

Transforming the financial services and banking sector with advanced technologies

Sectoral Watch: Technological trends in the financial services and the banking sector

The role of the financial services and banking sector

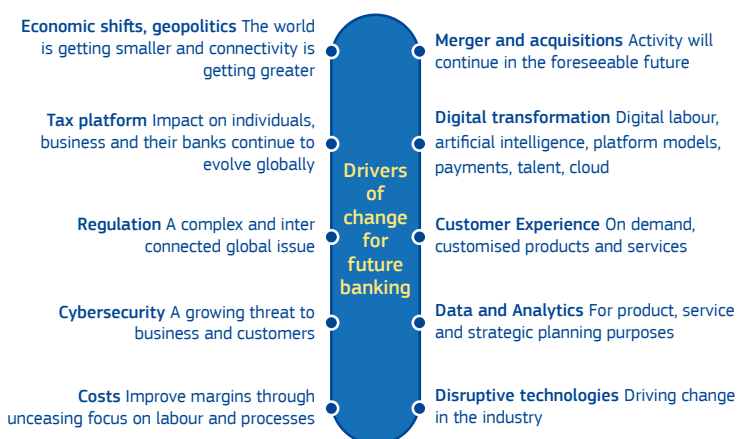
Significant changes over the last few decades, including a global financial crisis, had their impact on the financial services and banking sector. This is visible in recent patterns of employment. Various developments, including digitalisation, have led to an overall decline in employment.

Number of employees in credit institutions Europe (in millions, EU28)



Source: European Banking Federation, 2019

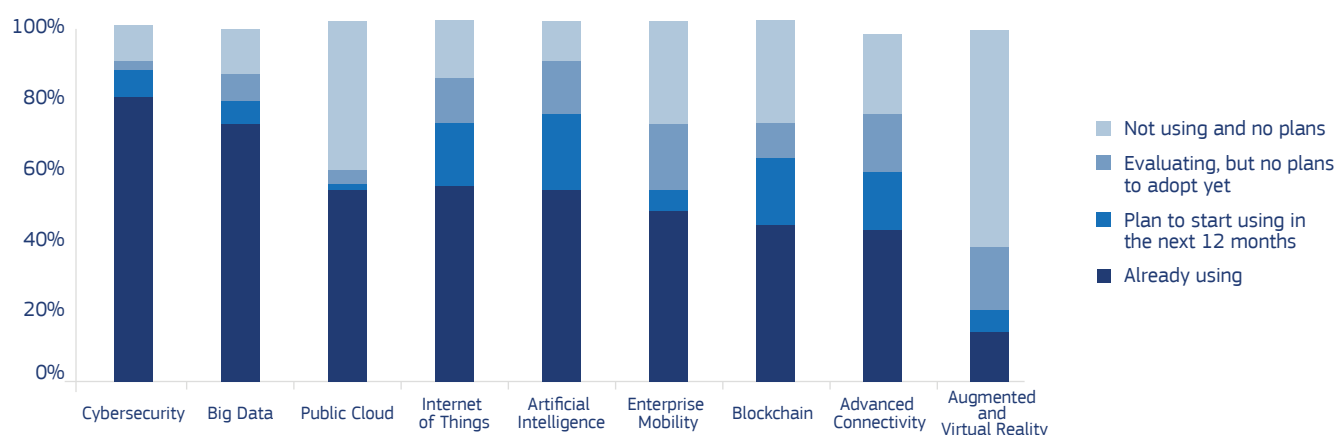
Industrial recovery of the Covid-19 pandemic will be based on advanced and disruptive technologies. Artificial Intelligence (AI), Blockchain and Robotic process automation can enhance overall sectoral performance. Digitalisation is expected to further shift labour demand and will require reskilling the banking workforce.



The adoption of advanced technologies will decrease operational costs and improve customer experience within the financial services and banking sector

AI is the main driver for cost savings, Blockchain opts to reduce costs, fasten transactions, improve security, and improve data quality. The implementation of Robotic process automation will lead to reduced labour costs and minimalisation of errors.

Advanced technology uptake in the financial sector, 2019



Source: ATI Survey, 2019

The adoption of advanced technologies rises new cybersecurity threats and new ways to counter cybercrime:



Threats: AI and machine learning are proven successful in fighting cyberattacks, adopting innovative cybersecurity solutions to prevent incidents and trace, mitigate and resolve cybercrime

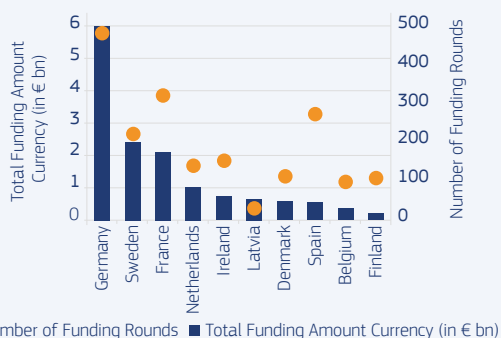


Opportunities: increased usage of mobile apps, breaches at third-party organisations and increased risk of cryptocurrency hacks

A small number of FinTech firms receives half of the venture capital (VC) investments and most startups focus on financial software and internet solutions

Germany has attracted the largest VC investment in FinTech, followed by Sweden and France. Half of the investment went into ten FinTech firms from the three countries mentioned above and Ireland, Netherlands and Latvia.

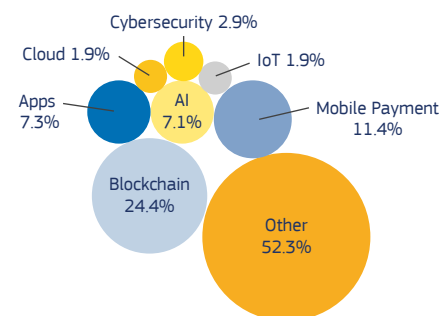
VC investment in FinTech, 2000-2020



Source: Technopolis analysis based on Crunchbase and Dealroom data

Most startups focus on financial software and internet solutions (over 50%). 24% of FinTech startups focus on Blockchain, cryptocurrency or bitcoin. Financial apps and mobile payment solutions also receive high interest from startups. AI and machine learning are topic within 7% of FinTech startups.

Types of startups per category (2015-2020)

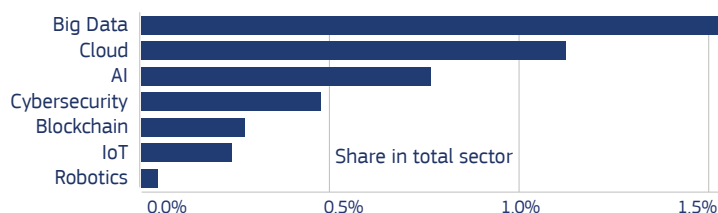


Source: Technopolis analysis based on Crunchbase and Dealroom data

Technological skills that improve customer services are of increasing importance in an increased growing financial services and banking sector, facing both advantages and disadvantages of new technologies

There is a high demand for professionals with advanced technology skills within the financial services and banking sector. Emerging technological skills aimed at improving customer services are rapidly gaining importance. Top skills include programming, analytics, client management and soft skills such as team spirit and creativity.

Share of professionals with advanced technological skills in the financial services and banking sector, EU27, 2020



Source: Technopolis Group based on LinkedIn analysis



Challenges: Rapid development and implementation of new technologies is expected to cause more sophisticated cyberattacks. Due to the COVID-19 pandemic, the importance of cybersecurity has been emphasised, turning cybersecurity into a top priority both in the short and long term.



Opportunities: The global FinTech market is anticipated to grow around 20% annually. Key reason for this growth is the high investment in technology-based solutions by banks and firms. Infrastructure-based technology and Application Programming Interfaces support the growth.

About the Advanced Technologies for Industry (ATI) project

The ATI project – funded by the European Commission – supports the **implementation** of Europe's new growth strategy with a systematic monitoring of **technological trends** and reliable, **up-to-date data** on advanced technologies.



The **Sectoral Watch** analyses trends in the generation and uptake of advanced technologies, related entrepreneurial activities and skills needs in a number of selected sectors. It interprets data from a list of data sources compiled to monitor advanced technologies and their applications in industry across Europe and key competitor economies. It allows policy makers, industries and intermediaries to contextualise the collected data on advanced technologies specific for the industries in focus.

For more information, read the full Sectoral Watch report on Technological trends in the financial services and the banking sector here:

<https://ati.ec.europa.eu/reports/sectoral-watch/technological-trends-financial-services-and-banking-sector>



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