Part I: The risk manager's growing role in the digital transformation

While the risk management function is moving forward with its own digital transformation, risk managers are also involved and more recognised as part of their company's digital transformation.

Innovative risk management practices continue to develop

The use of innovative technologies such as data analysis, data visualisation, process automation and artificial intelligence (AI) is increasing.

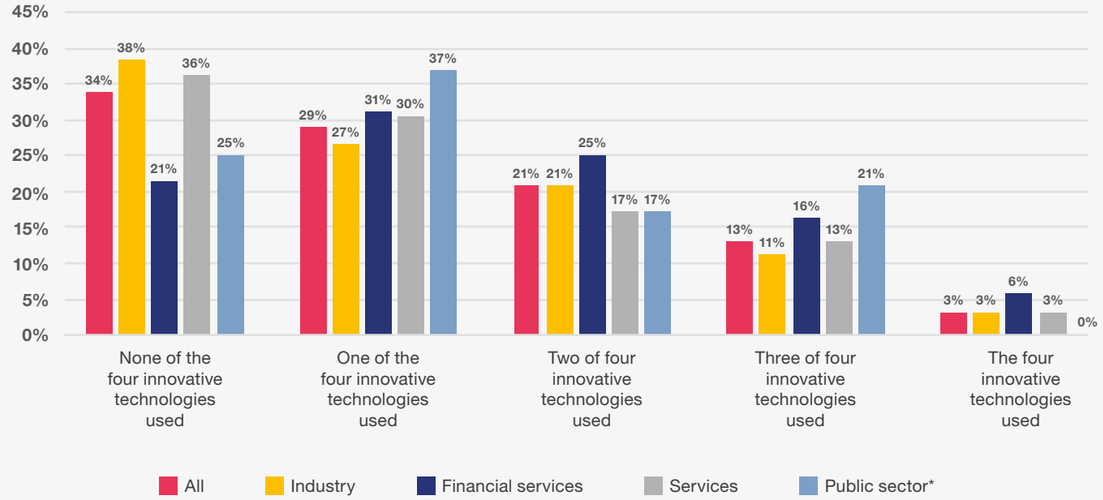
67% *of the risk managers interviewed use at least one of these four technologies.*

Such innovations make it possible for risk managers to manipulate large amounts of data, perform more analysis with larger samples and bring out increasingly useful information. Therefore, they can better appreciate how risks are interconnected and be more proactive and predictive.

The financial services sector is leading this digital transformation: 79% of respondents in this sector use at least one innovative technology compared to 64% in other services and 62% in industry.

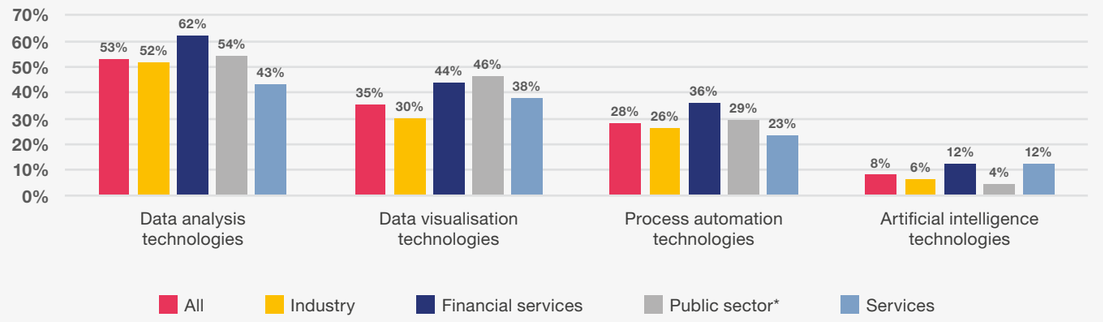
Yet, digital transformation is not universal. So far, 34% of the respondents bring none of the 4 technologies listed into their daily work.

Use of data analysis, data visualisation, process automation and artificial intelligence by sector of activity (1/2)



** Public sector is less representative as only 4% of respondents (refer to survey sample).*

Use of data analysis, data visualisation, process automation and artificial intelligence by sector of activity (2/2)



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In 2020, the main new technology used by risk managers to perform their risk / insurance activities is **data analysis** with 53%. This figure increased by 9% compared to 2018.

54% of risk managers have data analysis skills within their teams. In 21% of cases, the company calls on an external service provider to manage this task. For 17%, the analysis is carried out by the central corporate team support, and for 7%, the IT department oversees this new technology.

Data visualisation is the second most used technology with 35% of respondents. This is an increase of 20% compared to 2018. In Northern and Western Europe, 35% of the risk managers use data visualisation to perform their risk / insurance activities compared to 46% in Central and Eastern Europe.

Data visualisation is mostly used for the following purposes:

1. Continuous monitoring using risk indicators dashboard (60%)
2. Interactive risk mapping visualisation (45%)
3. Continuous monitoring using action plan dashboard (28%)

Process automation is used by 28% of the respondents, around 30% in Western and Central and Eastern Europe and 19% in Northern Europe.

48% of risk managers have process automation skills within their teams. For 20% of them, the analysis is carried out by the central corporate team support, for 16%, the IT department oversees this new technology, and for 16% the company calls on an external service provider to manage this aspect.

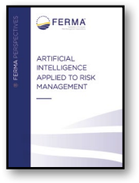
8% of risk managers are now using **AI technologies** and this figure is similar in all the geographical areas in Europe. The AI solutions used by risk managers and their teams are the following:

1. Algorithms (63%)
2. Machine learning (54%)
3. Text mining (15%)
4. Speech recognition (12%)
5. Visual recognition or computer vision techniques (12%)
6. Natural language processing (2%)

FERMA report: Artificial Intelligence (AI) Applied to Risk Management

This paper aims to guide risk managers on applying AI from a basic understanding to developing their own strategy on the implementation of AI. It includes an action guide and a template for risk managers to develop their own AI risk management roadmap.

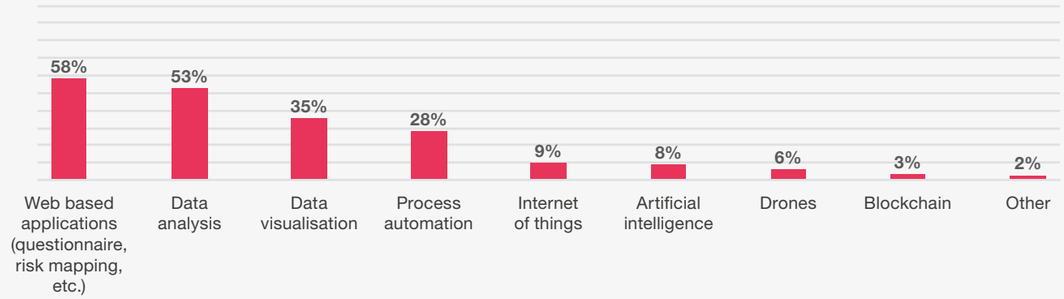
Source: https://www.ferma.eu/publication/artificial-intelligence-ai-applied-to-risk-management/



69% *of the risk managers using innovative technologies identified cyber threats as one of the most critical risks to their organisation's growth prospects.*

Yet, this development in the use of data is slow compared to global predictions. Risk managers face obstacles that currently limit their ability to take full advantage of digital transformation. The 2 most important of these obstacles are the **heavy investment it represents for the function** (for 55% of the respondents), and the **lack of perception of the added value for the function** (for 52%).

A large panel of technologies are used by risk managers to perform their activities



Most risk managers continue to use locally based IT tools, such as software for governance, risk management and compliance. The main applications are reporting activities such as risk registers, mapping and dashboards. Even if these uses still predominate, newer technologies such as blockchain, Internet of things and drones, are growing.

Risk management contributes to the digital transformation of organisations

As organisations face pressure to innovate, a considerable number of risk managers are helping them to manage risk exposures from new initiatives before adoption and to strike the right balance between risk and reward.

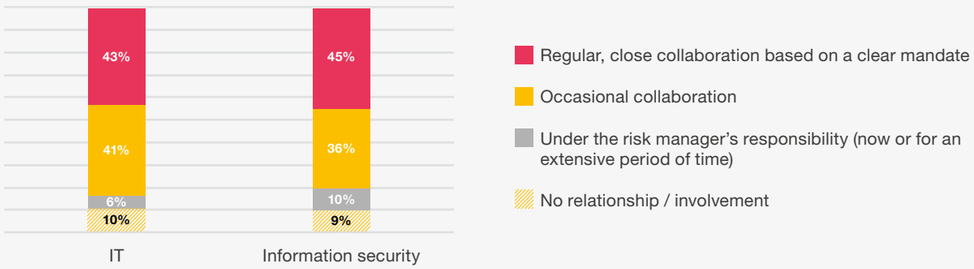
The proportion of risk managers helping their organisation by identifying and assessing the risks prior to adoption of new technologies is stable (37% in 2018 and in 2020). Slightly more risk managers help with the identification and assessment of emerging technologies used by the business (39% in 2020 vs 36% in 2018)

How do you deal with risks arising from emerging technologies?

To help manage those risks, risk managers maintain a stable and high level of collaboration with IT (43% have close collaboration and 6% have the activity within their team) and information security teams (45% of them have close collaboration and 10% have the activity within their team).

The detail and level of interactions between risk managers and other functions is described in part V.

Risk managers' interactions with IT and information security teams



"Digital transformation is taking place in all companies across all sectors of the economy. The Covid-19 crisis has emphasised and extended this development to an unexpected level from which there will be no turning back. More than ever, risk managers have a leading role in promoting a risk approach to anticipating scenarios of exposure to cyber risks when this crisis is overcome."

Philippe Cotelle, Head of Insurance Risk Management at Airbus Defence and Space and FERMA Board member

Focus on cyber threats

Cyber risks are the first concern for risk managers in 2020, increasing by 30% since 2018. The 2018 FERMA Survey showed that digital risks, especially cyber risks and data protection, were already a top priority for risk managers. In the 2020 survey, they are the top concern in all sectors. **Data fraud / theft** entered the top 5 this year, while the risk managers interviewed ranked risks from the **speed of technological change** at number 7.

Cyber threats are the 1st concern in 2020 for risk management regardless of the sector of activity.

Sector of activity	Cyber threats ranking 2018	Cyber threats ranking 2020
Industry	3	1
Financial services	2	1
Services	1	1
Public sector*	2	1

** Public sector is less representative as only 4% of respondents (refer to survey sample).*

The Covid-19 pandemic directly aggravated the cyber threat. Many attacks occurred from the beginning of the crisis, challenging organisations with the need to face more than one systemic risk at the same time.

FERMA / ECIIA report: At the junction of corporate governance & cybersecurity

FERMA and the European internal auditors' organisation ECIIA published a second edition of their guidance for corporate governance and cyber security. The report offers European companies a cyber-governance model and the latest edition includes a case study showing the model in operation.

Source: https://www.ferma.eu/update-ferma-eciia-cyber-risk-governance-report