

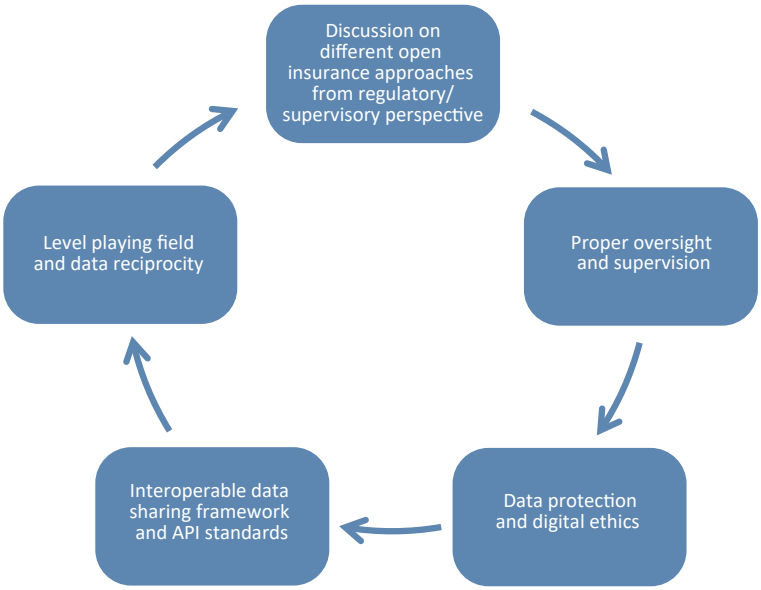
As explained in chapter 2 there is no uniform understanding as to what open insurance exactly means. Neither is there currently a similar legal framework on insurance as in the field of payments (PSD2) (although insurers can benefit on PSD2 data). While payment accounts under PSD2 cover a wide range of information, the sensitivity of information shared under PSD2 arguably cannot be compared to the sharing of data in insurance. Collecting and sharing data about insurance policies or other open insurance-related data can reveal sensitive information about the health, sexuality, and political views or other personal details of a person. Consequently overall consequences regarding open insurance might be rather different than regarding open banking. However, although copying PSD2 should not be the aim, it seems important to take those developments into account and leverage on this experience.

Possible risks (and consequently, necessary safeguards) are also related to the actual 'level of openness' (e.g. what data is shared) and the parties who will get the access to the data under what conditions. In this regard it is important to take into account insurance specificities and clearly define what data should be in the scope of the open insurance/open finance. However, this could be also challenging, as insurance is complex in its nature and varies by lines of business and by products, which could also have different degrees of concentration and heterogeneity (e.g. compare life insurance, non-life insurance and pensions). Hence the economies of scale required to realise the full potential of open insurance could arguably develop at different pace in different lines of business and products.

The wider strategic approach to open insurance is a broader policy question to be considered in other fora, however it might be useful to set out already certain high-level and interlinked areas, from a supervisory perspective, to consider, where further elaboration may be needed, so as to ensure open insurance initiatives can be properly grounded technically and practically to promote coherence with overall consumer protection, financial stability and sound prudential regulation objectives.

35 See EIOPA 2020, EIOPA´s approach to the supervision of product oversight and governance

Figure 8. Possible areas to consider for a sound open insurance framework



Source: EIOPA

QUESTIONS TO STAKEHOLDERS

15. What are your views on possible areas to consider for a sound open insurance framework highlighted by EIOPA in this chapter? Are there additional underlying aspects or other aspects under concrete areas to consider for a sound open insurance framework?
16. What are the key differences between banking and insurance industry which are important to consider in light of open insurance implementation? (e.g. higher variety of products, more data, including sensitive health data in insurance).
17. What are the 'lessons learned' from open banking that might be relevant to consider in open insurance?
18. Do you think open insurance will develop without any regulatory intervention? (e.g. without PSD2 type of compulsory data sharing provisions)
19. Do you think open insurance should be driven voluntarily by industry/private initiatives or driven by regulatory intervention?
20. Do you have views on how the EU insurance market may develop if some but not all firms (e.g. based on different industry-wide initiatives) open up their data to third parties?
21. What data should be definitely included in the scope of a potential open insurance framework? What data should be definitely excluded from the scope of open insurance framework? Are there any data sets you currently do not have access or do not have real-time access or where you have faced practical problems, but you consider this access could be beneficial? This could include both personal and non-personal data (e.g. IoT devices data, whether data, sustainability-related data, data on cyber incidents etc.). Please explain your response providing granular examples of datasets.

7.1. BROADER DISCUSSION AND IMPACT ASSESSMENT ON DIFFERENT OPEN INSURANCE APPROACHES FROM A REGULATORY/SUPERVISORY PERSPECTIVE

Possible open insurance/open finance initiatives could include discussion around the regulatory perimeter/licensing regime, taking into account different 'level of openness', e.g. sectoral or cross-sectoral data sharing could be envisaged with different level of regulatory and supervisory intervention.

Compulsory access to and sharing of data, based on the explicit consent of consumers, could be envisaged in the framework of already regulated entities or for certain lines of business (e.g. in insurance it could mean accessing and sharing data across insurance undertakings and intermediaries already under the remit of the IDD and Solvency II Directive). Data standardisation might be a pre-requisite to support this.

The perimeter could be also extended to third parties with bespoke licensing/authorisation regimes and proper safeguards[36] (see e.g. PSD2 Account Information Service and Payment Initiation Service regulation).

An harmonised open finance regulatory framework could also be envisaged covering financial and non-financial information relevant to facilitating financial planning or encouraging investment, including financial products, such as savings accounts, investment accounts, pension savings, mortgages, consumer credit and insurance products.

Self-regulatory approaches are also possible where the market is left to develop on its own with perhaps limited regulatory interventions or 'expectation setting'.

The table below summarises a possible classification of different open insurance approaches, while a mix of those approaches could also be imagined in practice.

Detailed cost-benefits analyses of all the approaches stated above goes behind this paper. However, some reflections on different approaches could be highlighted.

First, a self-regulatory approach would arguably leave most room for the innovation and bring lowest immediate costs for the industry. However it could also lead to legal uncertainty, weaker consumer protection and market fragmentation. From practical supervisory perspectives this would arguably make supervision more complex especially if the open insurance is developing more widely. Additionally as the experience from banking sector shows, demand-side pressures/consumer expectations are likely not enough to lead the insurance industry to move in a sufficiently comprehensive/consistent way towards more openness, so change could be expected to be limited/patchy.

If compulsory data sharing is considered, starting with sector-specific compulsory data sharing under current regulatory perimeters could be seen on the one hand as a practical way forward as it reduces the amount of stakeholders involved, could make possible policy debate clearer, and allow a step by step approach before widening the approach and/or opening up the market to third parties based on bespoke regulatory/supervisory frameworks. On the other hand a cross-sectorial approach to open finance would arguably allow better consumer outcomes, including services supporting holistic overviews of their financial situation, greater economies of scale, etc. Again, from supervisory perspective it likely demands more complex co-operation between supervisors outside insurance field (banking and securities) and the implementation process is arguably also more difficult.

To conclude, all possible policy options should include proper impact assessment and it should be considered what is meaningful at the EU level (including from proportionality and subsidiarity perspectives), taking also into account distinctions between compulsory or voluntary insurance products, and possible implications for consumers, market and supervision.

36 Note that the Commission DFS refers generally that the principle of passporting and a one-stop shop licensing should apply in all areas which hold strong potential for digital finance. Additionally it is stated that the Commission will propose legislation on a broader open finance framework by mid-2022.

Table 1. Different open insurance approaches form regulatory/supervisory perspective

Approach	Description
Compulsory data sharing inside the regulated insurance industry	This could apply inside the regulated insurance industry (e.g. data sharing between insurance undertakings and intermediaries). As a difference from PSD2 this could exclude all non-regulated third parties except under existing outsourcing arrangements. Data sharing would relate to insurance activities and it would be an add-on within the existing regulatory landscape, with no changes to the perimeter (note however the relatively broad definition of insurance distribution under the IDD).
Compulsory data sharing with third parties	Leveraging on the experience within the insurance industry, broader data sharing could be explored (e.g. access to non-regulated third parties) with bespoke licensing/ authorisation regimes and proper safeguards. However, taking into account broad insurance distribution definition envisaged in the IDD, this situation might not be fundamentally different from the first case (i.e. possible activities might anyway fall under the regulated activities) in practice. Data sharing could go beyond that needed for delivery of insurance services and products – e.g. relate to other financial services and products, and indeed non-financial services and products.
Compulsory data sharing in certain lines of businesses and/or amongst certain products	Compulsory data sharing in certain lines of businesses and/or amongst certain products and/or limiting the data points that is compulsory to share (e.g. only claims data). An assessments could be done on what line of businesses/products and in relation to which use cases the data sharing could have most added value, e.g. in view of regulatory outcomes being sought (e.g. Pan-European pension product (PEPP) or highly standardised MTPL insurance). Based on this experience a broader data sharing could be envisaged.
Compulsory data sharing covering only IoT data / sensor data.	A specific framework could be developed for IoT data sharing (e.g. car telematics data) in order to increase the legal certainty and create an appropriate framework for innovation in insurance. Issues with data reciprocity would however arise.
Self-regulatory approach to data sharing[37]	It would be possible to do nothing binding at the supervisory or regulatory level in addition to the data portability rules already foreseen in the GDPR – this would entail the facilitation of data sharing through voluntary industry codes of conducts/ guidelines/industry standards.

Source: EIOPA

37 See e.g. Singapore Trusted Data Sharing Framework. https://www.imda.gov.sg/-/media/Imda/Files/Programme/AI-Data-Innovation/Trusted-Data-Sharing-Framework.pdf See also Open Insurance Initiative https://openinsurance.io/ and German Free Insurance Data Initiative (FRIDA).

QUESTIONS TO STAKEHOLDERS

22. In your opinion, which regulatory/licensing approach would be best for the development of sound open insurance framework (e.g. unlocking the benefits and mitigating possible risks)? Could an increased data sharing require revisions in the regulatory framework related to insurance data? Please explain your response.
23. Could you provide information which helps to evaluate the cost of possible compulsory data sharing framework (e.g. based on your experience on PSD2 adoption)?

7.2. PROPER OVERSIGHT AND SUPERVISION

Taking into account the classification of different open insurance approaches above, the possible open insurance/open finance initiatives should include discussion around proper regulatory perimeter/licensing regimes, including aspects such as proper operational risk management and data governance framework as well as consumer protection, taking into account the approach to open insurance chosen, including who should have access to what data in which circumstances as well as whether the approach is regulatory or self-regulatory. Even in the absence of compulsory data sharing, increased data sharing in insurance could benefit from harmonising data governance, ICT security, responsibility towards consumers and third parties and data access for supervisors.

In any case it should support proper consumer protection and data protection as well as a level-playing field, and grant supervisors sufficient powers and tools and a strong basis for supervision, necessary for fostering trust and confidence.

QUESTIONS TO STAKEHOLDERS

24. In the absence of any compulsory data sharing framework in insurance as it is currently the situation, how do you see the role of EIOPA and national supervisors to guarantee proper market oversight and consumer protection?

7.3. DATA PROTECTION AND DIGITAL ETHICS

Open insurance could include both personal and non-personal data. Data protection and data ethics issues can arise with any increased data sharing, especially if combined with AI/ML tools. Collecting data about insurance policies or other open insurance-related data can reveal sensitive information about the health, sexuality, religion, political views or other personal details of a person. It should be guaranteed that third parties only have access to data that are necessary for their activities, and clear restrictions are needed on sharing such data with other parties or reselling customer data for purposes beyond the customer's initial consent, taking into account the principles of the GDPR, including the concept of 'explicit consent'. This is also related to the proper licensing regime (point 1 and 2 above) as well as data reciprocity (point 5 below).

In any case, wider access to consumer data by third parties must take place in a safe and ethical environment, with the informed explicit consent of the consumer.

RIGHT TO TRANSACT AND SHARE DATA SECURELY

Opening access to consumer data could lead to an increased risk of fraud, e.g. if consumer's data is available through one single contact point, or are held by companies with poor governance and security systems, necessitating the creation of adequate security standards when third parties access consumer data.

The wider sharing of data with more parties also raises the risks of a data breach or misuse of data occurring, and clear rules are needed to assign liability in the event of financial loss, erroneous sharing of sensitive data, or other data breaches.

Stricter authorisation methods through an API provide more control over the type and extent of data that is shared with third parties and offers a more secure way to interact with third parties. Technical solutions exist in order to avoid the communication of sensitive consumer information with third parties and must be adopted to ensure secure communication between consumers, undertakings and third parties.

RIGHT TO BE IN CONTROL OF THE DATA

While data protection is not in the remit of insurance supervisors, it is important that personal data should remain under the full data subject's control - open insurance must be based on the principle that the personal data supplied by and created on behalf of insurance services consumers is owned and controlled by those consumers. Data should not be accessed without the explicit consent of the consumer and there should be possibility for the data subject to withdraw consent and have his/her data erased. It should be clear to consumers who they

are giving consent to for accessing their data and for what purposes.

As for any other personal data, the GDPR requirements and principles should be followed in designing possible open insurance framework, notably the principles of data minimisation and purpose limitation, data protection by design and by default.

Finally, in order to ensure that data subjects have confidence in the security of their data, the framework should provide adequate requirements regarding the access, use and secure storage of data. This should also include a clarification as regards the legal liability of the different actors.

MITIGATION OF THE RISK OF FINANCIAL EXCLUSION

Increased data sharing, especially if combined with AI/ML tools could increase financial exclusion. Consumers with certain characteristics or consumers who do not agree to share their data could get higher pricing (so-called 'privacy premium'), could be unlawfully discriminated (e.g. if the data can be used as a 'proxy' to traditional rating factors) or could be excluded overall. This considerations should be kept in mind in the discussion on open insurance.

QUESTIONS TO STAKEHOLDERS

25. This Discussion Paper highlighted some of the ethical issues relevant to open insurance (e.g. price optimisation practices, financial exclusion, discrimination). Do you see additional ethical issues relevant in light of open insurance?

7.4. INTEROPERABLE DATA SHARING FRAMEWORK AND API STANDARDS

API standards are a set of rules and specifications used, in the context of financial services, between financial institutions and third parties to communicate using the same set of communication protocols, security profiles and data standards. However, since the entry into force of PSD2 in the banking sector, a large variety of different API standards exist across Europe, meaning that third party companies may need to use different API standards to communicate with different banks. The lack of commonly accepted API standards is a challenge, posing potential inefficiencies for third parties or fragmentation of the digital financial ecosystem.[38]

Hence common API standards could be developed in the EU. The development of API standards could be done in a way that promotes security, interoperability, efficiency and usability for all users. This could reduce fragmented approaches on API standards, could ultimately reduce costs, and provide better consumer protection. A single EU-wide API standard would be desirable to eliminate avoidable costs and facilitate scaling, so as to enable a secure and smooth access to consistent data sets.

In order to ensure a secure and smooth access to data and limit costs, any technical standards that may be developed to facilitate data sharing would need to take account of existing formats as much as possible and also be compatible with relevant global standards.

38 BIS 2020, Policy responses to fintech: a cross-country overview. https://www.bis.org/fsi/publ/insights23.htm

QUESTIONS TO STAKEHOLDERS

26. What functions and common standards are needed to support open insurance and how should they be developed? Please consider this both form self-regulatory angle and from possible compulsory data sharing angle.

27. What existing API/data sharing standards in insurance/finance in the EU or beyond could be taken as a starting point/example for developing common data sharing standards in insurance?

7.5. LEVEL PLAYING FIELD AND DATA RECIPROCITY

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 sectors. Indeed, the requirement on banks has triggered strong reactions from the banking industry, which considers it to be an un-level playing field that they have to share their data with new competitors (including start-ups and also BigTech companies) while these new competitors do not share their data with the banking institutions. E.g. the potential use of consumer data, currently held by BigTech companies, for payment services raises concerns, as it can give a strong competitive advantage to BigTech companies.[39]

It can be argued that other market participants, which generate and collect non-financial data inherent to their business model (e.g. the GAFAs), are not obliged to share it, or do not do so in an easily utilisable format and thus may develop unfair competitive advantages against financial service providers by being able to combine financial data with non-financial user data, e.g. on social media.

Hence it can be argued that for a level regulatory and supervisory playing field, facilitation of real-time data sharing/access to data via APIs should further take into account the concept of 'data reciprocity' in a data sharing context in order to ensure fair competition between the different market players, e.g. if financial sector entities share their data with third parties/BigTechs, then third parties should probably also share their data which is used to provide financial services-related services to consumers.

To promote the competitive landscape, an open insurance framework should seek to ensure a level playing field between different providers. Therefore, it should reflect in-depth analysis of 'data reciprocity', e.g. the possibility to extend the scope to other non-financial information (e.g. the users' metadata gathered by social media platforms). The analysis should take into account the risks related to the exposure of personal data, the costs for market operators as well as possible impact on the market. While this could also be considered more of broader policy choice, it includes also the aspects of consumer protection or a more specific nature (e.g. ethical use of data in insurance). More fundamentally, before considering data reciprocity, it seems to be important to define the appropriate uses of data in the insurance context – for instance, what and how data can be used in risk assessments and pricing of insurance products (e.g. from ethical perspective). Inadmissible data might include e.g. internet searches, 'likes' in social networks or past shopping habits.

39 EBA thematic report on the impact of FinTech on PIs' and EMI's business models. https://eba.europa.eu/eba-assesses-impact-of-fintech-on-payment-institutions-and-e-money-institutions-business-models

QUESTIONS TO STAKEHOLDERS

28. Do you believe that open insurance only covering insurance-related data could create an un-level playing field for incumbent insurance undertakings vis-a-vis other entities such as BigTech firms? Please explain your response
29. How do you see the market will develop in case the data sharing is extended to non-insurance/non-financial data? What are the biggest risks and opportunities?

8. CONCLUDING REMARKS

This Discussion Paper identifies different aspects, use-cases as well as risks and benefits of open insurance from supervisory and risk perspectives, with the aim to start a broader multi-stakeholder engagement on the topic. It is largely based on a NCA survey conducted in Q2 2020.

Predicting the dynamic evolution of data sharing and openness from consumer, supervisory and industry angles is of course difficult, so that assessing the case for or against policy changes *ex ante* is also commensurately difficult. While open insurance might promote competition and diversity, extend customised product offerings, increase consumer engagement and lower barriers to entry, it could also create new risks or amplify existing risks. It could also do little to address the emergence of new BigTech oligopolies that might ultimately work against the interests of consumers and generate additional risks. Arguably, BigTechs already have the resources to obtain the data they need, or can develop data proxies out of the data they already have, so that compulsory data sharing obligations might be seen as having most benefit for SMEs and new entrants (a logic that can be seen e.g. behind the PSD2).

In addition, the right to data portability is already foreseen in the GDPR and is driven by antitrust law considerations. Hence it could be argued that some measures to make open insurance concrete and practical are necessary to enable consumers to benefit from these rights. Indeed, the Commission´s recent GDPR application report[40] states that while the right to data portability has a clear potential, it is still not fully used, to put individuals at the centre of the data economy by enabling them to switch between different service providers, to combine different services, use other innovative services and to choose the most data protection-friendly services. Unlocking this potential of data-driven innovation is the priority also in the EU Data Strategy and Digital Finance Strategy.

Possible open insurance/open finance initiatives could include discussion around the regulatory perimeter/licensing regime, taking into account different 'level of openness', e.g. sectoral or cross-sectoral data sharing could be envisaged with different level of regulatory and supervisory intervention. Possible risks (and consequently, necessary safeguards) are also related to the actual 'level of openness' (e.g. what data is shared) and the parties who will get the access to the data under what conditions.

It would be possible to do nothing binding at the supervisory or regulatory level in addition to the data portability rules already foreseen in the GDPR – this would entail the facilitation of data sharing through voluntary industry codes of conducts/guidelines/industry standards. However, this might not be enough to let the open insurance develop in the best interest of the consumers as there may not be sufficient incentives for undertakings and intermediaries to open up access to consumer and other open insurance data. The development of open insurance is also linked to consumer trust and participation and interaction, including whether they see the benefit on open insurance and are willing to share their data for better products and services.

EIOPA considers that steps to realise open insurance can have benefits for consumers, for the sector and its supervision if handled right. While the wider strategic approach to open insurance is a broader policy question to be considered in other fora, this Discussion Paper sets out already certain high-level and interlinked areas, from a supervisory perspective, where further elaboration may be needed, so as to ensure open insurance initiatives can be properly grounded technically and practically, to promote consistency with overall consumer protection, financial stability and sound prudential regulation objectives.

A key consideration on possible open insurance solutions is how to find a balance between data protection, insurance, and competition objectives while supporting innovation, efficiency, consumer protection and financial stability. EIOPA believes finding these balances requires a broader multi-stakeholder discussion so to allow a smart - balanced, forward-looking, ethical and secure – EU approach to emerge. In this way it could contribute to a more integrated and efficient European insurance market.

40 https://ec.europa.eu/info/law/law-topic/data-protection/communication-two-years-application-general-data-protection-regulation_en

QUESTIONS TO STAKEHOLDERS

30. Do you have any comments on the case studies in Annex 1?
31. Are there any other comments you would like to convey on the topic? In particular, are there other relevant issues that are not covered by this Discussion Paper?

ANNEX 1. CASE STUDIES

The aim of this Annex is to look further how open insurance might hypothetically work in practice in different scenarios throughout one line of business.

Case studies are based on **motor insurance** (Casco and MTPL) covering both fragments from existing national developments known to EIOPA, and supplemented by bold imaginary use cases. All case studies can be imagined in **other lines of businesses.**

The overview is given through six case studies: Motor insurance policy information services; Motor insurance public comparison websites; Motor insurance underwriting services; Motor insurance claims data; Black-box and in-vehicle data interoperability; and general open data.

Case studies are built on an assumption that **data sharing is compulsory**, e.g. the regulation states what data sets should be shared and accessed through standardised real time APIs **based on consumer consent.** Compulsory data sharing in this Annex is mainly foreseen under **regulated entities** (e.g. providers currently under the Solvency II and the IDD, except on black-box data and self-driving car data where it concerns third parties outside regulated insurance industry, and open data).

Case studies **does not include detailed cost-benefits analyses** - general risks and benefits are showed in chapter 5.

The Annex distinguishes between personal data (PD) and open data (OD).

Personal data	Any information relating to an identified or identifiable natural person.[41]
Open data	Data that is non-personal (data that had undergone anonymisation and aggregation), to the extent that it does not contain information about specific individuals. It could be free and open for anyone/certain society groups for research, public policy, prevention, fraud detection, pricing, customer segmentation, or for building new products/services – e.g. it might have broader social value outside of insurance 'ecosystem'.

41 According to the GDPR Article 4(1) an identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person.

CASE STUDY 1 – MOTOR INSURANCE POLICY INFORMATION SERVICES

CASE DESCRIPTION

Insurance undertakings and insurance intermediaries could be required to provide other insurers/intermediaries seamless access (via standard APIs) to their users' underwritten insurance policies. Access to policies would make it easier for insurers and intermediaries to develop and market different 'smart insurance' products, which could give consumers an overview of their policies and help them manage their risks, get better prices etc.

Data set/functionality (the aspects of 'telematics' are covered in case study 5)	**User of the data set**	**Use case**
Policy information (PD) Insurance cover and exemptions under the insurance contract Insurable sum and excess Insurance premium	Consumers	■ Possible new products and services ■ Overview of all insurance contracts ■ Easier to shop around ■ No need to provide information twice
	Supervisors	■ Standardised APIs could allow supervisors to also 'connect' and have 'live' overview of all policies written (cover, price, commissions, claims, over-under insurance, possible miss-selling)
Data specific to insured person (PD) Data on insured person (e.g. name, date of birth, ID code, country of residence) Data on insured object (e.g. car mark, model, year, VIN code) Data on value of contents inside the car Type of use of the car (e.g. personal or car sharing/taxi) Data on claims history	Insurers and intermediaries	■ Possibility to develop innovative products/services (insurance dashboards/calculators/wallets) and to engage customers throughout the product lifecycle ■ Easier to exchange information between insurers/agents/brokers ■ Possibility to establish new co-operations and discover new sales channels ■ Claims history could facilitate more accurate pricing ■ Already developed APIs could be used for back-office activities (different 'closed' layer for exchanging e.g. claims data with claims managers; exchange information with re-insurers as well as to get more detailed information about the vehicle (e.g. brake horsepower, acceleration, height, weight) and its current value from private external sources using the car's license plate and/or its registration number).

CASE STUDY 2 – MOTOR INSURANCE PUBLIC COMPARISON WEBSITES

CASE DESCRIPTION

In Italy there is a public comparator managed by Minister of Economic Development and IVASS to compare basic motor insurance for all undertakings. The current website is undergoing a complete overhaul. The participation of undertakings to the public comparator is mandatory by law.

The new comparator will access undertakings' systems via API after collecting the relevant data from consumers (or other data from public sources) and provide a specific quote for mandatory motor insurance, valid in that point in time. Agents/ brokers will also have access to the system and will be obliged to show to the customer a number of 'independent' quotes in addition to those from the company they intermediate. Details and their technical implementation are currently being examined.[42]

Similarly in e.g. Estonia, Latvia and Norway, NCAs or industry bodies are facilitating public comparison websites in motor insurance.

Possible EU-wide open insurance solution could require that all motor insurance undertaking have to provide open access to their systems via standardized APIs, offering EU-wide interoperability. This could incentivize public comparison websites.

42 Since it is quite difficult to properly compare contracts with different coverage, clauses and tailored discounts, the public comparator will be based on a standard 'basic contract', yet to be defined by a law and with similar coverage for all undertakings, and also offer a view of additional coverages and specific discounts. This is not difficult when a limited number of undertakings with similar contracts are involved but it is a highly complex task for the whole market. IVASS is currently working hard to offer a meaningful overall comparison.

Data set/functionality	User of the data set	Use case
Motor insurance 'basic contract' price and cover (Data is considered as non-personal, but every consumer get personal quote based on e.g. car plate number and ID code) Insurance cover and exemptions under the insurance contract Insurable sum and excess Insurance premium What are add-ons?	**Consumers**	■ Overview and comparison of all motor insurance products could facilitate informed decision-making and value-for-money purchase as well as shopping around.
	Supervisors	■ Standardised APIs could allow supervisors to also 'connect' and have 'live' overview of all policies written (cover, price, commissions, claims, over-under insurance, miss-selling).
	Insurers and intermediaries	■ Possibility to develop innovative products/services (insurance dashboards/calculators/wallets) ■ Easier to exchange information between insurers/ agents/brokers ■ Easier to establish new co-operations and sales channels ■ Claims history could facilitate more accurate pricing ■ Already developed APIs could be used for back-office activities (different 'closed' layer for exchanging e.g. claims data with claims managers; exchange information with re-insurers etc.)

CASE STUDY 3 – MOTOR INSURANCE UNDERWRITING SERVICES

CASE DESCRIPTION

This solution is similar to case study on public comparison websites, but wider, incentivizing undertaking – agent/ broker interaction.

Insurers could be required to provide other insurers and intermediaries seamless access via standard APIs to data (only raw data, not inferred data/ assumptions) to evaluate the risk and exposures of potential customers e.g. information such as how much coverage the customer should receive, and how much they should pay for it. Insurers/intermediaries will access undertakings' systems via API after collecting the relevant data from consumers (or other data from public sources) and provide a specific quote for motor insurance, valid in that point in time. This could be seen as creating greater competition in risk underwriting by laying the foundations for a market approach, so as to increase the efficiency and accuracy of underwriting risks and would lead to a greater number of smaller risk pools. It could also incentivize shopping around and provide better overview of insurance cover.

Data set/functionality	User of the data set	Use case
Motor insurance 'basic contract' price and cover Insurance cover and exemptions under the insurance contract Insurable sum and excess Insurance premium What are add-ons?	Consumers	■ Overview and comparison of all motor insurance products ■ Easier to change provider ■ No need to provide data twice
	Supervisors	■ Standardised APIs could allow supervisors to also 'connect' and have 'live' overview of all policies written (cover, price, commissions, claims, over-under insurance, miss-selling)
	Insurers and intermediaries	■ Easier to exchange information between insurers/agents/brokers ■ Easier to establish new co-operations and sales channels ■ Already developed APIs could be used for back-office activities (different 'closed' layer for exchanging e.g. claims data with claims managers; exchange information with re-insurers etc.)

CASE STUDY 4 – MOTOR INSURANCE CLAIMS DATA

CASE DESCRIPTION

Directive 2009/103/EC[43] (MID) Article 16 states that Member States shall ensure that the policyholder has the right to request at any time a **statement relating to the third party liability claims involving the vehicle or vehicles covered by the insurance contract** at least during the preceding five years of the contractual relationship, or to the absence of such claims (bonus-malus system). Information about past claims or absence thereof which must be provided to a policyholder on departure from a motor insurer may help a policyholder to obtain a 'no claims bonus' (or a better 'bonus-malus' rating) with a new insurer, either in the same Member State or another Member State, thus reducing premiums.[44] MID is currently under review including the aspect of harmonising the template and content of claims statements. Under the current drafting the Commission shall be empowered to adopt implementing acts specifying the contents and form of the claims history statement.

Some Member States have central online tools to fulfil the requirement to provide claims history statement under the MID and in some cases those central databases provide more options.

E.g. in Estonia, insurers register all traffic accidents in the **central Motor Insurance Register**, including: (i) location and cause; (ii) date and participants; (iii) occurred losses.

This provide on-line vehicle loss history where one can check for free the loss history of all vehicles. **The measure could have an effect on fraud in relation with used cars sales.** The data could be also used by the government and local communities for **prioritizing public investments and loss prevention** (reconstruction of some major cross-roads, bigger parking-spaces). The database lists all motor insurance covers issued in Estonia and all registered motor insurance damages and losses (claims history). **Insurers can use this information for the calculation of the insurance premium of motor insurance and inured persons can download the history to provide to another insurer, including in another MS (requirement in the MID).** Similar databases are available in other countries[45].

Possible EU-wide open insurance use case would first require that similar data sets are collected in all countries either in EU-wide or domestic databases (latter can be interconnected through APIs into one single EU User Interface (UI)). As a second step it could require what information is available and to whom, distinguishing personal and non-personal data.

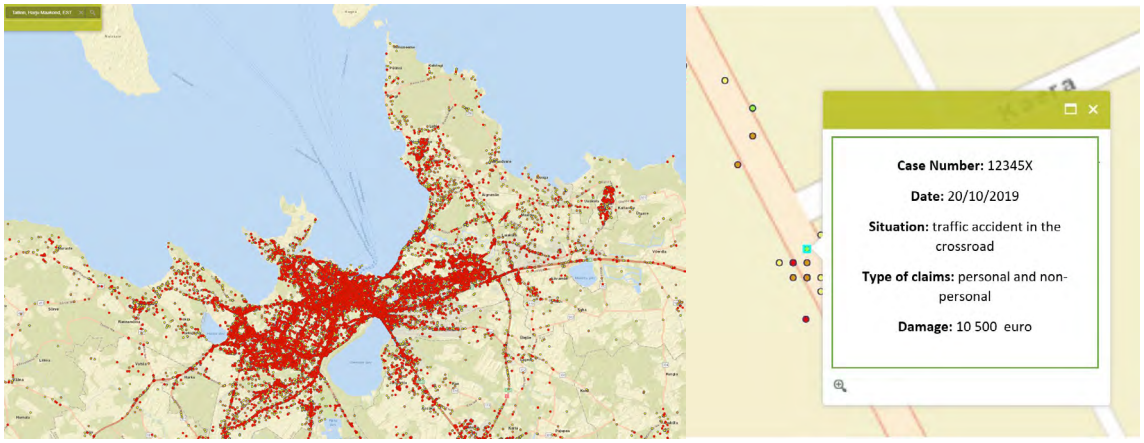
43 https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX-%3A32009L0103

44 However, the new insurer is not obliged to take account of your previous claims record (or any reductions you might have been eligible for) when calculating the premium.

45 As a growing trend, in some countries industry bodies or NCAs are providing central claims management support solutions or databases. The Icelandic Financial Services Association which represents the financial service providers in Iceland recently started operating a claim database. The database is used for fraud analytics, looking for pattern in claims etc. In Latvia, Motor Insurers' Bureau of Latvia is offering compulsory MTPL claims management via mobile application. Similarly in Portugal, the APS (Portuguese Insurer Association) launched an app for claims.

Data set/functionality	User of the data set	Use case
Non-personal data on accidents (OD) location cause date participant of the accidents the value of the declared (third party liability) claim	Consumers	■ EU-wide possibility to check if car have had accidents in past ■ EU-wide possibility to check if the car/ consumer is insured ■ Possibility to download/transfer the claims history to provide to another insurer (bonus-malus)
Personal data on accidents (PD) The identity of the insurance undertaking issuing the claims history statement The identity of the policyholder The vehicle insured (mark, model, VIN code etc.) The period of cover of the vehicle insured The number and value of the declared third party liability claims during the period covered by the claims history statement	Supervisors and general public	■ Reduction of frauds in relation with used cars sales ■ Possibility to prioritizing public investments and loss prevention ■ Overview of all registered motor insurance damages and losses
Fraud data (could be both open and personal, e.g. general trends vs full fraud database) The identity of the fraudulent consumer Fraud type	Insurers and intermediaries	■ More informed pricing and underwriting ■ Better fraud detection/prevention ■ Overview of all registered motor insurance damages and losses ■ Already developed APIs could be used for back-office activities (different 'closed' layer for exchanging e.g. claims data with claims managers or claims adjustments, auto repair shops)

Figure 1. Estonian traffic accident data map based on open data



Source: Estonian Motor Insurance Bureau traffic accident map/ArcGIS

CASE STUDY 5 – BLACK-BOX AND IN-VEHICLE DATA INTEROPERABILITY

CASE DESCRIPTION

IoT data is one part of data which is important for insurance industry. It covers both the data insurers collect themselves e.g. through car black-boxes, but also the data third-parties are collecting (e.g. self-driving car manufacturers).

Under EIOPA´s work on **Barriers to InsurTech** it was pointed out that the current legislative framework may not be sufficient to prevent the emergence of data oligopolies arising from the platform economy[46] or the Internet of Things.[47] For example, large platforms could engage in orchestration practices, i.e. defining the 'rules of the game' based on information biases or favouring certain products in the ranking criteria of their websites. In the area of Internet of Things, providers could also engage in gatekeeping practices, namely by controlling the parties that can access to the data from connected cars or health wearable devices not covered by the right to data portability, which could difficult innovation in motor and health insurance lines of business.

Consequently EIOPA Policy recommendations stated inter alia that *'the European Commission should consider data as commodity that is fundamental from a competition standpoint and actively prevents the emergence of data oligopolies. Moreover, EIOPA believes that the European Commission should develop a specific framework for the Internet of Things in order to increase the legal certainty and create an appropriate framework for innovation in insurance.'*

GDPR data portability rules are applicable to data 'provided by data subject' which should also include the **personal observed data** provided by the data subject by virtue of the use of the service or the device. They may for example include a person's search history, traffic data and location data. It may also include other raw data such as the heartbeat tracked by a wearable device and potentially also certain black-box/in-vehicle data that can be considered as personal data.[48]

In Italy, a law already requires IVASS to issue a regulation with a set of minimum data for portability between black-box device providers, based on technical standards issued by the Ministry for Transportation defining the functional requirements for black-box devices (e.g. a smartphone could be a valid black-box for insurance and legal purposes?) and specifying the set of data to be collected.

Similar EU-wide solution could be considered, stating the definition of the black-box as well as data sets and API standards how this data should be accessible and interoperable between different insurers/intermediaries/black-box providers/self-driving car manufacturers in real time. A legal obligation to ensure full portability of consumer-generated IoT data, including portability of real time data as data streams, could provide benefits both for consumers and the industry.

This could help to make practical use of data portability, reduce lock-in and increase shopping around and competition between undertakings as well as facilitate offering of innovative services. This is important to keep in mind in the debate around open insurance and in the engagement with EU institutions in this topic.

46 As noted by the European Commission's 2016 Communication on Online Platforms and the Digital Single Market, online platforms come in various shapes and sizes and continue to evolve at a pace not seen in any other sector of the economy. Presently, they cover a wide-ranging set of activities including online advertising platforms, marketplaces, search engines, social media and creative content outlets, application distribution platforms, communications services, payment systems, and platforms for the collaborative economy. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52016DC0288

47 As noted by the European Commission's 2016 Staff working document Advancing the Internet of Things in Europe, the IoT inaugurates a new age of ubiquitous connectivity and intelligence in which components, products, services and platforms connect, virtualise and integrate everything in a communication network for digital processing. https://ec.europa.eu/digital-single-market/en/news/staff-working-document-advancing-internet-things-europe

48 See Article 29 Data Protection Working Party Guidelines on the right to data portability https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=2ahUKEwjuhM7Uir_lAhUFMuwKHSjDAVgQFjAAegQIAxAC&url=https%3A%2F%2Fec.europa.eu%2Fnewsroom%2Fdocument.cfm%3Fdoc_id%3D44099&usg=AOvVaw1odWBb5LxMYGIhhVf7AYZp

Data set/functionality	User of the data set	Use case
Black-box data/in-vehicle data Driving behaviour geolocation data speeding data miles driven harsh braking time of day road type g-forces	Consumers	■ Easier to change black-box provider/insurer ■ Possibility to download the history to provide to another insurer (bonus-malus)
	Supervisors	■ Standardised APIs could allow supervisors to also 'connect' and have 'live' overview of all policies written (cover, price, commissions, claims, over-under insurance, miss-selling)
	Insurers and intermediaries	■ Easier to exchange information between insurers/agents/brokers and black-box provider ■ Possibility to build Usage Based Insurance products (pay-as-you-go; pay-as-you-drive) ■ Already developed APIs could be used for back-office activities (different 'closed' layer for exchanging e.g. to collect additional information from external data sources such as the speed limit and type of street in order to assess whether the consumer respects the driving rules).

CASE STUDY 6 – GENERAL OPEN DATA (ANONYMIZED AND AGGREGATED DATA)

CASE DESCRIPTION

Anonymized and aggregated data is not under the GDPR and hence there is more flexibility for using this (no need for consumer consent). Some aspects of open data are already covered under different case studies above. In general it could consider all information that could be useful for consumers/supervisors/industry.

Data set	User of the data set	Use case
Open data Statistics on consumer complaints Causes of vehicle accidents Insurance fraud Product details Office hours Office locations	Consumers	■ Easier to change black-box provider/insurer ■ Possibility to download the history to provide to another insurer (bonus-malus)
	Supervisors	■ Standardised APIs could allow supervisors to also 'connect' and have 'live' overview of all policies written (cover, price, commissions, claims, over-under insurance, miss-selling)
	Insurers and intermediaries	■ Easier to exchange information between insurers/agents/brokers and black-box provider ■ Already developed APIs could be used for back-office activities (different 'closed' layer for exchanging e.g. to collect additional information from external data sources such as the speed limit and type of street in order to assess whether the consumer respects the driving rules.

ANNEX 2. CONSULTATION QUESTIONS

1. Do you agree with the definition and the approach to open insurance highlighted in the Discussion Paper? If not, please describe what aspects would be essential to consider additionally?
2. In addition to those described in this paper, including in Annex 1, do you see other open insurance use cases or business models in the EU or beyond that might be worth to look at further from supervisory/consumer protection perspective?
3. Do you think regulators/supervisors should put more focus on public comparison websites where the participation is compulsory for undertakings? What lines of business could be subject for that? What risks, benefits and obstacles do you see?
4. Please describe your own open insurance use case/business model and challenges you have faced in implementing it, if any.
5. Do you see other open insurance use cases in RegTech/SupTech that might be worth to look at further from supervisory/consumer protection perspective?
6. Please describe your own open insurance use case/business model in RegTech/SupTech and the challenges you have faced in implementing it, if any.
7. Do you agree the potential benefits for the a) industry, b) consumers and c) supervisors are accurately described?
8. Are there additional benefits?
9. What can be done to maximise these benefits?
10. Do you agree the potential risks for the a) industry, b) consumers and c) supervisors are accurately described?
11. Are there additional risks?
12. Do you consider that the current regulatory and supervisory framework is adequate to capture these risks? If not, what can be done to mitigate these risks?
13. Do you agree with the barriers highlighted in this chapter?
14. What additional regulatory barriers do you see?
15. What are your views on possible areas to consider for a sound open insurance framework highlighted by EIOPA in this chapter? Are there additional underlying aspects or other aspects under concrete areas to consider for a sound open insurance framework?
16. What are the key differences of between banking and insurance industry which are important to consider in light of open insurance implementation? (e.g. higher variety of products, more data, including sensitive health data in insurance).
17. What are the 'lessons learned' from open banking that might be relevant to consider in open insurance?
18. Do you think open insurance will develop without any regulatory intervention? (e.g. without PSD2 type of compulsory data sharing provisions)
19. Do you think open insurance should be driven voluntarily by industry/private initiatives or driven by regulatory intervention?
20. Do you have views on how the EU insurance market may develop if some but not all firms (e.g. based on different industry-wide initiatives) open up their data to third parties?

21. What datasets should be definitely included in the scope of a potential open insurance framework? What data should be definitely excluded from the scope of open insurance framework? Are there any data sets you currently do not have access or do not have real-time access or where you have faced practical problems, but you consider this access could be beneficial? This could include both personal and non-personal data (e.g. IoT devices data, whether data, sustainability-related data, data on cyber incidents etc.). Please explain your response providing granular examples of datasets.
22. In your opinion, which regulatory/licensing approach would be best for the development of sound open insurance framework (e.g. unlocking the benefits and mitigating possible risks)? Could an increased data sharing require revisions in the regulatory framework related to insurance data? Please explain your response.
23. Could you provide information which helps to evaluate the cost of possible compulsory data sharing framework (e.g. based on your experience on PSD2 adoption)?
24. In the absence of any compulsory data sharing framework in insurance as it is currently the situation, how do you see the role of EIOPA and national supervisors to guarantee proper market oversight and consumer protection?
25. This Discussion Paper highlighted some of the ethical issues relevant to open insurance (e.g. price optimisation practices, financial exclusion, discrimination). Do you see additional ethical issues relevant in light of open insurance?
26. What functions and common standards are needed to support open insurance and how should they be developed? Please consider this both form self-regulatory angle and from possible compulsory data sharing angle.
27. What existing API/data sharing standards in insurance/finance in the EU or beyond could be taken as a starting point/example for developing common data sharing standards in insurance?
28. Do you believe that open insurance only covering insurance-related data could create an un-level playing field for incumbent insurance undertakings vis-a-vis other entities such as BigTech firms? Please explain your response
29. How do you see the market will develop in case the data sharing is extended to non-insurance/non-financial data? What are the biggest risks and opportunities?
30. Do you have any comments on the case studies in Annex 1?
31. Are there any other comments you would like to convey on the topic? In particular, are there other relevant issues that are not covered by this Discussion Paper?

ANNEX 3. ABBREVIATIONS

AI	Artificial Intelligence
API	application programming interfaces
BDA	Big Data Analytics
CMU	Capital Markets Union
DFS	European Commission Digital Finance Strategy
EIOPA	European Insurance and Occupational Pensions Authority
ESAs	European Supervisory Authorities (EBA, ESMA and EIOPA)
EU	European Union
GPS	global positioning system
GDPR	General Data Protection Regulation (2016/679/EU)
ICT	Information and Communication Technology
IDD	Insurance Distribution Directive (2016/97/EU)
IoT	Internet of Things
IPID	Insurance Product Information Document
KID	Key Information Document
KYC	know your customer
ML	Machine Learning
MTPL	motor third-party liability insurance
NCA	national competent authority
P2P	peer-to-peer
PSD2	revised Payment Services Directive (2015/2366/EU)
POG	product oversight and governance
PRIIPs	Packaged Retail Investment and Insurance Products
RRIs	retail risk indicators
UBI	Usage-based insurance

Getting in touch with the EU

In person

All over the European Union there are hundreds of Europe Direct information centres.

You can find the address of the centre nearest you at: https://europa.eu/european-union/contact_en

On the phone or by email

Europe Direct is a service that answers your questions about the European Union.

You can contact this service:

– by freephone: 00 800 6 7 8 9 10 11 (certain operators may charge for these calls),

– at the following standard number: +32 22999696 or

– by email via: https://europa.eu/european-union/contact_en

Finding information about the EU

Online

Information about the European Union in all the official languages of the EU is available on the Europa website at: https://europa.eu/european-union/index_en

EU publications

You can download or order free and priced EU publications at: https://publications.europa.eu/en/publications. Multiple copies of free publications may be obtained by contacting Europe Direct or your local information centre (see https://europa.eu/european-union/contact_en).

EU law and related documents

For access to legal information from the EU, including all EU law since 1952 in all the official language versions, go to EUR-Lex at: http://eur-lex.europa.eu

Open data from the EU

The EU Open Data Portal (http://data.europa.eu/euodp/en) provides access to datasets from the EU. Data can be downloaded and reused for free, for both commercial and non-commercial purposes.

EUROPEAN INSURANCE AND OCCUPATIONAL PENSIONS AUTHORITY

Westhafenplatz 1,
60327 Frankfurt am Main, Germany

Publications Office
of the European Union