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ARTICLE TOPIC:

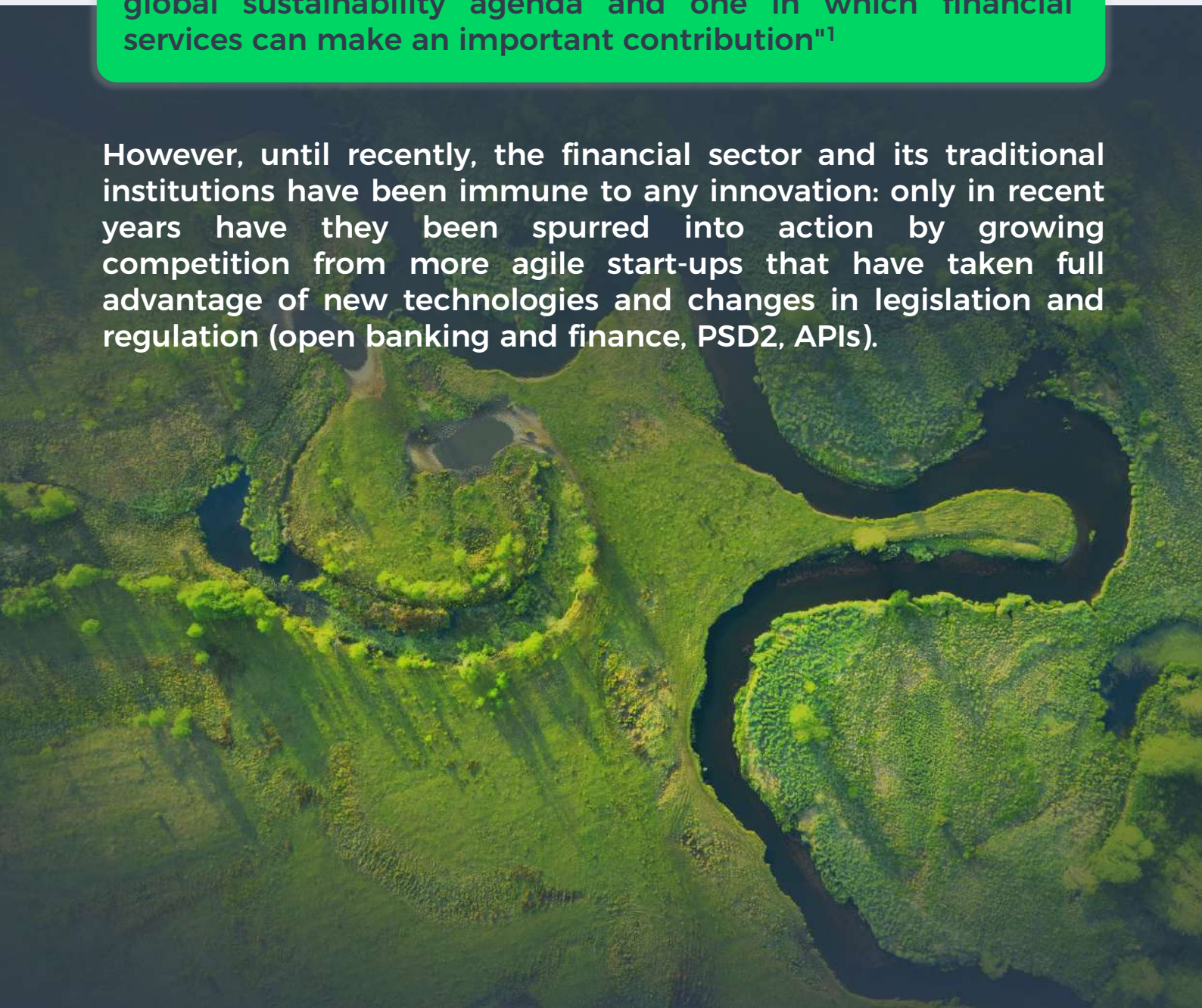
On the green wave: Trends, initiatives and the future of green finance

The topic of global warming, long-term sustainability and overall respect for planet Earth has been discussed for decades, across human activities and industries. Today, there is little doubt that climate change poses a real and significant political and economic risk to humanity.

Yet efforts to limit it require cooperation at a global level, involving not only the public but also the private sector, including financial institutions.

"Tackling climate change is an essential component of the global sustainability agenda and one in which financial services can make an important contribution"[1]

However, until recently, the financial sector and its traditional institutions have been immune to any innovation: only in recent years have they been spurred into action by growing competition from more agile start-ups that have taken full advantage of new technologies and changes in legislation and regulation (open banking and finance, PSD2, APIs).



Green Europe: Demand determines supply

Not only institutions but also individuals are changing their approach to climate change. A special Eurobarometer Climate Change survey in 20212 showed that 93% of Europeans consider climate change to be a serious problem and a full 96% have taken action to combat it.

A UK study by Deloitte[3] in 2021 found that 8% of respondents had already shifted some of their personal investments towards ethical and sustainable options, and a full 34% had specifically chosen brands because of their sustainable practices and values.

To top it all off, early last year (2021) Mastercard conducted a survey4 among consumers in 24 countries across all continents, which showed that a large majority (85%) of adults are willing to make a personal contribution to tackling environmental and sustainability issues.

Where there is demand, there is supply, and so more and more institutions and initiatives are emerging that focus on a specific niche market - environmentally-minded clients who care about the planet and the environment, rather than the masses.

Source: CB Insights

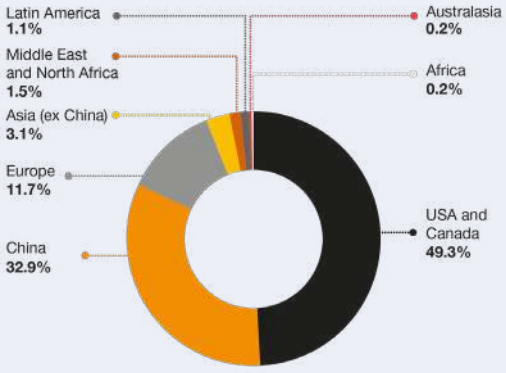
Green and climate fintech: What it is and what role it will play

Activities combining the environment (which encompasses climate), finance and digital technologies are most often mentioned in the context of alternative players, financial technology startups and companies. We are talking about so-called green or climate fintech.

According to the Climate Fintech[5] report by New Energy Nexus, there were 250 climate fintech companies in the world in 2020, including billion-dollar businesses and tech unicorns such as Tesla, Beyond Meat and Nest. Today, 8% of all European and UK fintechs using open banking APIs already offer a sustainable product[6] and, according to PwC, the demand for the solutions that climate fintech can offer will only increase in the future as more and more companies, investors and governments commit to the so-called 'net-zero' transition[7].

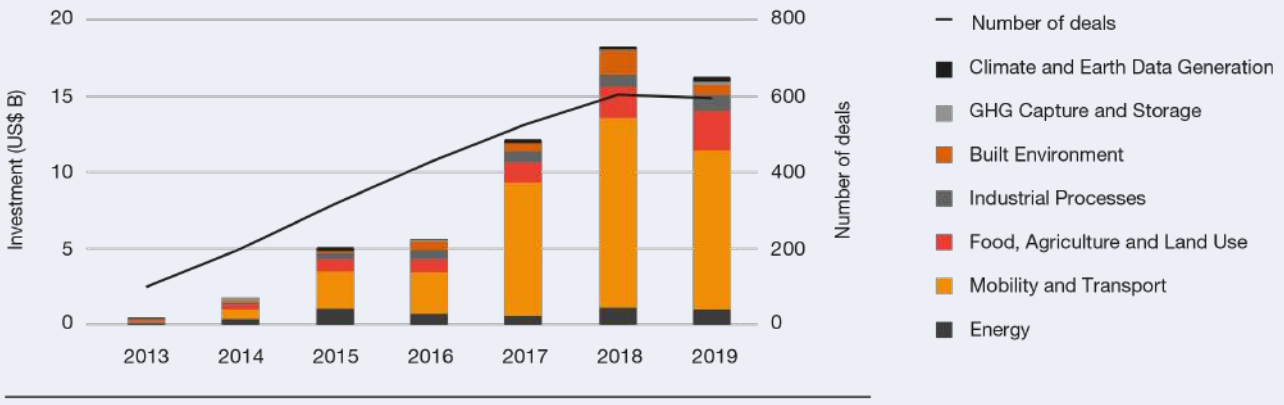
Overall breakdown of investment by startup region

The geographical split shows that nearly half of all venture dollars in climate tech startups, $29 billion, went to startups in the USA and Canada. China is the second most significant region at $20 billion. The European market is approximately a third of China's at $7 billion invested.



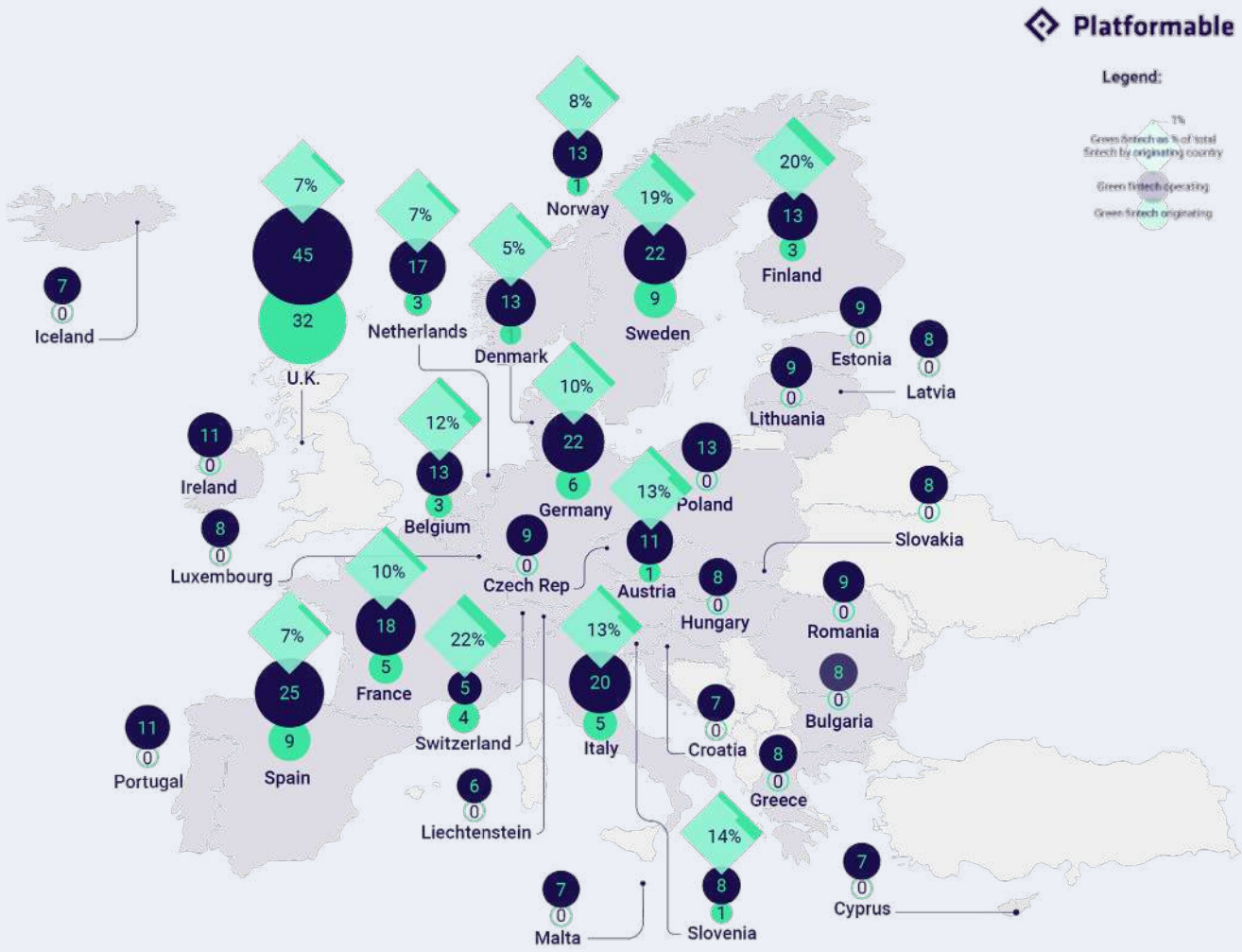
Source: PwC analysis on Dealroom data

VC investment in Climate Tech and number of deals



Source: PwC analysis on Dealroom data

Green finance: Banks are (finally) waking up

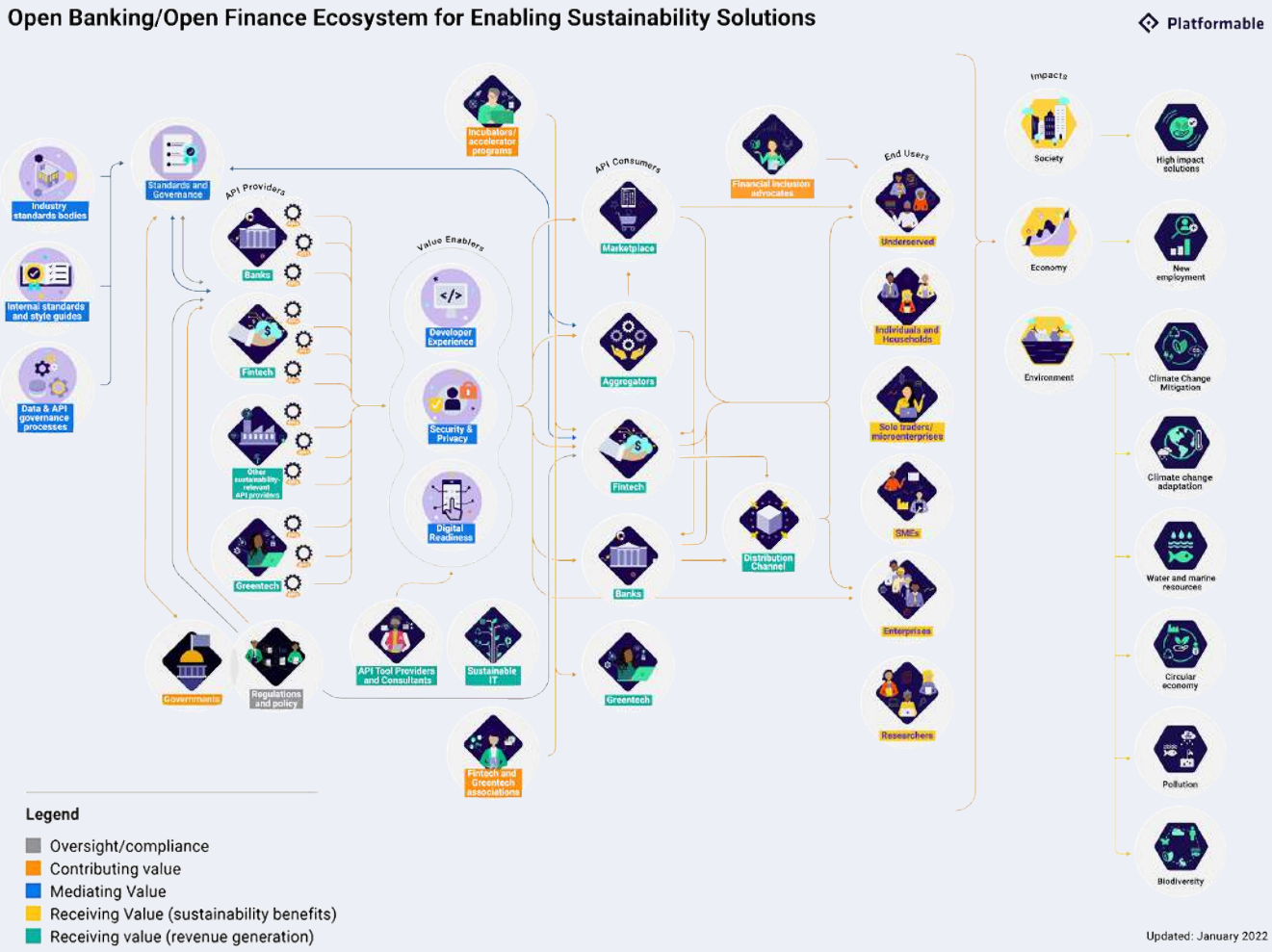


Methodology: Platformable reviews all fintech using bank and finance APIs. Using the Green Fintech Alliance taxonomy, we have categorised each fintech that provides sustainability-related products.

Despite the emergence of green products at alternative financial institutions, they are now more or less the rule rather than the exception even at traditional banks, which are pursuing sustainable initiatives wherever possible. The model of collaboration and partnership with new players and fintech startups is often applied here, bringing technology that banks can successfully use and integrate into their existing systems and mobile apps with relative ease.

At the same time, the growth of the new green fintech market is driven by customer demand, public opinion, regulations, and global initiatives on a voluntary basis, but also by new partner networks and the availability of specific API products from open banking platforms[8].

The term ‘green finance’ or ‘green banking’ can be seen as a range of initiatives that in most cases combine digital and sustainable[9], from the straightforward (payment cards made from recycled plastic or sustainably harvested wood, credit cards that plant trees, etc.) to the more complex (tracking the carbon footprint of individual transactions, offering investments in exclusively sustainable funds, preferential financing for green projects, etc.).



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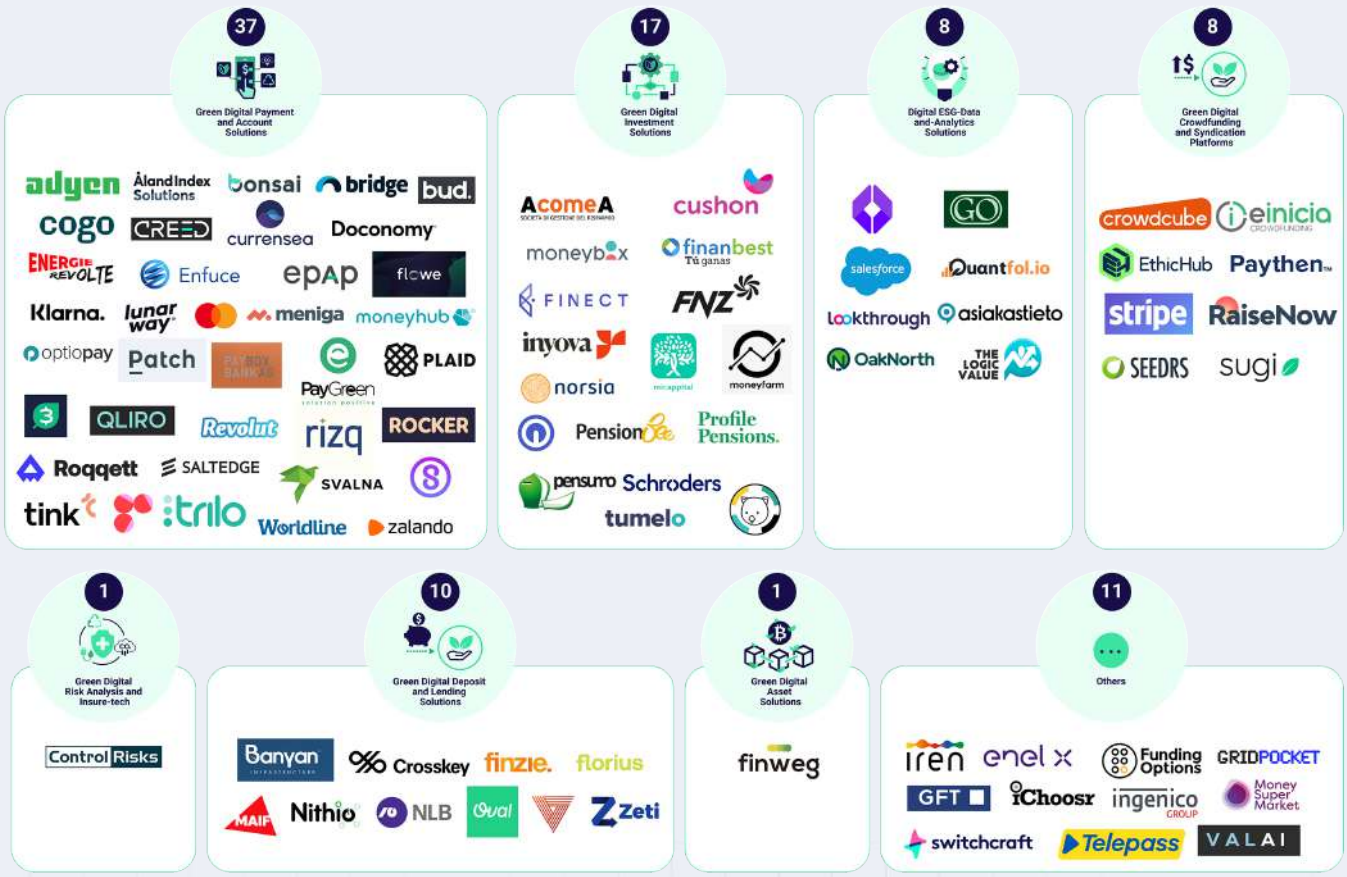
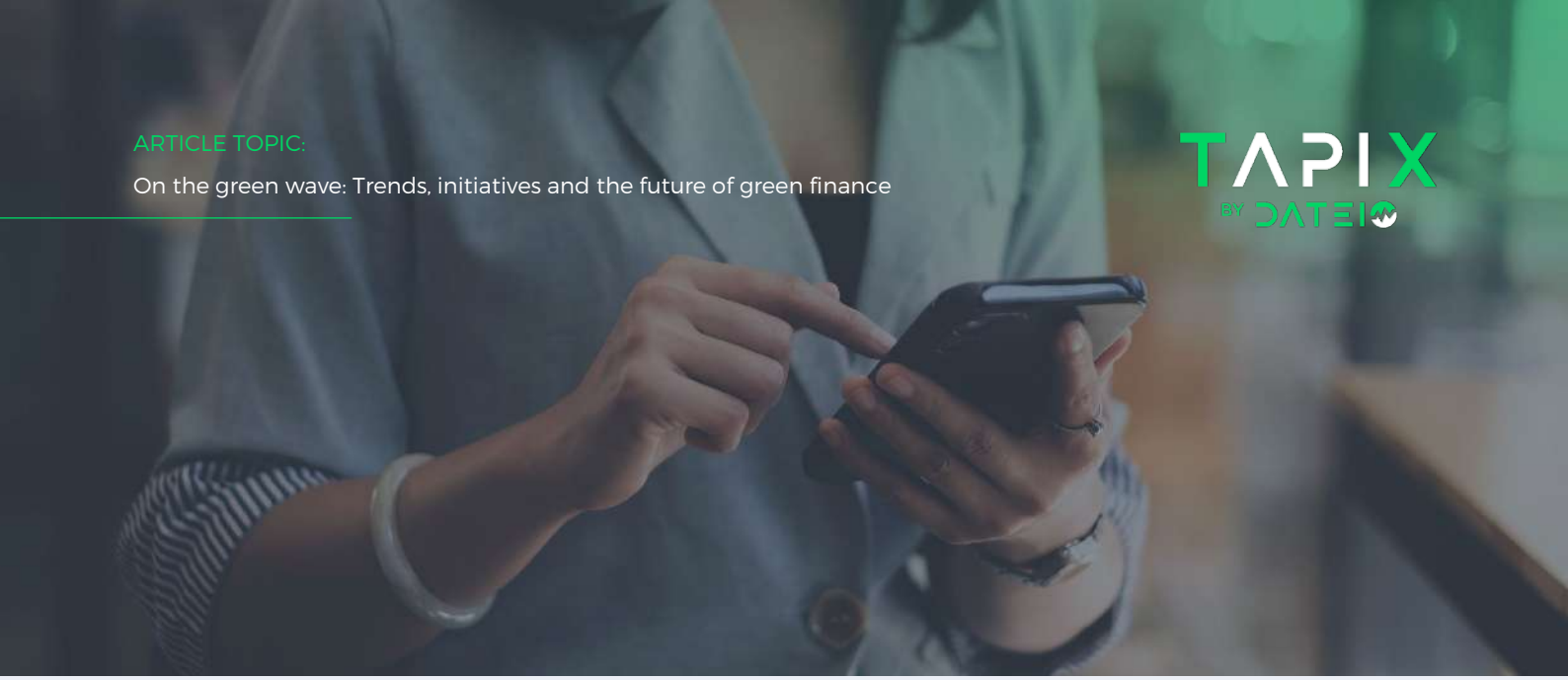
Current trends in green banking

Green initiatives can be found across all sections of the financial industry. According to the Green Digital Finance Alliance[10], there are a total of 8 product categories within green fintech. Let's look at some of these in a little more detail.

European & UK green fintech by sustainability product category
as at Q1 2022 (N=93 green fintech)

Platformable





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Payments

Payments are key mainly because the overall volume of consumer transactions is huge and purchasing behavior is closely linked to carbon footprint. The potential to bring about change towards sustainability is therefore significant for payments. Typical examples of payment initiatives include the possibility of carbon offsets[11], the choice of eco-friendly packaging for online purchases, or rounding up the purchase amount and using the difference to plant trees.

Examples include the Dutch Adyen[12] which allows customers to donate money to environmental restoration projects, or Sweden's Svalna[13] and its carbon footprint calculator (more on carbon footprint below).

Banking

The entry of so-called challenger (or neo) banks into retail banking has brought several positive changes, and the new players have attracted mainly younger generations interested in the environment to their services and overall approach to banking. Green retail banking in particular is one of the most straightforward ways for people to understand the environmental impact of their (purchasing) decisions.

Initiatives include tracking the carbon footprint of individual purchases, automatic offsetting of purchased goods, credit cards made from recycled or sustainable materials, and credit cards for which the issuing institution contributes to reforestation.

American Aspiration[14] offers financial products for individuals and businesses with a focus on charity, sustainability, and the environment. The focus of London-based Envaluate15 is then squarely on consumers, whom the startup "enables to log into their bank, track their carbon footprint and lead a greener life".

Commercial banking also works with tools such as sustainable project finance or green bonds.

Loans and investments (including pensions)

These two areas have also seen several positive changes in recent years thanks to fintech, and the use of the latest technologies has brought speed, transparency and previously hard-to-imagine options such as P2P lending or micro-investments.

Initiatives to reduce climate change and environmental impact include lending for green projects (including green mortgages) or investing in so-called ESG (Environmental, Social and Governance) assets, which Barclays[16] expects to be worth over $53 trillion by 2025.

KBC, for example, offers bicycle retailers the possibility to provide credit financing to their customers at the point of sale[17] and Spain's Micappital Eco[18] offers sustainable investments. A form of investment with a significant impact on global warming is pensions, which is the focus of, for example, the UK's PensionBee[19] with its environmentally friendly pension funds, or Tumelo[20] which allows clients to see what funds their money is invested in and have a say in sustainability decisions.

Insurance

Insurance companies are the world's largest asset managers after pension funds[21] and so their role in efforts to reduce climate change and environmental impacts is crucial. On the other hand, they are themselves highly vulnerable to climate change (including through increasing claims from natural disasters), which positively affects their motivation.

Green initiatives by insurers include, for example, discounted rates for low-emission or electric vehicles, eco-friendly appliances, insurance for ridesharing clients and others.

Switzerland's Swiss Re has committed to end insuring and investing in 10% of the world's largest oil and gas producers by 2023, and Allianz has launched its Climate Transition Fund[22] to support the low carbon economy.

Cryptocurrencies and blockchain

Despite the huge energy intensity of the cryptocurrency extraction process, blockchain technology is considered key (by some even the most relevant of all[23]) for both climate fintech in general and carbon footprint tracking and has been applied to a range of green initiatives by financial institutions from smart energy distribution to green bond issuance.

SolarCoin can be spent and traded like other cryptocurrencies, but the essential difference is that it rewards the use of solar technology (1 megawatt hour = 1 SolarCoin)[24].

Carbon footprint tracking is a trend, but carbon offset is a potential problem

According to Platformable[25], 90% of European and UK green fintech solutions are focused on limiting climate change, and it seems as if those who are not trying to neutralize their carbon footprint today do not even exist.

Clients want to know what effect their purchases are having on the environment, so they are turning to sustainable brands and fair-trade products in preference to mass production. Information is needed to reduce the carbon footprint, and people demand it from their financial institutions.

But calculating the carbon footprint is not easy. It is now overwhelmingly determined by the so-called MCC code, a four-digit number for each transaction processed by Visa or Mastercard that classifies businesses based on the type of goods or services they sell[26].

The MCC code is also included in the so-called Åland Index, a cloud-based service for calculating the carbon emissions of payment and financial transactions[27], which Mastercard's new solution also works with. The latter has developed the Mastercard Carbon Calculator[28] in cooperation with the Swedish fintech Doconomy[29], one of the most advanced services for calculating the greenhouse gas production and water consumption of digital financial transactions. The calculator looks at individual transactions across categories in terms of carbon footprint, which it also translates into illustrative examples such as the number of trees needed to absorb an equivalent amount of CO2. It gives clients tips on how to live more sustainably and enables them to directly contribute to environmental protection or reforestation by changing their behaviour, either through Priceless Planet Coalition donations or through individual banks' loyalty programmes.

German fintech ecolytiq[30] has also teamed up with an electronic payment network operator, this time Visa. The provider of Sustainability-as-a-Service technology through Visa's Fintech Partner Connect programme from the end of 2020 "...enables banks to easily implement their sustainability strategies "[31]. Using real-time payment data, ecolytic calculates the carbon footprint of individual clients based on the Open Sustainability Registry, which considers local impacts on the overall carbon footprint. It gives them a user-friendly view of how their purchasing behaviour affects the environment, as well as tips for a more sustainable lifestyle.

Both the Mastercard Carbon Calculator and ecolytiq's solution can be easily integrated by banks via an API.

According to Platformable[32], 17% of all green fintech products and services focus exclusively on carbon offset, i.e. not addressing the causes but only "cleaning up afterwards". While some of the projects make a lot of sense (an example is the Stripe Climate[33] initiative, which allows businesses to donate a portion of their profits to carbon removal projects), others - such as reforestation - are more controversial and their real positive impact on the environment (and biodiversity) is unclear.

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A carbon footprint without data? Information is power

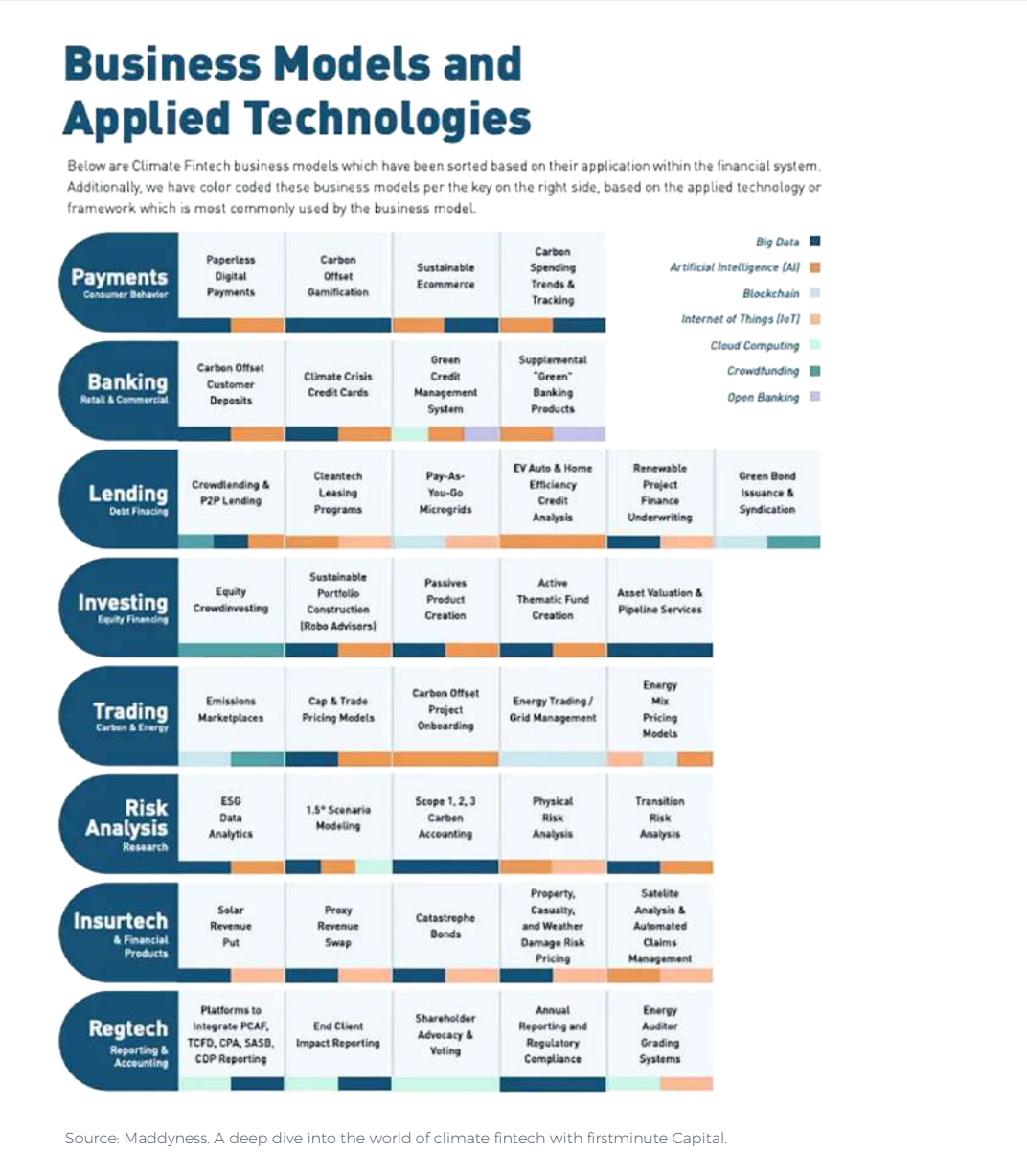
Climate change and mitigation initiatives have significantly increased the demand for new and more accurate data sources in the last few years. Data is a key enabler for global change towards reducing climate change and the environmental impacts of human activity[34].

While an overall figure on the carbon footprint of individual clients or portfolios is interesting, it is not nearly as useful as it could be without additional data. To take a specific action (for example, to reduce or avoid purchases of goods and services with a high carbon footprint), it is necessary to know which of the transactions contributed to the emissions and how much. However, the predictive power of the above-mentioned MCC codes, which are most used to determine carbon footprints, is limited. The 2021 Tapix[35] case study, for example, showed that up to 47% of transactions categorized based on MCC codes are erroneous.

But banks can now offer their customers enriched payment data that is more accurate and reliable than that based on MCC codes, while being easily integrated into mobile apps via APIs. One such solution is the TapiX[36] API from Czech fintech Dateio. In its key markets (across Europe, but also in the Middle East), TapiX covers over 90% of all transactions, where it can display the exact name, logo and GPS location of the merchant, purchase category, URL address or eco-tags in addition to the amount. These replace MCC code-based carbon footprint tracking and allow institutions to reward clients for generally "good" spending, such as packaging-free purchases or ridesharing.

Development is moving forward: Where will the green wave take us?

According to Platformable[37], the development towards sustainability in banking is going in a good direction, but further improvements are needed, especially in terms of product vision and defining business models.



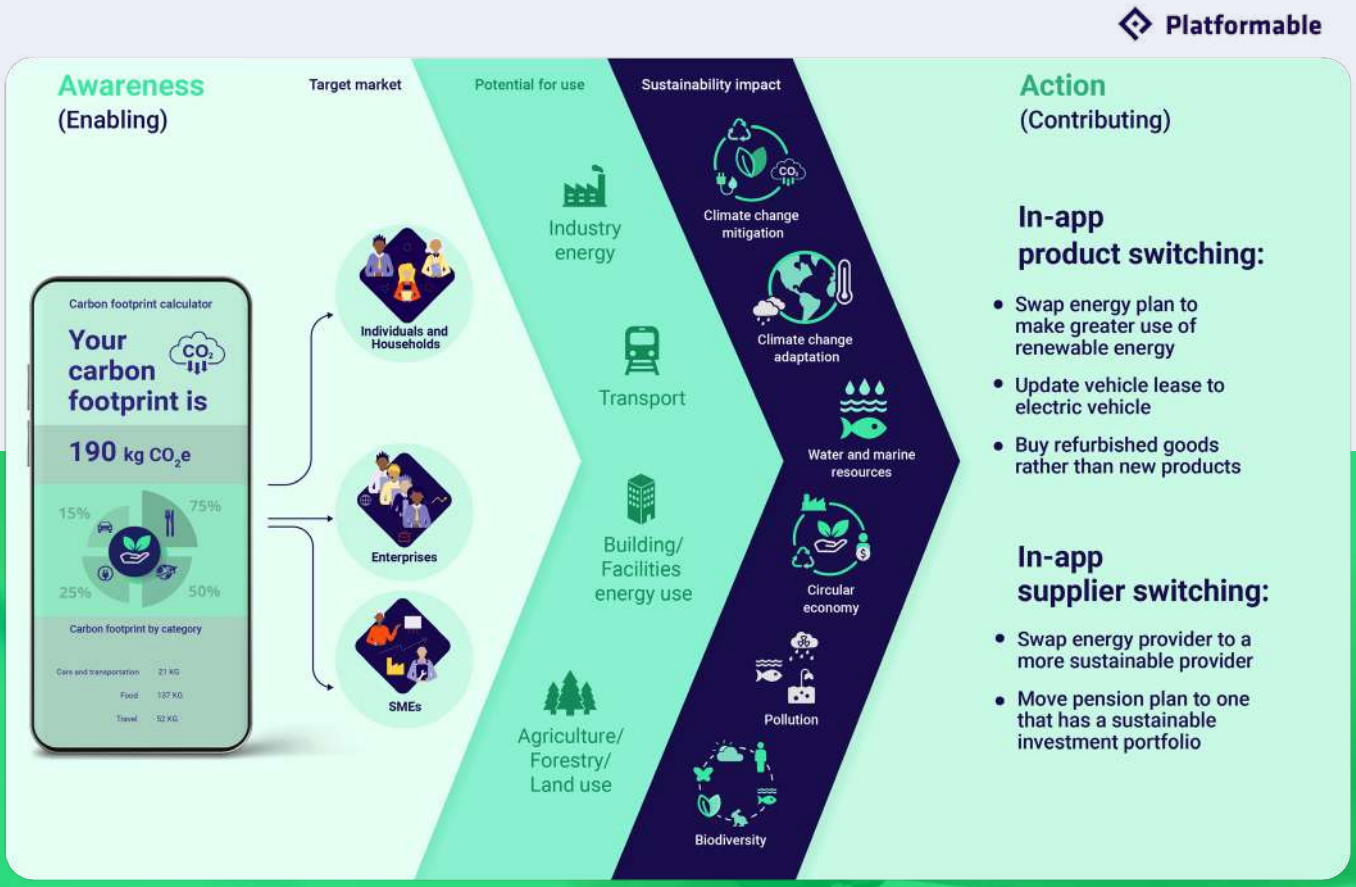
Source: Maddyness. A deep dive into the world of climate fintech with firstminute Capital.

To play its role successfully in reducing climate change and environmental impacts, the financial sector will need to innovate in several areas, according to Maddyness[38]

- Shifting investment away from oil and gas to renewable energy,
- Tools for tracking emissions, and behavioral change at the corporate and consumer level,
- Financing new energy and transport infrastructure,
- Managing and mitigating climate risks.

The barriers that climate fintech will have to overcome in the coming years were also identified by PwC in its report[39] . These include technology, finance, regulations (regulatory) and processes and people (availability of talent and skills).

When it comes to carbon foot printing and tracking, the way forward is clear: move to the level of individual merchants and beyond. Many of the large companies now measure and report their carbon footprint themselves, so instead of using MCC code to measure product or service emissions, it is possible to use their data directly. Recognizing merchants for individual transactions is a matter of leveraging existing tools, such as the TapiX API for enriching Dateio[40] data. A more distant future issue is then tracking the carbon footprint at the level of individual items in the shopping cart.



About Dateio

Established in 2013, Dateio is a fast.-growing Czech FinTech on a mission to bring insights to the modern consumer. What began as a card-linked offer platform has today become a bank integrated solution – helping retail banks across Europe to dramatically improve their user experience.

Today, Dateio is a venture-backed banking partner to several top-tier banks in Europe. As of end-2020, It has been awarded Deloitte technology FAST 50 CE and helps millions of users receive value through enriched transaction data and card-linked marketing platform

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Feel free to reach out to sales@tapix.io to find out more about providing data-driven insights.

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