

# The History and Trends of **Fintech** in the DACH Region

How financial technology has developed in German-speaking countries, what it looks like now and where it is heading



# Contents

<b>Introduction</b>	<b>1</b>
<b>What Is Fintech</b>	<b>2</b>
<b>History of Fintech in DACH Countries</b>	
Germany	3–8
Switzerland	9–13
Austria	14–15
<b>General DACH Fintech Overview</b>	<b>16–17</b>
<b>How Forecasts and Expectations for Fintech Have Played Out</b>	<b>18–19</b>
<b>Fintech Development Trends and Factors</b>	
Key Drivers	20–22
Main Challenges	23–24
<b>Latest Forecasts and Expectations</b>	
Germany	25–26
Austria	27
Switzerland	27
<b>Conclusion</b>	<b>28</b>
<b>About Elinext</b>	<b>29</b>
<b>References</b>	<b>30–32</b>

# Introduction

Financial services have changed enormously in the past decades. This has affected the way people pay for products and services, send money to their family, buy stocks and save. It has affected people wherever they may live, and German-speaking countries are no exception.



**Germany, Austria and Switzerland**, also known as **DACH countries**, are often seen as the most conservative in their approach to finances. And so they are. People in those countries tend to question innovation in finance and won't give up their cash-based habits easily.

However, the change is like an avalanche. You can resist it as much as you want to, but you can't stop it. That avalanche hit the DACH region the hardest during the COVID-19 pandemic, when social distancing rules made cashless and remote payments the new norm.



**1 So did German-speaking societies embrace the change?**

**2 When did financial technology (fintech) emerge in the DACH region?**

**3 How has it been developing?**

This white paper answers those and other fintech-related questions about the region.

There aren't many studies providing a fintech overview for DACH as a whole, so we had to look at separate sources for Germany, Austria and Switzerland. Most studies we have found are dedicated to the German and Swiss markets, while the information on Austrian fintech is lacking.

Given the heterogeneity of sources, **this overview should not be considered a comparative study of the three countries**. Instead, it should help you understand the specifics of each country and the things they have in common.

# What Is Fintech

Fintech is simply an abbreviation for financial technology. The term is used to describe **software and digital services such as payments, crowdfunding, investing, insurance and others.**

Prof. Dr. Gregor Dorfleitner, Jun. and Prof. Dr. Lars Hornuf suggested a classification of fintech services in their 2016 report *The FinTech Market in Germany*. Here is what the map of fintech looks like based on their report. [1]

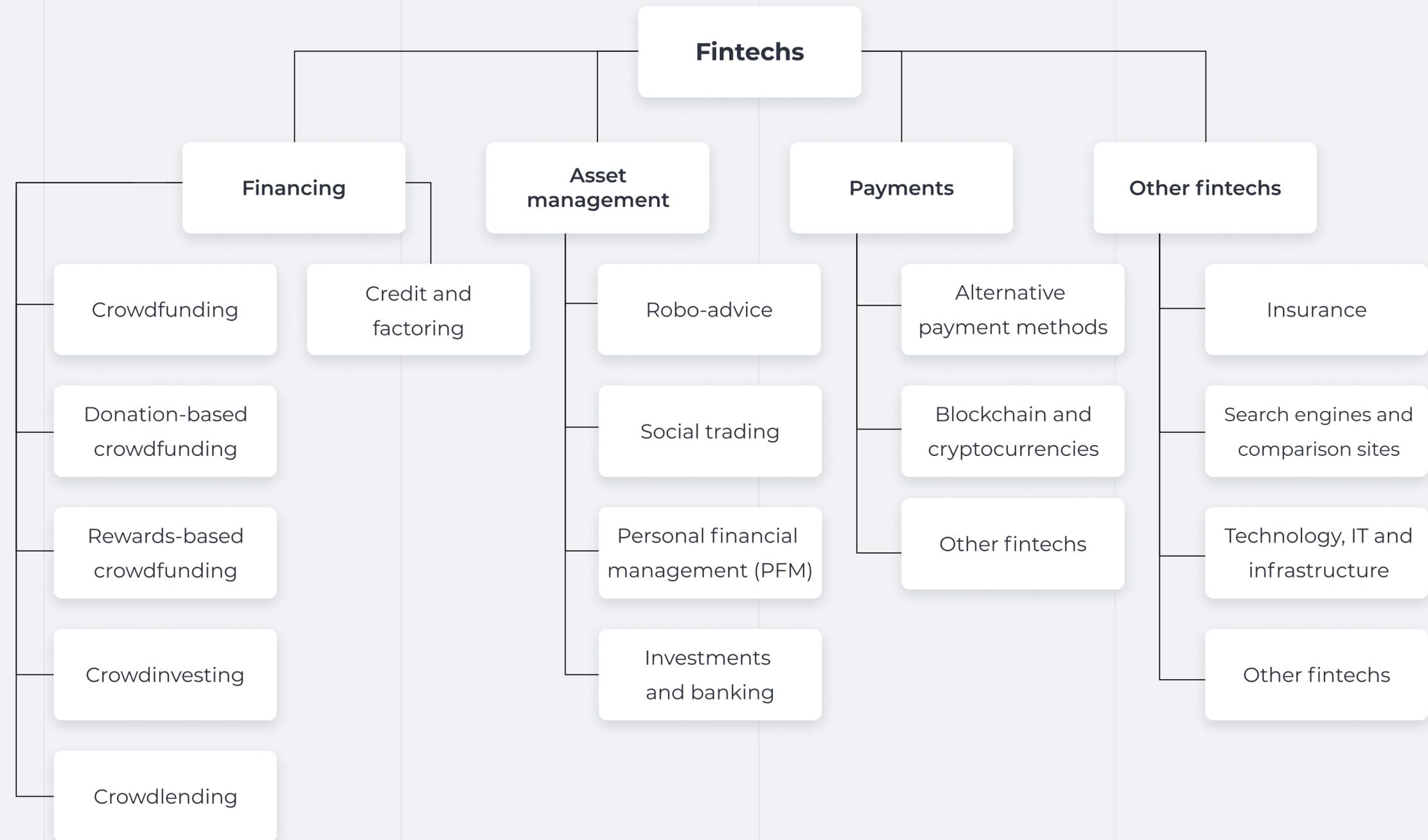


Figure 1: Fintech service map

# History of Fintech in DACH Countries

**NOTE:** Different sources use different measuring methods, and numbers can vary widely. Take investments in German fintech in 2015. Accenture evaluates this at \$770 million [6], KPMG at \$106 million [7], and Barkow Consulting at €455 million [8].

For this whitepaper, we chose to draw on data from Barkow Consulting and Comdirect Bank for Germany. Their numbers are often somewhere in the middle of other evaluations and often appear in German-language sources.



## Germany

### The 1990s

First attempts to create digital financial services in Germany date back to the late 1990s, when the dot-com bubble was about to burst.

This is when the notorious Wirecard company was founded — to become the world’s biggest fintech scandal more than 20 years later.

### The 2000s

Researchers name the **late 2000s as the period when fintech really began to emerge in Germany.** According to a 2019 study by Haddad and Hornuf, this emergence was triggered by recent financial crises. [2] As a result of the crises, traditional banks lost people’s trust and it became difficult for companies to get funds the old way.

A new solution was required, and fintech provided it.

The digitization of financial services made the **number of banks in Germany fall from 3006 to 1774.** [3]



# Germany



## The 2010s

From 2011 to 2019

**233**

German fintechs shut down, according to PwC's Cooperation Radar.

2013 and 2014

Further, 2013 and 2014 saw many new companies inspired by the hype on the market. Most of those startups were not prepared for the competition they would face.

Between 2017 and 2019

**175**

As a result, about of them shut down [4].

In 2014

Germany was lagging behind other European countries in fintech investments. Accenture reported that German companies in this sector raised \$82 million that year. Compare that to \$306 million raised by Dutch fintechs, \$345 million in the Baltic region and \$623 million in the UK and Ireland. [5]

 Germany **\$82 million**

 Dutch fintechs **\$306 million**

   Baltic region **\$345 million**

  UK and Ireland **\$623 million**

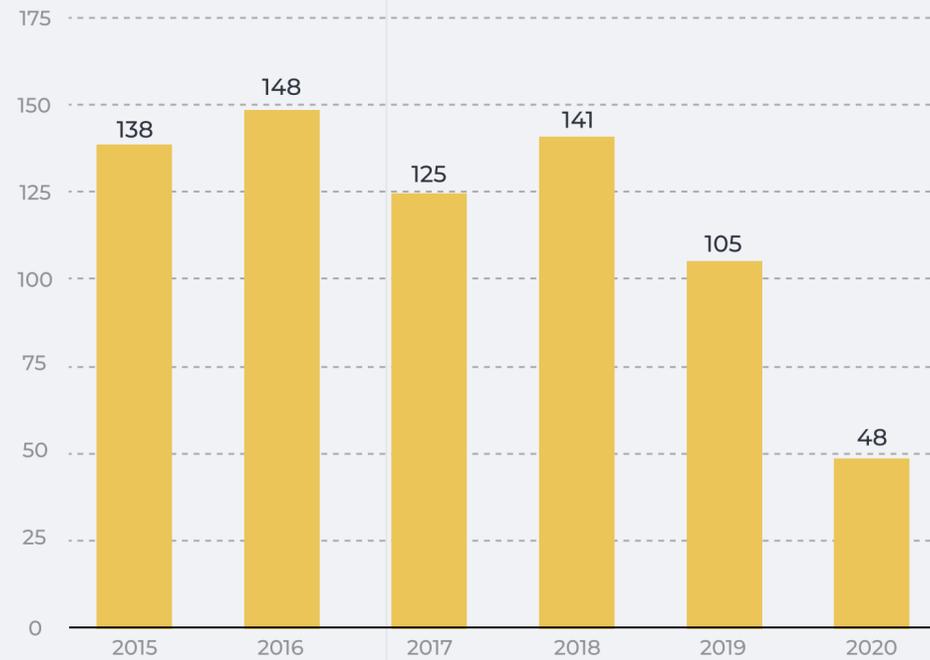


Figure 2: Number of fintech startups founded in Germany from 2007 to 2020 [10]



Figure 3: Venture capital investments in fintechs in Germany from 2015 to January 2021 (in €M) [8] [11]

## The 2020s

### wirecard

2020 delivered a huge blow to the German fintech scene. And it's not the coronavirus to blame.

One of the first and most successful German fintechs, Wirecard, was caught laundering money and lying about its assets since 2014. **Investigators found that €1.9 billion the company claimed to have were missing.**

As a result, the company's valuation slumped from more than \$28 billion to a little over \$3 billion. It filed for insolvency and its CEO Markus Braun had to step down and was arrested shortly thereafter.

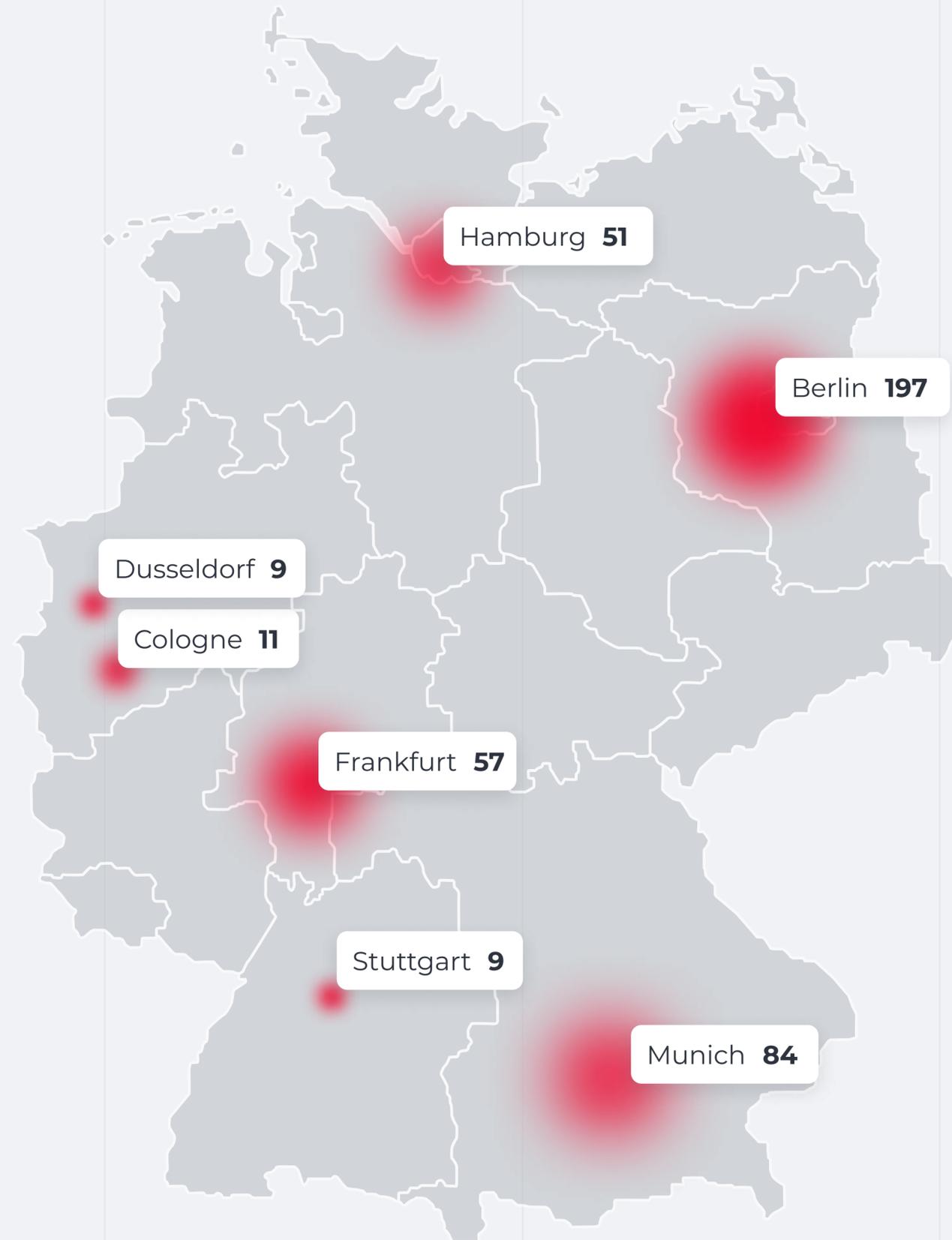
The Wirecard scandal might have undermined investor confidence in the sector. In 2019, German fintechs raised €1.755 billion, a figure that fell to €1.38 billion in 2020. The number of new companies was reduced by half, from 105 to 48.

If the downtrend for fintech foundations in Germany has been seen since 2018 (Fig. 2), investment volumes grew steadily up until 2020 (Fig. 3). However, the global amount of investment in fintechs in 2020 shrank too, according to Innovate Finance, an independent UK organization for research and development of fintech. [9]

# General Overview

Four cities have become home to half of all German fintech companies: **Berlin, Munich, Frankfurt and Hamburg.**

Figure 4: Fintech distribution across Germany [12]



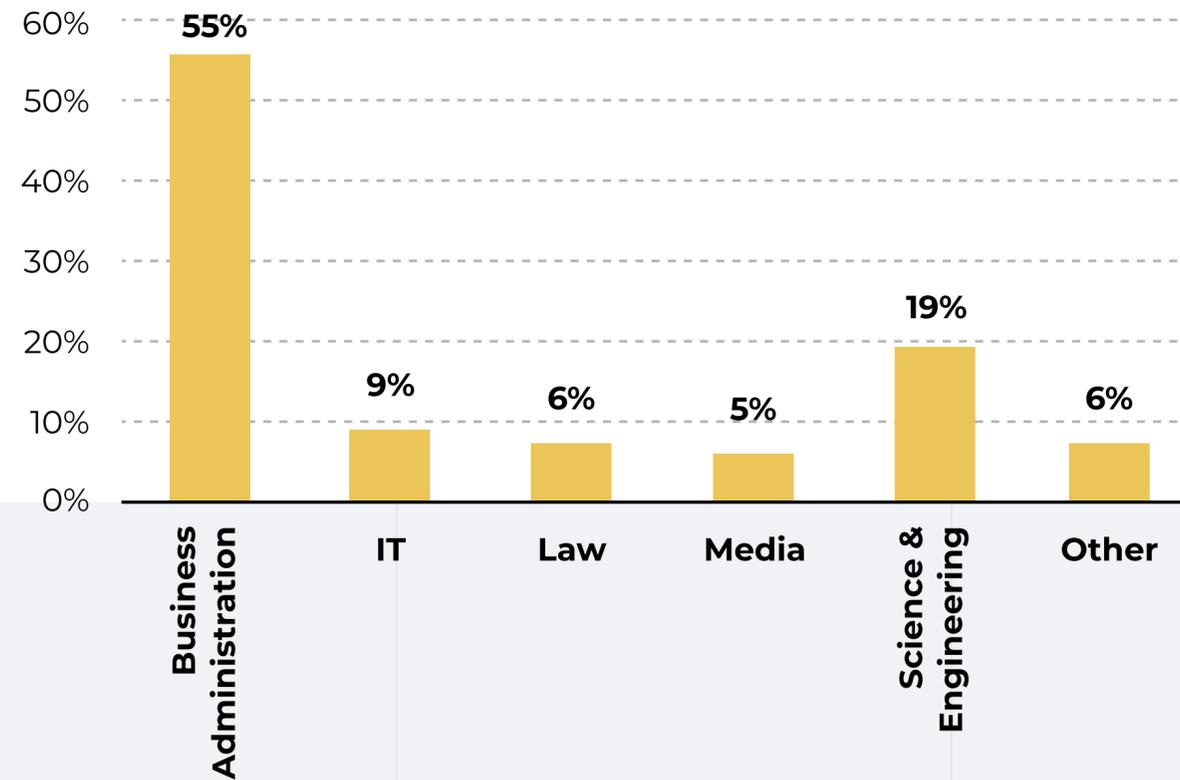


Figure 5: Educational background of fintech founders (in %), N = 422 [13]

German fintech founders have diverse backgrounds: 542 of those evaluated by Hornuf and Brandl [13] studied at 169 universities. Most of them have a degree in **business administration**, followed by science and engineering (Fig. 5).

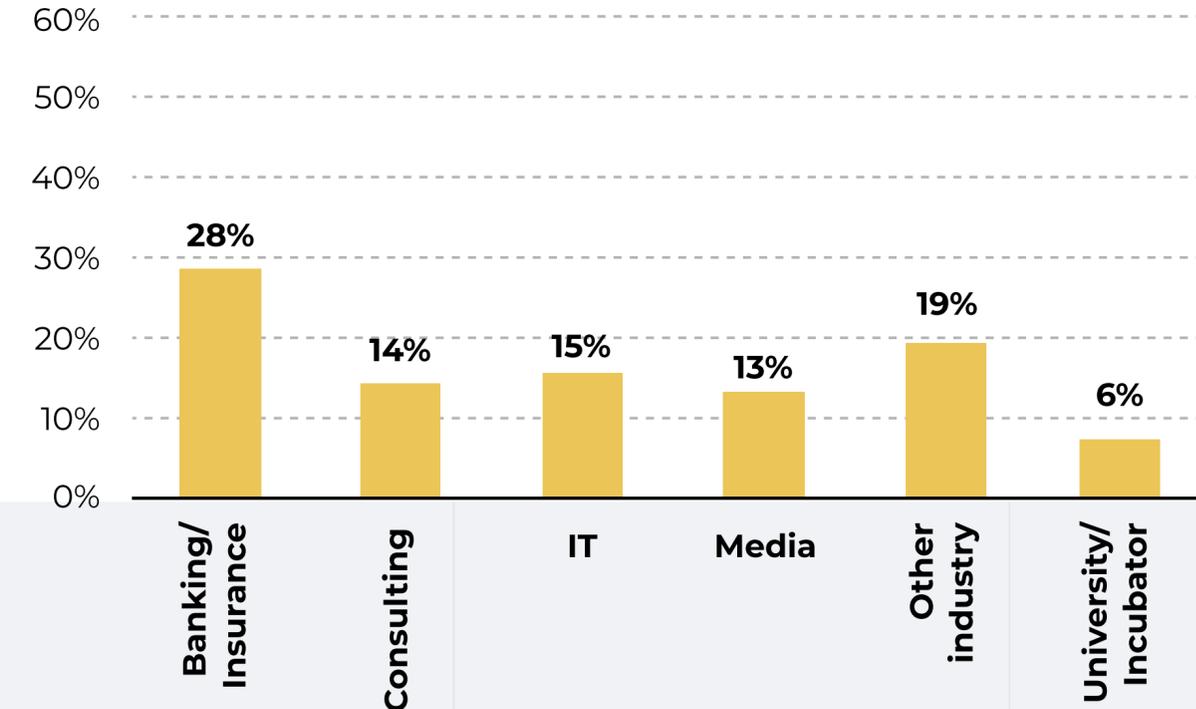


Figure 6: Former industries of fintech founders (in%), N = 450

As for careers prior to founding fintech companies, only 28% of founders worked in banking and insurance. Meanwhile, 24% gained experience in sectors other than banking, IT, consulting, media and university projects (Fig. 6).

# Trade Associations

Fintechs in Germany are represented by **5** trade associations founded in different periods.

Founded	Association
2012	Fintech platform of the Federal Association of German Start-ups
2017	German Blockchain Association
1999	The German IT Association (Bitkom)
1952	Association of German Banks
2015	German Crowdfunding Association

## Key Players



 **Switzerland**



**The 2000s**

In Switzerland, the fintech scene began to emerge at about the same time as in Germany.

2010

 **QUMRAM** One of its most successful representatives, Qumram was founded in 2010. The platform helped with compliance, fighting fraud and improving customer experience. In 2017, it was acquired by the US technology giant Dynatrace.

**The 2010s**

2015

According to the 2021 *Fintech Study* by the Institute of Financial Services Zug, **most of the leading Swiss fintechs emerged in 2015** (56 companies).

That year is followed by 2016 (44 companies) and 2012 (40 companies). After 2015, the number of new fintechs declined each year (Fig. 7 and 8). [\[14\]](#)

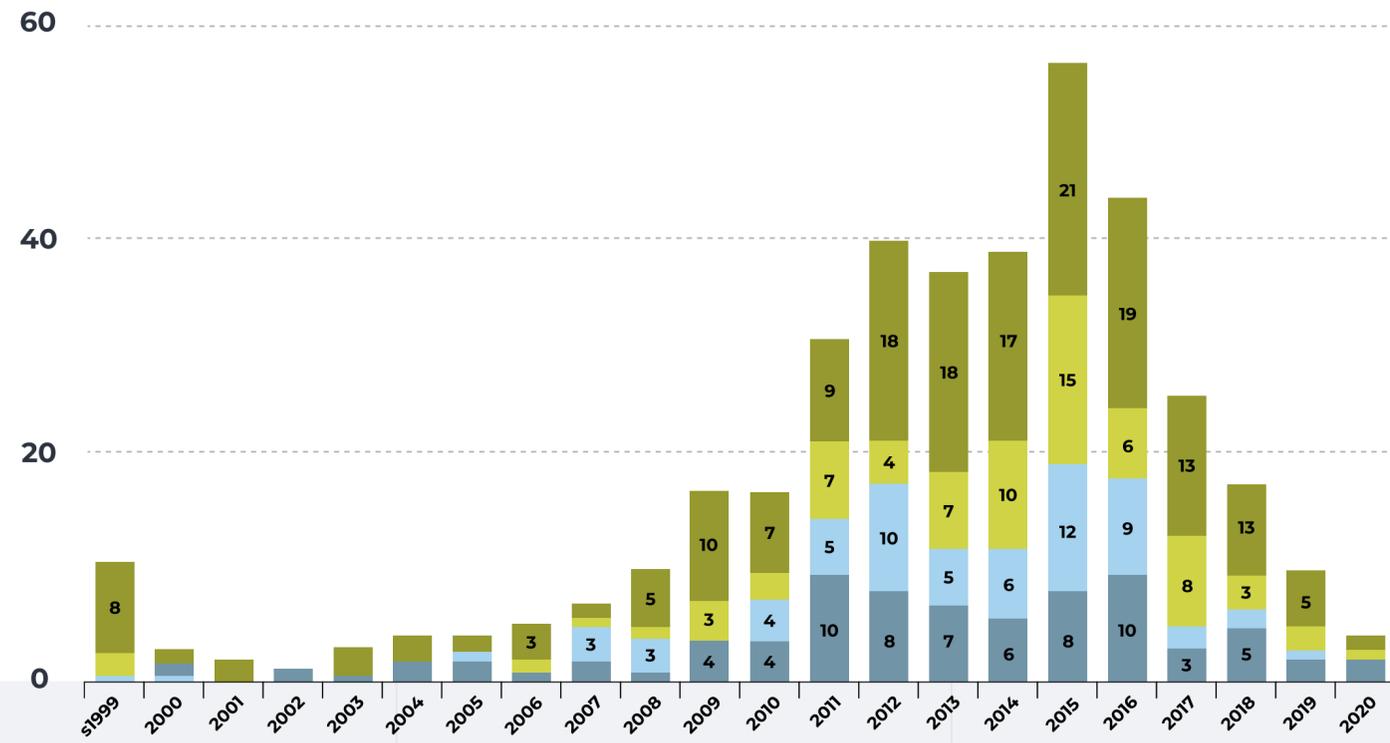


Figure 7: Number of leading fintech company incorporations in Switzerland per year by product, N = 389 [14]

- Banking infrastructure
- Payment
- Deposit and lending
- Investment management

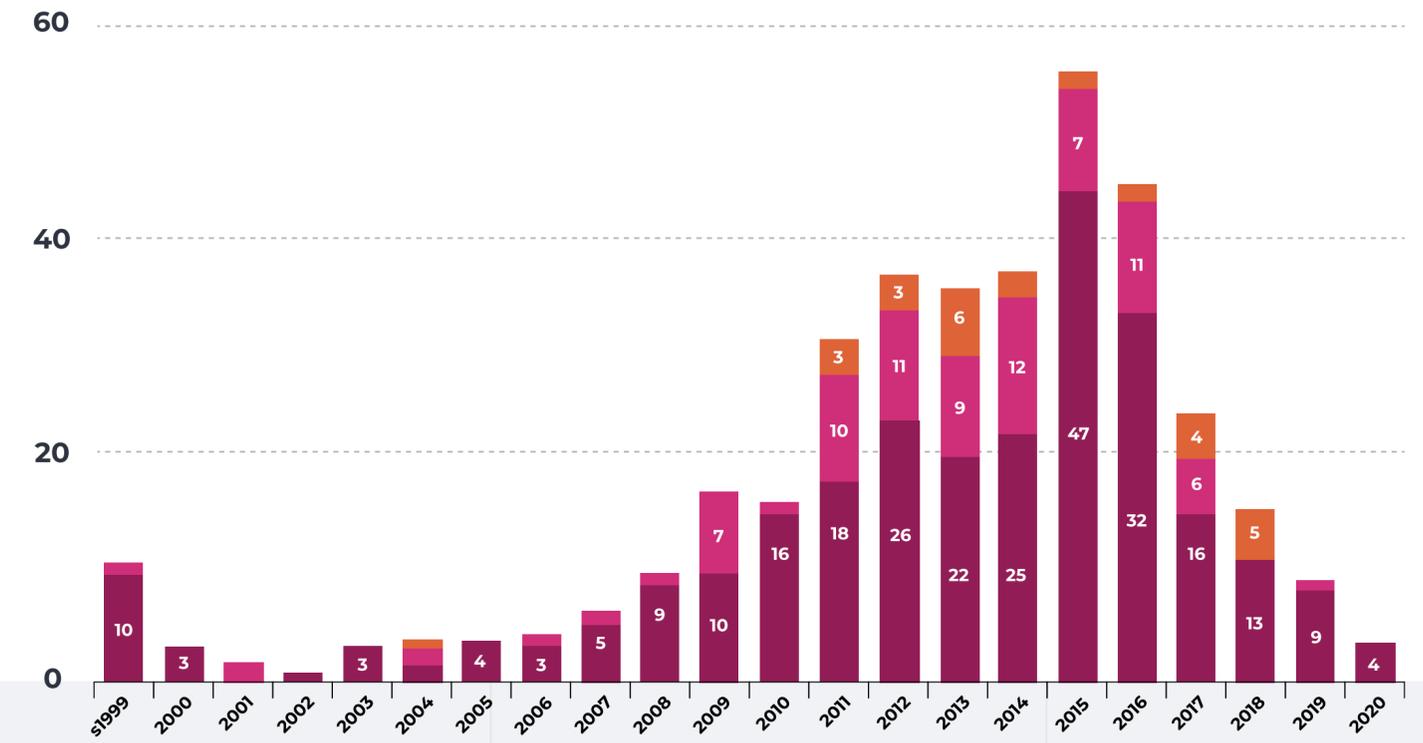


Figure 8: Number of leading fintech company incorporations in Switzerland per year by technology, N = 389 [14]

- Distributed ledger technology
- Analytics/big data/artificial intelligence
- Process digitization/automatization/robotics

Figure 9:  
Venture capital invested in Swiss fintechs per year by the number of rounds [14]

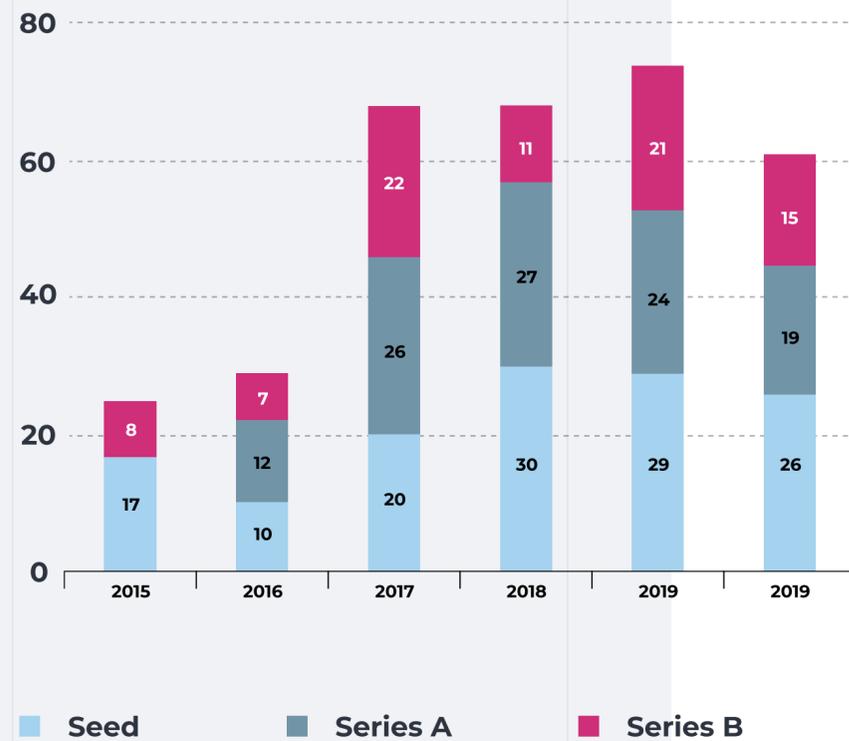
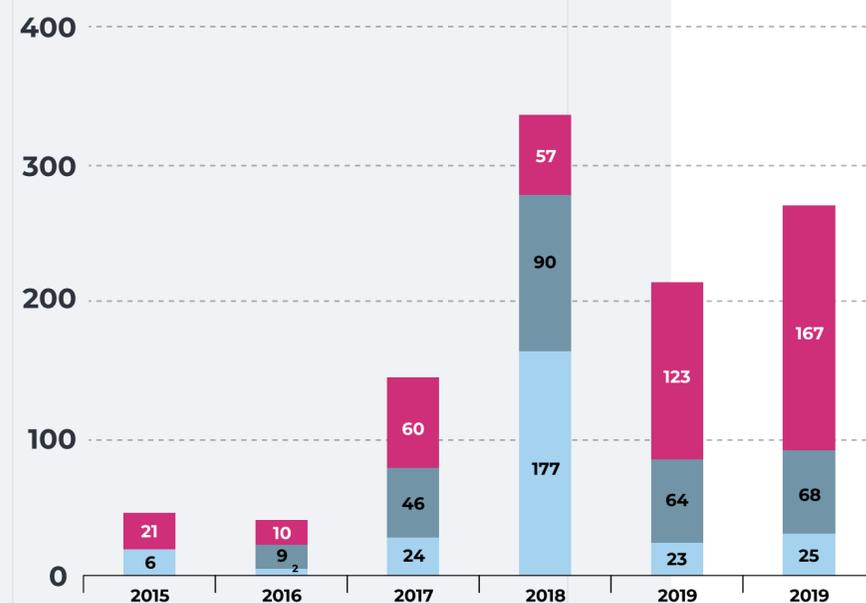


Figure 10:  
Venture capital invested in Swiss fintechs per year by volume [14]



The key word here is *leading*. The source specifically points out that “it may be difficult for a recently incorporated company to be labeled as an industry leader.”

Overall, there were **405** Swiss fintechs in 2020, up by 6% compared to 2019 and 150% compared to 2015.

- 2017 ■ In 2017, investments in Swiss fintech boomed, reaching over CHF 125 million. Some national banking rules were relaxed that year, facilitating alternative finance models and activities like sandbox exemption and settlement account exemptions.
- 2018 ■ As a result, 2018 saw the largest amount of funds raised by Swiss fintechs ever: more than CHF 300 million.
- 2018 ■ The banking law liberalization process continued in 2019 with the introduction of the fintech license, allowing companies to accept up to CHF 100 million in public deposits. That measure further fueled the growth, and Swiss fintechs raised more funds in 2020 than in 2019 (Fig. 10).

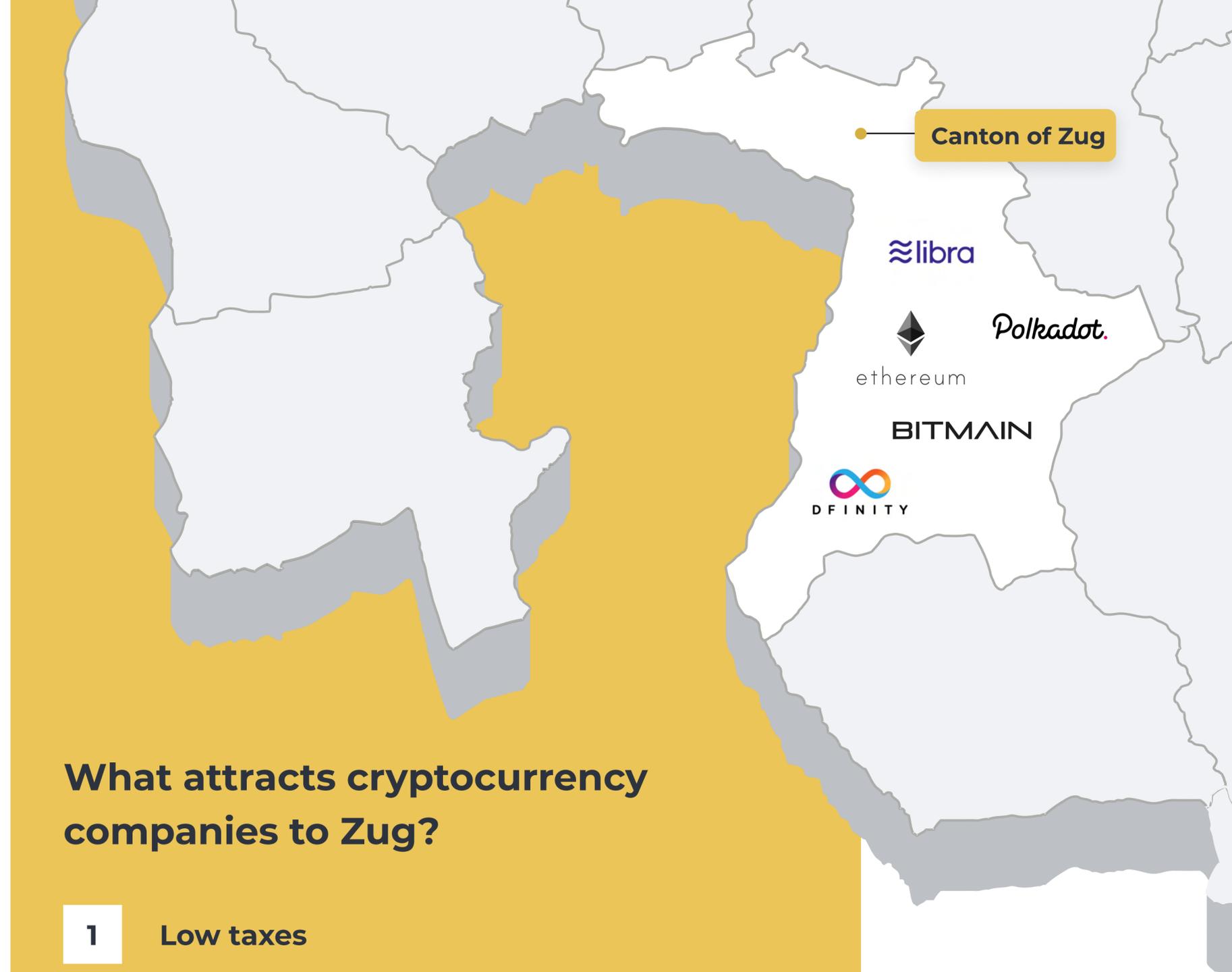
# Crypto Valley

Cryptocurrencies are the most developed sector of fintech in Switzerland. Most companies working in that sector reside in the city and canton of Zug. Those include Ethereum, Dfinity, Polkadot, Bitmain, Libra and many more. In fact, Zug is often referred to as the Crypto Valley, a term coined by one of Ethereum's founders, Mihai Alisie.

In 2017, the Crypto Valley Association was formed with the support of the government. It helps cryptocurrency companies comply with regulations, promotes research and organizes events like conferences, hackathons and others.

## What attracts cryptocurrency companies to Zug?

- 1 Low taxes
- 2 Openness for innovation
- 3 Predictable business culture



# Trade Associations

Switzerland has **17** professional associations that are involved in the fintech scene.

Founded	Association
1912	Swiss Bankers Association
2013	Bitcoin Association Switzerland
2014	Swiss ICT Investor Club (SICTIC)
2015	SWISS FINTECH
2015	Swiss Finance + Technology Association (SFTA)
2015	digitalswitzerland
2016	Swiss Crowdfunding Association
2016	Swiss FinTech Innovations
2016	Swiss FinTech Innovations

Founded	Association
2017	Crypto Valley Association
2017	Multichain Asset Managers Association (MAMA)
2017	CryptoPolis Association
2017	International RegTech Association (IRTA)
2018	Capital Markets and Technology Association (CMTA)
2018	Swiss Marketplace Lending Association (SMLA)
2019	Geneva Fintech Association (GFA)
2019	Swiss Blockchain Federation

## Key Players



 **Austria**



**The 2010s**



2012



**wikifolio** First Austrian fintechs

Some researchers claim the Austrian fintech scene emerged a decade later than German and Swiss ones. They suggest that **it all started in 2018**, when the Austrian Financial Market Authority granted the first license to a fintech company, Finabro. [15] However, one of the most successful Austrian fintechs, Wikifolio, was founded in 2012.

Austria has the smallest fintech ecosystem of the DACH countries. According to a recent study by the Austrian central bank (OeNB), there are currently about **112** companies that qualify as fintechs based on their business model.

## Key Players



bitpanda



RENDITY



kompany

In 2021

bitpanda

Most Austrian fintechs are startups and small and medium-sized businesses.



Three-quarters of Austrian fintechs are based in Vienna

€650,000

Their median turnover is €650,000 and the average number of employees is six.

€130 million

Overall, the Austrian fintech industry generates an annual turnover of €130 million and employs about 1000 people.

It's worth mentioning that the growth rates of Austrian fintechs exceed those of the wider national financial industry by far. [16]

In 2021, Bitpanda became Austria's first unicorn. It closed Europe's largest Series A round of investment, raising \$52 million in 2020, which was followed by another \$170 million in Series B in March 2021. Currently, Bitpanda's evaluation is around \$1.2 billion. [17] [18]

# General DACH Fintech Overview

According to the 2021 IFZ Fintech Study, Zurich and Geneva are the most fintech-friendly cities in the DACH region. Furthermore, Zurich takes second place on the global scale. [14]

In 2021, news website tech.eu looked at European fintech. It outlined the top 20 countries by the number of funding rounds between 2017 and the first half of 2020. In this chart, Germany ranked second, Switzerland took sixth place and Austria was seventeenth. [19]

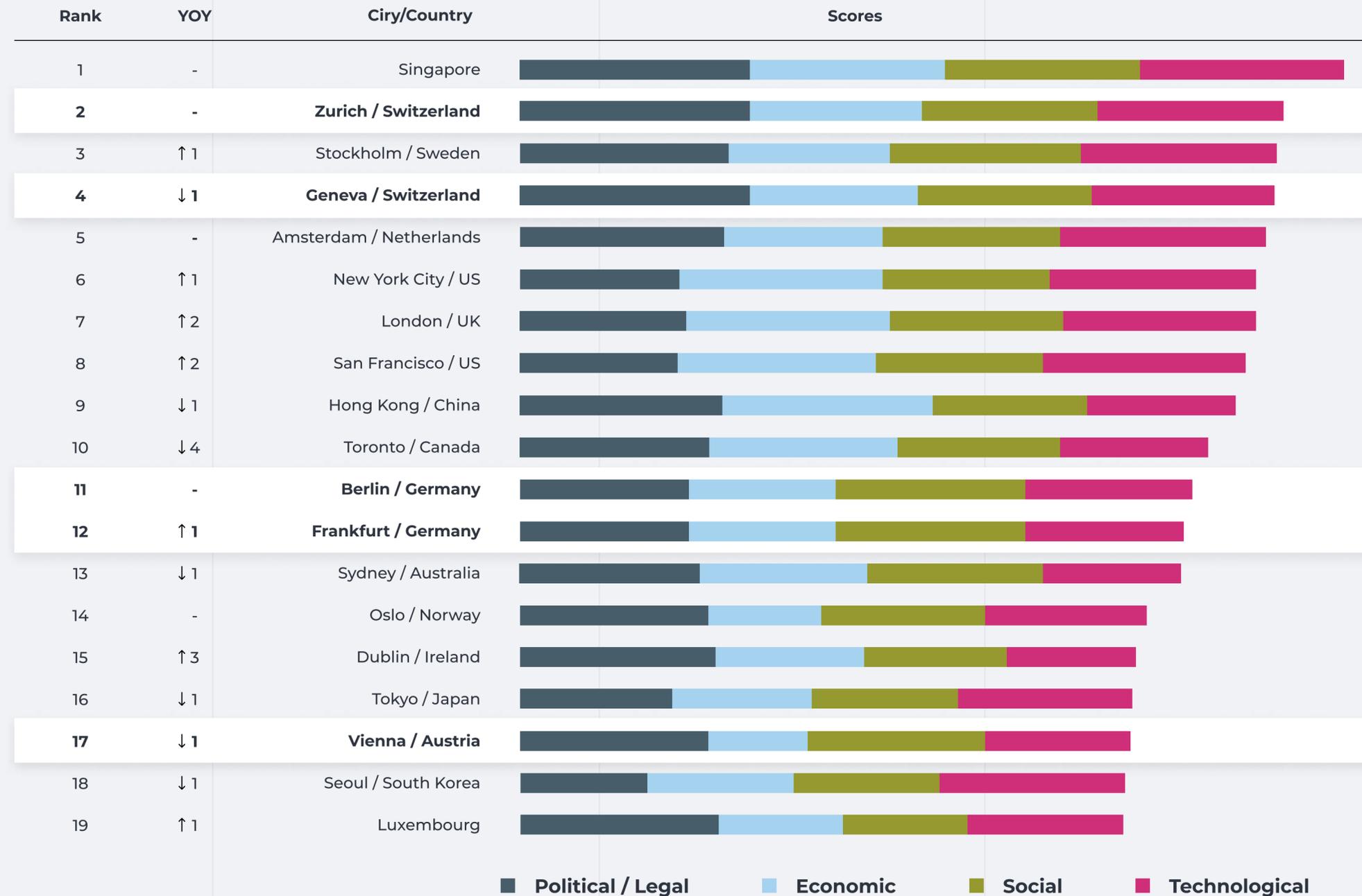
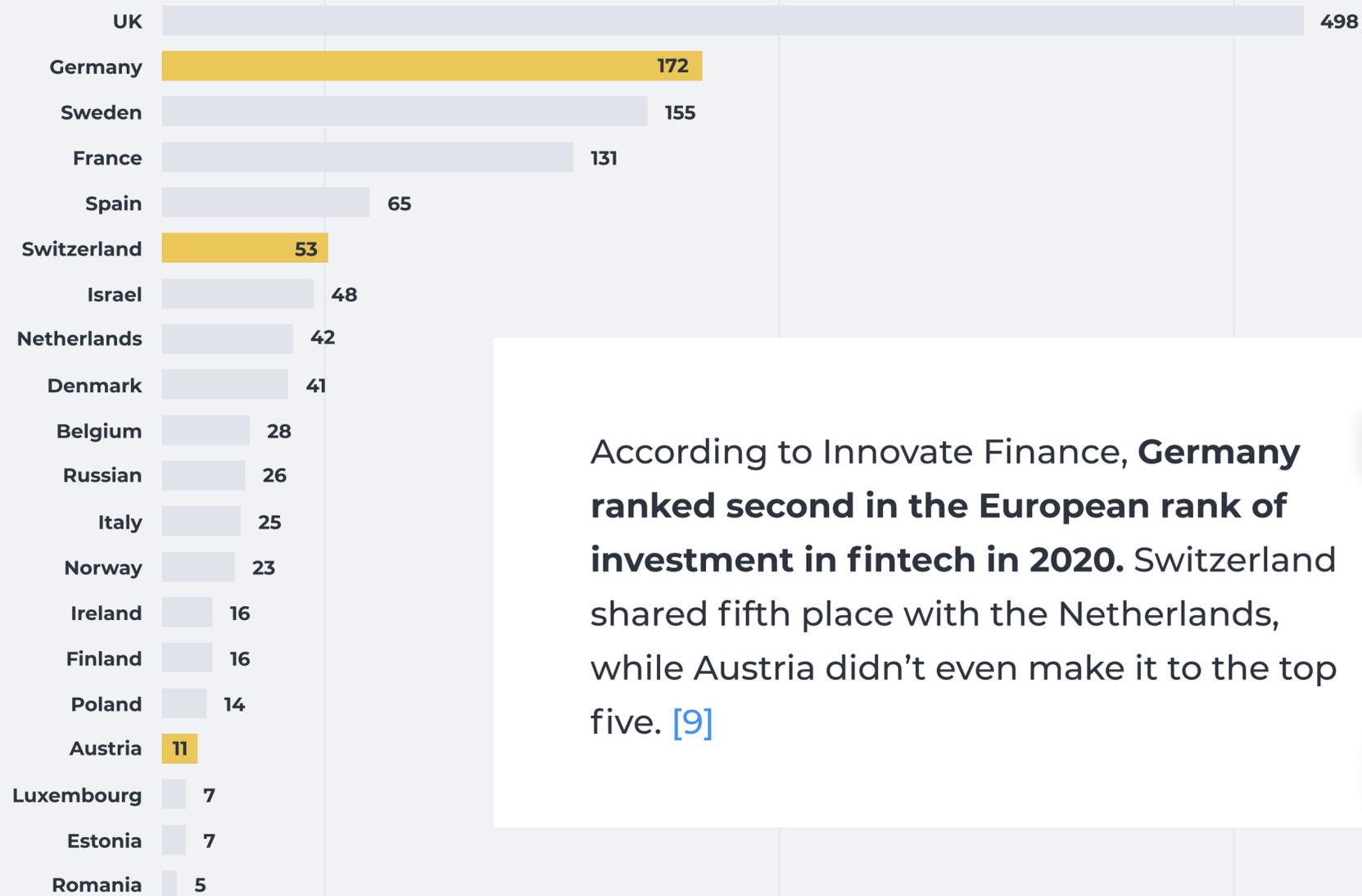


Figure 11: City ranking by fintech-friendliness [14]

Figure 12: Country ranking by number of fintech funding rounds (2017–H1 2020) [19]



According to Innovate Finance, **Germany ranked second in the European rank of investment in fintech in 2020.** Switzerland shared fifth place with the Netherlands, while Austria didn't even make it to the top five. [9]

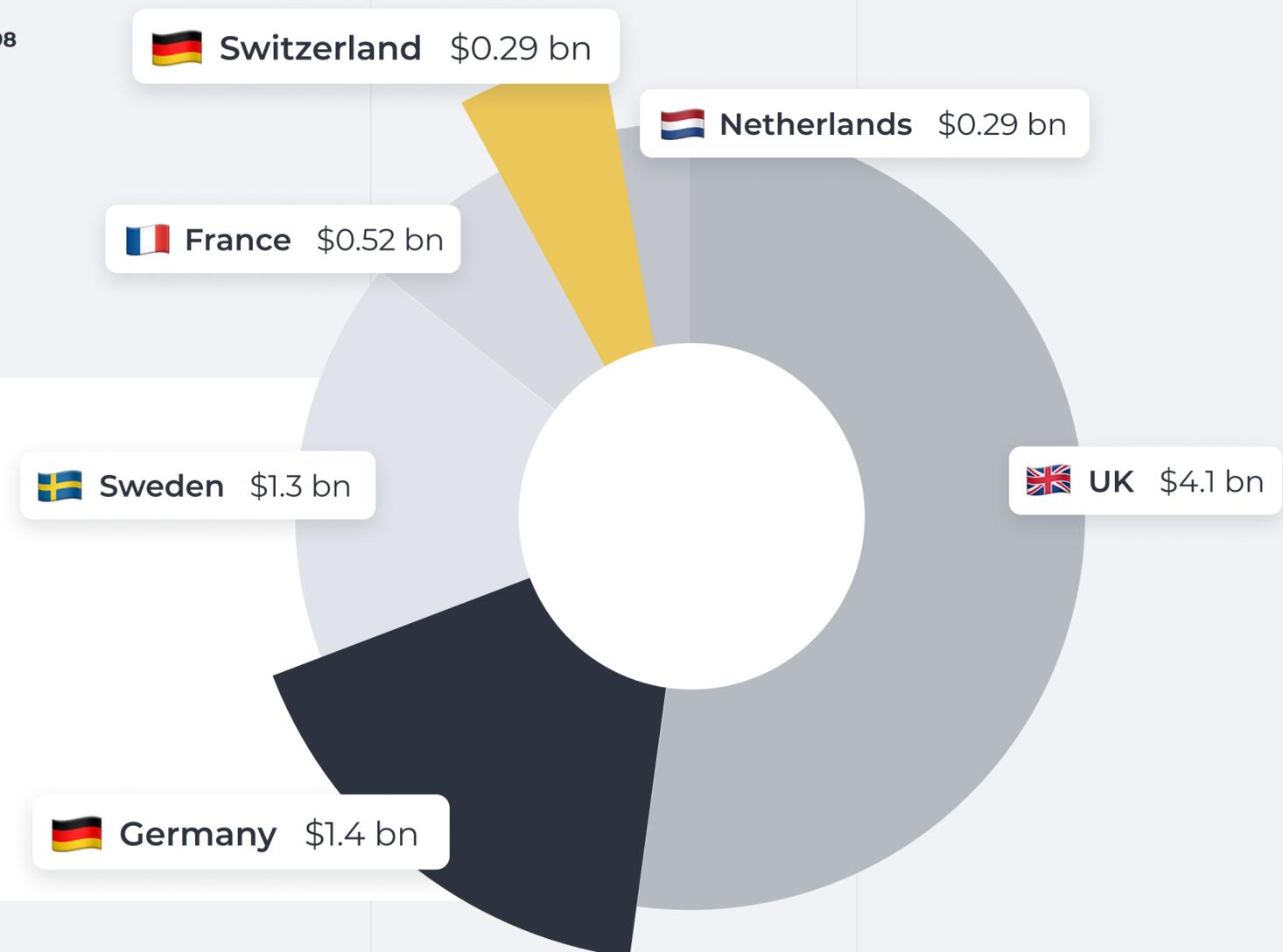


Figure 13: European country ranking by investment in fintech in 2020 [9]

# How Forecasts and Expectations for Fintech Have Played Out

## Forecast

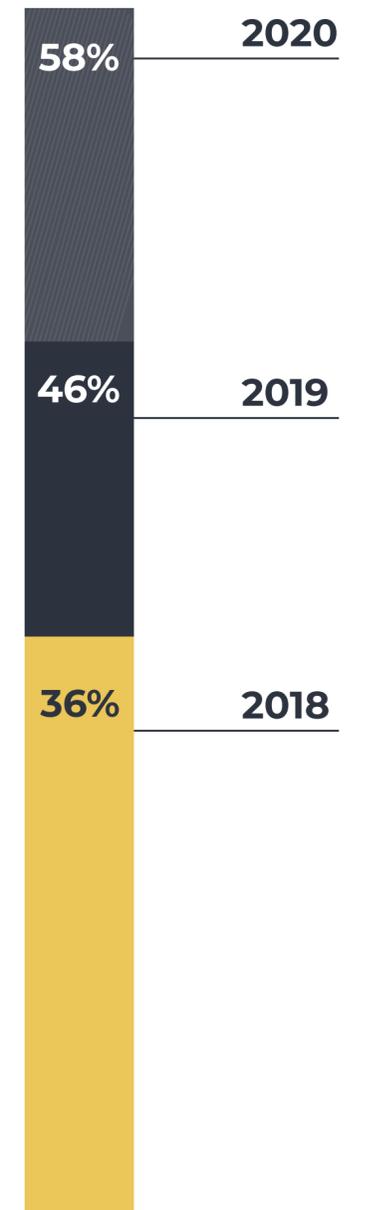
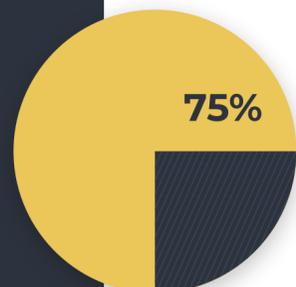
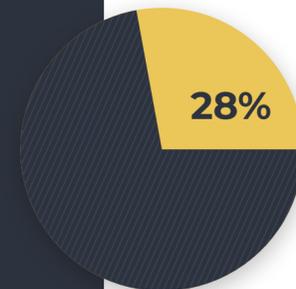
By 2020 almost half of all German bank customers will have opened a digital bank account. (McKinsey, 2016) [20]

## Reality

In 2020, the share of potential as well as existing customers of online banks amounted to 58% overall – a significant increase compared to the previous year (46%) as well as compared to 2018 (36%). (Bitkom, 2021) [21]

Around 28% of German adults – an **estimated 19.7 million** – say they have a digital-only bank account. (Finder, 2021) [22]

75% of new customers in Germany opened their accounts via online channels in Q2 2020. (Commerzbank, 2020) [23]



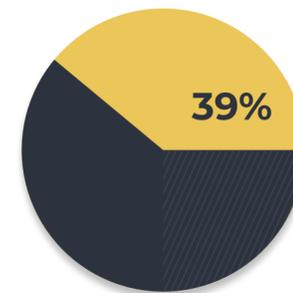
# How Forecasts and Expectations for Fintech Have Played Out

## Forecast

In Germany, over 20% of all savings and investment products are now bought online. By 2020 this figure will have risen to 35%. (McKinsey, 2016) [\[20\]](#)

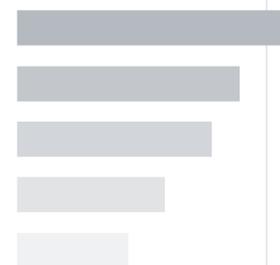
“Switzerland won’t be among the leading fintech nations anytime soon. We will rather see the positioning of Swiss start-ups in niches such as cryptocurrencies or wealth management. (Fintech expert and serial entrepreneur Marc P. Bernegger, 2018) [\[25\]](#)

## Reality



In 2020, 39% of stocks were bought online. (comdirect, Consorsbank and ING Deutschland; 2020) [\[24\]](#)

## TOP 5



 **Switzerland** is in the top five European fintech countries in 2020 and 2021. (Innovate Finance, 2020; Global Fintech Index City Rankings 2020; IFZ Fintech Study 2021) [\[26\]](#) [\[9\]](#) [\[14\]](#)

# Fintech Development Trends and Factors

## Key Drivers

In 2012, the Leipzig-based magazine Electronic Markets outlined **4** forces driving fintech evolution: [\[27\]](#)

### 1 Extremely diverse digital financial services

These include financial information, planning and advisory, investments, cross-process support and more.

### 2 Change in the behavior of financial services' customers

Today, mobile apps and websites empower customers to do what they used to do via bank advisors. In Germany, over half of retail banking customers use services from non-banks and are open to new digital products.

### 3 New organizational forms

Fintechs are experimenting with innovation labs, think tanks, spin-offs, as opposed to traditional banks and insurance companies.

### 4 Regulatory pressure on traditional institutions

Following the 2007 financial crisis, governments have introduced new rules and regulations for banks and other traditional players in the sector. In Europe, those include the Markets in Financial Instruments Directive (MiFID), the Third Basel Accord and others.

## Other sources have outlined the following trends and specifics:

### 5 Availability of software developers

The DACH region is home to **1.16 million** software developers, which is 20% of all developers on the continent. [\[28\]](#)

### 6 Relaxed regulations for fintech

DACH countries are gradually simplifying the rules for fintech companies. Switzerland, for one, introduced a fintech license in 2019 and has set support measures for fintechs in Zurich and Zug. [\[29\]](#) In 2021, Switzerland is incorporating crypto assets and digital ledger technologies (DLT) into law through the DLT Bill, making that country one of the most advanced crypto nations. [\[30\]](#)

### 7 Innovator status

Germany leads Europe by the number of patent applications. If you add those numbers together for all three countries, the total will be three times that of Germany's closest rival, France. [\[28\]](#)

### 8 Conservative traditional finance

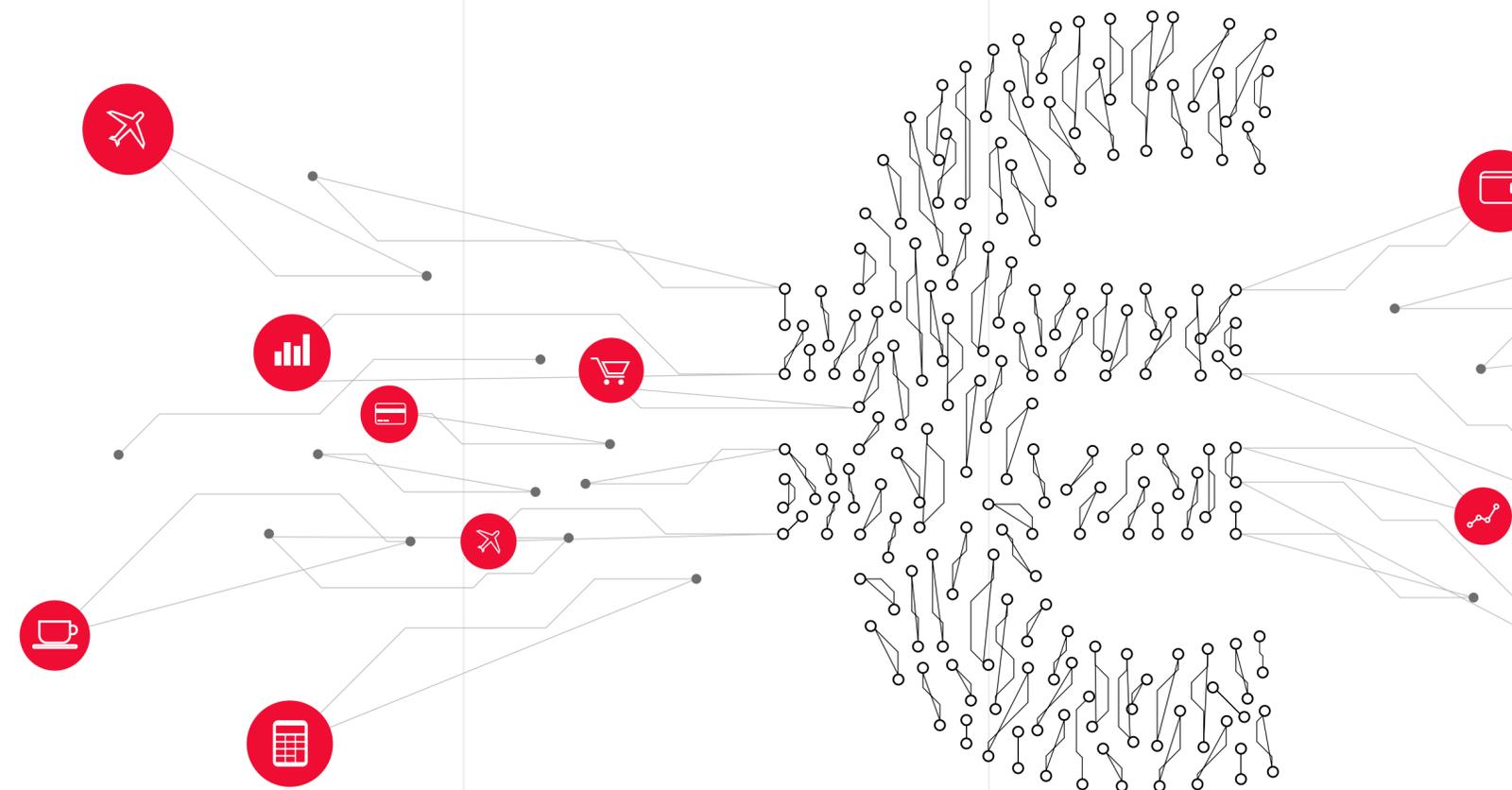
Banks in Germany, Austria and Switzerland offer interest rates that are below those offered in other European countries. As a result, consumers are looking for sources of yield, and fintech can serve as such. [\[31\]](#)

## 9 Digital euro development

Germany is paving the way for the digital euro. In 2020, the Fintech Council of the German Federal Ministry of Finance released a paper outlining the benefits of a European digital currency, and called for European leaders to work together on its development. [\[32\]](#)

In addition, German banks see private cryptocurrencies like Libra as a threat to their central role in the country's financial infrastructure. Such cryptocurrencies provide benefits like simple payments and payment automation. Those benefits could make businesses and private consumers turn to privately owned digital money.

But the banking system won't let that happen, nor will the state, whose financial stability is rooted in the system. This means we can expect both banks and the government to increasingly encourage research and development initiatives for the digital euro through funding.



## Main Challenges

Fintech in the DACH region has been developing rapidly. It has benefitted from the latest technological advances and distant transactions forced by the pandemic. But it still faces several challenges.

### 1 The grip of traditional institutions

In Germany, for example, big banks and financial service providers leave no room for smaller new players. They have a loyal base of clients and resources to offer their own services to. New fintechs can go two ways: they can either partner up with traditional players or target a new generation of consumers. [\[33\]](#)

### 2 Risk aversion

Switzerland's famous prosperity can also be a weakness. The more people have to risk, the less they want to risk it. This sometimes limits the entrepreneurial spirit and personal initiative. In contrast, the German fintech capital Berlin has fully adopted the startup philosophy. [\[25\]](#)

### 3 Old cash habits

Germans are famous for loving their cash and being skeptical about financial technology. In 2017, Bundesbank published a study that showed a slow shift in Germans' payment habits towards cashless transactions. But 88% of Germans were still willing to continue using cash in the future.

A more recent survey by the German Payment System Initiative found that the COVID-19 pandemic has boosted the cashless trend. According to its findings, 57% of Germans used debit and credit cards more often than they did before the lockdown. And nearly half have "significantly reduced" their cash transactions. [\[34\]](#)

Austria is also often referred to as "a cash land", but Austrians are generally more open to innovation than their German neighbors. A 2019 study revealed that 11% of Austrians paid via smartphone, compared to Germany's scarce 5%. [\[35\]](#) In Switzerland, that figure was slightly over 2.3%, according to Statista. [\[36\]](#)

## Main Challenges

### 4 Unclear regulations

The regulatory framework for fintech is still in the making. Regulations in Europe and Germany are outdated and still not suitable for the development of the sector. They are strict and inflexible. This means regulators will scrutinize every issue within their sphere of responsibility and overlook anything that lies slightly beyond it.

The Wirecard scandal proves that. Bavaria's money-laundering watchdog ignored reports of irregularities in the fintech's balance sheets because Wirecard didn't classify as a financial company. Federal prosecutors, in turn, chose to chase after journalists who reported those irregularities instead of investigating the reports.

At the same time, German bureaucracy has proven sluggish at making decisions and acting. The first reports on Wirecard's money laundering were published in 2016. During the following four years, the German financial agency BaFin had twice discussed whether or not to at least tighten supervision of fintech. Both times the idea was declined. [\[37\]](#)

*What does this mean for the industry?*

It probably means that the regulatory system is built in a way that can give dirty players a leg up on fair competitors.

Moreover, each of the three countries has its own financial regulations, which makes it difficult for startups to expand across the DACH region.

# Latest Forecasts and Expectations

Fintech's future looks bright for the DACH region. Let's take a look at some forecasts.

## Germany

- By 2025, the market could realistically reach a volume of up to €97 billion, growing to €148 billion in 2035. [1]
- In 2021, more than 25 million German adults will have a digital-only account. In 2025, this figure will extend to 27.7 million (Fig. 14). [22]

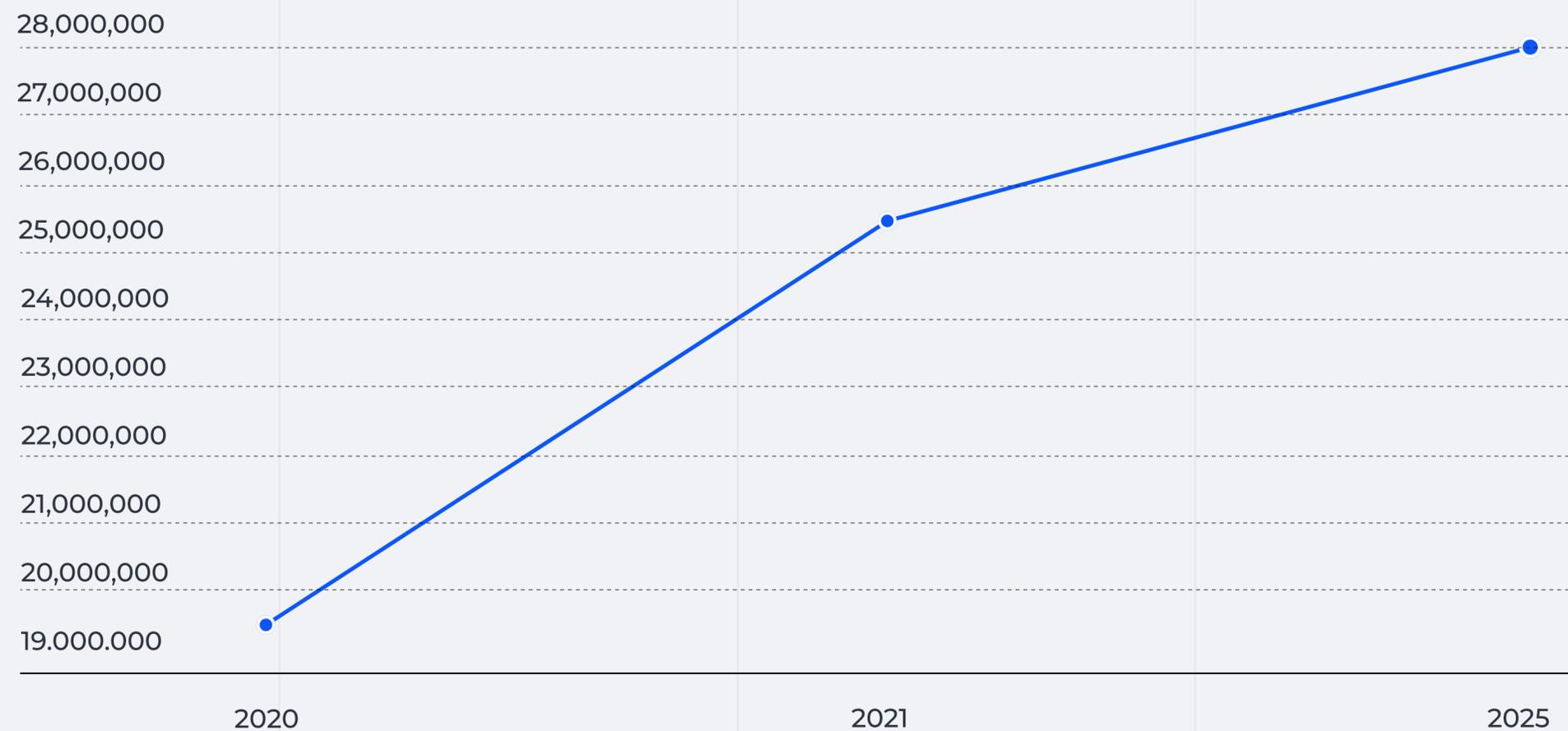


Figure 14: Neobanking adoption in Germany forecast by population [22]

# Germany

- People aged 45–54 will have more online-only bank accounts than any other age category in 2025 (Fig. 15). [22]

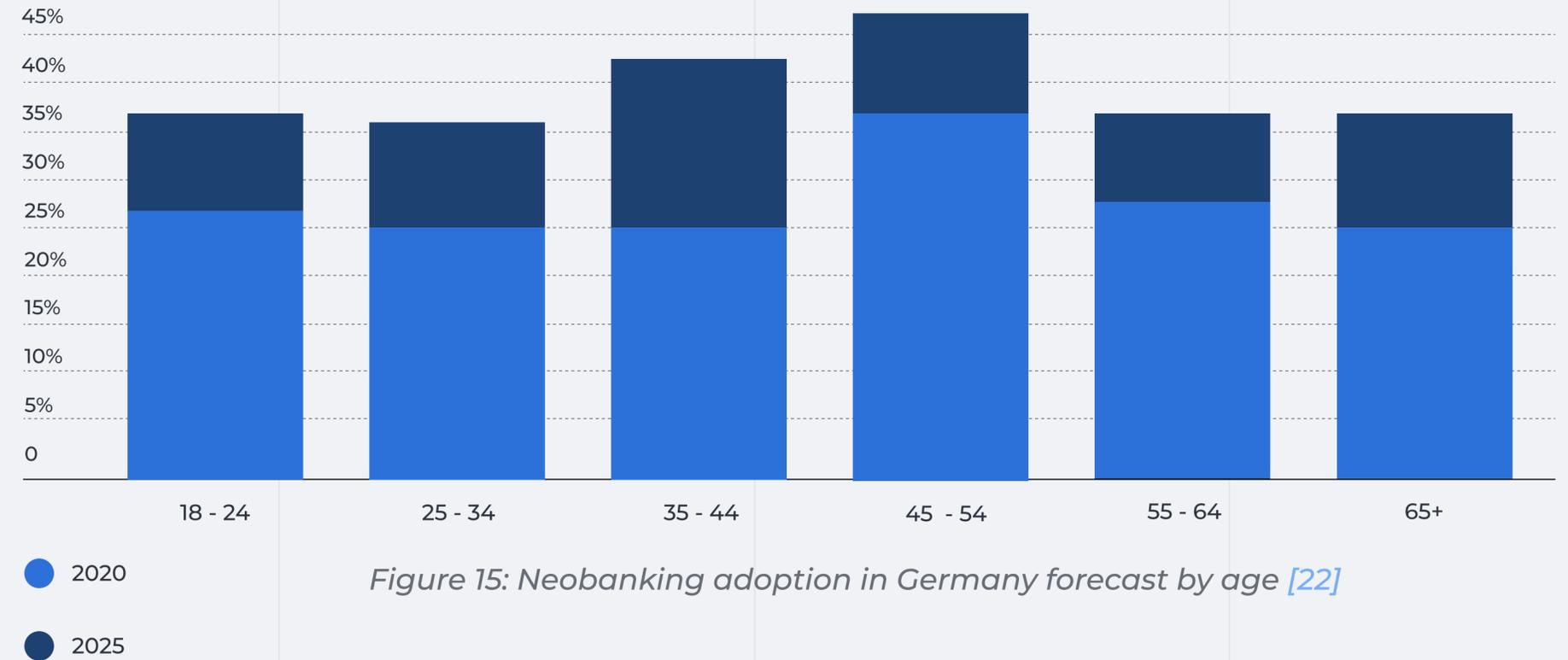


Figure 15: Neobanking adoption in Germany forecast by age [22]

- Germany will be in third place by percentage of the population with an online-only bank account in 2025 (Fig. 16). [22]

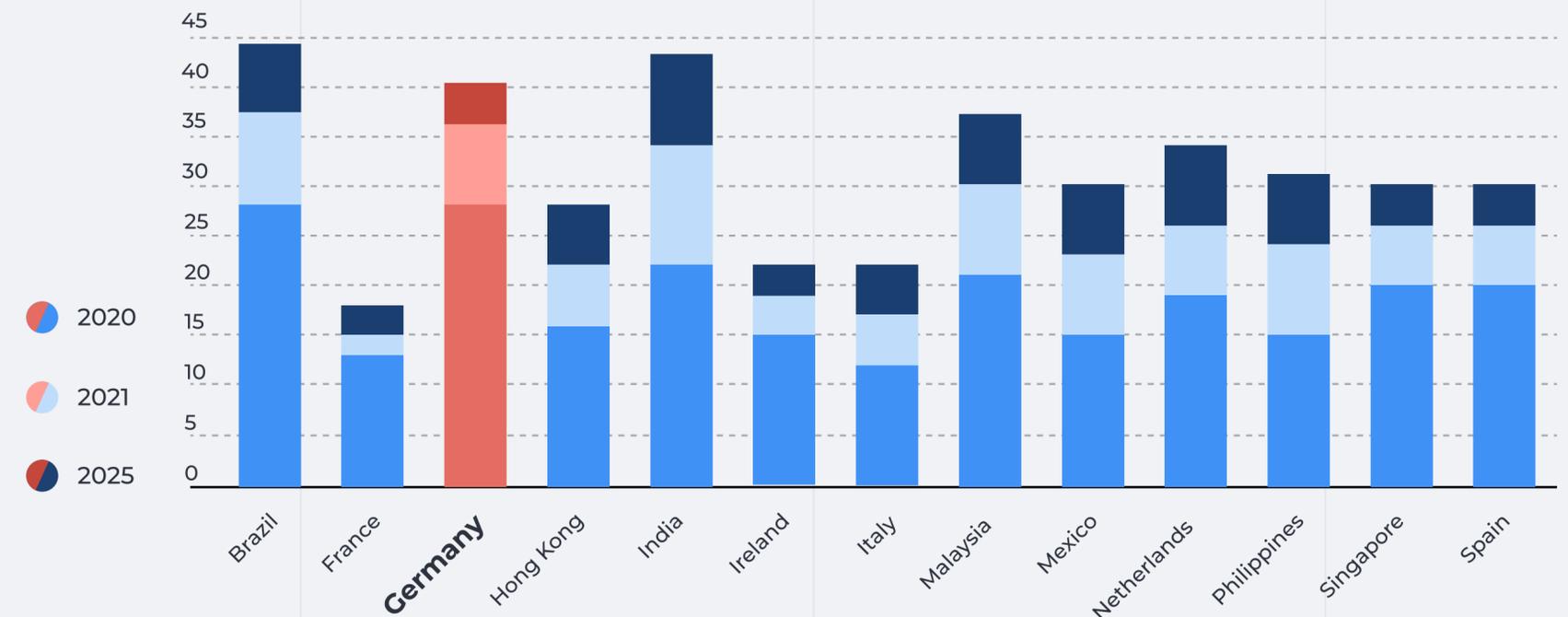


Figure 16: Share of the population with an online-only bank account by country [22]

## Austria

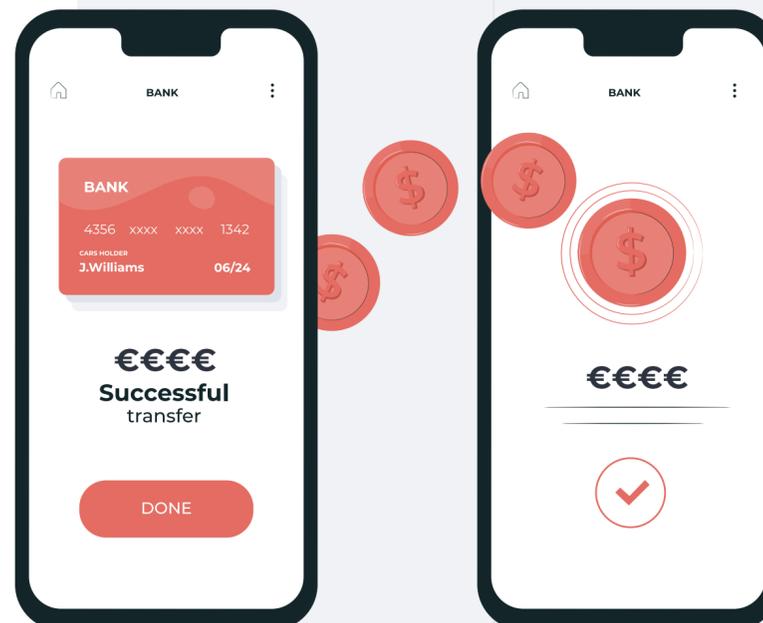
- In 2023, volumes for digital payments, personal finance, alternative lending and alternative financing will double (Fig. 17). [38]

	2019	2023
Digital payments	€12.8 billion (\$14.1 billion)	€16.31 billion (\$18 billion)
Personal finance	€1.22 billion (\$1.4 billion)	€2.49 billion (\$2.8 billion)
Alternative lending	€22.68 million (\$25 million)	€38.5 million (\$42.5 million)
Alternative financing	€47.96 million (\$53 million)	€85.83 million (\$95 million)

Figure 17: Volume of fintech segments in Austria forecast [37]

## Switzerland

- The number of mobile payment transactions will reach about 240 million in 2021, followed by 390 million in 2022. [39]



# Conclusion

The history of fintech in the DACH region spans more than 20 years. However, there haven't been many attempts to study it as a whole and compare how the sector developed in the three countries.

Today, Germany leads the way in the region. Switzerland has developed as a land of cryptocurrency. One Austrian fintech raised more funds than any other regional startup in 2020 and 2021.

The DACH region is moving towards a cashless society, pushed by the COVID-19 pandemic. Regulatory frameworks for fintech in Germany, Switzerland and Austria are still nascent. On the one hand, this creates uncertainty. On the other, it leaves room for maneuver (and sometimes for avoiding regulators' attention, as Wirecard did).

The regional market is in the hands of long-established financial institutions. New fintechs need to either partner with them or fight for the hearts of the new generation.

**Finally, people in the DACH region will increasingly adopt digital finance. As customer habits change and technology develops, fintech will become part of the daily routine in German-speaking countries. Now is the best time for the sector to grow.**

**Do you need help developing a financial service or software?**

Elinext can provide advice and programmers.

[WRITE TO US](#)

# About Elinext

Elinext has been developing websites, web applications and mobile apps since 1997.

Our portfolio includes more than 20 fintech projects such as investment platforms, hedge accounting software, payment processing software, blockchain-based systems and more.

We have worked with clients from all around the world: Switzerland, Singapore, Sweden, Norway, Germany, USA and other countries.

**For more information, visit [www.elinext.com](http://www.elinext.com).**

If you have questions, suggestions or need help in software development, email us at [info@elinext.com](mailto:info@elinext.com).

 [info@elinext.com](mailto:info@elinext.com)

 [info@elinext.com](tel:info@elinext.com)

 [elinext.group](https://www.elinext.com)



# References

1. Dorfleitner, G., Hornuf, L., Schmitt, M., and Weber, M. (2016). *The FinTech Market in Germany*
2. Haddad, C., Hornuf, L. (2019). *The emergence of the global fintech market: economic and technological determinants*
3. Electronic Markets (2018). *FinTech and the transformation of the financial industry*
4. Petzinger, J., Yahoo (2019). *Hundreds of German fintech startups have gone bust since 2017*
5. Shotter, J., Financial Times (2015). *Aversion to risk hampers growth of German fintech sector*
6. Accenture (2016). *GLOBAL FINTECH INVESTMENT GROWTH CONTINUES IN 2016 DRIVEN BY EUROPE AND ASIA, ACCENTURE STUDY FINDS*
7. KPMG (2017). *The Pulse of FinTech Q4 2016*
8. comdirect (2021). *comdirect FinTech-Studie 2020*
9. Stack, D., Innovate Finance (2020). *UK FinTech Shines Bright Amid The Covid Gloom*
10. Statista Research Department (2021). *Number of Fintech startups founded in Germany from 2007 to 2020*
11. Barkow, P., Barkow Consulting (2021). *German FinTech VC 2021 Starts With a Hooray*
12. Trumm, C., Markull, L., MEDICI (2020). *Germany FinTech Report 2020*
13. Brandl, B., Hornuf, L. (2020). *Where Did FinTechs Come From, and Where Do They Go? The Transformation of the Financial Industry in Germany After Digitalization*

# References

- 14. Ankenbrand, T., Bieri, D., Moreno, F., Lötscher, D.; Lucerne University of Applied Sciences and Arts; the Institute of Financial Services Zug IFZ (2021). *IFZ Fintech Study 2021*
- 15. Zeisl, Y., Global Risk Intelligence (2020). *Fintech and the Digitalization of Austria's Banking Sector*
- 16. Fletzberger, B., ICLG (2020). *Austria: Fintech Laws and Regulations 2020*
- 17. Bussy, C., Sifted (2020). *How has Covid impacted Germany, Austria and Switzerland's startups?*
- 18. Wauters, R., Tech.eu (2021). *Is it a Bitpanda, is it the first Austrian unicorn? Peter Thiel's Valar leads \$170 million Series B round*
- 19. Wauters, R., Boyko, O., Finstar Financial Group, Tech.eu (2021). *The State of Fintech in Europe*
- 20. Drummer, D., Jerenz, A., Siebelt, P., Thaten, M.; McKinsey&Company (2016). *FinTech – Challenges and Opportunities*
- 21. Hackl, K., Bitkom (2021). *Digital Finance 2020: Die Transformation der Finanzindustrie in Zahlen*
- 22. Laycock, R., Binsted, S. (2021). *The rise of digital banking*
- 23. Orlopp, B., Commerzbank (2020). *Revenue rebound in Q2 – costs and capital on track*
- 24. Aktion pro Aktie (2020). *Aktienkultur in Deutschland*
- 25. Fintech Futures (2018). *Fintech: the hottest industry in Switzerland*
- 26. Findexable (2020). *The Global Fintech Index 2020*

# References

- 27. Alt, R., Puschmann, T. (2012). *The rise of customer-oriented banking - electronic markets are paving the way for change in the financial industry*
- 28. Frontline Ventures, Speedinvest (2020). *The 2019/2020 DACH Report: an Analysis of Tech and Venture Capital*
- 29. FINMA (2019). *FinTech licence*
- 30. Balzli, T.. PWC (2021). *Partial entry into force of the Swiss DLT-act*
- 31. Heinzle, M. J., area2invest (2021). *The Evolution of the Fintech Ecosphere in the DACH Region*
- 32. The German Federal Ministry of Finance. *Stellungnahme: Der digitale, programmierbare Euro*
- 33. Juenemann, M., Paul, J.-A., Bird & Bird (2020). *Germany: FinTech Comparative Guide*
- 34. infas quo (2020). *Rücksicht vor Kassenspersonal sorgt für mehr Kartenzahlung*
- 35. Dobida D., Invest in Austria (2019). *Geheimtipp Fintech Location Wien*
- 36. De Best, R., Statista (2021). *Distribution of preferred payment methods in Switzerland in 2018 and 2019*
- 37. O'Donnell, J., Reuters (2020). *Who's to blame for Wirecard? Germany passes the buck*
- 38. Wollny, B., Statista (2020). *Statistiken zu FinTech in Österreich*
- 39. Dietrich, A., Reto, W., Institut für Finanzdienstleistungen Zug IFZ. *Mobile Payment Studie Schweiz 2020*