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PARLIAMENTARY SECRETARIAT FOR EUROPEAN FUNDS AND SOCIAL DIALOGUE

TRADEMALTA

Software as a Product and Service in the Financial Services Value Chain

Germany | Sweden | Switzerland

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Software as a Product and Service in the Financial Services Value Chain in Germany Sweden and Switzerland

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Key operational barriers in the sector are identified together with the opportunities that exist in the geographical regions studied.

Both a quantitative and qualitative analysis of the opportunities involved has been undertaken. In quantitative terms, quantification of the growth of the sector, expected sales and profit growth, percentage of the population consuming products from the sector, number of firms operating in the sector as well as incentives offered by the country are considered. On a qualitative level, the analysis comprises an identification of the main political, economic, sociocultural and technological (PEST) trends or events that might constitute an important opportunity for Malta-based operators.</td></tr>
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The aim of this section is to look at these various options, citing the pros and cons of each option for each of the 3 geographical markets studied.
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3. About TradeMalta & The Strategic Opportunities Reports It Is Publishing

TRADEMALTA

TradeMalta Limited was established in 2014 through a private-public partnership between the Government of Malta and the Maltese Chamber of Commerce. The primary objective of the entity is to provide support and assistance to local small and medium-sized enterprises (SMEs) seeking to explore internationalising beyond the Maltese shores. Such support comes in various forms and includes, *inter alia*, the provision of ad-hoc advisory services, the organisation of business missions in countries of interest, as well as education and training to local business owners in the fields of international business and marketing.

The global political and economic arenas are nowadays increasingly dynamic and the organisations and players therein are in a constant state of flux. Political uncertainty and upheavals, as well as instability and critical political decisions made by the world's leading economies, together with a number of emerging economies experiencing fuelling growth, are a few of the multitude of factors that continue to have an important bearing in the global business environment.

Taking calculated risks and making informed decisions has, now more than ever before, become imperative and no entity considering venturing abroad, be it through franchising, marketing to foreign markets or physically setting up shop in a foreign jurisdiction, can do so successfully without first having undertaken a thorough assessment. To this end, through TradeMalta, Maltese businesses considering internationalisation have the ability to access good-quality, well-researched, relevant and updated information on the market and sector parameters that matter most.

While tailor-made *ad-hoc* country reports can and should be commissioned when and where appropriate, they usually come at a considerable cost. In this milieu, Trade Malta's objective is to take on this cost itself with a view to facilitating internationalisation and trade.

It is in this context that this report and others like it are being published following the approval of the *Internationalisation Knowledge Platform* project for ERDF Funding. Through this project, TradeMalta is seeking to develop a digital platform within its new website with the key objective of providing SMEs access to relevant and updated international market and sector-specific reports for a certain number of countries and areas that TradeMalta deems to be strategically relevant to Maltese businesses.

Indeed, this is one of several initial Strategic Opportunities Reports that endeavour to analyse the key opportunities in five sectors that are deemed to be strategically important for the Maltese economy and that have shown great potential for growth.

In light of this, the Project that this report makes part of it is to our understanding that the objectives of this Assignment are to:

(i) Foster growth potential of SMEs at an international level through the provision of support services; and
(ii) Provide 5 core sectors of the Maltese economy with a factual and up-to-date Report identifying some key markets offering growth potential for local businesses that intend to, or would like to, expand their service offering to jurisdictions beyond the Maltese Islands.

4. Executive Summary

The financial services industry has seen drastic technology-led changes over the past few years. Financial Institutions constantly look into their Information Technology (IT) departments to improve efficiency and facilitate innovation. Meanwhile, financial technology (FinTech) and Regulatory Technology (RegTech) start-ups are making their mark in an already well-established market, leading with tailor made, cost effective solutions, unencumbered by legacy issues.

FinTech is a term used to describe how technology can be used to improve and automate the delivery of financial services. Financial technology firms generally aim to attract customers with products and services that are more user-friendly, efficient, transparent, and automated than those currently available on the market. The term encompasses a number of areas in addition to financial services including the latest developments in insurance (InsurTech), regulation (RegTech) and blockchain.

For a long time, new market entrants found it difficult to break into the financial services industry with larger financial institutions having advantages in terms of economies of scale, networking and compliance systems able to withstand the increasingly heavy regulatory framework that has permeated the finance industry along the years. Times have changed and software companies, operating in areas that range from traditional Customer Relationship Management (CRM) to innovative FinTech and RegTech, have been able to make their mark in this sector, often focusing on a particular innovative technology or process.

Malta is no stranger to this evolution and has been able to stand out among its European counterparts as a solid financial services and IT hub. The Maltese government has thus been exploring new niches in the financial services sector, focusing on IT and FinTech as two of the main drivers for growth in the Maltese services industry. Malta, for instance, was one of the few countries which have sought to regulate the FinTech space.

Strong economic performance and a positive future outlook have encouraged a new generation of entrepreneurs to take on the challenge of starting up their own businesses, whereas already-established businesses found fertile grounds for continued expansion and consolidation. The nation's dependence on the success of SMEs has, in turn, prompted action from the government to aid the growth of start-ups, especially those in innovative industries, as well as to facilitate internationalisation for already-established firms. The setting up of Finance Malta is a case in point.

The large concentration of financial institutions, has offered Malta-based software developers a large potential client base on their doorstep. Companies can develop and test new products and services on the diverse, yet concentrated, local market before trying their luck at exporting their services and solutions to other finance hubs. Alternatively, they can extend their successes in other industries to financial services where the industries towards which the software is targeted share similarities with the finance industry.

In this report, we look at internationalisation opportunities in three markets which offer significant growth opportunities for the expansion of Malta-based companies providing software solutions to the financial services sector. Although FinTech and RegTech companies are being set up across Europe and there is already a plethora of software development houses around the world, there is still a global excess demand situation underpinned by a constant need by several industries, including the finance industry, to cope with a lack of software developers who are required to develop software to keep up with market and regulatory changes. As a result, software development often represents a bottleneck for small financial market setups and bigger ones alike.

A solution that the finance industry is no stranger to might be the recruitment of software developers. However, as a number of financial services institutions have discovered, this is a lengthy and time-consuming option and a very costly one insofar as the software needs to be developed and the corresponding cost fully apportioned to the financial institution undertaking the development. In this context, third party service providers might prove to be a better option as the development costs are undertaken by the software company and the price paid by the financial services institution is usually a fraction of what it could cost the same institution to build and maintain its own software. This therefore results in economies of scale that allow software companies to provide solutions to clients at a lower cost than clients would otherwise need to incur and in the process to recover costs and make a handsome profit in the deployment, maintenance and further customisation of the software platform and at times also the hardware infrastructure.

The growth of intelligent online banking solutions, the creation of engaging user interfaces, Application Program Interfaces (APIs) to connect different services, the enhancement of cyber security, as well as the implementation of automated data collection and analysis, big data, machine learning, deep learning and automated decision making are all but a few of the main areas in which software developers are needed in the day-to-day tasks of modern financial services companies of all hues.

Through its constant investment in this industry, Malta has experienced a fast growth in the digital content and software development industry with the sector expanding to cover a wide range of specific activities aimed at servicing the needs of this rapidly-growing market.

Germany

Germany is increasingly consolidating its credentials in the European financial services scene, and according to several experts, it could very soon replace the UK as the region's FinTech leader. Uncertainty surrounding the impact of Brexit is expected to boost the attractiveness of Germany's FinTech hubs. While several financial institutions having already announced their intention to partially transfer operations to Germany, FinTech, RegTech and financial software services providers are expected to follow suit to some degree or another to keep pace with the market they depend on.

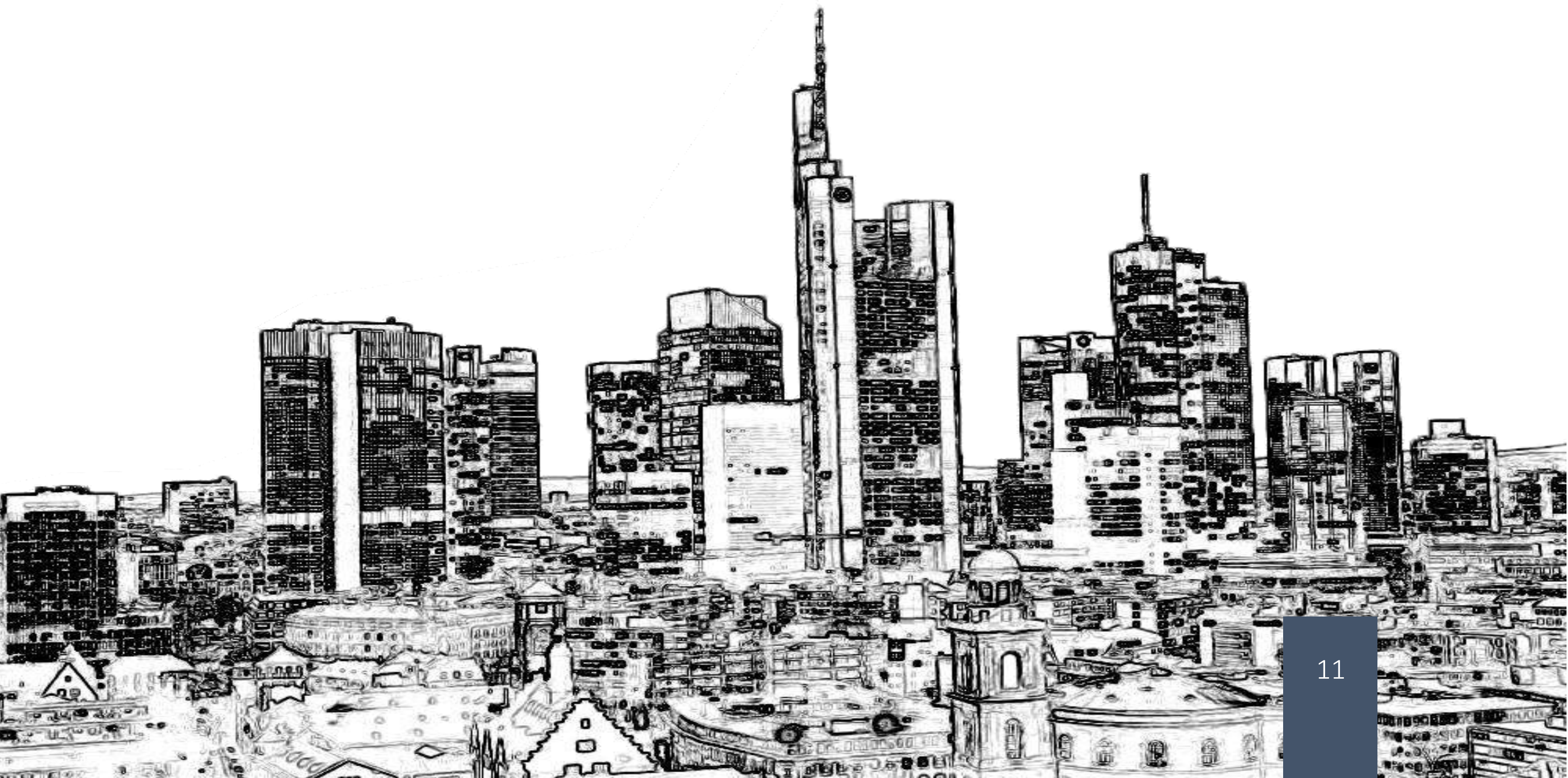
In response to the growing and evolving presence of financial market technologies in the market, financial institutions in Germany have been ramping up their activities aimed at dealing with the FinTech challenge. In Europe, the UK and Spain are the countries with the highest adoption rates of FinTech, with 41 % and 37 % respectively. Germany, with 35%, is the third European country above the global average. A recent study shows that all of Germany's largest 10 banks have deployed financial market technologies in order to digitalise their service offering with very few banks opting for in-house development.

Germany uses digital financial services extensively. In 2017, three-quarters of internet users used online banking services, according to survey responses. 30% of these did not visit a bank branch at all (Deutsche Bank, Germany Monitor, 2018).

With financial services becoming ever more digital, FinTech start-ups are increasingly visible in Germany: 4% of all German start-ups launched in the FinTech space in 2016. This represents the fourth place in the ranking of the number of start-ups and follows software development or services (31%), industrial technology (9%) and e-commerce (7%). In 2017, the total number of FinTech start-ups reached around 700, with an average growth rate of a staggering 33% p.a. over the past 10 years. Berlin is the capital of German FinTech start-ups, hosting around one-third of them. Globally, Berlin ranks tenth as a FinTech hub, thanks to its strength in attracting a large and innovative talent pool.

Although Germany is the second most important European FinTech Venture Capital market behind the UK, the volume of FinTech investments in Germany only grew by 9%, compared to the rest of Europe (63%) or the UK (200%). This means that there is a huge opportunity for Malta-based software developers to compete in this sector. On the whole, German investors are cautious. This has left ample room for international competitors who have already reached a high stage of development in terms of performance and relevance of their business models.

Overall, the German Fintech ecosystem remains on a healthy development path with deal flow growing, the average deal size increasing and investment volumes continuing to expand. Nevertheless, the percentage of successful FinTech start-ups is low. This represents an opportunity for cooperation to find alternative ways to grow and take actions to reduce costs.



Sweden

Sweden is one of the leading countries in the world in FinTech and ranks third behind the UK and Germany when it comes to FinTech investments. Almost two in every three FinTech investments in the Nordic countries in the past two years were made in Sweden. Thanks to its quick adoption of new financial technologies, it might soon become one of the first cashless economies in the world depending completely on mobile apps and cards for transaction executions.

Sweden’s long history of innovation is deeply rooted in its society. A liberal market and mindset have been the catalysts of new developments and products. Sweden ranked first in the European Commission Innovation Scoreboard of 2017 and was ranked by Bloomberg Innovation Index of 2017 as second globally. With a system that combines entrepreneurship with economic security, innovation has been key to Sweden’s competitiveness and growth. Because Sweden is such a small country, it has always depended on trade and the sharing of ideas and technology.

Regulation is an important catalyst for FinTech companies. Sweden’s success across financial innovation in the past has been aided by proactive measures undertaken by the financial services regulator in facilitating growth and innovation.

A robust social infrastructure has aided Sweden’s journey to the top of the FinTech industry. Since 2016, a range of bottom-up initiatives have been created to enhance the development of this sector. These initiatives include low-cost conference centres aimed at increasing networking and marketing, fast broadband internet speeds (among the world’s fastest) and substantial social benefits.

Sweden’s dominance in the global FinTech scene is a reflection of the coming together of a number of factors including a tech-savvy end user market, a supportive infrastructural and regulatory framework and a highly educated mix of talent, making it the ideal target for Malta-based software developers.

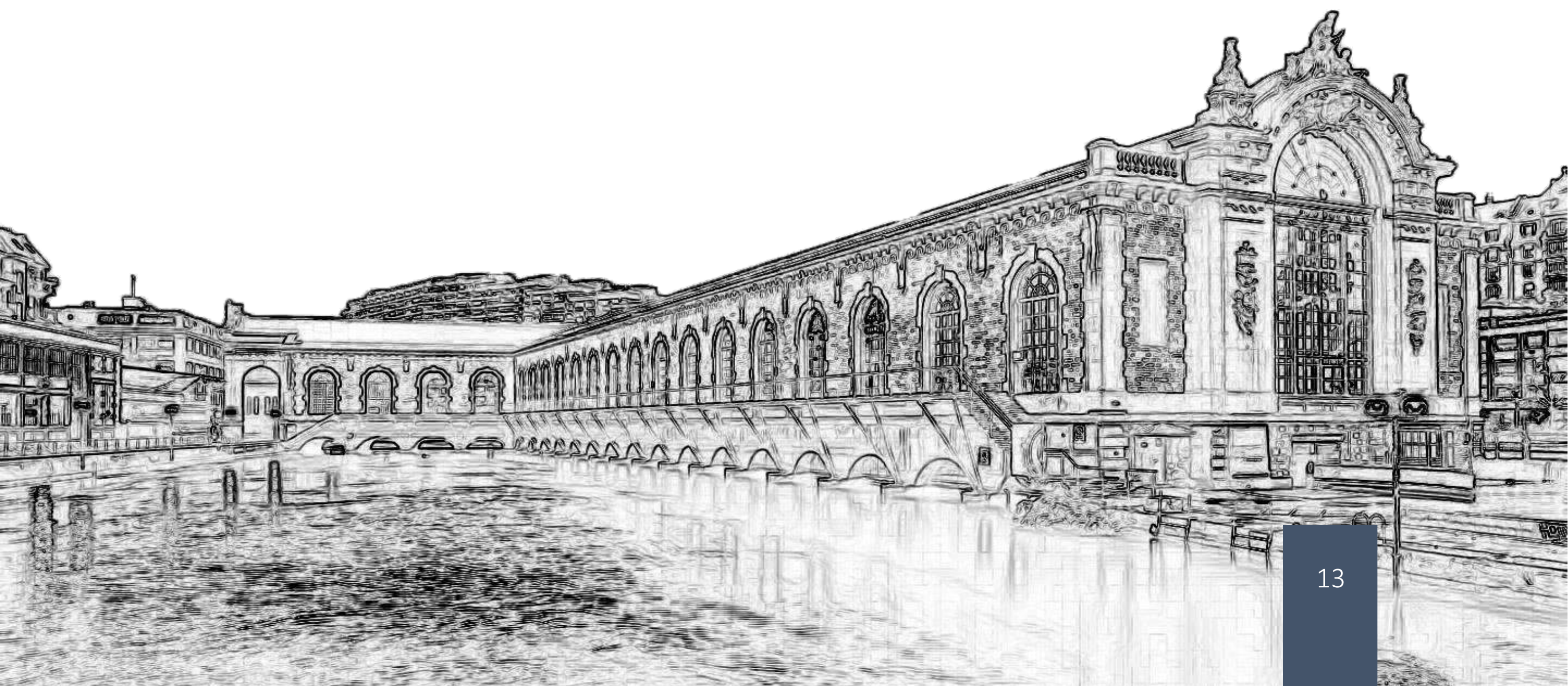
Switzerland

The Swiss FinTech industry has been growing steadily in the past years, supported by superior general conditions for FinTech companies including the political stability and the progressive regulatory environment. Swiss financial regulation is principle-based rather than rule-based, allowing it to cope well with innovative business models and actively removing the barriers to entry allowing a level playing field between traditional actors and financial market technologies.

In the FinTech Hub Ranking of 2018 published by the Institute of Financial Services Zug (IFZ), Zurich and Geneva ranked second and third respectively with regards to conditions for FinTech Companies to thrive, mainly due to their leading position in political stability and their progressive regulatory environment. The low level of corruption, the high level of freedom of press, and moderate corporate tax rates are factors that strengthen the two Swiss cities' positions as some of the leading hubs in the mentioned dimension. On the down side, Switzerland is a high-cost jurisdiction.

Switzerland has become a hotbed for cryptocurrency and blockchain, and in many aspects, is now one of the world leaders in Initial Coin Offerings (ICOs). The country is also one of the first-established financial services providers in the world to offer a regulated platform for crypto tokens and assets.

Despite the promising growth rates, Swiss FinTech companies are still confronted with some challenges that are impeding further growth, including the ability to find experienced and skilled human resources. This makes Switzerland a good target market for the Malta-based financial software industry. The lack of human skill, together with the relatively high cost of labour, have compelled FinTech companies to collaborate more with Banks, rather than acting as prime competitors, thereby making software development one of the prime revenue areas for financial market technologies.



5. FinTech Possibilities and the Potential for Malta-Based Companies

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Malta as a Software Provider for Financial Markets

FinTech organizations, mainly start-ups, are reshaping the financial services industry, offering customer-centric services capable of combining speed and flexibility, backed by forward-looking strategies, and cutting-edge business models. In the last few years, there have been substantial changes in the banking and financial sectors. The reasons are several, such as the impact of the 2008 financial and economic crisis, the increasing regulation of incumbent players, and the social and behavioural changes in the customer base. In the last few years, in fact, the digital transformation of the financial services industry has become the most important catalyst behind the FinTech phenomenon.

European financial service providers have accumulated very large losses over parts of the last decade following the recent global financial crisis. Stability in the financial services sector is critical for a smooth functioning of the real economy due to the magnitude of the impact that negative externalities could have on it. The global financial crisis has largely shown the negative effects of a bad functioning of the financial services system and, most importantly, of its failures. The underlying business model is one of the main causes of the huge losses recently undergone by traditional financial services institutions. These organisations often made use of obsolete business models designed for old-style markets and customers that in the meantime have changed their needs that have failed to be adjourned. Although financial institutions tried to develop closer relationships with their customers, most of them have not managed to give the right priority to their needs. The majority of their products and services still lack the customisations that one would find in other industries. At the same time, the same financial institutions still charge high fees for overdrafts and other common, increasingly-automated operations.

Financial institutions are becoming more aware of the fact that customers must take a primary role in their business. They are recognising further the need of radical changes in order to face a new and quickly-changing environment. One powerful way to meet today’s challenges in the financial service sphere is to move toward a digital transformation focused on automation, cost cutting, providing a better service and allowing for greater flexibility. Because of a multitude of legacy issues, this is easier for start-ups than it is for those who have been in the market for long.

This digital transformation mentality has provided the financial services sector with solutions aimed at improving the entire value chain. Digital developments have brought solutions both for the production side (data capture, databases and data warehouses, processing, visualisation and decision-making tools) and for distribution (digital channels, knowledge of customers, improved customer experience and flexibility of customer offerings).

The above brings us to the definition of FinTech, for which there are varying meanings, but which we essentially define as the use of software to enhance and improve either parts of the financial services value chain or the financial services value chain in its entirety. The definition is not just specific to the customary financial services products (payments, loans, portfolio management, risk management, asset management) but touches a wider range of areas including:

1. Customer service
    - *Customer Relationship Management (CRM)*
    - *Electronic Billing and Payment*
    - *Electronic Trading*
    - *Automated Fraud Prevention*

2. Compliance
    Reporting and Analysis
    Real Time Compliance Systems
3. Business processes
    Data Warehousing and Analytics
    Data Quality
    Document Management
    Imaging and Optical Character Recognition Software
    Project Management
    System Integration (ERP)
    Security

While it is, in some avenues, customary to separate FinTech from RegTech, the definition of FinTech that we have adopted for the purposes of this study effectively comprises RegTech, as well as any other ICT-related products and services that have a function in relation to financial services.

Financial Technologies have two main application areas, namely by Service providers aiming:

1. to capture customers who are ignored or incorrectly serviced by financial intuitions; and
2. at helping financial institutions be more customer-focused, reducing costs and increasing flexibility.

Given the ever-increasing demand for FinTech services and their solution providers, we have recently witnessed a specialisation in the areas which financial technologies have come to cover. These include:

1. Insurance;
2. Wealth Management;
3. Payments;
4. Credit;
5. Crowdfunding;
6. Retail Banking;
7. Security;
8. Currency and Forex.

The FinTech industry has brought a tremendous shift in how these services are provided through the application of Information Communications Technology (ICT) innovations such as Big Data Analytics, Cloud Computing, Internet of Things (IoT) devices, Artificial Intelligence (AI) and Social Networks.

The world is changing at a pace and in a way that was impossible to foresee and to anticipate only some decades ago. Contextually, new technologies and innovations are setting the stage for new ways to provide old services.

Malta as a Leader in providing FinTech Solutions

Malta has established itself as a prime FinTech hub for over a decade by hosting and attracting a variety of financial services structures including Alternative Investment Funds (AIFs), Professional Investor Funds (PIFs), UCITS schemes, electronic money institutions and payment service providers, as well as having developed into the world's largest iGaming hub.

Malta has sought to create a regulated framework for innovative technology that is built upon three pillars: consumer protection, market integrity and stability, both financial and political. The country has moved with impressive agility to develop a framework that embraces progressive FinTech and blockchain (including crypto) technologies. It is doing so with the collaboration of a number of important regulatory institutions, including the Malta Gaming Authority (MGA), the Malta Information Technology Agency (MITA) and the Malta Financial Services Authority (MFSA).

The result of this strategy is that Malta is becoming a global pioneer in FinTech and now has a significant edge over several other competitor countries. The Island is racing ahead with the development of a framework aimed at bringing oversight to the blockchain sector, while creating the right conditions for tech innovators, start-ups and larger players to grow their business. In transforming itself as a safe space for FinTech, Malta has a lot of things going for it. With its cost base significantly cheaper than Europe's number one FinTech location (currently London), Malta is worth looking at. The Island offers financial software entrepreneurs the opportunity to be located in one of Europe's fastest-growing finance centres, in close proximity to potential employers, contractors and investors. Companies are also using Malta as a springboard to nearby markets, which is increasingly becoming a testing ground for new financial technologies.

Over the years, Malta has become one of Europe's favoured destinations for foreign direct investment within the ICT industry. Today, several hundred ICT companies operate in, or from, Malta. The island is also home to a number of eFinancial Services companies, including payment gateways, card issuers, eWallets and online foreign exchange (ForEx) and securities trading platforms. Many of them are showing interest in collaborating with tech start-ups on pilot projects, as well as the testing of software, hardware and applications. Tech firms think of Malta as an emerging FinTech location because it provides a wealth of talent and a varied pool of enterprises. The local labour pool is deep enough to meet the needs of ICT employers across the range of technical and creative skills, and even though in recent years demand has by far outstripped supply, the practice of plugging the gap by importing labour from other EU jurisdictions where there is excess supply is very straightforward.

Often referred to as a 'Mediterranean Silicon Valley', Malta's small size also makes it the ideal test environment for new technologies and ventures in need of a flying start. Companies can develop and test new products and services on the diverse, yet concentrated, local market before exporting their services and solutions to Europe, North Africa and further afield. Global giants support the small island nation in its effort to become a centre for tech innovation.

Studies have shown that the best ecosystem in which FinTech service providers would flourish is based on the following:

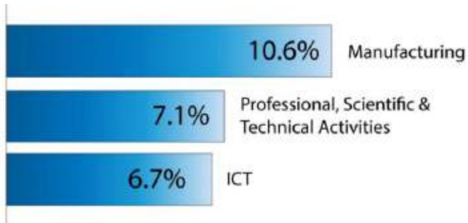
1. Product demand across customers, corporates and financial institutions;
2. The availability of talent;
3. The availability of financial resources for start-ups;
4. A flexible and forward-looking government policy in terms of regulation, taxation and initiatives.

The Maltese Government has made tremendous steps towards making this ecosystem a reality on the ground and this has positioned Malta as one of the countries of choice for these service providers.

With all the inbound investment to the Island, software developers have seen in Malta an ideal place to set up shop, invest and expand. The Government has recently set up dedicated labs aimed at assisting start-ups. The Island has also partnered with Microsoft to create an innovation centre, offering lab space and mentoring programmes to early-stage companies or individuals. Other incentives include employee share option plans aimed at keeping salary bills low while retaining talent. Additionally, Malta offers attractive tax residency rules for highly-qualified individuals and high-net-worth individuals. Provided certain conditions are met, a 15% flat rate of income tax on particular income streams may apply to such individuals.

FinTech start-ups planning to set up their business in Malta would typically opt for equity financing, such as bank financing or financing from the management or parent company (if it is part of a group of companies). Raising alternative finance through capital markets would be challenging for start-ups, as they would require an established track record. Through the Start-up Finance Regulations 2017, the country's economic development agency, Malta Enterprise, has created financing opportunities for innovative start-ups in their early stages of development.

Companies supported by Malta Enterprise generated more than € 2 billion worth of exports in 2017, equivalent to 75% of Malta's exports (excluding fuels). The main contributors to the Gross Value Added (GVA) were the following:



Source: Malta Enterprise (2018)

The ICT sector has grown to represent 6.7% of the Gross Value Added (GVA) generated by the Maltese economy in 2017, an increase of 5.8% over the previous year. Currently, the industry is made up of more than 300 companies, employing over 7,300 persons. The success registered so far suggests favourable prospects for investment by other operators within this sector.

This growth in the ICT sector is mainly related to the following:

1. A robust logistic and regulatory infrastructure;
2. A strong iGaming sector;

3. A fast growing digital content and software development industry.

With an established modern telecoms infrastructure capable of hosting and delivering low-latency, round-the-clock connectivity to mainland Europe and anywhere else in the world, Malta provides an environment that is conducive to the ideal conditions for FinTech firms. Malta's small size and competitive cost base (which is gradually eroding) make it an ideal base location, while synergies with Malta's finance centre make it a natural choice for international companies looking to expand into the FinTech space.

The growth of intelligent online banking solutions, the creation of engaging user interfaces, the enhancement of cybersecurity, as well as the implementation of machine learning, data collection and analysis are all but a few of the main areas in which software developers are needed in the day-to-day running of FinTech companies. Furthermore, the FinTech sector is now branching out further as the new sub-sectors of RegTech and InsurTech begin to emerge and promise services which are driven by digital innovation. Over the years, a number of software providers have set up shop in Malta offering a wide array of services covering the whole spectrum of financial services software including tailor custom software development, web applications, data management, system integration and legacy system modernisation.

Exporting the Service

Although the local finance industry is brimming with opportunities, the size of the local market remains the limiting factor for organisations investing in software development, where code can be replicated at negligible costs. It is therefore natural for firms involved in the FinTech space to seek to create an environment that enables them to export their product to other markets. Indeed, as any company involved in the software provision space knows, once the code has been generated, selling it to additional customers comprises significant revenue streams at little or no additional cost. The code can be replicated with ease and offering it as a service simply involves ensuring that the hardware and the bandwidth for the service to run smoothly are available. Upscaling is thus a relatively minor cost in relation to the generation of code and a wider market base invariably means significant incremental profits for firms involved in this space. As this report will show, the international financial market is expanding at a fast pace in terms of innovations, and demand for software service providers is increasing accordingly.

The Maltese Government, through entities such as TradeMalta and Digital Malta, aims in helping FinTech start-ups reduce the barriers to export through target market and country research, business missions, assistance in marketing and in developing marketing material. Supporting the ICT sector in terms of enhanced cooperation with the EU and other countries is also one of the guiding principles of Malta's Digital Strategy 2014-2020.

Source: Digital Malta (Digital Strategy 2014-2020)

Businesses are being encouraged to exploit:

1. The opportunities of the European Digital Single Market;
2. Malta's strategic location in the Mediterranean, with ready access to the European and North African markets;
3. Government's strategic alliances with foreign ICT organisations;
4. Opportunities to expand into new or bigger markets.

Where to Focus

Global FinTech investment is setting the pace for a new record in 2018 with a number of services being offered across the board. Financial services providers have been gearing up for this change as shown in the recent collaborations with financial technology firms.

Source: CBInsights (2018)

FinTech has traditionally evolved from start-ups and spin-offs that want to take on and beat incumbents fettered by legacy systems, processes and procedures, to a broader ecosystem of different businesses looking in many cases for partnerships. FinTech start-ups don't just need capital, they need customers. At the same time, incumbents need new approaches to drive change and deliver innovation. Financial technology firms and financial institutions are undergoing a consolidation phase at the moment, where they compete less and work together more to achieve common goals in a number of growing consumer needs.

Source: Capgemini Financial Services Analysis 2018

An often-overlooked, but nonetheless very important piece of legislation is the European Union's PSD2 (or Payment Service Directive 2), which compels banks to open up their Application Programme Interfaces (APIs) so that third-party services can be built on top of their back end. This is a considerable competition policy development that emulates upstream service open access requirements first applied in the telecoms space. Financial institutions have traditionally remained very cautious on the technology side of things, but the new Directive means that other businesses can undertake their innovation experiments without sacrificing the security afforded by longstanding banks. In this regard, a main area of concern for financial technology firms is the ability to service the customer in providing cost-effective tailor-made solutions, and software development is key in this realm.

Prominent markets affording ample space for expansion include the markets that we look into in this report, namely Germany, Sweden and Switzerland. Germany may soon replace the UK as Europe's FinTech hub, while Sweden has always been a hotspot for innovation and research. Switzerland on the other hand has always been synonymous with banking because of its privacy laws and has quickly become a hotbed for cryptocurrency and blockchain, owing to its innovative and privacy-related regulatory principles. In all three countries, these the financial markets are changing and growing at a faster rate than resources allow, thereby opening a wide spectrum of possibilities for the plethora of Malta-based software service providers.

6. The German Market

Quick Facts

Currency

Euro (€)

Language

German

Travel Visas

Not required for EU nationals. Generally not required for tourist stays up to 90 days for non-EU nationals; some nationalities require a Schengen Visa.

Money

ATMs widely available in cities and towns, rarely in villages.

Credit cards are not universally accepted.

Mobile Phones

EU 'roam like at home' rates apply for roaming on Maltese Service Providers. Mobile phones operate on GSM900/1800 bands.

Time

Malta CET time

Opening Hours

Germany officially has a five-day working week with Saturday and Sunday being public holidays.

Banks are open Monday to Friday

- 8.30AM to 12.30PM
- 12.30PM to 3.30PM or 4.00PM
- Thursday afternoon till 5.00PM or 6.00PM

Afternoon closing time depends on the individual bank or branch. Some Banks also open on Saturdays.

Bars open in the late afternoon and close at around midnight or later. Restaurants open at around 12.00PM and are open till 12AM, with several restaurants closing between 4PM and 7PM.

Post offices are generally open daily.

Shops, department stores and shopping malls open daily from 10AM to 8PM or 9PM.

Travel for Business Development or Service Provision

Frankfurt Airport

Frankfurt Airport S-Bahn train lines S8 and S9 link the airport with the city centre several times hourly for €4.90 (11 minute commute).

Taxis make the trip in 20 to 30 minutes and average a cost of €30.

Munich Airport

The S1 and S8 trains link the airport with the city centre where the commute time is 40 minutes and the cost €10.80.

The Lufthansa Airport Bus departs every 20 minutes and takes about the same time as the train. The bus tariff is €10.50.

A taxi for the same itinerary will cost around €60.

Getting Around

Most large and many smaller German cities have their own airports, and numerous carriers operate domestic flights within Germany. Unless you're flying from one end of the country to the other, say Berlin to Munich, or Hamburg to Munich, planes are only marginally quicker than trains once you factor in the time it takes to get to and from airports.

Cycling is allowed on all roads and highways but not on the autobahns (motorways).

Germany's cities and larger towns have efficient public-transport systems. Bigger cities, such as Berlin and Munich, integrate buses, trams, *U-Bahn* (underground, subway) trains and *S-Bahn* (suburban) trains into a single multimodal network. Fares are determined by zones or time travelled, sometimes by both. A multi-ticket strip *(Streifenkarte* or *4-Fahrtenkarte)* or day pass *(Tageskarte)* generally offers better value than a single-ride ticket.

Basic Statistics

Land

Area: total: 357,021 km^2

Land: 349,223 km^2

Water: 7,798 km^2

Population

82,800,000 (2017 estimates)

Density: 232/km^2

Growth Rate: 0.22% (2018 estimates)

Urban population: 75.8% of total population (2018)

Rate of urbanization: 0.12% annual rate of change (2015-20 estimates)

GDP

€3.74 trillion (2018 estimates)

Real growth rate: 2.1% (2017 estimates)

Composition, by sector of origin (2017 estimates):

- agriculture: 0.6%
- industry: 30.1%
- services: 69.3%

GDP Per Capita

€45,104 (2018 estimates)

Distribution of income – Gini coefficient: 29.5 (2016 estimates)

Religion

Christian:	59.3%
No Religion:	34.4%
Muslim:	5.5%
Other:	0.8%

Age structure *

0-14 years**:**	12.82% (male 5,304,341/female 5,028,776)
15-24 years:	10.09% (male 4,145,486/female 3,986,302)
25-54 years:	40.45% (male 16,467,975/female 16,133,964)
55-64 years:	14.58% (male 5,834,179/female 5,913,322)
65 years and over:	22.06% (male 7,822,221/female 9,957,451)

*(2017 estimates)

Dependency ratios *

Total dependency ratio: 52.1

Youth dependency ratio: 19.9

Elderly dependency ratio: 32.1

Potential support ratio: 3.1

*(2015 estimates)

Important Contacts

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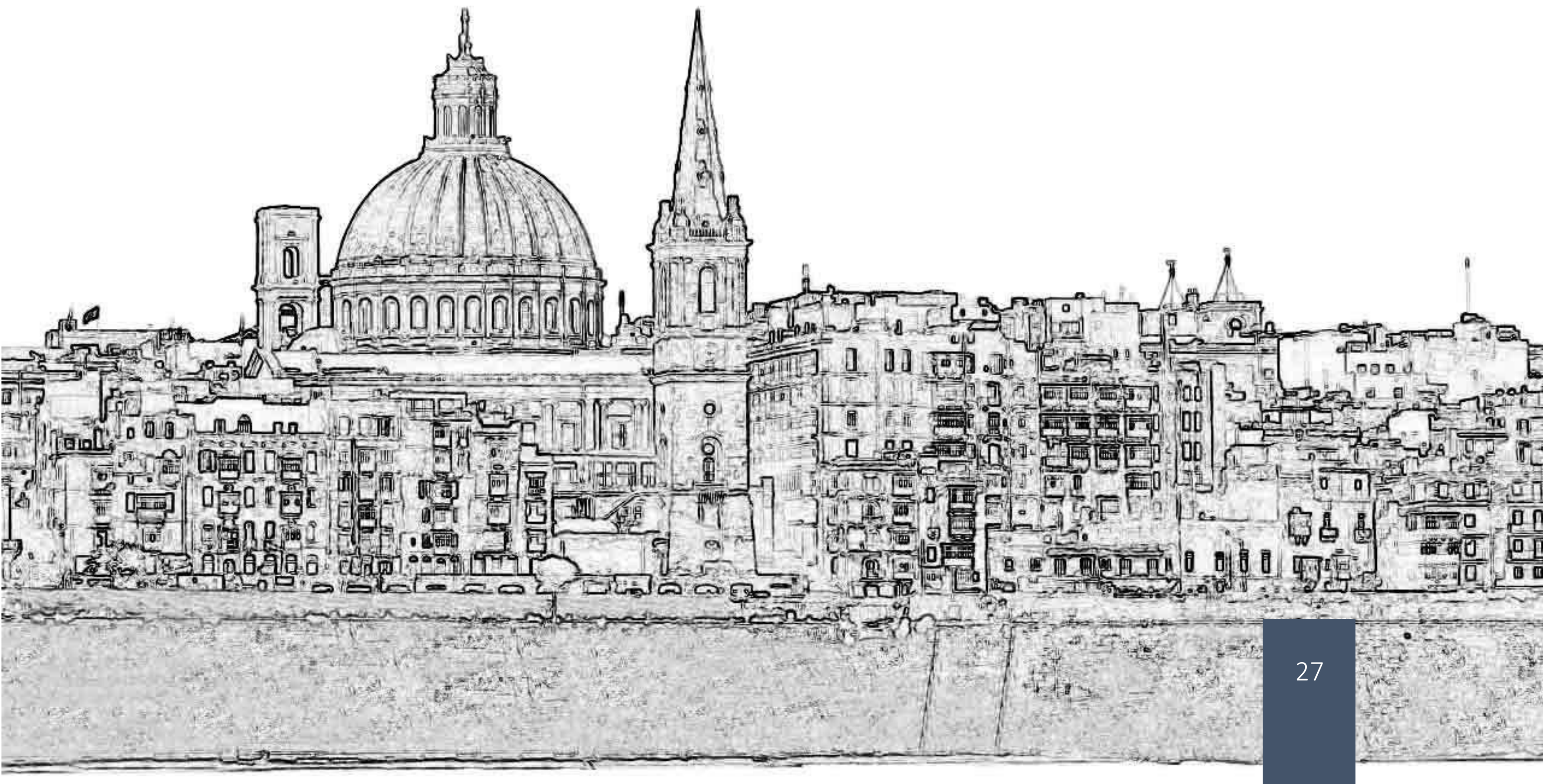
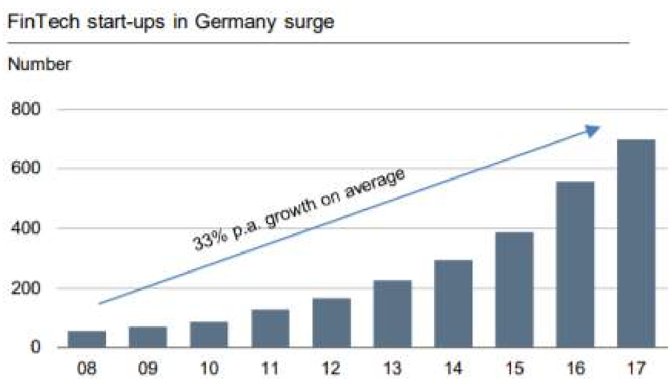


FinTech in Germany

Frankfurt is home to the European Central Bank (ECB) and more than 200 banks (over 80% being foreign). It is regarded as one of Europe's strongest economic regions and home to top-class financial institutions. Various firms from the financial sector have created incubators, accelerators, labs, and similar setups to promote the various FinTech business models. It is no surprise that experts almost unanimously say that Germany will soon replace the UK as Europe's FinTech leader. On the global scene, the Startup Ecosystem Ranking October 2017 featuring 125 countries, places Germany on the fifth place following the US (first), the UK (second), Canada (third), and Israel (fourth).

In 2017, the total number of FinTech start-ups reached around 700 with an average growth rate of 33% p.a. over the past 10 years.



Source: Federal Ministry of Finance (2017)

Although the amount of FinTech start-ups is increasing in Germany, the growth was not at par with that of other countries in the region. Notwithstanding the fact that Germany is the second most important European FinTech Venture Capital Market behind the UK, the volume of FinTech investments in Germany only grew by 9%, compared to the rest of Europe (63%) or the UK (200%). This means that there is a huge opportunity for Malta-based software developers to compete in this sector. On the whole, German investors are cautious.

A Success Story

As part of their strategic initiatives, many German financial institutions are developing FinTech ecosystems combining technology, customers and regulatory compliance in order to improve their business models, comply more readily with increasingly burdensome regulation and achieve higher levels of customer satisfaction. Part of this paradigm involves a financial institution meeting with software providers and learning about their technology, systems and methodologies in order to achieve a given goal. In this innovative ecosystem, software developers and financial institutions agree to develop tests and models using the institution's data and clients as a test case leading to a proof of concept.

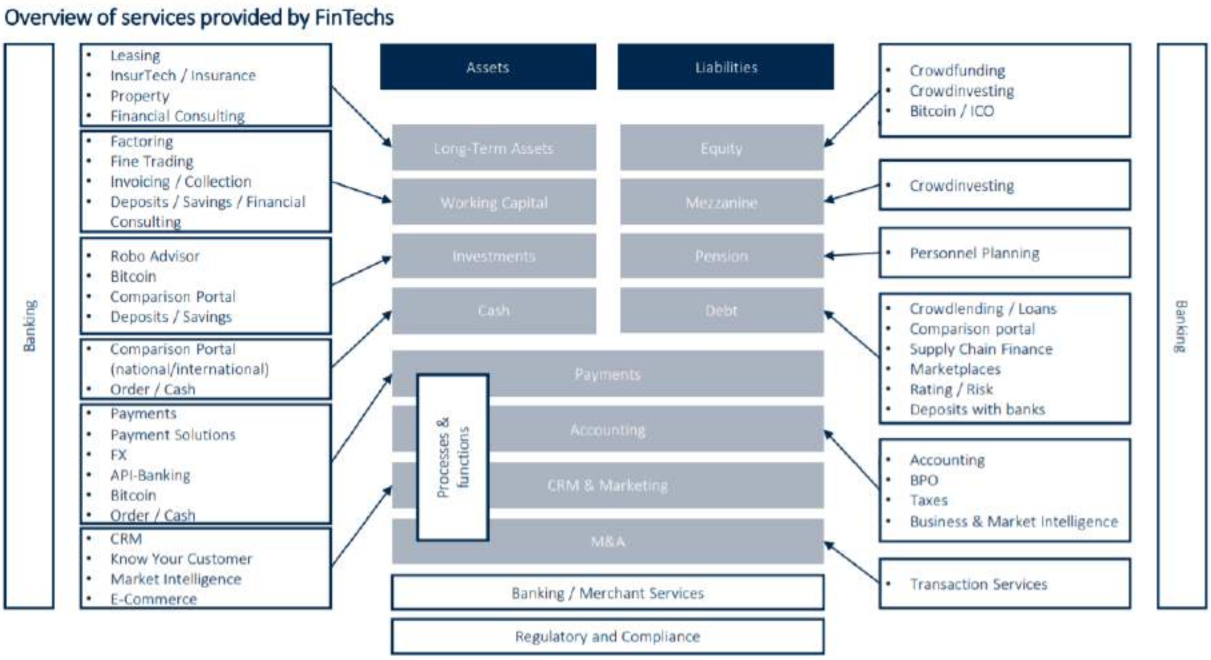
German financial institutions are ramping up FinTech investment with Commerzbank, the fourth largest bank by total assets, emerging as the most active bank in terms of number of FinTech deals. According to a research by Finanz-szene.de, Commerzbank is by far the most active bank among Germany's top 10 largest financial institutions in terms of FinTech deals. Commerzbank is currently involved in 27 FinTech start-ups. By comparison, the other 9 of Germany's top banks combined account for just 20 holdings. For some of these start-ups, Commerzbank is holding double-digit percentage of ownership, including Bilendo (12.9%), Gini (13.4%) and GetSafe (13%).

Bilendo is a start-up B2B Software-as-a-Service (SaaS) provider that focuses on optimising the liquidity of companies, and automating the entire dunning process. Bilendo's service starts directly after the invoicing, imports all relevant data via an interface or recognition system, matches incoming payments of business accounts with outgoing invoices, sends out required documents such as reminder or dunning letters via e-mail or by post, and informs about current statuses through valuable reports.

Bilendo was setup in 2015 and was handpicked by Commerzbank through the Main Incubator hub a year later.

This has left ample room for international competitors who have already reached a high stage of development in terms of performance and relevance of their business models. The need for software development in the region is high. This has come out clearly in a recent study carried out by the Deutsche Bank Research Group [1]. According to the study, out of all German start-ups in 2016, over 40% were software (31%) and technology development (9%) entities, with financial technology companies 'lagging' behind at 4%.

The need for research, development and ability for financial technology companies to serve a demanding market is reflected in the investment that is being made by the financial sector. In 2017, almost 90% of German banks reported they were already cooperating or planning to cooperate with financial technology companies. The German market, characterised by strong financial service providers has seen a larger than average collaboration between the latter and financial technology companies when compared to the European average (50%-60%).

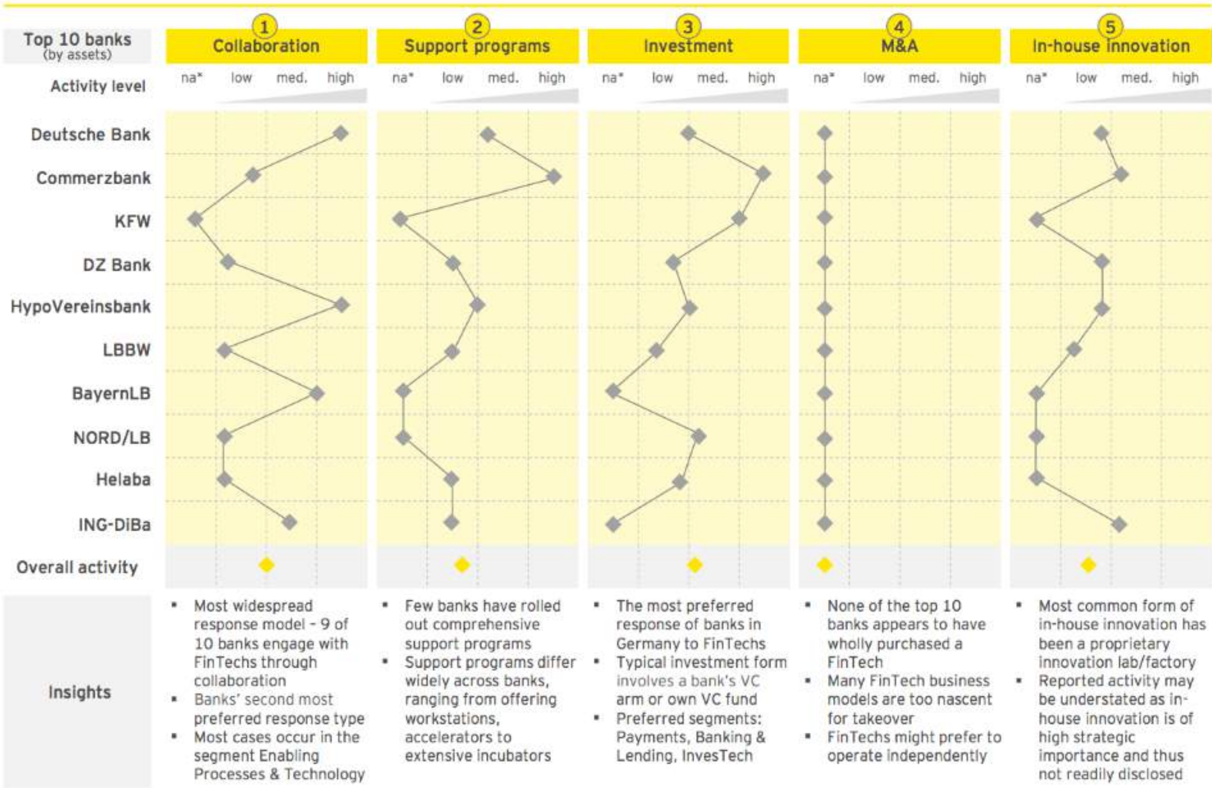


Source: Clairfield Expert Group (2017)

Given the wide array of services that Financial technology companies have to offer, it is easy to see why most German financial institutions are eager to cooperate with these service providers. Banks are losing, on average, 3% of their revenues to Financial technology companies every year and this figure is set to increase.

The infographic below shows how all of the top 10 Commercial Banks in Germany are joining forces with Financial technology companies with the main interfaces being Collaboration and Direct Investment.

[1] German FinTechs on the Rise: A Mixed Blessing for Banks, Beneficial for Clients, Deutsche Bank Research, July 2018



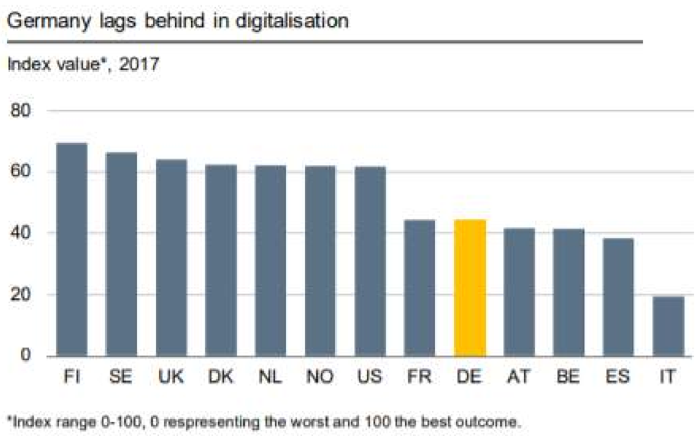
Source: Germany FinTech Landscape (September 2017) Ernst and Young

Key Market Opportunities for Malta-Based Operators

The international banking sector is still restructuring itself after the financial crisis. The European Banking Federation (EBF) reports that the number of credit institutions in the EU-28 has consistently fallen in the past eight years. The number of existing banks decreased from 8,525 in 2008 to 6,596 in 2017 as a wave of consolidations hit the sector. Germany is home to more than 25% of all the banks in the EU. These figures alone explain the increased focus of Banks on innovation and customer- driven services through financial technology firms.

Having said that, as of 2017, only 2% of German financial technology firms were profitable. With an ever-increasing demand to provide better service, management and infrastructure, financial technology firms need to grow quickly and the easiest way to do this is through collaboration. Given its resources, Malta, dubbed the Silicon Valley of the Mediterranean, has ample potential to market its software development platform across the plethora of bank-related services.

Another main area of interest is data management. Recent statistics shows that Germany lags behind in terms of digitalisation. In a ranking of 35 of the most industrialised countries, Germany ranks 17th, just behind France. This is a significant shortcoming in a country hosting the largest concentration of Banks in Europe and in an era where data-driven business models are becoming essential to thrive in an increasingly reactive financial market.



Source: Deutsche Bank Research (2017)

In this respect, the recent data protection measures such as the PSD2 and the General Data Protection Regulation (GDPR) are particularly relevant as German financial institutions are pushing investment in big data management structures, which require an increasing levels of software coding that the German market is unable to service without resorting to outside help.

Banks are now prioritising the adoption of new IT architectures and technologies including Cloud, AI, CRM, RegTech and Big Data aimed at offering an excellent customer experience while increasing sales, reducing costs, meeting regulatory requirements and taking cybersecurity to a whole new level.

Frankfurt and Berlin are the cities to be in for anyone wanting to develop and market a financial services product in Germany. The country has focused on building an ecosystem through targeted programs aimed at boosting the FinTech footprint to meet the growing demand for innovation. The German market is becoming increasingly attractive to international FinTech companies who are establishing branches in Germany in order to serve the large domestic market.

Frankfurt, in particular, is home to a number of initiatives that serve as a testing ground for financial technology companies offering consultations, networking services and co-working spaces aimed at boosting the synergies and bridging gaps between different service providers.

Deutsche Bank launched Digitalfabrik in September 2016, a program that supports the development for digital banking products. The idea is to give ambitious software developers from Germany and abroad the opportunity to create digital solutions for Bank clients. Software developers are able to test their systems on a common platform which are linked to real financial services demands serving as an opportunity to market a given product.

Commerzbank introduced the Main Incubator in March 2014. This is focused on blockchain, artificial intelligence, big data management and robotics as the main pillars which are changing the financial services industry. The Main Incubator operates via 3 distinct, yet interrelated routes, namely:

1. **Community Building**
   Early identification of technology trends through an active international networking platform
2. **Strategic Investments**
   When trends become solutions, the program matches demand with supply in order to facilitate the investment in innovative solutions. These are then made available to Commerzbank or other affiliates;
3. **Prototyping**
   The Main Incubator has also teamed up with Commerzbank Customers to develop solutions for their related business needs giving a new definition to the term ‘value chain’ (Commerzbank is effectively the first European Bank to do so).

In 2016, Deutsche Börse unveiled FinTech Hub, an initiative aimed at supporting the FinTech community by connecting Financial technology companies across the globe and providing a common networking program aimed at providing solutions for the local financial services industry. The Hub also helps financial technology companies market their products on the German market and connects them with German potential investors.

In addition to bank-led initiatives, Frankfurt also boasts a large pool of accelerator programs such as Accelerator Frankfurt and Finlab, established to connect the most promising ventures in the areas of FinTech, RegTech, and InsurTech. One of the latest programs that has hit the city is Silicon Valley’s Plug and Play, a European FinTech platform targeted at the international community offering vast networking possibilities and connecting all stakeholders in the financial services industry.

It is no wonder that in a 2017 report, Deloitte ranked Frankfurt as the third largest FinTech investment hub in Europe in terms of support given to this industry, with first and second place going to London and Zurich respectively. For any FinTech firm wanting to market its product, Frankfurt is among the top places to be.

In terms of possible positioning strategies for market entry in Germany, collaboration with existing banks would seem to be the safest and cheapest approach for both B2B and B2C products. Germany has a high density of banks, most of which have started exploring investing in technology-driven solutions. Partnerships with banks, in most cases, prove to be beneficial for financial technology companies as one of the biggest hurdles of such start-ups is customer acquisition. Partnering with existing banks could also lead to indirect marketing opportunities and to a wider access to consumer knowledge which could then be used as a tool to target other niche segments.

In Germany, the most common types of partnerships with banks are:

1. **Collaboration**
- Cooperation or joint ventures with financial technology companies to develop and/or apply new technologies, launch innovative products/services;
2. **Direct Investment**
- Investment of own funds in financial technology companies;
- Investment that takes place either through own dedicated investment vehicles, independent investment funds, or participation in financial rounds.

In terms of segment exposure, banks are predominantly concentrated on financial technology companies that help them digitalise their product offering. From a product perspective, payments have been the most preferred segment of banks' dealings with financial technology companies, followed by the lending and wealth management (InvestTech) segments.

Another, area which should also be considered as a target market is RegTech. In light of the ongoing changes in bank and cross-cutting regulation, and the attendant challenges and costs these bring to the industry, RegTech remains an attractive FinTech segment going forward. German banks have yet not started investing heavily in this segment. This could therefore prove to be an important area that Malta-based software providers can conquer.

Several industry reports also show that although FinTech partnerships have been on the rise, these collaborations only cater for specific product enhancements. Although attempts have been made, none of the financial institutions has succeeded in creating a fully-operational integrated business model that is able to incorporate all services on one platform and to serve as the ultimate getaway for the consumer. This could prove to be a good opportunity for software providers.

Although in the financial services segment, the percentage of English speaking individuals is high, the best way to promote the software is through native language representatives. This is especially important when it comes to support services.

If the software providers are dealing with financial institutions, the most sensible way to deliver consumer products is through a white label services arrangement. The white label approach makes sense for financial institutions because they can get access to technology without developing it themselves, and can generally do so at a lower cost than buying a custom solution, even if it means giving up some control on parts of it. Financial technology companies, on the other hand, are relieved of the daunting and expensive task of selling directly to enough consumers to make an application pay by piggy backing on an existing distribution channel. The biggest pitfall of this model is that in white labelling a service, the marketing and public relations opportunities of getting into such business are restricted. However, another more recent model entails the co-option of banks as the white label service providers themselves. This is the same model of Revolut with which Malta has become accustomed in recent months due to its expansion to the Island.

The approach to sales should include on-boarding processes – enabling speedy adoption by the end-users – and front-, middle- and back- office support in addition to the provision of training. This approach binds together the financial institution and white label service provider in their growing understanding of client needs boosting their joint efforts to meet these needs.

The current move from on-premise systems to software-as-a-service (SaaS) is also worth noting, despite the fact that it has been significantly slower in the financial services space. The latest cloud solutions allow for reduced costs, maintenance and space while providing a better avenue for upgrades and customisation. In this space, software providers would need to prove beyond any reasonable doubt that their systems are secure, by for example acquiring the ISO 27001 certification, and would also need to check the integration capabilities of their systems with that of the host. Although cloud-based platforms are usually more cost and time efficient to run and maintain than their on-premise counterparts, one needs to bear in mind that not everyone in the financial services industry is ready to take the leap of faith required to go on a SaaS platform and when they are there needs to be a cohesive setup between the software, the platform, and the applications. Not all SaaS applications integrate well or at all with existing on-premise apps or platforms.

In essence, the German market can best be penetrated through partnerships with financial institutions through a white label approach, whether it is the software developer or the bank that is offering the white label service. Software providers starting from scratch can either follow market trends focusing on payments, loans and wealth management or cater for the growing segments such as RegTech and InsurTech. Software providers with existing products can, on the other hand, tweak their code to match market requirements if required and try to carve out their niche either by latching on to an existing financial institution or by piggy backing on the infrastructure already available at one of the banks under PSD2 open access requirements. For vendors of coding and programming services, the market needs to be approached as it is approached in practically all the other countries with a round of business development meetings and a sound reputation for quality or by partnering with similar service providers operating already in Germany.

7. The Swedish Market

Quick Facts

Currency

Swedish Krona (SEK)

Language

Swedish

Minority languages include Finnish, Meänkieli, Romani, Sami and Yiddish

Travel Visas

Not required for members of EU or Schengen countries. Generally not required for stays of up to 90 days for non-EU and non-Schengen citizens.

Money

ATMs widely available. Credit cards accepted in most hotels and restaurants.

Mobile Phones

EU residents can use their mobile device in Sweden without incurring roaming surcharges as Sweden is part of the ‘roam like at home’ zone.

Phones will work in Europe's GSM 900/1800 band networks.

Time

Malta-time (CET) plus one hour.

Opening Hours

Sweden officially has a five-day working week with Saturday and Sunday being public holidays.

Swedish bank branches are generally open Monday to Friday from 9 AM to 3 PM. On Thursdays, banks usually close at 6:00 PM. All banks are closed on weekends and on public holidays.

Bars open in the early afternoon and close at around midnight or later. Restaurants open at around 12.00 PM and are open till 12 AM, with several restaurants closing between 4 PM and 7 PM.

Post offices are generally open daily.

Shops, department stores and shopping malls open between 9 AM and 7 PM or 8 PM Mondays to Saturdays with some shops opening on Sundays.

Travel for Business Development or Service Provision

Stockholm Arlanda Airport

The Arlanda Express train runs from the airport to Stockholm central station (adult one-way ticket 280kr / youth one-way ticket 150kr with a journey time of 20 minutes, and leaving with a frequency of every 6 to 15 minutes).

Airport buses (Flygbussarna) travel to the city centre (adult one-way ticket 99kr / child one-way ticket 89kr, with a journey time of 45 minutes, and leaving with a frequency of every 10 to 15 minutes).

Göteborg Landvetter Airport (Gothenburg)

Flygbussarna buses run from the airport to the city centre (adult one-way ticket 99kr / child one-way ticket 89kr, with a journey time of 30 minutes, and leaving with a frequency of every 12 minutes).

Sturup Airport (Malmö)

Flygbussarna buses run from the airport to the city centre (adult one-way ticket 105kr / child one-way ticket 85kr, with a journey time of 40 minutes, and leaving with a frequency of every 20 to 40 minutes).

Öresund trains operated by Skånetrafiken (www.skanetrafiken.se) run every 20 minutes from around 5 AM to around midnight (and hourly thereafter) between Copenhagen and Malmö (one-way ticket costs 110kr, and takes 40 to 45 minutes) via the bridge. The trains usually stop at Copenhagen airport.

Getting Around

Domestic flights link various towns and cities in Sweden and can be a fast, if not particularly cheap, way of getting around. There are 30-odd small regional airports located throughout the country.

Like most of Scandinavia, Sweden is an extremely bike-friendly country with a well-developed network of cycle paths in and around its towns and cities. There are also well-marked cycle routes around the country.

Canals provide cross-country routes linking Sweden's main lakes. The longest cruises, on the Göta Canal from Söderköping (south of Stockholm) to Gothenburg, run from late May to August, take at least four days and include the lakes between. Rederiaktiebolaget Göta Kanal operates three ships over the whole distance at fares from 13,595kr to 20,450kr per person for a four-day cruise, sleeping in a double cabin and including full board and guided excursions.

There is a comprehensive network of buses throughout Sweden and one can travel on any of the 21 good-value and extensive *länstrafik* networks, as well as on national long-distance routes. In general, travelling by bus is cheaper than by train.

Sweden has an extensive and reliable railway network, and trains are almost always faster than buses. Ticket prices vary depending on the type of train, class, time of day and how far in advance the ticket is purchased. Full-price second-class tickets for longer journeys cost about twice as much as

Basic Statistics

Land

Area: total: 450,295 km^2

Land: 410,335 km^2

Water: 39,960 km^2

Population

9,960,487 (2017 estimates)

Density: 22.17/km^2

Growth Rate: 0.81% (2017 estimates)

Urban population: 86.1% of total population (2017)

Rate of urbanization: 0.86% annual rate of change (2015-20 estimates)

GDP

€485.28 billion (2018 estimates)

Real growth rate: 3.1% (2017 estimates)

Composition, by sector of origin (2017 estimates):

- agriculture: 1.6%
- industry: 33%
- services: 65.4%

Religion

Lutheran: 87%

Other: 13% (including Orthodox, Roman Catholic, Baptist, Muslim, Buddhist and Jewish)

Age structure (2017 estimates)

0-14 years**:** 17.43% (male 892,462/female 843,375)

15-24 years: 11.31% (male 581,025/female 545,971)

25-54 years: 39.42% (male 1,993,590/female 1,933,080)

55-64 years: 11.58% (male 578,942/female 574,479)

65 years and over: 20.26% (male 931,593/female 1,085,970)

Dependency ratios (2015 estimates)

Total dependency ratio: 58.5

Youth dependency ratio: 27.4

Elderly dependency ratio: 31.1

Potential support ratio: 3.2

GDP Per Capita

€47,087 (2018 estimates)

Distribution of income – Gini coefficient: 25.4 (2015 estimates)

Important Contacts

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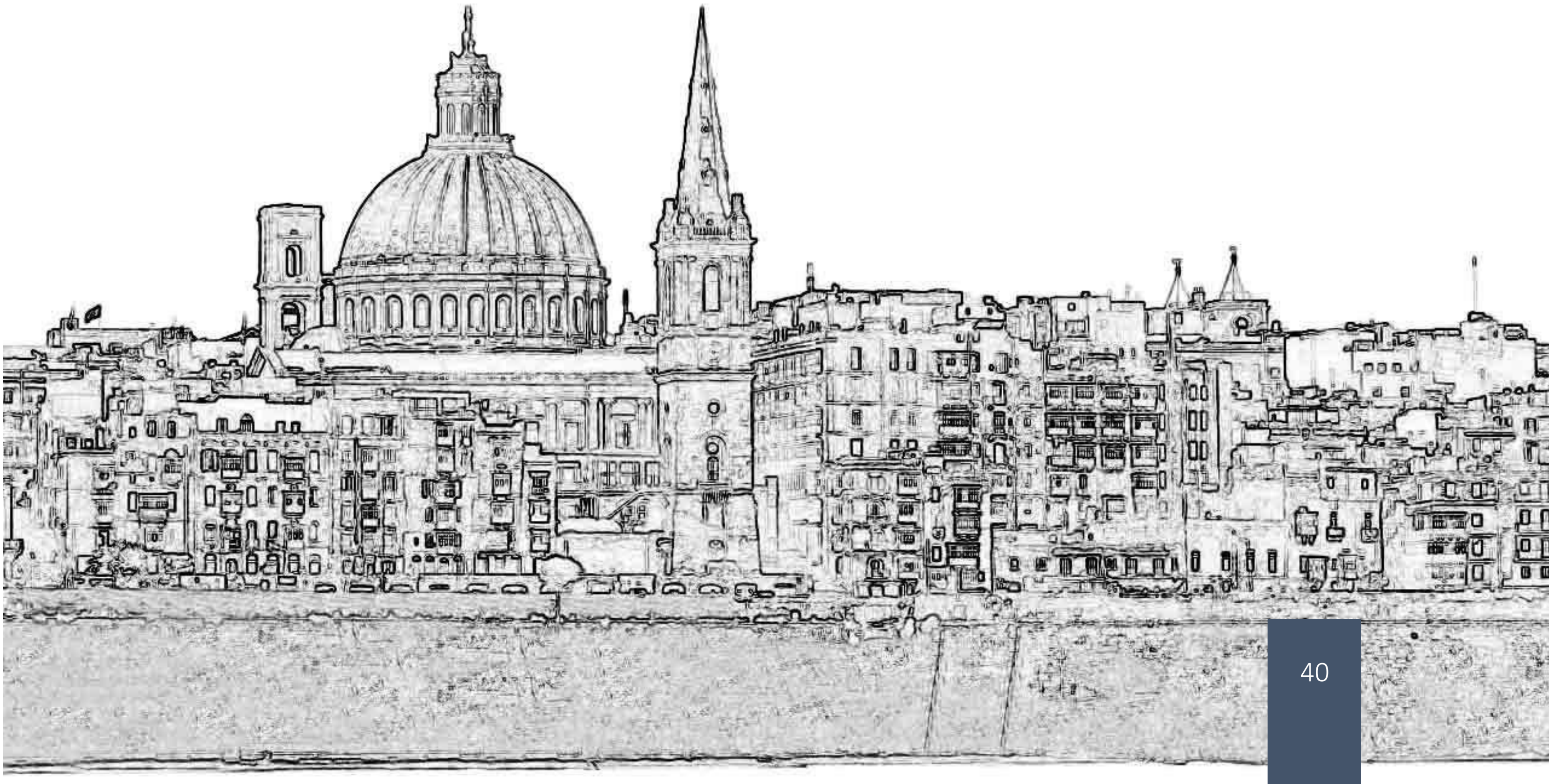


FinTech in Sweden

Sweden is home to Europe's largest tech companies and its capital is second only to Silicon Valley when it comes to the number of 'unicorns' – billion-dollar tech companies – that it produces *per capita*. Known to many as home to the multinational furniture retailer IKEA, Sweden has been crafting innovation across several industries.

The long history of innovation is deeply rooted in Swedish society. A liberal market and mindset has been a catalyst to new developments and products. According to the European Commission's European Innovation Scoreboard 2017, Sweden was once again the EU innovation leader surpassing everyone else including Germany and the UK. The 2018 Bloomberg Innovation Index underlines Sweden's dominance in innovation, ranking the country second globally. What's commendable is that the nation has managed to achieve this standing with a population of 10 million, approximating that of the city of London. Over the last decade, the country has taken the lead in the digital arena, driving innovation within technology. Home to successful start-ups including Spotify, Skype, King, Mojang and Klarna, Stockholm is home to one of Europe's most important tech communities and some of the fastest-growing start-ups the world over.

Sweden's success across financial innovation is partly owed to the proactive regulatory framework envisaging a strong ecosystem which facilitates growth. Sweden has among the lowest corporate tax rates in the region at 22%. The Swedish Financial Supervisory Authority is currently conducting studies to explore possible obstacles Financial technology companies encounter that are aimed at improving the social infrastructure. A number of initiatives have been created including Verksamt (a collaboration among several Swedish government agencies to provide information across most of the practicalities in setting up a business), the Swedish FinTech Association (which aims to develop the FinTech market by initiating meetings and cooperations between stakeholders) and Finansinspektionen (a Point of contact for companies that have specific enquires about the regulations, processes and principles that apply to financial innovations).

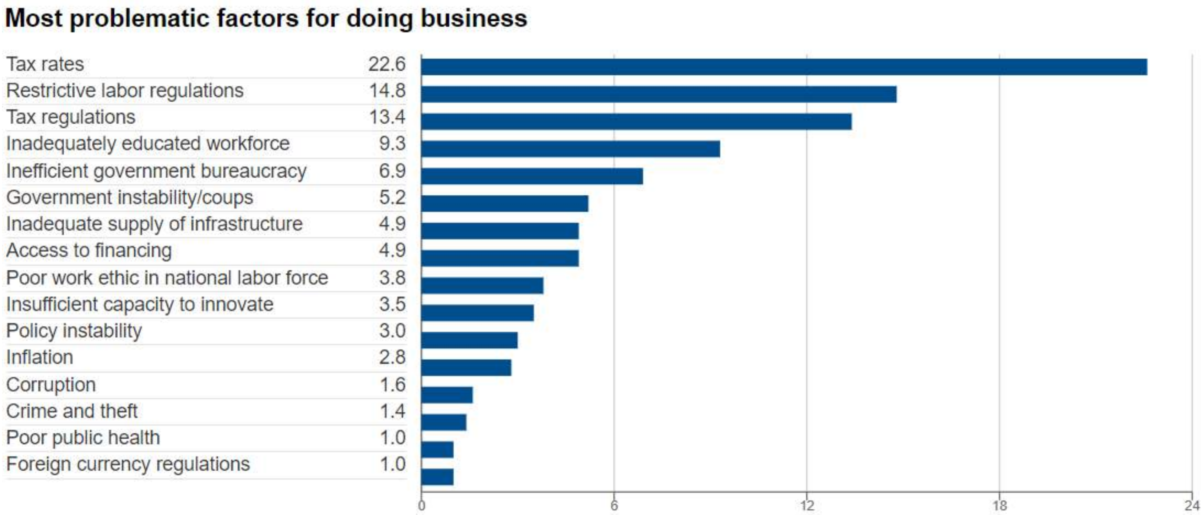
A Success Story

Dooer is a FinTech start-up founded with the goal of changing the bookkeeping industry. Established in 2015, the Stockholm-based start-up wants to make life easier for small business owners and their employees, with easy-to-use tools and services that eliminate administrative overheads with their proprietary AI software. Their digital bookkeeping service is offered for a fixed monthly rate, saving Dooer's clients both money and time.

Dooer's team of tech and accounting experts have built a cloud-based platform that runs customer accounts with little interference. Some examples of these tasks include taking photos of receipts and invoices, or providing income and salary statements. These are entered into Dooer's platform, which is integrated with the customer's bank account and the Swedish tax authorities. Dooer then matches the customer's bank transactions with the provided receipts and invoices, and sends through a summary for approval by month's end.

Beyond the technology sphere, Dooer is breaking ground with a pricing model that resembles that of Spotify or Netflix: fixed monthly subscription fees that can be cancelled at any time. Starting at 295 krona (US$35) per month, the fee will depend on the customer's turnover. It includes more than bookkeeping.

In 2016, the company has raised more than US$4.6m and is gearing to expand its services and outreach. Dooer's founder, Sam Nurmi, is convinced that the company can start converting businesses that have previously been tied to legacy accounting systems like Fortnox and Visma and spearhead the digitalisation of an antiquated industry.



Source: Global Competitiveness Index 2017-2018, World Economic Forum

The country also has a community of early tech adopters making it an ideal test market. Sweden ranks among the top 10 countries in e-government development. In addition, 94% of its population is connected to the internet with a smartphone market penetration of 72.2% (second only to the UAE) allowing for a high usage of digital services everywhere.

Sweden has been ranked seventh by the World Economic Forum in terms of global competitiveness, even if the Competitiveness Index is methodologically premised questionnaire-based grounds that are prone to bias and misrepresentation. Nonetheless, the same survey shows that the most problematic factor for conducting business in Sweden is the high personal tax rate that may go up to as high as 60%.

Source: Tradingeconomics.com

This explains the increasing number of workers leaving the country in search for more tax-friendly jurisdictions. Indeed, although more than 40% of the population has a university degree, the country has found it challenging to keep its elite workforce home. This has proved one of the main challenges of the country in terms of keeping its momentum in the FinTech space. However, it also means that financial technology companies would be actively looking for international resources in order to fill in the gap, creating opportunities for the Malta-based software development sector.

Key Opportunities for Malta-Based Operators

One of the main markets in Sweden is the Payments and Lending market. While a high profit contribution has driven the attractiveness of the lending space, the mass adoption has driven the payments space.

Unicorns such iZettle, Klarna (now a bank), besides platforms including Trustly and the now widely-used Swish app, enabling peer-to-peer payments, have been a major catalyst in Sweden, which is rapidly evolving as a cashless society. The country has also seen an increased interest towards the lending marketplace. The market for unsecure lending in Sweden is around €200bn, which stakeholders have seen as a lucrative business when one considers the high level of digitalisation of the country coupled with high-quality credit and low credit losses.

With approximately 99% of enterprises in Sweden being SME's, crowd funding has been lapped up in recent years. In Sweden, crowdfunding increased by 548%, equivalent to €8mn during 2016, compared to 2015, one of the fastest growing markets in Europe. Swedish SMEs recovered relatively well after the financial crisis, as their value added increased by over 30% between 2010 and 2017. The 2018 outlook expects SMEs to grow by around 5%-6%, leading to a growing funding gap that might result in an increasing market of potential clients.

Another key market is Wealth Management with the robo-advisory segment expected to grow exponentially in the near future, partly thanks to the interest shown by the major Nordic Banks, including Swedbank and SEB Stiftelsen, in this area.

Sweden is also solidifying its position as a hotspot for cryptocurrency experimentation and innovation as several crypto mining and blockchain companies have established data centres in the country. The Swedish government has recently also taken blockchain to a new level, using the technology for the allocation of tenders which have now been redesigned be within the reach of Swedish SMEs. The system will focus on smart contracts and quality supervision, and it focus more on the quality of service provided rather than on the credit rating of the company.

The new kid on the block, which has caused some excitement in Sweden is, however, Green Finance. The finance sector plays a central role in extending capital to new companies offering environmental solutions and technologies that facilitate the transition to sustainable societies. However, only about 1% of global financing sustains such initiatives.

In response, entities ranging from governments to investors are asking how the barriers can be effectively overcome to scale green finance and investment. Sweden is playing an important role in this sector as can be seen from the setup of Stockholm Green Digital Finance which demonstrates and raises awareness around how green FinTech solutions can help advance the transition to sustainable societies. The Green Assets Wallet innovation project is the result of a unique consortium of leading capital market actors and technology innovators formed under the lead of Stockholm Green Digital Finance. Throughout 2018, the consortium has been building a ground-breaking blockchain platform to help accelerate the market for green investments in support of the United Nations' Sustainable Development Goals and the objectives of the Paris Agreement.

Routes to Market and Internationalising Malta-Based Software Products and Services

The Swedish government has invested heavily in creating a suitable ecosystem that supports the FinTech industry in Sweden. One of the latest projects was the setting up of the Stockholm FinTech Hub. The Hub is Sweden's independent physical space for communication, collaboration, and cooperation that is tailored to the specific needs of the FinTech community. It is the ideal place for FinTech start-ups to have access to other stakeholders including financial institutions, potential investors, regulators, law firms and software developers.

The hub also provides research opportunities and helps stakeholders market their services through a consolidated network of partners.

In terms of possible positioning strategies for market entry in Sweden, the options are various, depending on the marketing budget and risk appetite of the firm targeting market entry.

Sweden is a tech-savvy country that makes for an ideal test environment for FinTech start-ups. Furthermore, over 86% of the population speaks English. While the payment sector is already dominated by Swish (over 60% of Swedes use the payment application), several opportunities exist within the Lending, Crowdfunding and Wealth Management sectors.

The level and intensity of competition in the payment services sector make it hard to compete unless new entrants offer technologies that could disrupt the current market leaders' business models.

In the Lending, Crowdfunding and Wealth Management realms, opportunities may arise given the exponential growth of users where demand is currently outstripping supply. One possible market entry strategy would be that of directly targeting specific financial technology companies, the outcome of which will greatly depend on the initial marketing budget available. The primary expense in the direct sales approach will be that relating to the recruitment or co-optation of an experienced in-country executive, product, and sales team to market the software, taking into consideration the concentration of software development companies in the region and the very high cost of labour in Sweden.

In Sweden, the strict applicable regulatory regime has hampered the supply of credit from banks to individuals and SMEs. This has created opportunities for financial technology companies such as Toborrow, which allows lenders to provide loans to small enterprises and receive interest on the repayments while accepting the risk of default.

With a high level of education, and above-average standard of living, the Swedish 'new generation' is keen to use technology as a way to amplify investment possibilities. In this area, a big leap has been made in the development of robo-advisory software. In the traditional wealth management sector, customer personalisation is effected through an extensive questionnaire. The robo-advisors extended the traditional process by making it more involving, with interactive graphs, data summaries and easy-to-understand explanations. This marginal but significant change in the personalisation process helps the consumer feel more empowered in the decision-making process. In Sweden, the market for robo-advisors is very young with no proven industry leader yet. This could therefore prove ideal for firms wanting to enter the market as they might be able to get the first-mover advantage themselves.

Financial technology companies are consistently trying to improve the service provided while at the same time targeting a bigger audience and making their cost base more lean and efficient. The success of actions directed towards attaining these objectives are critically dependent on their ability to provide skilled software developers and engineers, who are becoming scarcer in Sweden as time goes by. Providers of customised programming services might therefore be able to pitch their services to Swedish FinTech companies on the basis of two main selling points, these being availability of supply of high-quality skilled programmers and cost-efficiency relative to what Sweden's market has to offer.

Another possible strategy in the wealth management realm is to collaborate with financial institutions. Leading banks have increased their interest in InvestTech, and are constantly on the look-out for partners to exploit the market. White labelling might be the best approach in such instances, minimising market entry expenses and capitalising on existing distribution channels.

Another focal point in Sweden's financial services industry could be blockchain. While the authors of this study are very sceptical of blockchain as a concept and of the promise it holds for the future, for those who believe that blockchain is promising, data mining could be an interesting prospect. Sweden has, in fact, been attracting a number of centralised data centres over time. Miners provide the computing power for blockchain proof of work or proof of stake, which may be thought of more generally as cryptographic confirmation calculations, and which supplant the need for some data centre operations. Indeed, the promise of riches from the cryptocurrency market and several ancillary markets it has given rise to, pose a number of threats to traditional centralised data centres. Data centres are built as centralised hosting services available behind the cloud, but blockchain is able to create decentralised cloud systems. Decentralised cloud management services will have different software architecture needs. In this ambit, data centre operators are studying the various ways in which they can leverage this technology and to be the first ones to patent technologies that build on blockchain that can be capitalised on if blockchain turns out to be a success, and they might require specialist help in doing so. Gaining visibility for such searches, particularly in Swedish, on popular Internet search platforms possibly through search engine optimisation (SEO) or pay-per-click (PPC) advertising, as well as using one's own website as an information / educational tool, blogs and value-driven email marketing campaigns that include a social sharing element might be the most expedient ways to get noticed.

Targeting the Green Finance market might be more difficult as it requires the building of a community around one's brand, values and company, and since Malta lags significantly behind Sweden in this market. This makes it much more difficult to penetrate due to a lack of practical experience and products and services that have been tried and tested that can easily be extended to another market.

The Swedish market, despite being competitive, offers a number of opportunities in the payment, lending and wealth management sectors. The approach needs to be tailored to the product or service that the software company is offering and whether it is targeting client end-users or other businesses.

8. The Swiss Market

Quick Facts

Currency

Swiss Franc (CHF)

Language

The four national languages of Switzerland are German, French, Italian and Romansh.[3] All but Romansh maintain equal status as official languages at the national level within the Federal Administration of the Swiss Confederation.

Travel Visas

Visas are not required if you hold a passport from the UK, Ireland, the USA, Canada, Australia or New Zealand, whether visiting as a tourist or on business. Citizens of the EU, Norwegians and Icelanders may also enter Switzerland without a visa. A maximum 90-day stay in a 180-day period applies, but passports are rarely stamped. Other non-European citizens have to apply for a Schengen Visa.

Money

ATMs are at every airport, most train stations and on every second street corner in towns and cities; Visa, MasterCard and Amex widely accepted. Businesses throughout Switzerland, including most hotels and some restaurants and souvenir shops, will accept payment in euros. Change will be given in Swiss francs at the rate of exchange calculated on the day.

Mobile Phones

Most mobile phones brought from overseas will function in Switzerland; check with your provider about costs. Prepaid local SIM cards are widely available. Prepaid local SIM cards are available from network operators for as little as CHF10.

Time

Malta CET time

Opening Hours

Switzerland officially has a five-day working week with Saturday and Sunday being public holidays

Swiss bank branches are generally open Monday to Friday from 8.30AM to 4.30PM. They are closed Saturdays, Sundays and on public holidays.

Bars open in early afternoon and close at around midnight or later. Restaurants open at around 11AM and are open till 11PM, with few restaurants closing between 4PM and 6PM

Post offices are generally open daily

Shops, department stores and shopping malls open

- Mondays to Saturdays 9AM to 5.30PM or 10AM to 8PM
- Sundays 10AM to 4PM

Sunday shopping has become more popular, and most but not all shops in towns and cities are open for business

Travel for Business Development or Service Provision

Zürich Airport

Up to nine SBB (www.sbb.ch) trains run hourly to Hauptbahnhof from 5AM to midnight
Taxis cost around CHF60 to the centre
During the winter ski season, coaches run to Davos and other key resorts

Geneva Airport

SBB trains run at least every 10 minutes to Gare de Cornavin
Taxis charge CHF35 to CHF50 to the centre
In winter coaches run to Verbier, Saas Fee, Crans-Montana and ski resorts in neighbouring France

Getting Around

Switzerland's public transport network is safe and efficient. Trains, trams, buses and boats cover the entire country. There are also extensive cycling routes.

The rail network in Switzerland is well organised, convenient, and takes you almost everywhere. Whether travelling for business or pleasure, the Swiss Federal Railways, known as SBB in German, CFF in French, and FFS in Italian, offers a multitude of options. There are 1st and 2nd class tickets. Validity depends on the means of transport and the distance travelled. "City tickets" from Swiss Federal Railways (SBB/CFF/FFS) include a one-day travel pass for buses or trams at the destination. Tickets cannot be bought on Swiss trains so make sure to purchase them before boarding. Fines for travelling without a ticket are steep.

Taxis in Switzerland are expensive. The initial charge is on average CHF6.50 plus CHF3.50 per kilometre. The exact charge may depend on the canton, time of day, weekday, luggage, animals and whether you are crossing a cantonal border or not. Fares are state supervised and subject to change. A service charge is included in the fare so tipping is not obligatory. Taxis are available at public taxi stands but are difficult to hail in the streets.

Basic Statistics

Land

Area: total: 41,277 km^2

Land: 39,997 km^2

Water: 1,280 km^2

Population

8,236,303 (2017 estimates)

Density: 206/km^2

Growth Rate: 0.69% (2017 estimates)

Urban population: 74.1% of total population (2017)

Rate of urbanization: 1.1% annual rate of change (2015-20 estimates)

GDP

€603.39 billion (2018 estimates)

Real growth rate: 1% (2017 estimates)

Composition, by sector of origin (2017 estimates):

- agriculture: 0.7%
- industry: 25.6%
- services: 73.7%

GDP Per Capita

€54,367 (2018 estimates)

Distribution of income – Gini coefficient: 29.5 (2015 estimates)

Religion

Roman Catholic:	87%
Protestant:	24.9%
Other Christian:	5.8%
Muslim:	5.1%
Other:	1.4%
Jewish	0.2%
None:	23.9%
Unscpedified:	1.3%

Age structure (2017 estimates)

0-14 years**:**	15.16% (male 642,814/female 605,689)
15-24 years:	10.88% (male 458,044/female 438,373)
25-54 years:	43.21% (male 1,784,051/female 1,774,494)
55-64 years:	12.6% (male 519,709/female 518,421)
65 years and over:	18.15% (male 658,673/female 836,035)

Dependency ratios (2015 estimates)

Total dependency ratio: 48.8

Youth dependency ratio: 22

Elderly dependency ratio: 26.8

Potential support ratio: 3.7

Important Contacts

Swiss Consulate in Malta

Honorary Consul: N/A (honorary representation without consulate authority)

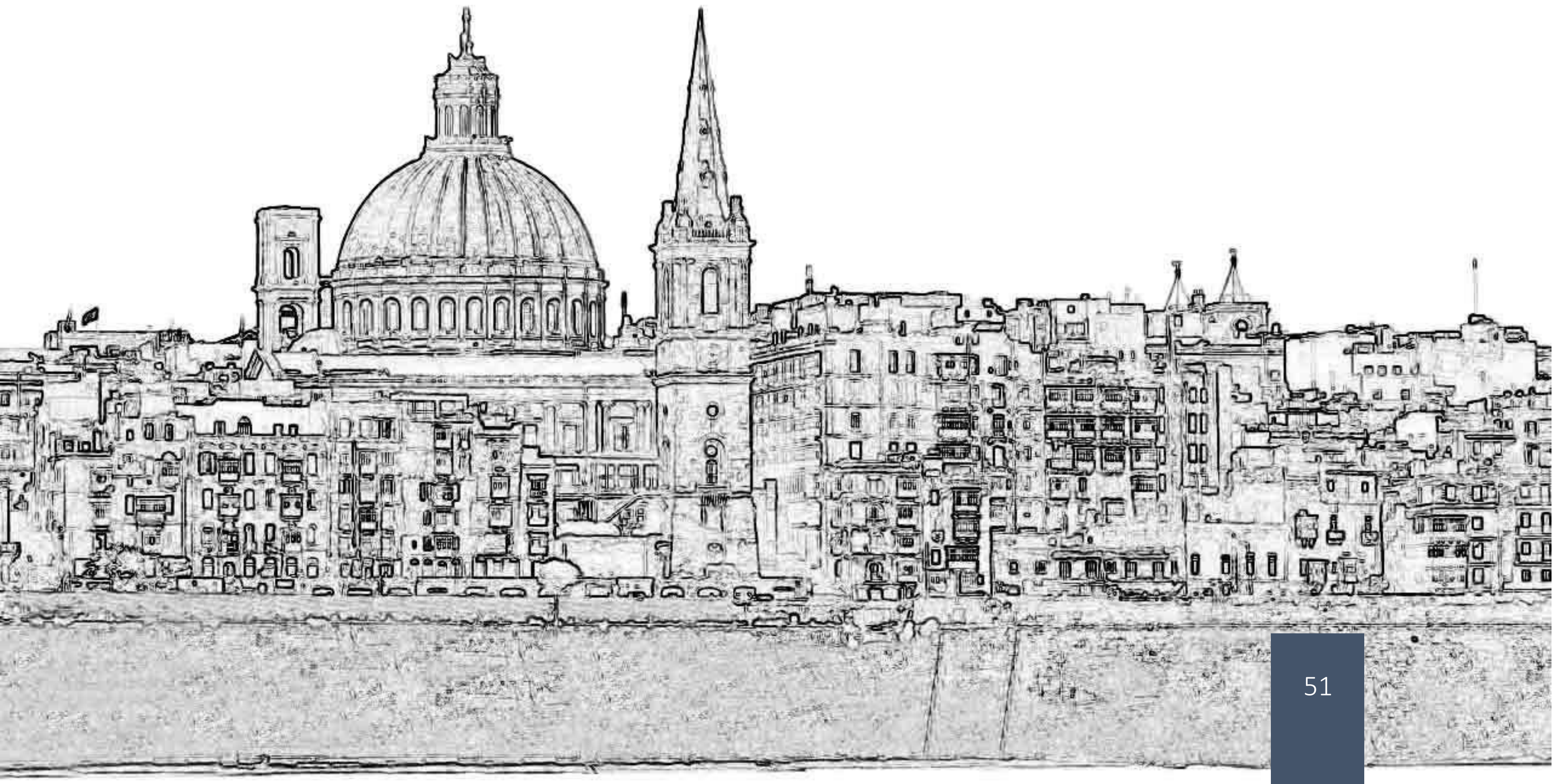
6, Zachary Street
Valletta VLT 1131
Malta

+356 2124 4159

valletta@honrep.ch

Maltese Consulate in Switzerland

Geneva (General)	Basel	Lugano
Honorary Consul:	Stephan Stuart Erbe	Simona Zanetti
26, Parc Château Banquet,	Elisabethenstrasse 30,	Viale Stefano Franscini 15,
CH-1202 Geneva,	4010 Basel,	6900 Luagno,
Switzerland	Switzerland	Switzerland
+41 (22) 901 0580	+41 61 226 2451	+ 41 (0) 91 921 23 07
malta-un.geneva@gov.mt	maltaconsul.basel@gov.mt	maltaconsul.lugano@gov.mt
	erbe@thomannfischer.ch	



FinTech in Switzerland

In the FinTech Hub Ranking, Zurich and Geneva ranked second and third respectively with regards to conditions for FinTech Companies to thrive, mainly due to their leading position in political stability and their progressive regulatory environment. The low level of corruption, the high level of freedom of press, and moderate corporate tax rates are factors that strengthen the two Swiss cantons' positions as two of the leading FinTech hubs in the world. This is shown in the ranking chart on the next page.

In 2016, the Swiss Federal Council announced its plans to reduce barriers to market entry for FinTech companies. In August 2017, two of the three pillars of new Swiss FinTech regulation entered into force.

One is the 'sandbox' exemption which created an innovation space that allows engagement in financial activities, which under the former regulations would have triggered bank licensing requirements. Companies accepting deposits from the public are not considered to be acting on a commercial basis, provided that the deposits do not exceed CHF 1 million, are neither invested nor interest bearing and depositors are informed that the company accepting the funds is not supervised by the regulator and that the funds are not protected by the Swiss deposit insurance scheme [2].

The other is the so-called 'New Settlement Accounts Exemption' whereby funds held in customer accounts of securities dealers, dealers of precious metals, asset managers or similar companies, which exclusively serve the purpose of settling customer transactions, do not qualify as deposits. This therefore means that they do not trigger bank licensing requirements provided the funds are not interest-bearing and provided they are processed within a relatively short time.

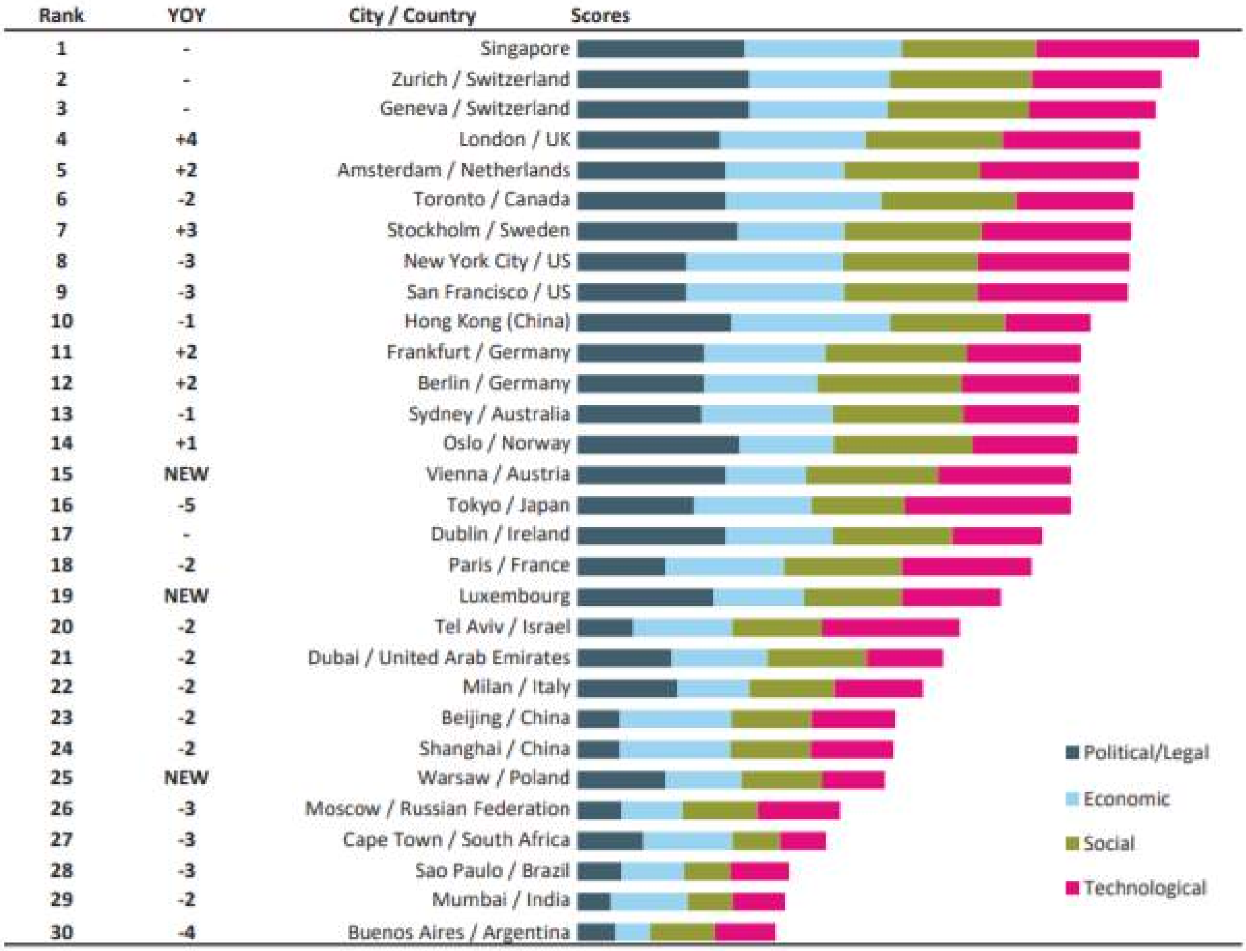
A Success Story

Dubbed a 'crypto valley', Switzerland has produced a string of successful financial technology firms in the Distributed Ledger Technology (DLT) field. The most successful of these is the Ethereum platform.

Ethereum is a decentralised platform that runs currencies by the same name, together with other services like tokens and smart contracts. The idea is for the applications running on this platform to run exactly as programmed without any possibility of downtime, censorship, fraud or third party interference. The project was crowdfunded during August 2014 by fans all around the world. It was developed by the Ethereum Foundation, a Swiss non-profit organisation, with contributions from great minds across the globe. Overtime, it has emerged to be one of the main competitors of the Bitcoin platform.

Proponents of Ethereum believe its main advantage over Bitcoin is that it allows individuals and companies to do much more than just transfer money between entities, and the underlying proof of work is also less energy-consuming than the latter's. This has led Bloomberg to write that Ethereum is "the hottest platform in the world of cryptocurrencies and blockchains".

[2] IFZ FinTech Study 2018: An Overview of Swiss FinTech, Institute of Financial Services Zug IFZ (Lucerne University of Applied Sciences and Arts), February 2018



Source: FinTech Hub Ranking 2018

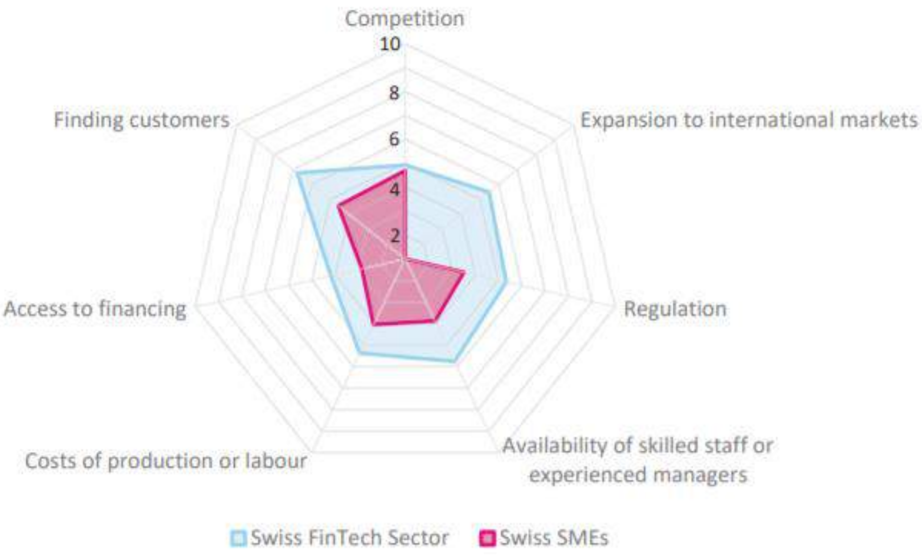
The third pillar of the Swiss FinTech regulation, 'banking license light', has not yet been implemented and will likely not enter into force before 2019. This license is aimed at companies that accept deposits from the public but do not engage in traditional banking activities. Such institutions will be less regulated in terms of minimum capital, equity, liquidity and audit requirements.

Due to the small size of its population, the Swiss market is too small for FinTech business models in the B2C (business to customer) segment. On the other hand the B2B (business to business) segment is flourishing through collaborations with local banks.

A recent study, the proceedings of which are summarised in the RADAR chart below, shows that Swiss Financial technology companies face 2 main challenges in the local market, namely:

1. Finding customers;
2. Availability of skilled staff or experienced managers.

This has shaped up the market in terms of collaboration with other banks, aimed primarily at gaining access to a larger customer base, as well as with international service providers such as software developers in order to be able to deliver the required service.



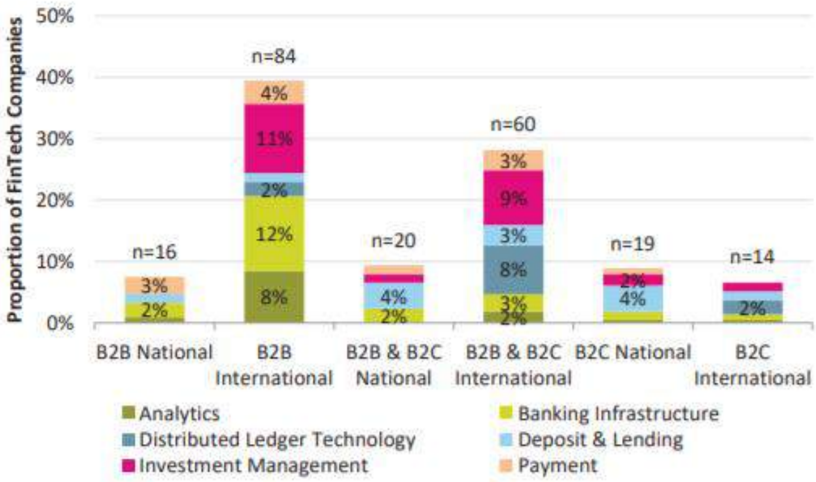
Source: IFZ FinTech Study 2018

Key Market Opportunities for Malta-Based Operators

One major segment in the Swiss FinTech domain is that of Analytics. In recent years, financial companies in Switzerland have started to acknowledge that analytics can be used to add value to their businesses and with the advent of GDPR, this is more relevant than ever. Companies that are active in the Swiss FinTech analytics market offer a very diverse palette of solutions ranging from applications of machine learning techniques to data management systems.

The bank infrastructure is also reforming with new directives such as the PSD2, which forced the European banks to grant other companies access to their ledgers. Swiss banks are expected to follow, even though they are not required to do so by law. Leading companies of the Swiss financial centre have joined forces to develop a so-called common API specification for banking intended to facilitate harmonisation and standardisation in the finance industry. A key objective is to simplify the process for customers moving their accounts to rival banks and services. Likewise, the initiative is part of plans to spur competition in the banking sector by opening up data to FinTech start-up companies to create innovative new services, as well as enabling the creation of comparison sites such as those already available in the insurance sector. To this end, based on a study conducted by Ernst and Young[3], cybersecurity will be the most pressing topic for the Swiss financial industry in the next 6 to 12 months.

[3] Ernst and Young Bankenbarometer 2018, Ernst & Young, January 2018.



Source: IFZ FinTech Study 2018

Distributed Ledger Technology (DLT) has increasingly found its way into the Swiss financial services industry. In 2017, a total of 18 companies were founded in the DLT segment, accounting for more than 50% of the newly incorporated Swiss Financial technology companies. The canton of Zug, has positioned itself as a globally leading hub for blockchain-technology and has become known as the 'Crypto Valley'. In addition to Zug, the city of Chiasso also aims to establish itself as a leading DLT and FinTech centre worldwide, the so-called 'Cryptopolis'. In the past few years, leading companies in the field of DLT, such as Ethereum, Xapo, ShapeShift or Bancor, have moved to or were founded in the Crypto Valley, centred in Zug, Switzerland.

In the Deposit and Lending segment, the last three years marked a period of profound change in the FinTech-relevant crowdfunding market. Many new platforms went online and new forms of crowdfunding, such as real estate crowdinvesting and crowdlending, invoice trading, and business lending as a part of crowdlending, were introduced. In 2016, CHF 128.2 million were raised across all crowdfunding categories in Switzerland, compared to CHF27.7 million in 2015. Switzerland also signed three Memoranda of Understanding (MoU) with Hong Kong in January. These agreements focus on enhancing FinTech collaboration, and promoting the development of private wealth management in Switzerland and Hong Kong, among other goals.

Another potential area of growth in the Swiss ecosystem is Investment Management. Although this market is still at an early stage in terms of volume, it constitutes a large proportion of the Swiss Financial technology companies. Since the market for digital investing solutions is expected to grow further in the future, more start-ups, as well as established financial services providers, are entering the business. Through this increase in competition, the market is becoming a tough place for FinTech start-ups, as they do not yet have the large client networks which established asset management firms have. It is thus reasonable to expect that a market consolidation is going to take place in the near-future. In such a scenario robo-advisor start-ups are either acquired by established financial services providers or there will be a consolidation among robo-advisor start-ups[4]. On the other hand, one area which has seen little growth is the payments sector. This is due, at least in part, to the limited number of local users given the population level.

Overall, the main areas that are attracting investment and have huge potential for growth in the Swiss market are DLT (more specifically cryptocurrency and blockchain) and cybersecurity.

[4] Robo-Advisory in Wealth Management, Deloitte, October 2016.

Associations constitute an integral part of the Swiss FinTech ecosystem. They typically intermediate between start-ups, established players, regulatory bodies, investors, and accelerators / incubators, with the objective to create and foster a vital ecosystem in a specific discipline. The different types of associations may be used as a point of contact for Financial technology companies to market their products and study the current market needs.

A list of the more important ones is available in the table below.

Year	Association	Description
1912	SwissBanking swissbanking.org	The *Swiss Bankers Association* was founded in 1912 in Basel and is the leading professional organisation of the Swiss financial centre. The association aims to maintain and promote the best possible framework conditions for the Swiss financial centre both at home and abroad. As it considers FinTech one of the most disrupting factors for the business models of banks, it has intensively devoted itself to this topic for some time.
2010	SICTIC Swiss ICT Investor Club sictic.ch	The *Swiss ICT Investor Club (SICTIC)* is a non-profit association aiming at connecting early stage tech startups, including those in the FinTech sector, with its network of business angels. The process of the deal, as well as the match-making is organized by *SICTIC*. The association, however, does not invest or hold equity in any of the pitching startups.
2013	Bitcoin Association Switzerland bitcoinassociation.ch	The *Bitcoin Association Switzerland*, located in Zurich, aims to promote digital currencies, especially *Bitcoin*, by organizing regular events, resolving open legal questions, and educating the public in the matter. It is composed of an active community of supporters and also corporate members. The association organizes regular meetups in various locations in Switzerland.
2014	Swiss Finance Startups swissfinancestartups.com	*Swiss Finance Startups (SFS)* is a non-profit organisation run and organized by the ventures involved. The association wants to foster the common Swiss startup spirit, support the exchange of ideas as well as industry know-how, and help to educate the outside, non-startup world about the brilliant ventures. Startups, as well as supporters are admitted to the association.
2015	Swiss Finance + Technology Association swissfinte.ch	The *Swiss Finance + Technology Association (SFTA)* is a volunteer-led independent association, which aims to connect Swiss FinTech to leading global centres, offer meaningful information and content, advocate and mediate for a more supportive business, regulatory, and innovation environment, and strengthen Switzerland as a financial centre. The FinTech community *Swiss Financial Technology* is connected to the SFTA.
2015	digitalswitzerland digitalswitzerland.com	*digitalswitzerland* is a cross-industry association with the purpose of making Switzerland a leading hub for innovation and technology. The association focuses on multiple industries like FinTech, Life Science, Fashion and MedTech. The following key areas are of particular importance: Attracting digital talent from abroad, supporting its members in mastering the digital transformation and improving the Swiss startup ecosystem.
2015	Swiss Crowdfunding Association swisscrowdfundingassociation.ch	The *Swiss Crowdfunding Association* consists of more than 40 platforms of the type crowd-donation, crowdlending, crowdinvesting and real estate crowdfunding. It aims to promote crowdfunding in Switzerland, to disseminate best practices among the actors, to do research in this field and to spread information to media and politics.

2016	SWISS FINTECH INNOVATIONS swissfintechinnovations.ch	*Swiss FinTech Innovations* is an association of financial institutions in Switzerland. Its goal is to make Switzerland a leading FinTech hub worldwide. The association focuses on partnerships and cooperation with various stakeholders from the FinTech industry. In addition, it aims to create new ideas and to work on the regulatory framework, as well as to bring FinTech startups and established companies to work collaboratively.
2017	Crypto Valley cryptovalley.swiss	The *Crypto Valley Association* is an organization destined to coordinate, accelerate, and scale the further development of Crypto Valley into the world's best ecosystem for crypto technologies and businesses. *Bitcoin Suisse, Bussmann Advisory, iprotus, Lucerne University of Applied Sciences and Arts, Luxoft, Monetas, and Thomson Reuters* are the founding members of the association.
2017	MAMA Multichain Asset Managers Association mama.global	The *Multichain Asset Managers Association (MAMA)* is an association initiated by *Melonport AG*, which represents asset management companies, investors, technology providers, service providers and ecosystem players interested in working towards a new vision for asset management using Blockchain and other supporting decentralised technologies.
2017	CryptoPolis cryptopolis.city	The *CryptoPolis Association* is an independent, institutional-supported association established to take full advantage of Switzerland's strengths and the proximity to the metropolis of Milan to build one of the leading Blockchain, cryptographic technologies and FinTech ecosystem around the city of Chiasso.

Source: IFZ FinTech Study 2018

The Commission for Technology and Innovation (CTI) is a governmental organization that is proactively stimulating the Swiss economy by promoting interaction between the different stakeholders in the industry.

Besides the foundation of formal associations, a variety of informal meetups and other events focusing on FinTech-related topics were initiated in the past months. These include the Swiss FinTech Day and a number of blockchain events.

As noted earlier in this report, several studies suggest that the two main challenges faced by Swiss financial technology firms are finding customers and the ability to employ skilled and experienced people. This has to be taken into consideration when working on a strategy to penetrate this market, along with the fact that there might be a language barrier given the in-country linguistic mix (German, French and Italian are the main languages used depending on the canton).

With respect to FinTech use, the Swiss market has seen increased interest in data management and analytics, cybersecurity, crowdfunding, wealth management and distributed ledger technology (DLT).

Given the slim customer base of financial technology firms in Switzerland at present, an ideal market entry strategy for software houses that have readily-available products and services to push would be to try to establish mutually-beneficial collaboration deals with existing financial institutions when it comes to data management, lending, wealth management and cybersecurity, focusing on a white label service approach and aiming to capitalise on existing distribution channels, rather than to try to sell products or services directly to end clients. The same approach would be warranted when dealing with software development service providers. The Swiss market, while growing, has less potential when compared to other countries due to Switzerland's population dynamics. This favours a marketing strategy focused directly on financial institutions that aims to convert existing clients onto more efficient platforms, and this is amply shown by various empirical studies.

Companies active in the field of DLT might need to adopt a different approach. DLT-focused companies can be categorised into two main verticals. The first vertical comprises applications in the field of cryptocurrencies, such as issuance, storage, trading, contracting and investment solutions, whereas the second vertical delineates the application of DLT for the purpose of streamlining existing processes in the finance industry. The emergence of hundreds of new cryptocurrencies has led to a boom of FinTech companies focusing on solutions in the first vertical of DLT. The challenge for DLT-focused companies is therefore that of gaining visibility for those startups focusing on tokens, smart contracts and innovative uses of the DLT framework. Despite the scepticism of blockchain held by the authors of this report, it is also evident that if the market gets to believe in the technology, even if for a limited period of time, and demand is created for DLT products in the process, it is always beneficial for any business with access to the right resources to ride the wave created by hype until it lasts.

Apart from the variety of initiatives launched in the field of cryptocurrencies, the financial industry in Switzerland is increasingly concerned on how the underlying blockchain technology may provide specialised solutions focused around:

1. Fund raising;
2. Payment systems;
3. Asset registries;
4. Clearing and settlement;
5. Trade finance.

Blockchain is still a new tool in this segment, which increases the potential for software developers with the right skills to enter this market. Given that banks are still in the early stages of offering such services on a blockchain platform, the ideal marketing strategy would be to collaborate with existing Financial technology companies in order to provide a readymade solution to financial institutions.

The Swiss FinTech market is generally described as being small, fragmented, and competitive and characterised with high barriers to entry. Notwithstanding this, there are a number of opportunities which could be exploited through the correct market strategy entailing collaboration with both financial institutions and financial technology firms. Areas such as data management, lending and wealth management are growing strongly, while DLT developments have allowed Switzerland to become a centre for blockchain and cryptocurrencies.

9. Concluding Section

Summary and Outlook

The FinTech industry is attracting significant investment, mainly due to the flexibility it offers the end user and the push from larger financial institutions to remain competitive in today's world of disruptive technologies, while avoiding the fate of analogue film-based cameras. Credit and payments were the strongest business in 2017. The next major developments will be in the areas of insurance (InsurTech), authentication (Identification), asset management (WealthTech) and real estate (PropTech), which was outside of the scope of this report.

With regards to the value chain, we have seen a shift from Financial technology companies, which are in direct competition with financial institutions, to an environment where collaboration is a key element of growth and success.

Significant technological developments are expected from artificial intelligence (AI), data analytics (Big Data), the Internet of Things (IoT) and blockchain. AI is finding its way into the financial sector through machine-learning applications. Determining credit quality, marketing of insurance products, automating KYC, real-time fraud detection and customer interaction, and improving investment algorithms are the best examples of this.

The change in regulation is also affecting the needs of financial institutions. PSD2 and GDPR are particularly relevant as financial institutions are pushing investment in big data management structures that require increasing levels of reliance on software service providers.

In recent years, the Maltese ICT industry has geared up for global business and Malta-based companies have invested more in software specialists. Despite the chronic local labour supply shortage, Maltese industry has managed to attract foreign talent to plug the gaps that have developed over the years. Industry experts believe this trend will continue, along with a growing demand for outsourced software solutions. Malta's ICT firms seem to have realised that growth can be achieved by specialisation, and have accordingly moved away from generalised product and service portfolios that software companies have traditionally pursued. Many of them offer specific solutions and tailor-made products and have become market leaders in their respective niches. Big data and high-tech applications today influence almost all economic sectors. While companies involved in FinTech are the more prominent examples of this trend, other sectors are also transitioning to new software-based tools to analyse data and improve operational performance such as healthcare, manufacturing and even agriculture. In this industrial climate, Malta-based firms have the opportunity to capitalise on Malta's rich technology ecosystem and to reach out to global technology innovators with successful outcomes. The Island's small size, tax and grant incentives and low but admittedly fast-rising cost base still make it an ideal base location for the software industry; a place to form ideas, create innovation and evolve. However, and notwithstanding the many opportunities that the Maltese market brings about for firms operating in the FinTech space, the need for diversifying and growing beyond what the Maltese market has to offer is the next natural step in the evolution of the industry and the markets studied in this report provide a glimpse of the opportunities, to different degrees, for firms operating in this space.

Conclusion

The three markets analysed in terms of attractiveness for software developers in the FinTech industry provide a series of possibilities for Malta-based firms. These countries are brimming with FinTech investment and all have one very fundamental and interesting thing in common – supply shortages that represent big opportunities for Malta-based businesses.

In providing you with the analysis in the foregoing pages, we have sought to provide you with some of the basic building blocks of a market penetration strategy on the basis of which you can build and premise your own.

This report and the other reports in this series are not intended to be academic or esoteric, but practical and empirically useful for doing business. We have accordingly sought to put together the essence of what every entrepreneur would need to know before targeting a new market. The views represented herein are purely those of the winning bidder (Equinox Advisory Ltd.) to the tender for services published by TradeMalta to commission this series of reports.

While hoping that you have found the information presented in this report to be useful, we also invite you to register at www.trademalta.org. Registration will grant you access to all the portal's features, which are tailored to help Malta-based companies reach new heights in international markets.

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