

FINANCIAL TECHNOLOGY

Ensuring diverse, stable and reliable financial services for all



IMPROVING CUSTOMER EXPERIENCES

Technology is an irreplaceable asset in the business of finance. For centuries, banks have continually found new ways to create better customer experiences and streamline operational processes along many business lines. Banks have become both a provider of technology as well as a user, integrating advanced tools to improve the financial services offered to its clients. But, just as bakeries are not the only ones baking bread, banks will not be the only ones offering banking services.

The story of financial technology is one that touches upon a social dimension, regulation and business. In the end, Europe needs a financial sector that is diverse, stable, secure and accessible for all its citizens. Embedding technology consciously and smartly in existing regulatory frameworks is the perfect formula to achieve this end.



“ Making your bank a digital animal is not optional anymore, it is the new norm in the financial sector. Banks but also newcomers are innovating rapidly, all meant to create the type of financial services that modern European consumers and businesses need and want to rely on. The more innovation we see the more important education and regulation are becoming. ”

Wim Mijs
Chief Executive Officer of
the European Banking Federation

What is FinTech?

FinTech stands for *financial technology*. In other words: computer programs used to support or enable banking and financial services. It describes all digital technology solutions, from software to hardware, that change or improve traditional financial processes.

Biometrics & e-ID

1.9 BILLION BANK CUSTOMERS

will use biometrics and e-identification to access financial services by the end of 2020.¹

Mobile banking

3 BILLION BANK CUSTOMERS

will be able to access retail banking services through their smartphones, tablets, PCs and smartwatches by 2021.²

¹Biometrics for Banking: Market & Technology Analysis, Adoption Strategies & Forecasts 2018-2023. Goode Intelligence. www.goodeintelligence.com/report/biometrics-for-banking-market-technology-analysis-adoption-strategies-forecasts-2018-2023/
²Digital Banking Benchmark, Deloitte. www2.deloitte.com/content/dam/Deloitte/lu/Documents/financial-services/Banking/lu-digital-banking-benchmark.pdf

The regulatory ecosystem for financial services



FOSTERING SECURE INNOVATION

Rapid change in business also requires continuous upgrades in regulation. That requires a fresh view from regulators. Creating a future-proof regulatory environment in financial services has become more important than ever. Technological developments offer new opportunities but also pose risks.

Working with its members, the EBF shares the best industry insights with stakeholders to help guide them towards better and conducive regulation.



“ Digital technologies have an impact on our whole economy and society. Many technologies like blockchain and artificial intelligence can be game changers for financial services and beyond. We need to build an enabling framework to let innovation flourish, while managing risks and protecting consumers. ”

Mariya Gabriel
European Commissioner for the Digital Economy and Society

THE PROMISE OF OPEN BANKING

With close to 400 million cashless payment transactions per day, the European payments infrastructure is the engine of financial services, but also a unique global example where cross-border payments are easy.

The revised Payments Services Directive (PSD2) marks the start of a new ecosystem, giving third parties access to customer data, and allowing them to offer new services, such as letting online shoppers share their bank balance and pay directly from their account.

SEPA Instant Credit Transfer already lets payment service providers in Europe transfer and receive payments in real time with maximum of ten seconds for a bank transfer up to €15,000, 24/7.³

Offering more choices to the consumer through APIs

An API, or Application Programming Interface, is a set of functions which access the features or data of an operating system, application, or other service. In other words, it lets different apps talk with each other. Well-known API examples include travel websites using the APIs of airlines to compare prices or the process of connecting a social media account to another online service.

For digital financial services, the opportunities are promising: by connecting financial and online services securely, banks can offer even richer products.

MORE THAN 1,500 banking APIs are available for third parties to use.⁴



³ SEPA Instant Credit Transfer, European Payments Council. www.europeanpaymentscouncil.eu/what-we-do/sepa-instant-credit-transfer
⁴ The Brave New World of Open Banking, Accenture. www.accenture.com/_acnmedia/PDF-77/Accenture-Brave-New-World-Open-Banking.pdf

BETTER AND PERSONALISED SERVICES

Next generation finance is driven by digital data. In the past, financial data consisted mainly of stacks of paper and the only valuable documents were stored physically. The majority of data is now managed totally digitally and needs to be stored securely on hard drives, on servers or in the cloud. Today, the data that fuels and improves financial services is more than just numbers. When applying for a mortgage at your bank, it's not only your salary that matters. Data points that define your unique situation can give you a personalised service.

The banking industry is leading the growth in big data and business analytics services, whose revenues will surpass €180 billion by 2020. Banks are embracing data scientists and integrating advanced tools running on artificial intelligence and cloud computing to structure data more efficiently. Services that are enhanced and benefit from data analytics are endless. Think of lending, saving, investing, compliance, fraud monitoring, due diligence, know-your-customer, anti-money laundering, credit scoring and payments.

We know one thing for sure: as data flows are getting a more crucial role in the financial system and beyond, consumers need to be conscious of data use and protect their data where needed.



BY 2020

The value of personal data will be **€1 trillion or 8%** of the EU's GDP



RAMPING UP CYBERSECURITY

Programming skills have replaced the guns of bank robbers, but the danger is no less. Increased interconnectedness between new and expanding systems requires extra alertness on vulnerabilities, as cyber criminals are investing heavily in advanced technology and are constantly trying to find weak spots in the banking system. Many will agree that cyber threats are the single and most important risk to financial services today. Fortunately, banks are not unfamiliar with protecting valuable assets. New technologies such as artificial intelligence and cryptography will be key in preventing cyberattacks, but also education and public awareness are crucial to keep the system safe and protect all of our money.

Strengthening cyber and data security is the **#1 priority** for banks around the world.

There is much at risk. Recent studies show that potential annual losses from cyberattacks in the financial sector could be as much as €100 billion. That amounts to around 9% of banks' net income. In the first quarter of 2018, cyber attacks on digital transactions were up 30% compared to 2017.⁵



The time is now to prepare, as 69% of European companies lack basic knowledge about their exposure to cyberattacks despite 80% of them having suffered some type of cyber-incident in the past year.

1 email attachment containing malware sent to bank employees gave the infamous Carbanak gang control over ATM software, allowing more than **€1 billion** to be stolen from more than **100 financial institutions** across **40 countries**.⁶



⁵ Estimating Cyber Risk for the Financial Sector, International Monetary Fund. blogs.imf.org/2018/06/22/estimating-cyber-risk-for-the-financial-sector
⁶ Mastermind Behind EUR 1 Billion Cyber Bank Robbery Arrested in Spain, Europol. www.europol.europa.eu/newsroom/news/mastermind-behind-eur-1-billion-cyber-bank-robbery-arrested-in-spain

BLOCKCHAIN: HYPE OR REVOLUTION?

Blockchain is a type of distributed ledger, or database, that is shared across a network. All individual transactions are stored in groups, or blocks, which are linked to each other in chronological order to create a long chain. This long chain is put together using a mathematical formula – using cryptography – which ensures an extra layer of security and integrity of the data stored in the blocks.

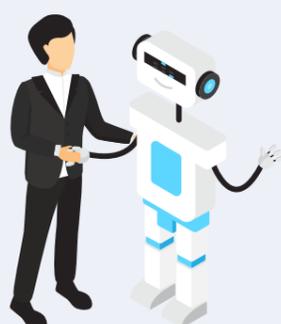
WILL YOUR BANKER BECOME A ROBOT?

Automation is no stranger in the financial industry. Artificial intelligence (AI) is the next step, and AI-solutions are already behind many processes without clients even knowing it.

Blockchain has a huge potential to speed up specific data or asset transactions in a secure way. Not only in finance but also in health care and government services.

AI is also used to improve the profiling of customers, streamlining data analytics and making decisions. AI is expected to have an impact on human interference in the financial sector. But, instead of the argued employment job cuts due to the rise of AI, the forecasts on employment are actually very positive as the need for new skills also increases.

- €1,8 BILLION** Global blockchain spending in 2018 ⁷
- €1,5 BILLION** Annual financial services blockchain spending ⁸
- €2 TRILLION** Business value of blockchain by 2030 ⁹



Cloud

Banks around the world use cloud computing to make their IT systems more reliable, meet their client needs and speed up the pace of innovation.

Chatbots

Banks are already using AI to interact with customers. Chatbots answer questions without the need of a human employee.

77% of banks plan to use AI to automate tasks in the next three years.¹⁰

⁷ New IDC Spending Guide Sees Worldwide Blockchain Spending Growing to \$9.7 Billion in 2021, International Data Corporation (IDC). www.idc.com/getdoc.jsp?containerId=prUS43526618
⁸ Financial Services Industry Spends \$1.7B Per Year on Blockchain, Greenwich Associates. www.greenwich.com/press-release/financial-service-industry-spends-1.7b-year-blockchain
⁹ Blockchain Vertical Opportunities Report - 2018, IHS Markit. technology.ihs.com/597023/blockchain-vertical-opportunities-report-2018
¹⁰ 2018 AI predictions: 8 insights to shape business strategy, PwC. www.pwc.es/es/publicaciones/tecnologia/assets/ai-predictions-2018.pdf