

AON

Transformative Trends

An Opportunity to Create
New (Re)Insurance Markets



A Message From Sherif Zakhary

Over the next two decades, the world will be radically transformed by global macrotrends, from automation and artificial intelligence to climate change and the green transition. Such trends will shape the future landscape, with profound implications for insurance.

Billions of dollars in premium are for the taking. Seismic changes bring risk and volatility, and therefore greater demand for protection. As an industry, we cannot afford to sit on the sidelines and wait for these trends to crystallize. We have the expertise and ability to anticipate the future landscape and develop innovative products and solutions.

In this paper, we highlight ten of the biggest megatrend opportunities that could deliver significant additional premium for property-casualty (re)insurers today, and into the future. Aon's Strategy and Technology Group (STG) is working with insurers and reinsurers to better understand these transformative trends, and make informed decisions as they grow and protect their businesses.

A deliberate and informed response to these powerful transformative trends should be top of the (re)insurance industry's agenda. Megatrends offer a once in a generation opportunity for the industry to increase its relevance, grow and diversify.

Sherif Zakhary, CEO, Strategy and Technology Group

Transformative Trends: An Opportunity To Create New (Re)Insurance Markets

A broad range of powerful, transformative trends are shaping the future risk landscape, creating potentially huge opportunities for (re)insurers. To capture these growth opportunities, (re)insurers need to anticipate and understand relevant trends and begin transforming their businesses accordingly.

Global transformative forces have been changing the way we live for centuries. Think electricity, automobiles, the Internet. Today, we see a multitude of megatrends emerging that will profoundly change our world, from climate change to artificial intelligence and the Metaverse.

These trends will also drive the (re)insurance markets of the future, creating demand for both traditional and new protection products, as well as services that prevent and mitigate risk. Take for example, the rapidly growing global market for shared mobility, which is expected to reach almost \$1 trillion by 2030. The shift to electric autonomous vehicles could create a \$300 billion global market by 2030, predominantly in motor, but also cyber, casualty and aviation.

Using in depth analysis, Aon's Strategy and Technology Group (STG) has identified the ten most promising megatrends with the potential to generate billions of dollars in additional premium for insurers. Many of these growth opportunities are immediate, or would require relatively small investment in talent or technology by

(re)insurers. Other trends are less well developed, yet they represent potentially huge future markets for insurance.

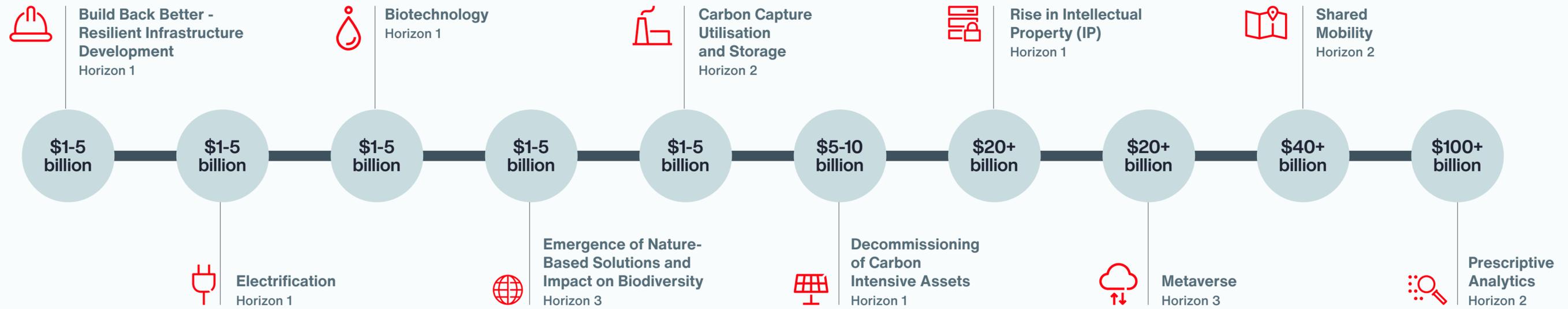
At a time when the value proposition of (re)insurance is under growing pressure, megatrends present an opportunity for the industry to grow its relevance, while also creating new markets and increasing overall premium. Combined, the Metaverse, Shared Mobility and Intellectual Property combined could generate some \$80 billion in gross written premium by 2030. Prescriptive analytics, which is less well developed, alone could generate some \$100 billion in additional premiums.

Not all megatrends will create opportunities for insurance. Some are just too vast and uncertain to justify significant investment. But many demonstrate clear demand for risk transfer products and the chance to create entirely new markets for insurance. The challenge for the industry is to sift through the bewildering array of interconnected megatrends and sub-trends, to identify and prioritize the ones that are most relevant for individual (re)insurers to act upon.

Identifying (re)insurance megatrends early will enable (re)insurers to seize opportunities and manage risks proactively. (Re)Insurers will need an informed and deliberate strategy – supported by data, artificial intelligence and insights – to make better decisions around protecting and growing their business in the context of a changing risk environment. Attracting a wider range of skills and talent, harnessing technology, and creating the right culture to spur innovation will help transform their business for the future.

In a rapidly changing and volatile world, (re)insurers clearly play a critical role in protecting communities and building resilience. Megatrends will create new risks and challenges for society over the coming decades, as individuals and businesses adapt to a changing environment and fast-paced advances in technology. As risk experts, (re)insurers are well-positioned to help deepen our understanding of these risks, enable innovation, and absorb the risks that others cannot.

Top 10 Transformative Trends



● Insurance Opportunity Size by 2030 in USD

Horizon 1

Opportunities that can be addressed today and present potentially immediate premium potential

Horizon 2

Opportunities that offer immediate premium potential, but may require some innovation and/or investment in capabilities

Horizon 3

Opportunities that are long-term and challenging to predict, as they may be dependent on future policy and regulatory changes

Future Disruptors

Megatrends can be defined as drivers for change that are likely to have a profound, long-term global impact. Climate change, new and emerging technology, as well as socioeconomic, demographic, and geopolitical shifts are creating tomorrow’s risk landscape, driving future demand for (re)insurance. But which of these trends creates the most attractive opportunities for (re)insurers, and what will solutions look like?

For an (re)insurer, the challenge is to identify the megatrends that are most relevant to their business. The shift in power from the U.S. to China, ageing population, artificial intelligence, antimicrobial resistance or the next pandemic, could all have major social and economic consequences. Yet not all trends have a direct impact on the property-casualty (re)insurance market, and many will not have an (re)insurance solution at all. Some involve gradual change that (re)insurers are already well - positioned to respond to, while others may be too vast and generic to break down.

Megatrends that will be future disruptors, however require a major shift in the pace of innovation to capitalize on the opportunities. Some, like electrification and biotechnology, offer immediate premium potential, or require a relatively small investment in expertise or product development to unlock. Others, like the Metaverse and biodiversity, have big premium potential, but involve longer time horizons or uncertainty around trend development and market size.

Top Transformative Trends

STG analyzed over 80 megatrends, identifying those that present the biggest growth opportunities for insurers. We performed a series of deep dives into the most promising opportunities to better understand trend drivers, time horizons and required response, as well as to quantify the potential (re)insurance market size.

 **Prescriptive Analytics** is the single largest megatrend (re)insurance opportunity of our top ten and can be witnessed to have an impact on many other megatrends. The overall AI market (used as an indicator for the Prescriptive Analytics trend) is estimated to reach \$0.5tn-\$2tn in revenues by 2030 at a 30-40% CAGR, with potential gross written premium expected to exceed \$100 billion. Increasing demand for data-driven decision-making and the adoption of big data and AI technologies are driving market growth, but the technology is still in initial stages of development. Re(Insurers) are focusing on greater operational efficiencies rather than developing specialized insurance products to protect against associated risks.

 **Shared Mobility**, which includes shared autonomous vehicles, hailed vehicles, car sharing and air taxis, is the second largest megatrend (re)insurance opportunity of our top ten, with potential gross written premium expected to exceed \$40 billion by 2030. However, under certain scenarios, the mobility

(re)insurance market could be worth some \$90 billion. Hailed mobility and car sharing represent the largest premium pools, while micro mobility is a much smaller market, and aerial mobility remains in its infancy.

 **Intellectual Property (IP)** is the next largest megatrend (re)insurance opportunity, with the potential to generate gross written premiums in excess of \$20 billion by 2030. The IP market presents an immediate opportunity for insurers, driven by a global economic shift from tangible to intangible assets. The global intangible asset value was estimated at around \$60 trillion in 2022. Few carriers currently participate in this market, leaving room for new entrants and the development of new products, including forms of IP business interruption.

 **The Metaverse** presents a similarly sized opportunity to IP, with an estimated (re)insurance market value in excess of \$20 billion by 2030. At present there are few (re)insurance products servicing the Metaverse, with non-fungible token (NFT) insurance being the most prevalent. However, expected growth in digital economic activity will create opportunities for (re)insurers to cover virtual assets, cyber attacks and potentially even liability insurance in the Metaverse.

Technology is The Biggest Driver

Technology emerges as the biggest driver of megatrend (re)insurance opportunities. In fact, all top three megatrends are technology-led and every one of the top 10 opportunities involves a technology driver.

Technology megatrends can also be facilitators of growth and efficiency for insurers. For example, artificial intelligence and natural language processing is driving automation and prescriptive analytics across industries. AI and prescriptive analytics can optimize insurers' pricing and underwriting, streamline claims processes, help evaluate and model risks and detect fraud. All in, predictive analytics could generate approximately \$100 billion in value for the property-casualty (re)insurance industry by 2030.

Reflecting the threat posed by climate change and growing interest in sustainability and biodiversity, environmental megatrends are also notable. They account for half of the top ten, with carbon capture, decommissioning carbon intensive assets, biodiversity, resilient infrastructure and electrification, estimated to have combined premium potential as high as \$25 billion. The availability of (re)insurance solutions for the nature-based solutions market, for example, is currently limited. Yet, there is considerable scope to create a new market for carbon and biodiversity offsets and water credits.

The concentration of opportunities on technology, environmental and economic megatrends largely reflect the focus of property-casualty insurance.

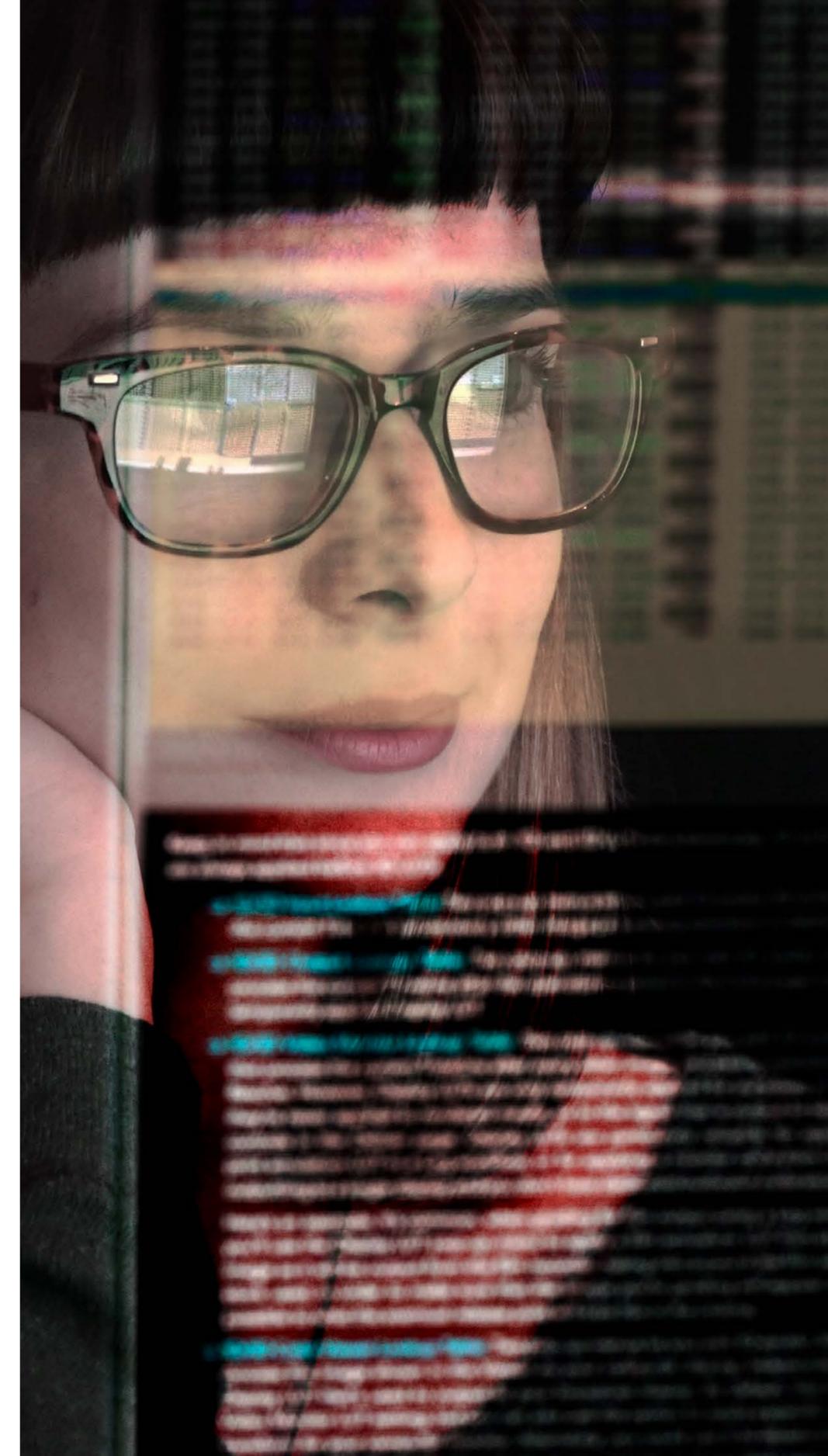
Social and political macro trends, such as the rise of the middle class, the U.S. health gap, or mental health issues, however, would mean more relevant drivers for opportunities in the life and health (re)insurance sector.

Prioritizing Megatrends

Megatrends (re)insurance opportunities can also be considered in terms of time and response. Some trends are easier to grasp, require lower levels of investment and present more immediate opportunities. Others are more complex, with longer time horizons and higher levels of uncertainty.

Half of the top ten (re)insurance megatrend opportunities – including IP and decommissioning carbon assets – fall within the opportunity horizon 1, and therefore present potentially immediate premium potential. Horizon 2 trends, which include the biggest single opportunity of shared mobility, also offer immediate premium opportunities, but may require some innovation and/or investment in capabilities.

Horizon 3 trends are the most challenging, but include some potentially large premium opportunities, such as the Metaverse. The development and scale of horizon 3 opportunities are long-term and challenging to predict, as they may be dependent on future policy and regulatory changes. For example, automation and artificial intelligence have huge potential for premium, but it is currently difficult to accurately predict the size of opportunities.





Transformative Trends

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Interconnectivity

The analysis of (re)insurance megatrends highlights a high degree of interconnectivity between drivers. Many opportunities are driven by multiple trends. The transition of high carbon emitting industries, for example, touches on issues like energy and natural resource security, access to technology, climate adaptation and resilience, as well as the weakening of global supply chains, urbanization and changing attitudes and values.

Predicting The Future Landscape

Megatrends like climate change and technology are already on most (re)insurers' radar. While historically most view large global macro trends through the lens of risk, rather than opportunity, more and more (re)insurers are starting to look at the impact of megatrends more strategically. They are asking themselves how they can respond to megatrends, rather than just monitor them.

Capturing megatrend (re)insurance opportunities will require a systematic and disciplined approach to identify and assess both risks and opportunities. (Re)Insurers will need to establish a framework to understand the future landscape, using intelligence and insights to anticipate global macro-trends, prioritize opportunities and begin to formulate a response.

With our wide expertise and in-depth analysis, Aon work with (re)insurers to help them identify and quantify potential (re)insurance megatrend opportunities for key areas like mobility, climate change and emerging technologies. Using a structured process, a (re)insurer can consider high-level megatrends, break them down into individual sub-trends, and carry out more targeted, detailed analysis to better understand the drivers and scope of opportunity.

For example, environmental trends include climate mitigation and adaptation, the green energy transition, natural resource insecurity and biodiversity. These can be further broken down to sub-trends, such as carbon capture and storage, decommissioning of carbon-assets and resilient infrastructure development. Likewise, technology can be separated into sub-trends like artificial intelligence, 3-D printing, biotechnology, cryptocurrency, space tourism and so forth.

It's important to note that the magnitude and scope of each megatrend opportunity will differ by insurer, influenced by a range of criteria, such as market profile, existing expertise and capabilities, risk appetite etc. A customized framework can help individual (re)insurers prioritize trends, weigh up the risks and rewards, and consider potential solutions.

5-Step Framework to Capitalize on Future Growth Opportunities



Step 1

Develop an understanding of the future landscape



Step 2

Consider how the (re)insurance industry will be impacted



Step 3

Identify and prioritize trends that will create (re)insurance opportunities



Step 4

Carry out in-depth analysis to quantify the opportunity



Step 5

Develop a roadmap for action





Using Talent and Technology to Drive Innovation

Getting the right talent, infrastructure and business culture will be key to understanding the future landscape and capturing opportunities. In order to turbo-charge innovation, (re)insurers must attract a broader range of talent and make use of cutting edge technology, including advanced analytics.

Underwriters, for example, will need a better understanding of the risks their clients want to transfer, including entirely new areas of risk, such as digital assets or carbon capture and storage. Future underwriters will need to be more forward looking and make informed decisions with advanced data analytics to gain insights, assess and price risks, and create products that meet the evolving needs of customers.

More than ever, (re)insurers will need people with diverse skills and subject-matter expertise across a wide range of risks and industries, from biotechnology to green energy. They will also need people with the skills to transform their businesses in areas like data science, analytics, and AI. In competition with other sectors, (re)insurers must identify and attract talent from outside the industry, while creating a strong environment and culture to retain employees.

Equipping a business for future megatrends will be challenging. (Re)Insurers will need to be more flexible,

agile and dynamic to respond quickly to changes in the risk landscape and address new obstacles. Developing (re)insurance solutions for megatrends will require increased levels of collaboration, new ways to engage a broad range of talent and information sharing, both internally and externally.

Be Proactive Not Reactive

Megatrends are key for shaping the future risk landscape and driving demand for (re)insurance protection. To reach their full potential, new technologies like the Metaverse, AI and carbon capture will require risk transfer solutions. But fast-moving markets will not wait for (re)insurers to get comfortable with the risks. The scale and complexity of many megatrends can paralyze (re)insurers if they passively wait for greater clarity and data.

Ignored, some megatrends pose an existential threat. With proactive planning and foresight, however, they offer opportunities to grow and create entirely new (re)insurance products and markets. (Re)Insurers cannot afford to sit on the side lines and wait for these trends to crystallize. They must get on the front foot, predict where the future landscape is heading, and position themselves for transformative success.

Deep Dives

Deeper analysis of individual megatrends reveals further insights into trend drivers and values, as well as confidence levels for trend development and market size. Deep dives can assess the (re)insurance potential of individual trends, identifying and quantifying opportunities for existing lines of business or areas for product development. Bespoke trend analysis can also match potential opportunities against a (re)insurer's own strategy, risk appetite and existing capabilities, as well as highlight gaps in skills, talent or capabilities.



Electrification

Driven by emission reduction goals and net zero ambitions, many jurisdictions are looking to ban or phase out sales of Internal Combustion Engine (ICE) vehicles, with electric vehicles (EVs) touted as the main alternative. Approximately 30 million EVs are forecasted to be on the roads by 2030, accounting for 63 percent of all vehicle sales.

Batteries are a key risk consideration for EVs, and hence, an important driver for insurance. The value of the battery supply chain is expected to grow to around \$400 billion by 2030 from \$90 billion in 2022, with significant value associated with mining and processing raw materials, manufacturing, and recycling. An estimated 90 percent of the battery market will be related to mobility.

At present, few (re)insurers are offering extended warranty and performance guarantee products for EV batteries. Further, there is no appetite in the market to write residual value products due to uncertainties around new technologies, as well as volatility in market price of second-hand EVs. A small number of (re)insurers, however, are building expertise in EV risks, creating dedicated teams of expert risk engineers, which is crucial given the technical nature of the underwriting process.

EV battery development is also relevant for motor, property, marine transport and casualty lines. EVs will require protection against property damage in research and development (R&D) stages, battery manufacturing, storage, and transport, as well as a range of liability coverages, including personal injury, environmental, product liability and recall.

Fire risk is another focus area for insurers, especially since fire protection has not kept up with the pace of lithium-ion battery manufacturing technology. Mechanical failure, manufacturing faults and physical damage to a lithium-ion battery can cause fire, explosion, and the release of toxic chemicals. However, more stable alternatives to lithium-ion batteries are in development.

Motor claims for EVs are also challenging. Manufacturer guarantees do not cover damage from collisions or wear and tear, resulting in costly claims for motor insurers. Difficulties in assessing repair of damaged batteries often leads to (re)insurance companies writing off newer vehicles. Further, battery packs cost up to 50 percent of an EV's value, causing expensive motor (re)insurance claims and therefore premiums.

As a horizon 1 megatrend, electrification offers accessible and immediate premium growth opportunities. The potential (re)insurance market size is estimated at \$1-5 billion, encompassing coverage for electrification, lithium-ion battery manufacturing and transportation, EV battery extended warranty and performance guarantee products, and residual value cover to EV fleet owners.

Extended warranties and performance guarantees for EV batteries present the most immediate opportunities for insurers. There is also growing demand for residual value insurance, which provides protection against volatility in the used EV market. However, demand for this cover could be short-lived, as more mature battery technology would stabilize used-vehicle prices.



Carbon Capture Storage

With the urgent need to limit climate warming and reduce greenhouse gas emissions, interest is growing in carbon capture storage (CCS). This involves capturing CO₂ from industrial processes and storing it underground. The technology is attracting significant investment globally, with global market size expected to grow to \$180 billion by 2030.

According to the IEA, there are around 300 projects in various stages of development across the value chain, with ambitions for over 200 new capture facilities in operation by 2030. To achieve net zero emissions by 2050, CCS facilities would need to capture some 1,286.45 Mt of CO₂ annually by 2030, up from 45 Mt of CO₂ captured in 2022.

The CCS market represents a significant opportunity for insurers. With potential premiums of \$1 billion-5 billion by 2030, CCS is ranked in Aon's top ten megatrend (re)insurance opportunities. High levels of investment, coupled with a more open regulatory environment, are driving growth in the number of planned projects and therefore a growing need for (re)insurance protection.

In the U.S., the Infrastructure Investment and Jobs Act has injected around \$12 billion across the CCS value chain over the next five years. The country is targeting 80 additional projects to be operational by 2030, with CCS capacity increasing fivefold. In Europe, around

50 projects are scheduled for completion by 2030, with significant activity in the UK, Netherlands, and the Nordics.

While more than 50 percent of existing CCS facilities are based in the U.S., significant investments and tax credits are leading to a broader geographic spread of projects. A surge in projects is expected across Europe and Asia by 2030, with Europe forming 30 percent of the global market size.

CCS offers (re)insurers growth opportunities for financial lines, including surety and trade credit coverages as raw materials are traded across international markets. There will also be demand for property and business interruption (re)insurance related to CCS facilities, as well as construction (re)insurance for new projects.

Despite significant investment, many (re)insurers are reluctant to cover CCS-related risks. CCS is still in its early stages and the technology has yet to demonstrate sustained success. Therefore, a lack of technical knowledge of CCS solutions within the (re)insurance industry remains. With few (re)insurers currently active in the market for CCS risks, (re)insurers that are first to develop the expertise and knowledge will hold the advantage.



Metaverse

The development of the Metaverse is potentially revolutionary. Widely seen as the next iteration of the internet, the Metaverse promises to provide a more immersive and interactive digital environment for consumers and businesses.

The Metaverse could generate economic value of up to \$5 trillion by 2030, which is roughly the size of Japan's economy - the third largest in the world. Investment in the Metaverse doubled in 2022, with U.S. technology group Meta spending at least \$10 billion annually on Metaverse development.

Essentially, the Metaverse is the internet in 3D. It enables people to interact remotely, share content and experiences, collaborate and create in a virtual environment. While still in development, there are a wide number of potential use cases, including entertainment and e-commerce. Businesses are also looking to use the Metaverse and virtual reality for training, marketing, events, remote collaboration and product design.

Despite the size of investment in the Metaverse, there are currently few (re)insurance products that serve this market. However, the Metaverse will have wide-ranging

implications for insurance Aon analysis estimates gross written premium potential related to the Metaverse in excess of \$20 billion by 2030. This will include new (re)insurance products to cover virtual assets and the extension of existing lines of business for emerging risks.

The Metaverse is synonymous with growth in virtual assets, such as cryptocurrency, gaming tokens and non-fungible tokens (NFTs), which are ownership rights to unique digital assets, such as a piece of digital art or music. In 2021, a London auction house sold a digital artwork for almost \$70 million, while musician Grimes sold digital art for more than \$6 million. The (re)insurance market is now exploring (re)insurance cover for NFTs, focused on their authentication or loss due to a cyber attack.

As the Metaverse develops there could be further opportunities for (re)insurance to cover emerging risks such as cyberattacks on the metaverse, infringement of IP and real-world rights and damage caused by unexpected events. There may also be opportunities for (re)insurers as the virtual property market takes off, while accident and health (re)insurers could provide cover for avatars.



About the Study

Aon's Strategy and Technology Group conducted a study assessing the most promising (re)insurance opportunities of the next decade and beyond. We combined Aon's proprietary research with 25-plus global third party reports to identify transformative trends, reviewed 100-plus reports and conducted 30-plus interviews with market practitioners to evaluate the global market sizing.

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