

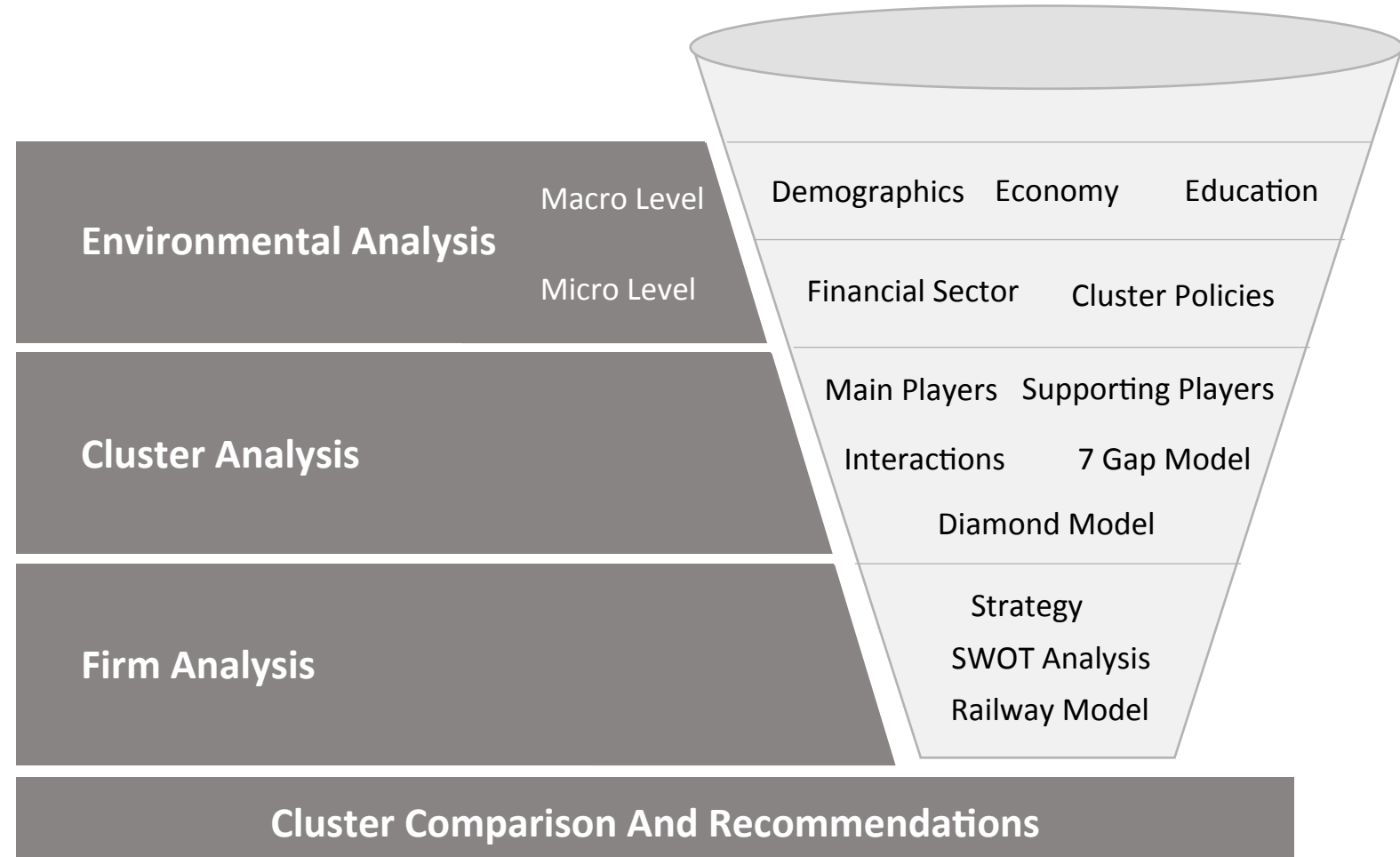


Frankfurt Financial Cluster

AGENDA



- Environmental Analysis
 - Macro Level
 - Micro Level
 - Diamond Model
- Cluster Analysis
 - Cluster Mapping
 - Main Players
 - Supporting Players
 - 7 Gap Model
 - Diamond Model
 - Cluster Comparison
 - Cluster Description London & Paris
 - Quantitative Analysis
 - Qualitative Analysis
 - Dynamic Scenario Analysis
- Firm Analysis
 - Deutsche Bank
 - Railway model
- Recommendations





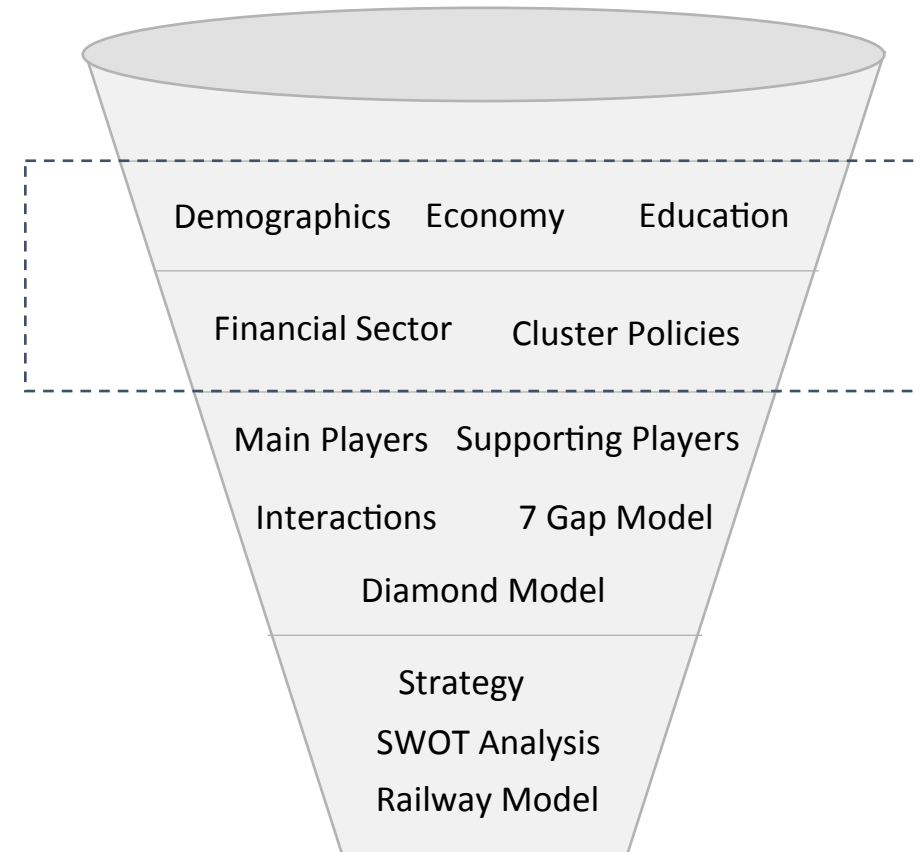
1. Environmental Analysis

Analysis of the attractiveness of the German economy, political and legal environment. This includes basic factors of competitiveness, education and innovation. The micro level is evaluated by assessing the financial industry and German cluster policies and initiatives.

2. Cluster Analysis

3. Firm Analysis

4. Recommendations



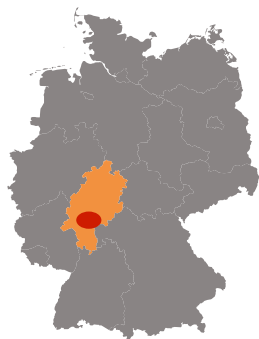
Environmental Analysis: Overall Information



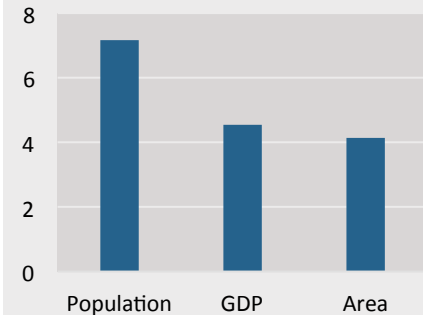
Germany has the largest population in Europe, low unemployment and is considered a financially stable state. It takes an influential position in the EU.

Facts...^{1,2}

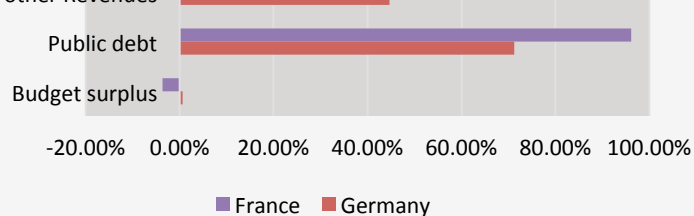
- Very central location in Europe, combined with a connection to the sea.
- Partly included in the Blue Banana area.
- Most populous country after Russia.
- Member of NATO, EU, EMU, G6
- 16 Bundesländer, with a high degree of independence
- 11 metropolitan regions



Frankfurt Rhine Main (% of national)



Taxes & other Revenues

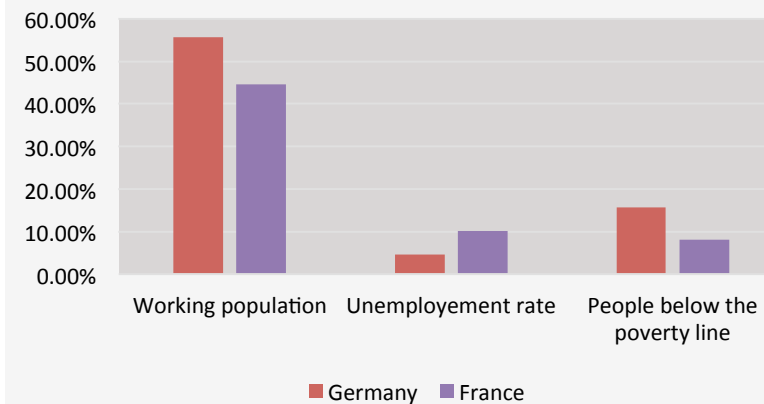


Politics^{2,4}

- Political system: Federal parliamentary republic
- Rating: AAA
- Largest party: CDU/CSU
- Angela Merkel elected most powerful woman in the world 6 times in a row.
- Germany is considered the "Reluctant leader" of the EU
- Populism and nationalism are on the rise, also with the refugee crisis.

...and figures²

Size:	357,170 sq. km (63 rd)
Population :	81,413,145 (19 th)
Population growth:	-0,16% (211 th)
Median age:	46,8 (3 rd)
Urban population:	75,3%
Labor force :	45 million (15 th)
Agriculture:	1,6%
Industry:	24,6%
Services:	73,8%
Average wage:	3695 €/month
Gini index:	27 (133 rd) ?



Germany benefited from its very central location to become a trading spot in Europe since the middle ages. Nowadays they can count on the largest population in Western Europe as well as one of the largest labor forces in the world. The geopolitical situation is complicated currently, with Germany assuming the role of leader of the EU, although reluctantly, and with some complaint from other EU members, mainly those who had to suffer from the austerity measures imposed by the EU under the lead of Germany after the financial crisis.



Environmental Analysis: Economy

The German economy is one of the most competitive worldwide. It strives in infrastructure, macroeconomic environment, health and technological readiness.

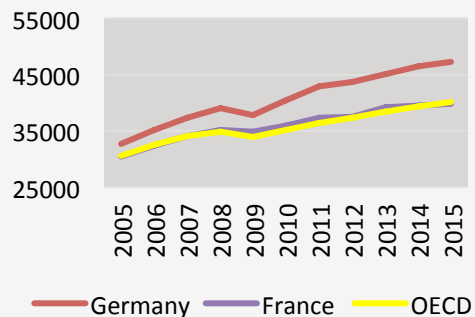
General information ¹

GDP: \$3.841 billion (6th)
 Growth: +1,5% (149th)
 Agriculture: 0.6%,
 Industry: 30.4%
 Services: 69.1%.

Foreign trade and investments:

Foreign trade share: 7,2% (3rd)
 Exports: \$1.309 billion (4th)
 Imports: \$1.017 billion (4th)
 FDI in Germany: \$1.017 billion (5th)
 FDI from Germany: \$1.972 billion (3rd)

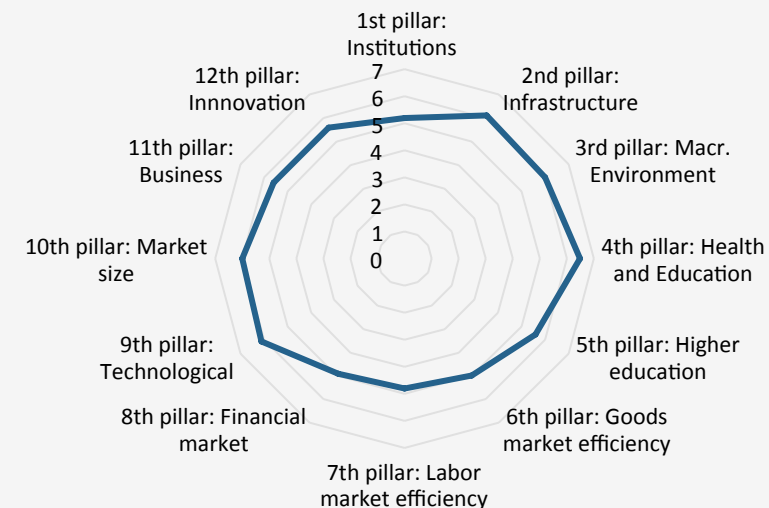
GDP per capita



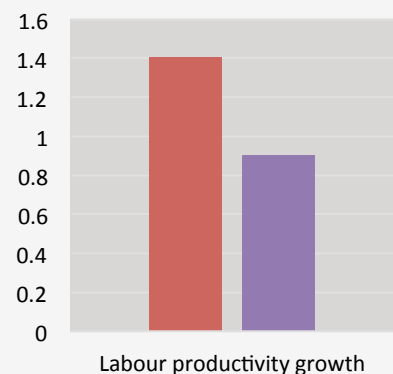
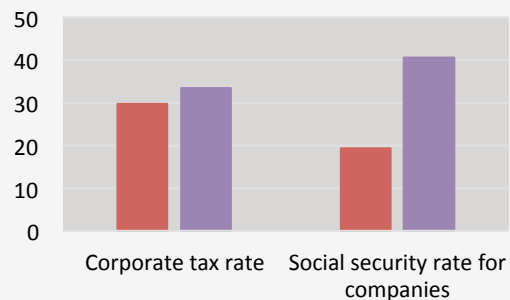
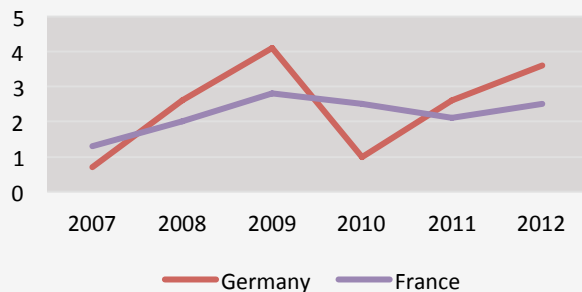
Competitiveness ^{2,5,6}

Infrastructures ranking: 4,23 (1st)
 Global competitiveness index: 5,57 (5th)
 Business confidence index: 110,40
 Labor cost index: 110,47
 Productivity index: 103,9
 Ease of doing business index: 17
 Unemployment: 4,6% (47th)
 Youth unemployment: 7,7% (112th)
 GDP per hour: 59,5 (9th)
 Minimum wage: 8,5€/h
 Unions members: 6,1 million
 Corporate tax rate: 29,7%
 Social security rate for companies: 19,33%

Global competitiveness index 2016⁽³⁾



Labor compensation growth rate⁽⁴⁾



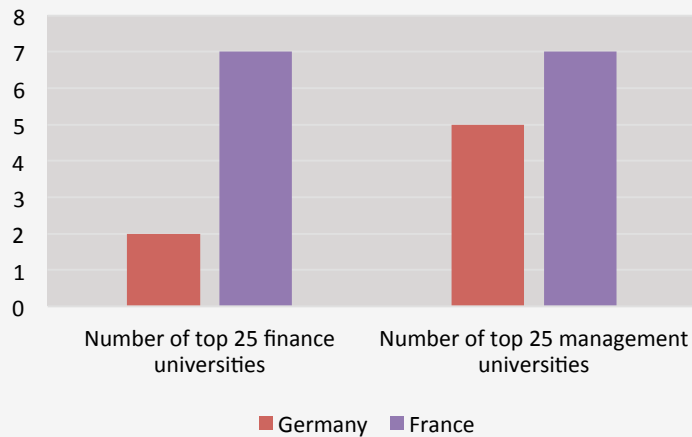
Germany has the strongest economy in Europe, with a much high GDP per capita. The countries strength is based on a strong industrial sector, the highest ranked infrastructures worldwide, a dominant position when looking at foreign trade, and outstanding competitive performances, scoring high in all of the 12 pillars. The labor market is also quite flexible when compared to other Western European economies.

Environmental Analysis: Education/Innovation

Education is above average, however Germany takes no leading position in international comparison. Germany performs very well in KPIs representing innovativeness.

Education^{1,2,3,4}

Education spending:	4.9% of GDP (74 th)
Primary education enrollment rate :	103,3%
Secondary education enrollment rate:	102,4%
PISA 2012 rankings:	16 th /19 th /11 th
Improvement:	1,4 pts/year

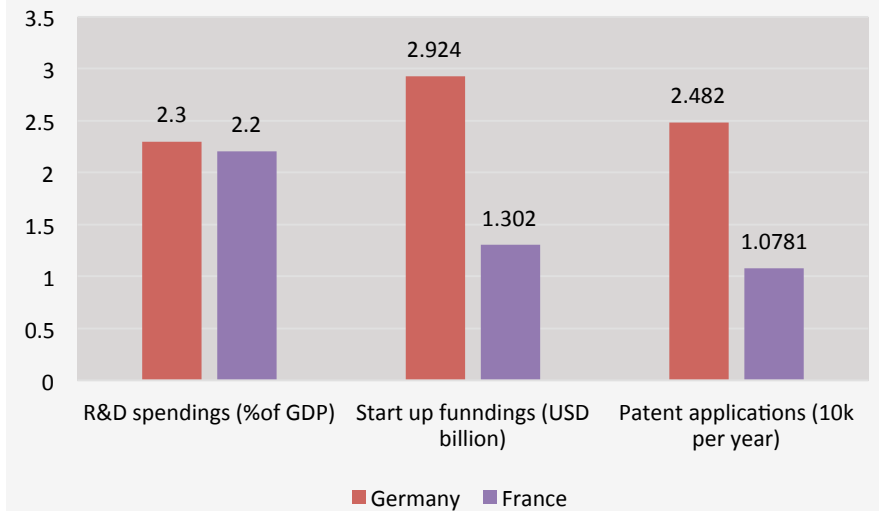
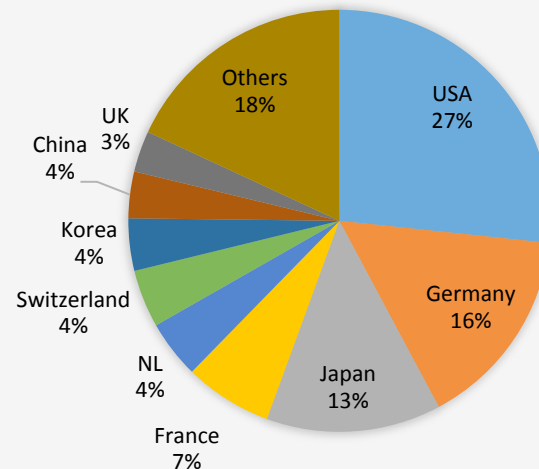


Innovation^{5,6,7,8,9,10,11}

R&D spending:	2,9% of GDP (8 th)
Patent applications:	24,8 K (2 nd)
Startups funding:	\$2924million

Ranked 1st for innovative enterprises in EU (66,9%) 2010-2012
 Ranked 10th in innovativeness WIPO 2016
 Ranked 3rd by Bloomberg in overall innovativeness 2015

Share of worldwide patent applications



Even though Germany may invest less than other countries in education, which is also shown in the lower number of top ranked universities worldwide, the results are impressive, with an educated population scoring well above average. Combining this with a strong governmental support for R&D leads to high rankings in innovation, and the second highest number of patent applications worldwide. This strong innovative spirit is a key success factor for the economy and clusters specifically, for example in the Fintech sector.

Environmental Analysis: Financial Sector



Large number of banks and 1,3 million people employed in the financial sector. The financial market is stable and the German culture is rather debt-averse.

Facts...¹

Germany has had a strong banking culture for a long time, with the first international banks already in the 15th century.

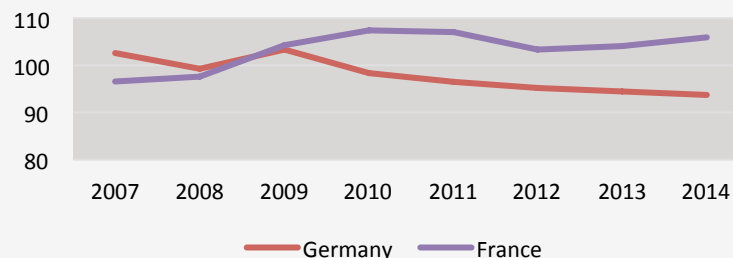
Their universal banking system is divided in 3 pillars: Private, public and cooperative banks.

The country has a very large number of banks (25% of EU banks are in Germany). This decentralization led to a strong self regulation tradition, for example with Voluntary deposit protection schemes.

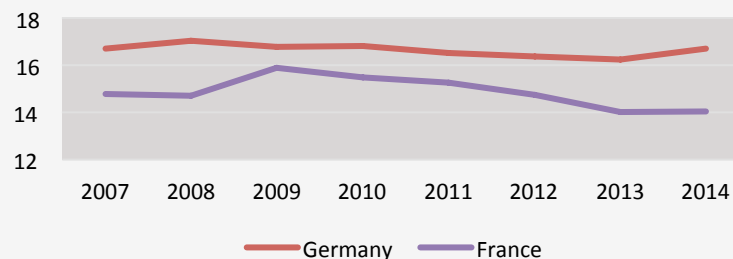
...and figures^{1,2,3,4}

Confidence index:	101
Inflation rate:	0,1%
Bank lending rate:	2,54%
Savings rate:	16,7%
Household income:	
Household net worth:	195% of disposable income
Private debt to GDP ration:	149,75%
Loans to private sector:	1341.05 billion €
Foreign exchange reserves:	\$182bn
Financial sector:	1,27 million employees

Household debt to GDP (%)⁵



Household savings rate (%)⁽⁵⁾



Legal Frameworks^{6,7,8}

Regulators:

- Financial Stability Board (FSB)
- European Central Bank (ECB)
- European Banking Authority's (EBA)
- Association of German Banks (BdB)
- Federal Financial Supervisory Authority (BaFin)
- Federal Agency for Financial Market Stabilization (FMSA)

International Regulations:

- Single Supervisory Mechanism of the European Central Bank (SSM Regulation)
- Capital Requirements Regulation (CRR)
- Market Abuse Regulation (MAR)
- Single Resolution Mechanism Regulation (SRM Regulation)

National Regulations:

- German Banking Act (KWG)
- Capital Investment Code (KAGB)
- Solvability Regulation (SolvVO)
- Liquidity Regulation (LiqV)
- Regulation on Large Scale Exposures and Millionenkredite (GroMiKV)

The Financial sector in Germany has a strong history, and benefits therefore from a strong confidence. However, this belief was a bit eroded after the government had to bail out bank during the financial crisis after those same banks had made billions in profits. However, confidence is still quite high, with stable saving rates, and a low inflation rate. When it comes to regulations, most are following the international regulations set by the EU, and currently a process of harmonization between national regulations is taking place.



Environmental Analysis: Cluster Policies

Cluster programs connect clusters and support them with a wide range of services. Venture capital availability is often insufficient.

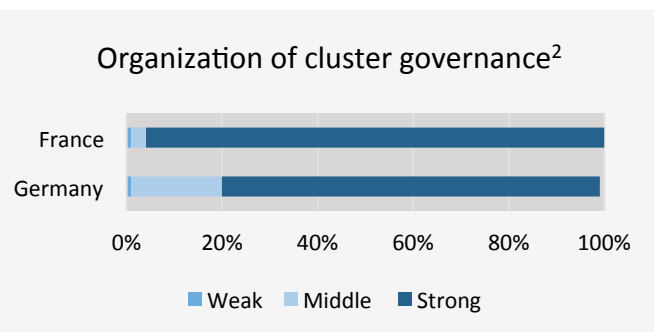
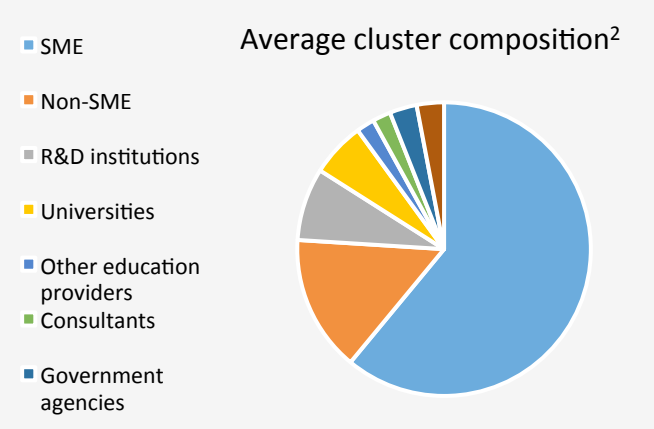
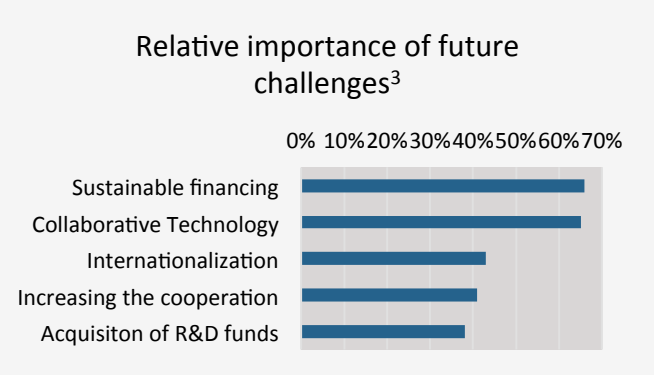
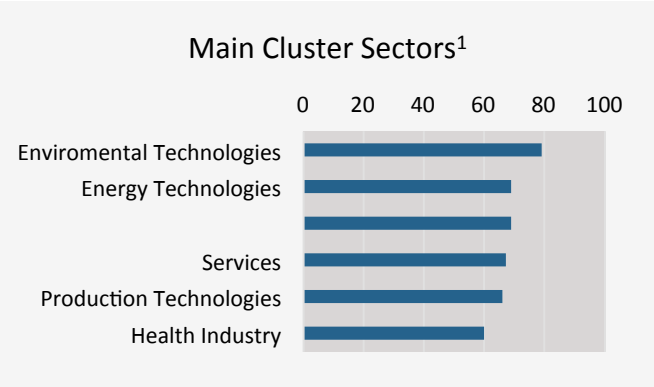
General information¹

Germany is the main precursor for cluster policy and cluster initiatives in Europe, with some policies that started already in the 1990's. Those initiatives have made considerable progress over the past years, and helped German cluster management to score over average in 12 of the 16 European Clusters Excellence Initiative (ECEI) indicators.

Number of clusters: 454
ECEI Gold level clusters: 11

Strengths:
Clear strategy, sufficient resources, both financial and human capital, stable management with clear tasks.

Weaknesses:
Lack of international recognition and insufficient focus on organizational learning.



Government implication⁴

Go cluster: Exzellent vernetzt!
This program unites 100 innovation clusters in Germany and supports them by providing services such as coaching seminars. 9 of those clusters have been audited and awarded with the Gold Label of the ECEI. A total of 13000 actors are involved, including small and medium business as well as university chairs and institutes.

The Leading-Edge Cluster Competition:
The program was launched by the Federal Ministry of Education and Research (BMBF) in 2007. The government provided up to 600 mil € to fund a total of over 1300 projects in 15 leading clusters. 2000 partners such as universities, businesses and research institutions worked together, which gave rise to 900 innovations, 300 patents, 40 startups, and countless dissertations.

Clusters in Germany can count on a strong economic environment, support from the government when it comes to funding and “bridge builders”, and an educated and innovative labor force that helped the country establish it’s dominance in industry oriented sectors. Clusters are composed manly of smaller companies, as opposed to France for example. This can sometimes lead to a lack of governance, coordination and cooperation. But overall the main issue for clusters is still access to sustainable financing.



Environmental Analysis: Diamond Model

Germany offers a highly developed business environment. Economy and state are considered very stable. However, doing business is often hampered by bureaucracy.

Factor Conditions



- ++ Highly developed infrastructure
- + Educated workforce
- + High household saving rate
- + Large number of banks
- Low prevalence of venture capital
- New minimum wage reduces flexibility of labor market

Strategy, Structure and Rivalry

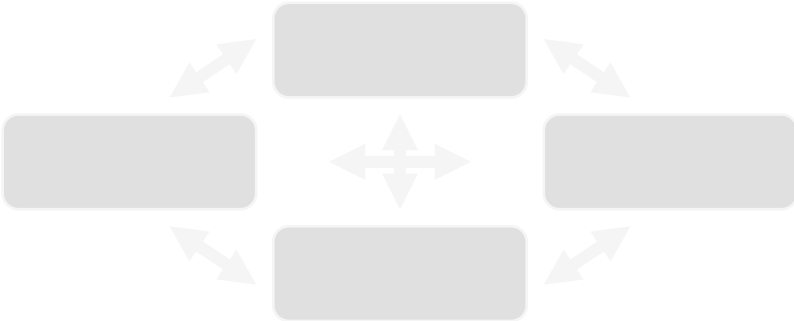


- ++ Large, growing and highly competitive economy
- + Net cash inflow due to export orientation
- + High economic stability
- + Strong SME sector and evolving start-up scene
- High levels of bureaucracy
- Formal culture and mindset (little 'out of the box' thinking)

Demand Conditions



- + Strong banking culture and confidence in the financial sector, large domestic market
- + Low interest rate leads to high investments
- + Stable long-term growth enhances demand for long-term investments



Related and Supporting Industries



- + Strong industrial sector requiring heavy investments
- + Strong and fast growing related clusters (Fintech)
- + Germany as focus for many international service providers (e.g. consultancies)
- Lack of efficient technology transfer and cooperation

Government



- + Cluster initiatives, both at national level and regional level
- + Readiness to bail out financial institutions in case of crises
- + Influence on EU policies and regulations
- Relatively high corporate tax



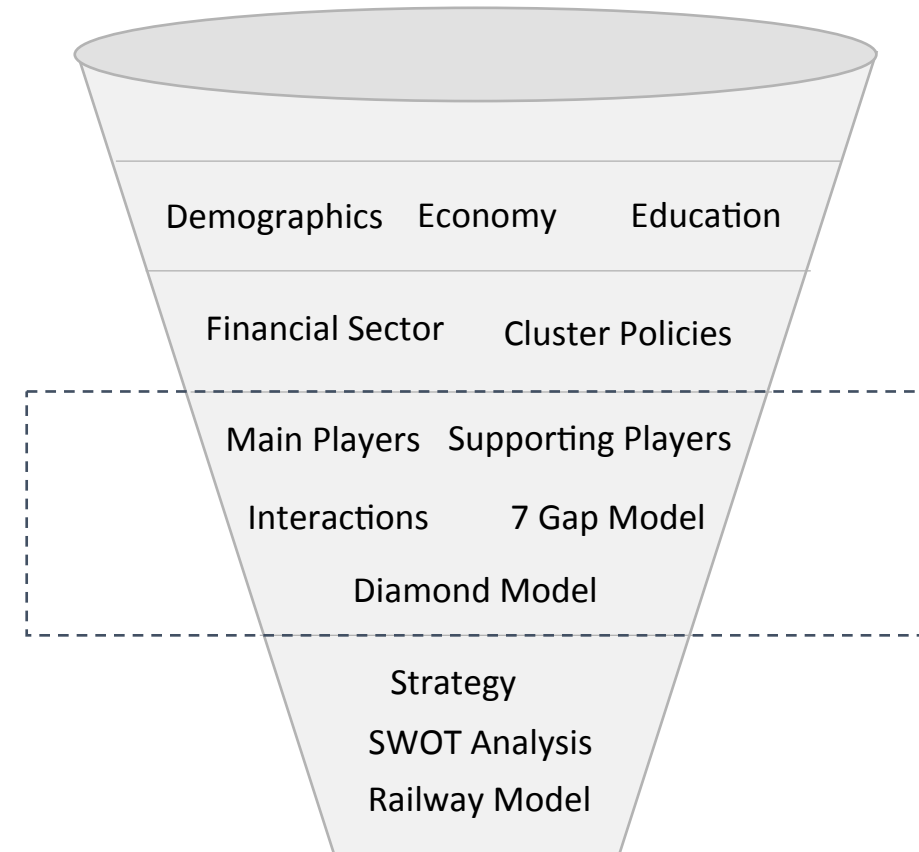
1. Environmental Analysis

2. Cluster Analysis

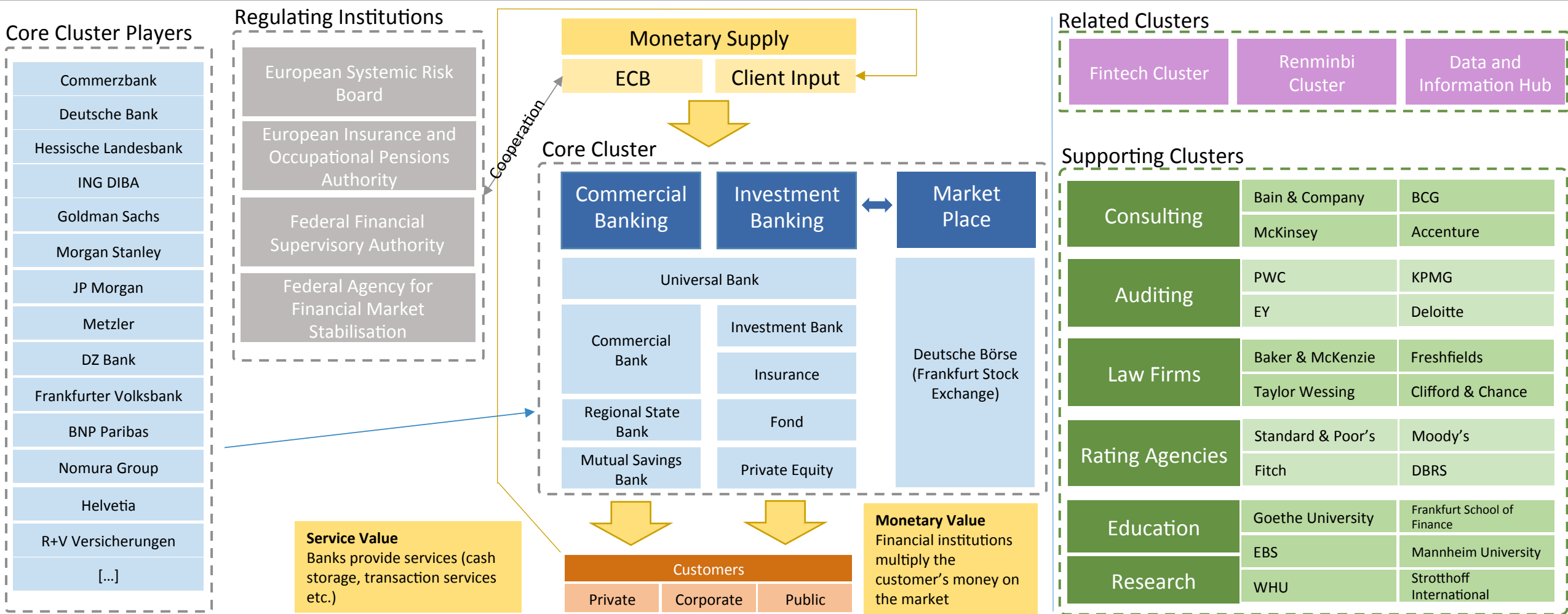
Introduction and evaluation of the main actors, supporting actors and related clusters. Formal as well as informal interaction within the main players are explained and the 7 Gap Model is used to assess relationships to other stakeholders. The Diamond Model will summarize cluster competitiveness.

3. Firm Analysis

4. Recommendations



Frankfurt Finance Cluster Map





History of the Financial Cluster

Frankfurt became the European capital of banking high-rises after the Second World War and got its nickname "MAINhattan"

The Hollywood of Finance

With the increased digitalization and globalization, it could be expected that finance would become a decentralized industry, a web of transactions spanning all across the world. But what we see instead is that financial clusters are as strong as ever. Why would a bank move to London, where prices are exorbitant and public transportation overcrowded, to then work almost exclusively with digital data? As for Hollywood, which became a local cluster in a global market, the reason lies within the attraction factors: if you want to be taken seriously as an actor, Hollywood is the place to go, and if you want to be taken seriously as a bank, London is the place to go. But is it still the case?

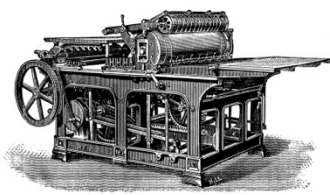
Frankfurt's Ambitions

After the Brexit, and London's loss of attractiveness, it could be the time for a new Hollywood to emerge, and to become the new leading financial center. And one of those potential candidates is the Frankfurt financial cluster. The city has already been economically relevant since the middle ages, but it is after WWII, when destroyed Frankfurt was rebuilt, that the financial cluster started to emerge. Frankfurt, located at the corner of American, British and French occupation zones, became the headquarters of the united economic area bank of German countries, which later became the Deutsche Bundesbank. This was the starting point of the financial cluster.



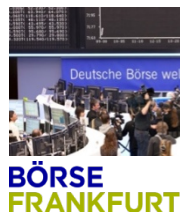
Frankfurt's central location made it a mercantile hot spot.

Middle Ages



The printing press was invented close to Frankfurt and brought the book fair and related banking business to the city.

1440



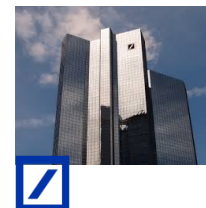
Deutsche Börse was founded.

1585



Bank of German countries was founded.

1948



Deutsche Bank moved its HQ from Berlin to Frankfurt

1957



European central Bank was founded in Frankfurt

1998



Today



Tomorrow?

Cluster Analysis - Banks



The two largest banks in the cluster are currently struggling and will let go large numbers of employees.

Commercial Banking

Unlike the U.S., Germany does not require a legal separation of investment banks and commercial banks. Commercial banking describes the deposit and credit business, while investment banking comprises trading and M&A activities.

Largest Players

Commerzbank	13'300
Deutsche Bank	9'700
DZ Bank Gruppe	5'900
Helaba Konzern	5'000
KfW	3'350

Employees (FFM)

Investment Banking

The top 10 investment banks all have Frankfurt offices

1. JP Morgan
2. Goldman Sachs
3. Bank of America Merrill Lynch
4. Morgan Stanley
5. Citigroup
6. Deutsche Bank
7. Credit Suisse
8. Barclays Capital
9. UBS
10. Wells Fargo

Current State

Compared to other finance clusters, Frankfurt got away with relatively little harm in the financial crisis 2008. Currently however, the two largest players are staggering. Commerzbank announced to let 7'300 employees go globally over the next four years and Deutsche Bank is in an unstable state after a 7,2 billion dollar fine by the US justice department.¹ Deutsche Bank will also decrease the number of employees by about 4'000 worldwide.

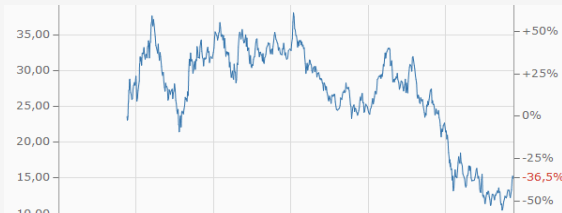
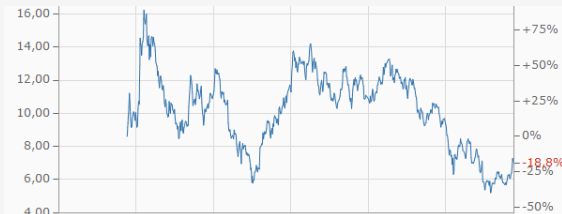
This rather negative state of current members of the cluster is counteracted by the positive outlook resulting from Brexit. About 20% of London's financial industry is estimated to move to Europe. As a BCG study reveals, Frankfurt is the most popular contender to benefit from this development.²



-18,8%
('11-'16)

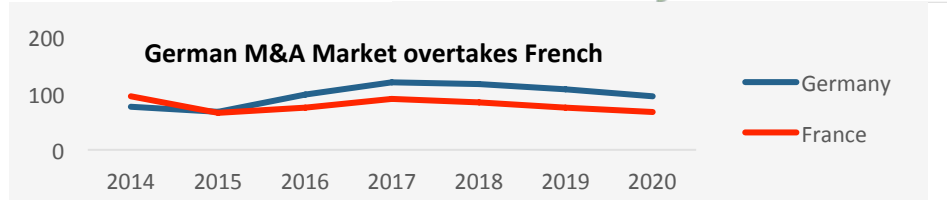


-35,5%
('11-'16)



Although many financial services can be received without immediate proximity, financial consulting (as done in investment banking) and tailored corporate products favor geographical proximity to large companies. The map of German DAX 30 corporations shows that the Frankfurt area is perfectly located to serve as many DAX headquarters as possible.

Frankfurt's central location and excellent infrastructural connection also makes travel to other, more distant, economic hotspots (e.g. Munich in 3:10h by train) easy.



Cluster Analysis – Regulation and S.E.



Federal and European institutions are placed in Frankfurt's finance district. The Deutsche Börse is one of the most important anchors and has a very uncertain future.

European Central Bank

Objectives

The mission of the ECB is price stability in the euro zone. In the recent financial crisis the ECB's currency politic showed that economic development and growth are secondary goals. Additionally, it has a supervising function over banks that are considered crucial for the well-being of the European financial system.

Interest Rates

The ECB provides banks with the opportunity to lend money (long term) and lend/deposit money over night to a certain interest rate. These interest rates are used to control the market interest rates, which the banks pass through to their customers.

European Systemic Risk Board¹

„The ESRB is responsible for the macroprudential oversight of the EU financial system and the prevention and mitigation of systemic risk. The ESRB monitors and assesses systemic risks and, where appropriate, issues warnings and recommendations.“

European Insurance and Occupational Pensions Authority²

„EIOPA's core responsibilities are to support the stability of the financial system, transparency of markets and financial products as well as the protection of policyholders, pension scheme members and beneficiaries“

Federal Financial Supervisory Authority³

BaFin operates in the public interest. Its primary objective is to ensure the proper functioning, stability and integrity of the German financial system. Bank customers, insurance policyholders and investors ought to be able to trust the financial system.

Federal Agency for Financial Market Stabilisation⁴

Since its foundation in 2008, in the midst of the global financial crisis, the FMSA manages not only numerous shareholdings with financial institutions on behalf of the Federal Government, but it is also responsible for nationally administering the Single Resolution Fund's bank levy.

Deutsche Börse

Objectives

Provide an efficient, transparent and market place:
Provide banks and other investors with real time information
Cooperate with supervising agencies to ensure legal compliance

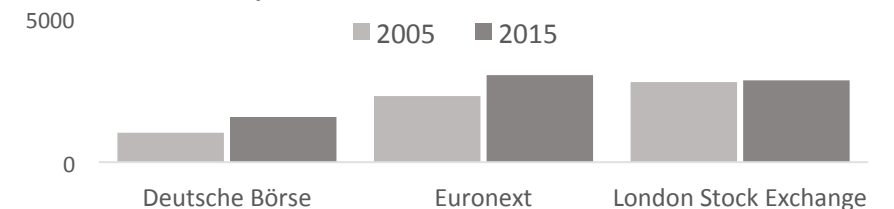
Current State

Deutsche Börse is the most important stock exchange in continental Europe³. The value of the SE itself is significantly higher than that of its competitors from London and Amsterdam/Paris. This is also due to its technologic leadership role.

Merger With London Stock Exchange

Deutsche Börse and LSE decided to merge – originally with planned headquarters in London. While the merger is currently in an evaluation process from European authorities, Brexit started a discussion to locate the new, huge stock exchange in Frankfurt.⁴ This would increase Frankfurt's chance to replace London as the most important finance hub in Europe.

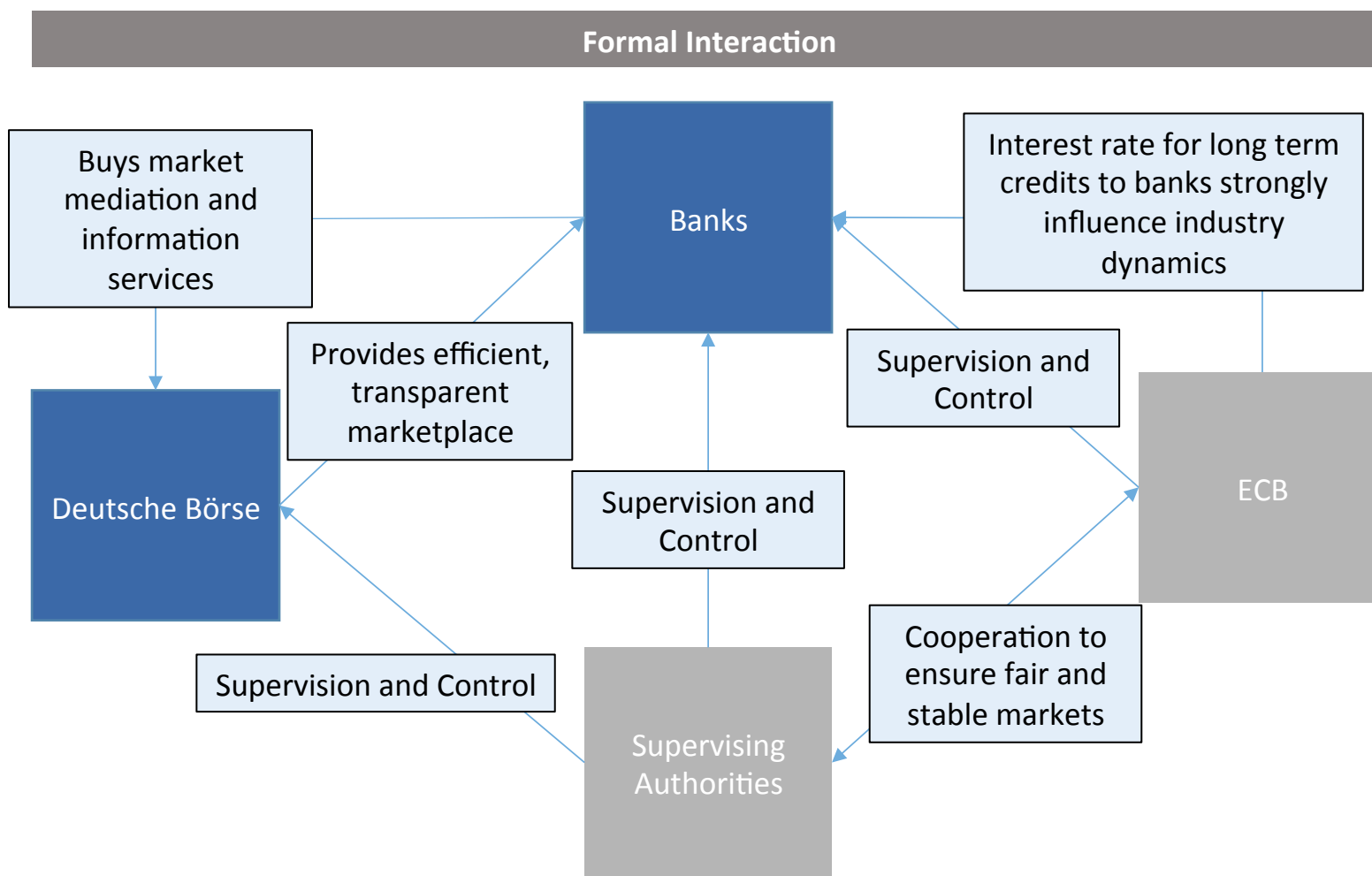
Value of listed Companies⁵





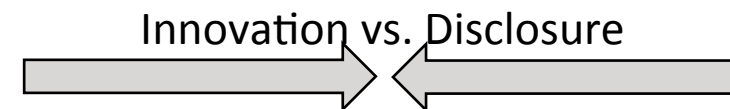
Interaction within the Cluster

The actors are formally connected and in frequent contact. Informal interaction (e.g. in restaurants or bars) provokes an area of conflict between innovation and disclosure.



Informal Interaction

Between Banks and Authorities	Between Banks
<p>Advantages / Chances</p> <p>Authorities can get insights in the realities in the financial market and align monetary politics accordingly. Bank employees get the chance to articulate hopes and fears.</p>	<p>Advantages / Chances</p> <p>Innovative thoughts and ideas can be shared. As the banks often are financially interconnected, activities can be aligned (e.g. automated information exchange systems)</p>
<p>Disadvantages / Threats</p> <p>Threat of information disclosure about current investigations or upcoming regulations. Personal relationships can influence legal judgement.</p>	<p>Disadvantages / Threats</p> <p>Threat of insider-trading, disclosure of corporate secrets. Especially barriers within organizations are easily overstepped (e.g. between investment banking and M&A)</p>



Supporting Players – Service Providers



More than 550 banks and insurance companies as well as about 2,000 financial service providers from Germany and abroad settled in Frankfurt.

Consultants



Currently there are more than 70 consulting firms located in the city of Frankfurt. The consulting industry has a regional concentration with approx. 169,000 employees in almost 17,000 companies and sales of almost 20 bill. € in the Rhine-Main economic region. The number of consulting companies in Rhein-Main has increased almost by 5 times since 1980.

Law Firms

Frankfurt is the home to around 44 Law firms. Frankfurt has the highest legal density in Germany with 97 inhabitants per lawyer (as of 2005). The shore of the Main locates most of the major international law firms, such as Clifford Chance, Linklaters, Freshfields Bruckhaus Deringer, Baker & McKenzie, etc.



Auditing



All Big Four largest international accountancies and professional services are present in Frankfurt. PWC has their German HQ set up in Frankfurt; KPMG has even their European HQ here.

Rating Agencies

The three major international credit rating agencies - Standard & Poor's, Moody's and Fitch Ratings - have their German headquarters in Frankfurt. Those three agencies control approximately 95% of the ratings business market. Rating agencies are usually located nearby the national stock exchange.



Supporting Players - Education/Infrastructure

Frankfurt's location and infrastructure supports the clustering process and the city stands for excellent research and practical experience.

Educational Institutions

Universities



Frankfurt has a network of excellent universities focused on finance based in the area:

- 41 research institutions: universities, business schools, universities of applied sciences, etc.
- 160,000 students (22,000 international students)

Presence of International schools

- The Financial Times Ranking of Finance Masters shows that the only German program is at the Frankfurt School of Finance (20th). France and UK perform significantly better.

Infrastructure

Featuring the largest airport in continental Europe and the eighth-largest one in the world as well as the second-largest European train station, Frankfurt is a central transportation hub for Europe.

Frankfurt's main railway station is integrated into the European high-speed train network, which means it can provide fast connections to major German and European cities. Additionally, Frankfurt is situated near the motorway intersections for north-south and east-west connections and has an extensive road network as well as a strong regional railway network (RMV, the second biggest in

Germany), which also allows maximum mobility for the city's overland transport network. Frankfurt has also a cargo ship network. It is connected to the Main and close to the Rhein, thus all continental cargo ships can reach its harbour.

The outstanding transport infrastructure is very important for establishing international business contacts and developing new markets abroad but also allowing foreign companies to enter the domestic market.

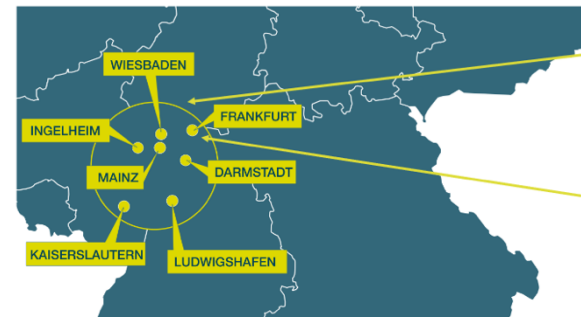
Research Institutions

Research



- Research Institutes:
- Fraunhofer Institute for Advanced Studies
 - Forschungsanstalt Geisenheim
 - Fraunhofer Institutes for
 - Gesellschaft für Schwerionenforschung (GSI)
 - Institut für Mikrotechnik GmbH (IMB)
 - Max-Planck-Institutes (MPI)
 - Paul-Ehrlich-Institut
 - Stockenberg Research Institute

Frankfurt is home to more than 100 research institutions (inside and outside of finance) due to its intensive educational network such as S.A.F.E., European Supervisor Education Initiative (ESE), Frankfurt Institute for Risk Management and Regulation (FIRM), and the House of Finance (European competence center for Finance research (170 academics conduct research)).



Metropole Region Rhein-Main

Area: 14.755 km²
 Population: 5,58 Mio.
 Employees(erwerbstätige): 3,0 Mio.
 BIP / Capita: 72.500 €
 Companies: 407.000

Frankfurt am Main

Area: 248 km²
 Population: 716.277
 Employees(erwerbstätige): 651.100
 BIP / Capita: 84.400 €

Supporting Players – Networks and Fairs



Frankfurt Messe as well as the regional hubs and clusters bring potential clients and business to the city and its banking sector nourishing further growth of the financial cluster.

Trade Fairs & Events

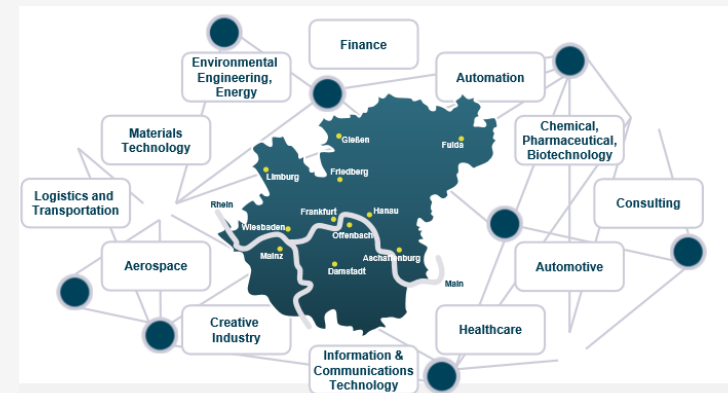


Frankfurt has been known for its trade fair and market place for more than 800 years. In 1907 the building of Frankfurt Messe was constructed and since then the city is famous for its Messe which brings many visitors, customers and business to the Rhein-Main area.

Trade fairs in Germany	
Number of trade fairs and exhibitions	47
Exhibitors	42,167
Visitors	approx. 2.4 Mill.

For Frankfurt's yearly Finance Summit, CISO, many international regulatory experts meet and discuss current topics related to banking.

Related Clusters & Hubs



- Other Clusters in Frankfurt:
- Automation
- Automotive
- Chemicals & Pharmaceuticals
- Consulting
- Fin Tech
- Health
- IT & Data Technology
- Creative Industries
- Logistics and Transportation
- Aerospace
- Materials Engineering
- Environmental Tech & Energy

Societies & Associations



Frankfurt is the home to various finance associations, which are often closely cooperating with the existing university and research network or even developing out of it. Some of the most known ones are the Goethe Finance Association as well as Goethe

Money and Macro Association, the Wirtschaftswissenschaftliche Gesellschaft and the EABH (The European Association for Banking and Financial History e.V.) The latest for example places current challenges of the financial sector into a historical context.

Due to Frankfurt's special location and infrastructure many different companies as well as entire industries settled around the cities causing more local hubs and clusters to arise. These new Clusters bring new business as well as partnerships & Networks to the financial sector.

Frankfurt is an important **internet and data hub** due to its modern

digital fibre optic network and its geographic location causing 80 % of German internet traffic to pass through the city.

Frankfurt is the leading **Renminbi Hub** in the Eurozone. The swap-agreement of 350 billion Renminbi is the third largest worldwide after Hong Kong and Korea. Frankfurt is Germany's **Fin Tech**



The 7 + 1 Gap Model



Most gaps are quite small and communication within the stakeholders is frequent. An eighth gap, towards the population, has to be accounted for as the relationship calls for improvement.

Firm to Global Markets



- Finance industry highly connected with very little barriers between markets
- International players with offices in Frankfurt represent the link to global markets

Firm to Cluster



- Connection to many industries as nature of the demand
- Little, but growing cooperation with FinTech startups

Firm to Research



- Involvement in university research
- However little communication with innovators and little application of new ideas or perspectives on the finance industry

Firm to Capital



- Limited applicability of this gap
- Close ties to ECB as the crucial capital provider for European banks

Bridge Builders



- Frankfurt Main Finance e.V.
- Goethe Finance Association, European Association for Banking and Financial History e.V etc.

Bridge builders connect firms within each other (especially Frankfurt Main Finance e.V.) and close the gap to research institutions and education. However, none of these institutions focus on the gap between finance firms and start-ups or the gap to the local population.

Firm to Firm



- Cooperation between the players (e.g. Deutsche Bank offers investment opportunities of 14 other financial institutes)²
- Within investment activities, banks are often not in competition against each other but in competition against the market, which benefits their willingness to communicate

Firm to Education



- High attractiveness of the finance cluster for students in the area and tailor-made programs to fit the cluster's needs

Firm to Government



- Strong lobbying influence on EU-level (EUR 120 million lobbying expenses of the financial industry)¹
- 15 out of 17 EU advisory groups have dominating ties to the financial industry¹
- Public supervising institutions are central part of the cluster
- High political importance due to the economic importance of the finance industry's well being

Firm to Population



- High distance between the finance cluster and the average population
- Finance reputation worsened since the financial crisis 2008³
- Occupy Frankfurt protests

The Diamond Model



The Frankfurt Finance cluster is highly competitive. Yet, potential for improvement can be found access to highly skilled workforce and the city's lifestyle qualities.

Strategy, Structure and Rivalry



- + The market structure is very dense and many comparable players are active, but relatively little competition compared to traditional industries, as investors primarily compete with the market
- + - Strategic orientation shifting towards risk reduction and compliance

Factor Conditions



- ++ Low real estate price level, regarding private housing as well as office rents
- + International connectivity and leading infrastructure
- + - Solid local education and research institutions, but not outstanding in international comparison
- Frankfurt does not symbolize lifestyle like other finance cities

Demand Conditions



- + Long term low interest rates strengthen credit demand and increase investment attractiveness
- + Positive outlook for M&A market
- + Proximity to many leading German corporations

Government



- ++ Regulating institutions locally present and public monetary policy influences by finance environment
- Little focus of the German government on the finance industry

Related and Supporting Industries



- + Supporting industries show stable growth
- + - Fintech cluster established but little venture capital availability
- Fight for talent also with supporting industries

Frankfurt Finance Competitiveness

The reasons of the financial industry for clustering are different to the reasons of most other industries. Global connectedness, the market as main contrary of the investment business and ability to provide and receive services completely independent of location make geographic proximity unnecessary on first glance.

A study of the reasons of the financial industry for clustering in London shows that the most important reasons are: ¹

1. Address to be perceived as credible
2. Access to skilled labor force
3. Proximity to market leading customers

1. Frankfurt is considered the most credible location for banking in Germany. In international comparison it offers the advantage that office space is rather affordable and – most important – available within the finance district. Other finance locations in Europe lack availability in the city center.
2. Although Frankfurt has many finance focused education institutions within reach, quality and reputation of local universities does not match the environment in London or Paris. To attract the most qualified people, the city and its “lifestyle” qualities are important. Frankfurt’s reputation in these regards shows potential for improvement.
3. Frankfurt also strives for proximity to customers, as it is close to many of the 30 largest German companies.

SWOT



The SWOT shows that Frankfurt is well equipped to take advantage of the opportunities in the future. However, it is not ready to take on the threat of business model changes.

		Strengths	Weaknesses
		<ul style="list-style-type: none"> • Very competitive cluster with high number of players and most leading international actors and regulatory institution present • Great infrastructure, available office space and relatively low rent and real estate prices • Very stable and reliable environment and home market 	<ul style="list-style-type: none"> • Key actors with uncertain future • Little connection to FInTech cluster • Educational institutions not on a par with competing clusters • Frankfurt not considered as “lifestyle city” • Bureaucracy and lack of capital makes it difficult to start new businesses
Opportunities	<ul style="list-style-type: none"> • After Brexit, approx. 20% of finance jobs from London will relocate to other European clusters 	<ul style="list-style-type: none"> • Frankfurt is the most likely contender for London’s finance industry. Especially the availability of cheap office space in best location makes it more attractive than Paris in this regard. 	<ul style="list-style-type: none"> • The merger of Deutsche Börse with London Stock Exchange (currently to be located in London) and the weakness of Deutsche Bank and Commerzbank are variables that play an important role towards Frankfurt’s attractivity for London’s financial industry. • As finance industry in London is known for a certain lifestyle, Frankfurt’s lack of reputation to support such a lifestyle can be a problem.
Threats	<ul style="list-style-type: none"> • “Payment Service Directive 2” will force banks to provide third party providers access to their infrastructure and customer accounts by 13.01.2018. • FinTech start-up evolving and anticipated to change the way banking works, often leaving banks unnecessary (e.g. PayPal, BitCoin) 	-	<ul style="list-style-type: none"> • The finance industry in general shows little anticipation in ideas that could change their existing business model. • With the new regulations in place, many new start-ups will emerge and threaten banks with innovative solutions. The lack of inclusion can lead to conventional banks being cut out. • Other finance clusters offer more fertile environment for new businesses

Financial Cluster London



London is the leading financial cluster in Europe. However its competitiveness is currently tested due to the political situation in the UK and Europe.



London Financial Cluster Overview

London is one of the world's most important business, financial, and cultural centers with influence in politics, education, entertainment, media, fashion and the arts.

London's largest industry remains finance, and its financial exports make it a large contributor to the UK's balance of payments. Around 325,000 people were employed in financial services in London until mid-2007. London has over 480 overseas banks, more than any other city in the world. London is home to banks, brokers, insurers and legal and accounting firms.

A second, smaller financial district is developing at Canary Wharf to the east of the city which includes the global headquarters of HSBC, Reuters, Barclays and the Magic Circle, which includes Clifford Chance, the largest law firm in the world. London handled 31% of global currency transactions in 2005 an average daily turnover of US\$753 billion with more US dollars traded in London than New York, and more euros traded than in every other city in Europe combined.



The UK's **national diamond** represent high competitiveness. The vulnerability of its diamond composition lies in less developed infrastructure, fewer pressure on innovation processes and in the high percentage of unqualified work-force. However, the UK's demand is highly sophisticated & its economy is overall open.



Supporting Players

London is home and head quarter to brokers, insurers, rating agencies, and legal, consulting and accounting firms, as well as newspapers. The who is who of the financial industry supporters settled in London. Financial Times and The Economist are the most recognizable and professional newspapers providing information, advices and solutions for financial business and both are located in London

Research and Education

London has an excellent access to high financial education and Research with worldwide known institutions are Oxford University and the London School of Economics. and known Research Centers such as the Financial Markets Group Research Centre, which is one of the leading centers in Europe for academic research into financial markets.

Infrastructure

As the capital of the UK and one of Europe's biggest cities London has 4 airports, an intensive bus and underground system and supports its cargo trade system.

Public

Business hospitality is highly developed in the City, the best hotels, restaurants offer variety of services for business partners and visitors. The city is a major tourist destination for both domestic and overseas visitors, with annual expenditure by tourists of around £15 billion.

Businesses

Central London is the headquarters of more than half of the UK's top 100 listed companies (the FTSE 100) and more than 100 of Europe's 500 largest companies. Many firms also provide trainings, higher education learning, courses in finance and economics (e.g. CFA).

Surrounding Hubs & Clusters

London is also home to 4 other clusters: ICT, transportation services, printing and publishing and hospitality.



Financial Cluster Paris



Paris is Europe's leading economic area. However, most international supporting players chose to have their HQs in the UK, Ireland or Germany.

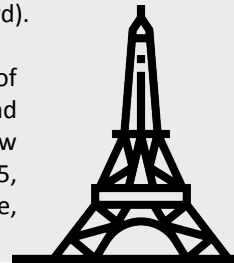


Paris Financial Cluster Overview

With 12 million inhabitants, 944,000 businesses and 646,000 students, Ile de France accounts for 4.6% of EU GDP, making it Europe's leading economic area.

With over 800,000 direct jobs and 400,000 indirect jobs, France's financial industry plays a central role in the French economy. Finance accounts for over 4% of French GDP, and is the third largest sector by employment in Ile de France (Paris region). Four French banks are featured in Europe's top 10, including two of the top three: BNP Paribas (2nd) and Cr dit Agricole (3rd).

Euronext is the leading stock exchange in the euro zone, accounting for 40% of the euro zone's market capitalization. As the European leader in equities and corporate bonds, the Paris financial marketplace is also up to speed with new ways of financing SMEs, including private equity and crowdfunding. In 2015, Paris outpaced all other European cities for raising seed capital. Furthermore, Euronext is the leading technology stock exchange in continental Europe.



Focusing on sustainable bonds, the Paris financial marketplace attracts plenty of foreign investors. More than 500 international businesses, banks, insurers and financial firms operate in the French capital, where they employ nearly 126,000 people. In all, €90 billion are currently invested by foreign investors in French financial assets. With more than ¥13 billion raised on Euronext Paris since 2012. The French financial marketplace has built its reputation as the market leader in green bonds. France is the world's top issuer of green bonds, having sold US\$11 billion worth in 2015.



Supporting players

Although most European HQ are rather located outside of France, Paris is still home to the best known brokers, insurers, and legal, consulting and accounting firms such as KPMG, McKinsey, BCG, Ernst & Young, Bain & Company and Freshfields.

Research and education

Paris has a high number of international students & international top-ranked schools: HEC, ESSEC, and ESCP Europe (2 French Business Schools in the European Top 10). The French education system is very efficient and highly supported by public authorities. Paris is also one of the European leaders in mathematics and business management due to its strong research and innovative capacities. The R&D expenditure in France (2.23% of GDP) is higher than the European average (2.02%).

Infrastructure

France has the most important road network in Europe. Roissy Charles-de-Gaulle is the 2nd busiest airport in Europe for cargo and passengers traffic and energy prices are attractive for corporates.

Public

France is ranked 1st in Europe and 2nd in the world for life quality. It has a variety of activities, restaurant and diverse places for every-day-life to offer. The financial sector is nationally accepted.

Businesses

Twenty-nine of the world's 500 largest companies listed in the Fortune Global 500 have their headquarters in the Paris region, ranking it third in the world, after Beijing and Tokyo, and number one in Europe. Paris significant industrial sectors are luxury, aeronautics, media, and ICT.

Surrounding Hubs & Clusters

The Paris region has set itself apart with its quest for new business. It is home to a total of c.a. 100 business incubators, including Europe's largest: Le Cargo (January 2017, Paris will be the largest incubator in the world). Currently Paris is home to 9 different hubs & cluster such as the "Transportation & Connectiveness" cluster and the hub for the internationalization of the Yuan.

Cluster Analysis: KPIs



KPIs for a qualitative and quantitative competitiveness analysis of Europe's three main financial clusters

	KPI Financial Clusters	How?	Why?
QUANTITATIVE ANALYSIS	Financial Sector Development <ul style="list-style-type: none"> Value Banking concentration Growth of banking concentration Internationalization Growth of internationalization Relative size of financial sector 	<ul style="list-style-type: none"> Value of trade / stock exchanges Number of credit institutions Percentage of growth of number of credit institutions Percentage of international banks compared to local banks Percentage of growth of international banks compared to local banks Number of financial institution per capita 	<p>The GFCI (Global Financial Centres Index), provides ratings for financial centers calculated by a 'factor assessment model' that uses over one hundred different instrumental factors to assess a financial center's competitiveness. It groups all instrumental factors in the following five categories, which are used in this cluster competitiveness analysis as the key KPIs:</p> <ul style="list-style-type: none"> Financial Sector Development Infrastructure Business Environment Human Capital Reputational & General Factors <p>Human Capital was further subdivided into Research and Education, and Quality of Life, which are two big KPIs of this GFCI category and are selected due to their importance in the cluster.</p> <p>Since the financial factor development itself can be identified as the core of the cluster it is also further subdivided into 6 categories regarding the value, number of players, internationalization, and growth factors, which will stress the main differences and similarities between the three clusters.</p>
QUALITATIVE ANALYSIS	Infrastructure	Cities Location, transportation, airport, roads, harbors, etc.	
	Business Environment	City attractiveness for financial businesses (taxes, regulations, etc.)	
	Human Capital: <ul style="list-style-type: none"> Research & Education Quality of Life 	<ul style="list-style-type: none"> Number, Rankings & Qualities of Research & Education Institutions City attractiveness for public (cost of living, income level, etc.) 	
	Reputation & General	General city and cluster reputation, innovations & internationalization	

Human Capital:

- Research & Education
- Quality of Life






















Financial Sector Development

- Value of trade / stock exchanges
- Banking concentration
- Growth of banking concentration
- Percentage of international banks
- Growth of percentage of international banks
- Financial institutions per capita

Quantitative Analysis



Frankfurt has a lower banking concentration due to the different national banking system with a high amount of local Volksbanken and Sparkassen, but growth the strongest.

KPI Financial Clusters		London 	Paris 	Frankfurt 	Explanation
QUANTITATIVE ANALYSIS Financial Sector Development	Value	13.0 Bil. € 	3.4 Bil. € 	15.7 Bil. € 	Value of Trade / Stock Exchange
	Banking concentration	264 	285 	182 	Number of Credit institutions
	Growth of banking concentration	~ 0 % 	~ - 35 % 	~ + 16 % 	The entire financial sector faces serious challenges. Frankfurt is in a little better position due its differently structured national banking system.
	Internationalization	>50 % 	30 % 	> 50 % 	The cities of Frankfurt and London have more than 50% international banks compared to local banks, while Paris has only about 30%.
	Growth of internationalization	+ 	0 	+ 	Percentage of growth of international banks compared to local banks
	Relative size of financial sector	31 Institutions/ Mio. Capita 	25 Institutions/ Mio. Capita 	48 Institutions/ Mio. Capita 	Related to Frankfurt's population it has c.a. 48 institutions, while London has 25 and Paris 31.

Qualitative Analysis



London is currently still the leading financial centers followed by Frankfurt and Paris. Frankfurt has the potential to catch up to London.

KPI Financial Clusters		London 	Paris 	Frankfurt 	Explanation	
QUALITATIVE ANALYSIS	Infrastructure	Very good 	Very good 	Excellent 	The cities together have the three biggest European airports and a good transport infrastructure. However, Frankfurt has the best transport infrastructure and road connections as well as the shortest travel distances.	
	Business Environment	Excellent 	Very good 	Very good 	Due to regulation and taxes, London is the most attractive city. However, the ECB is turning out to be a guarantee for employment and safeguards the long-term attractiveness of Frankfurt as a banking location.	
	Human Capital	Research & Education	Excellent 	Excellent 	Very good 	Universities and intellectual capital are higher in France and the UK. Paris, however, needs to better market itself. Cost of living & Income level
		Quality of Life	Very good 	Very good 	Good 	
	Reputation & General	Excellent 	Very good 	Good 	City reputations: glamorous financial London, more down-to-earth clean Frankfurt & the attractive Paris. London is most innovative & international, Frankfurt follows in innovation (Fintech) & Paris in the other.	
RESULT	∅ 1.45 	∅ 2.55 	∅ 1.81 	London is currently still the leading financial centers followed by Frankfurt and Paris		

Static Analysis Financial Cluster Comparison



Current state: London before Frankfurt and Frankfurt before Paris.



Cluster performance:

Currently, London remains the undisputed leading financial center in Europe. The British city ranks first, one point before Frankfurt and ten points before Paris, in our analysis of the core criteria of a financial center.

The city has established the best reputation for finance and provides an excellent business environment as well as good infrastructure. Mainly due to its history and the English language it is the most international financial center of Europe. Its internationalism helps the city to be more attractive for foreign investors. London also provides a wide range of services pushed by innovation in finance. The network within the cluster to e.g. research institutes & universities is marvelous. Oxford and LSE, two of the best ranked universities in the world are also part of the cluster. Additionally, London's huge market size provides enormous liquidity, which is the base of market efficiency. Also, London's participation in major international financial markets (for instance OTC, International bonds) gives large opportunity for London's financial service cluster.

However, the global financial market share of the cluster in the UK has been decreasing for recent years due to the growth of the financial services in other parts of the world, especially in Asia. This could have possibly been caused by the declining influence of co-location for services, meaning younger financial clusters in other parts of the world provide services on lower cost and thus can become substitutes to London – especially under the current political threats.



Cluster performance:

Although when thinking about Paris other industries such as luxury and fashion come to mind first, it is indeed one of the biggest finance clusters in Europe.

Paris' banking system is of centralized character with a high concentration of banks in its financial center, namely 60% of all French banks are located in Paris, which are however declining in numbers due to current fluctuations in the sector.

Paris' financial cluster has a good infrastructure, business environment, and access to human capital and reputation. The French capital ranks high in four of the five main financial cluster KPIs, however on the most important one, the financial center development, it shows weaknesses compared to Frankfurt and London due to a lower number of international banks as well as a lower trade value in the French stock exchange. Although Paris has the highest number of banks, its growth rates are declining.

Paris also established strong connections and a high amount of institutes and agencies resulting in a wide network of its financial cluster.

All in all, although Paris shows currently some weaknesses in the financial development its reputation, human capital, infrastructure, and business environment allow the city to be a good potential competitor in becoming the new financial center of Europe.



Cluster performance:

With only one point less than London, and great results in financial sector development, business environment and infrastructure, Frankfurt is the biggest threat to the British capital in becoming Europe's new financial HQ.

Frankfurt ranks so high compared to Paris (nine points more) due to the growth factors and number of international banks. Meaning only the German financial district was able to increase the numbers of banks probably due to its proximity to the ECB, which is an important argument in choosing a location for many domestic and foreign banks. The expansion of the ECB into the primary European authority for banking supervision has made a significant contribution towards stabilizing Frankfurt's financial sector labor market.

In addition, the German banking system is organized differently compared to Paris and London, meaning it is typified by decentralization, with a comparatively large number of smaller banks. Thus, around three quarters of German banks form part of the regionally-focused savings banks, the so-called Sparkassen and Volksbanken. Due to this decentralized nature only 10 % of all credit institutions in Germany were based in Frankfurt's financial center region at the end of 2015. However, more foreign credit institutes have settled around the German city during the last decade (160 foreign banks are based in Frankfurt in 2015) and 80 % even set up an Head quarter in "Mainhatten".

Overall, Germany's financial center has successfully held its own and managed to position itself more effectively, especially in relation to its French counterpart.

Dynamic Analysis Financial Cluster Comparison

Europe's financial sector is currently in a transition period. The United Kingdom's relationship to the EU or the future development of the euro might change drastically.



Scenario 1:
Europe's #1 financial center: Frankfurt



Reason & Probability

- Due to the current political situation in the European Union, the discussion of a European stock exchange, and the threat of "Brexit" materializing, there is a good chance that the financial capital of Europe is going to be relocated.
- Frankfurt already has the ECB and a comparably stable financial sector. The city would provide the perfect infrastructure and good business environment as well as network, which currently places the city as the runner-up of the financial capital of Europe.
- The probability of this scenario is closely linked to the outcome of the Brexit referendum. If Britain exists the EU (current probability: 50%) then this scenario is the most likely

Potential Consequences:

- A European "super exchange" will be created in Frankfurt, which will raise the bar for growing competition from abroad. Deutsche Börse and the London Stock Exchange will merge and the headquarters will be located in Frankfurt.
- 20% of London finance jobs will move to the EU- thus to Frankfurt.
- Germany will consequently gain more power in the Eurozone.
- New businesses, opportunities and hubs will arise in Frankfurt.



Scenario 2:
Europe's #1 financial center: Paris



Reason & Probability

- Due to the current political situation in the European Union, the discussion of a European stock exchange, and the threat of "Brexit" materializing, there is a good chance that the financial capital of Europe is going to be relocated.
- Although Paris is not as competitive as Frankfurt to become the processor of London, the EU is cautious about how much more power to give to Germany. Currently it is the power house of the EU and due to its history people are rather reluctant for it to get more power.
- Paris has a higher population of 12 mio. compared to 4 mio. in Frankfurt, thus its GDP is considerably higher (510 bil. € vs 180 bil.€) increasing the probability of it taking the leading role.

Potential Consequences:

- 20% of London finance jobs will move to the EU- thus to Paris
- The power of the EU is more divided and thus there is a lower risk for all member states.
- Paris will expand its Fintech hub in order to beat Frankfurt's hub in becoming the Continental European Fintech hub.
- New businesses, opportunities and hubs will arise in Paris.
- If a European "super exchange" will be created the potential would be located in Paris where Euronext and the London Stock Exchange merge. (rather unlikely)



Paris financial cluster
Europe's #1 financial center: London



Reason & Probability

- The UK and London have all the advantages needed to retain their global pre-eminence in financial services, but will have to work hard to remain attractive for an industry whose firms and talent are internationally mobile. The London cluster meets new opportunities and threats coming from the UK and the world.
- London's current standing as the financial capital of Europe is extremely instable. If the "Brexit" materializes it would have a negative impact on London, which could consequently struggle to remain the foremost financial location in Europe.
- The probability of London retaining its current position can rise or fall with the Brexit referendum.

Potential Consequences:

- This assessment of London's financial cluster is based on the assumption of no "Brexit", thus there are no consequences if London remains the financial capital of the Eurozone as long as they are part of the EU.
- If Britain however exits the EU and the financial HQ of Europe would remain short term in London many new challenges would arise. If London is able to face new challenges, its financial cluster can maintain its leadership.



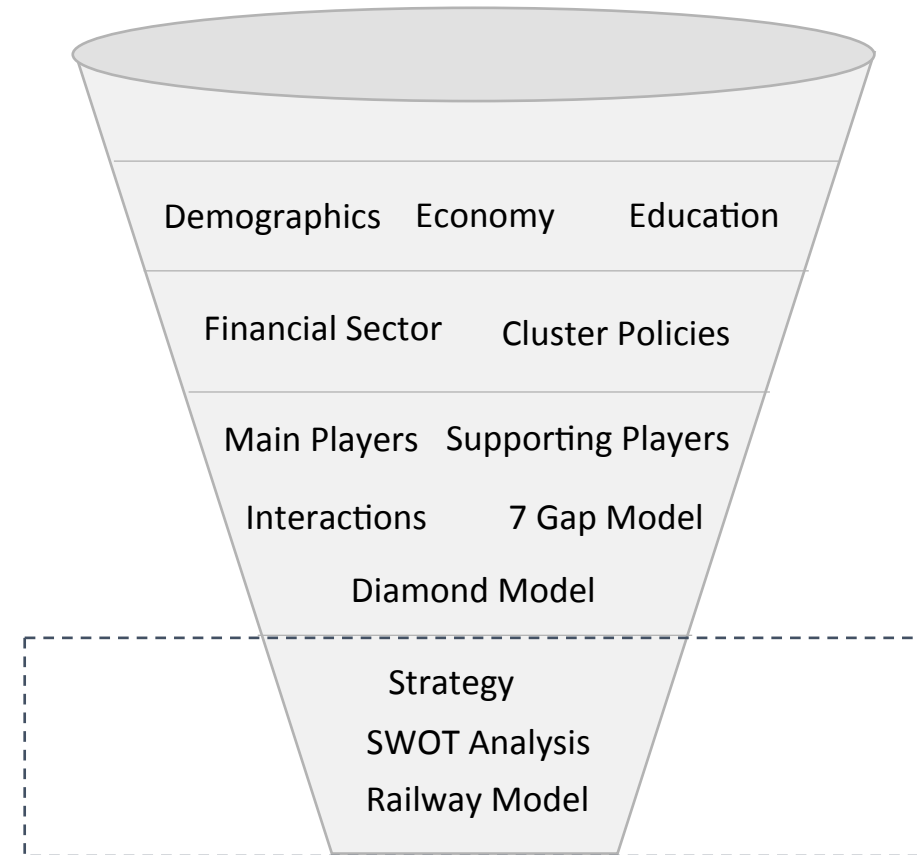
1. Environmental Analysis

2. Cluster Analysis

3. Firm Analysis

Deutsche Bank, as one of the biggest actors in the cluster, is chosen for detailed analysis. It shows to be a particularly interesting example as it reflects the fragile state of the global finance industry. The railway model shows that Deutsche Bank currently faces the need to change tracks.

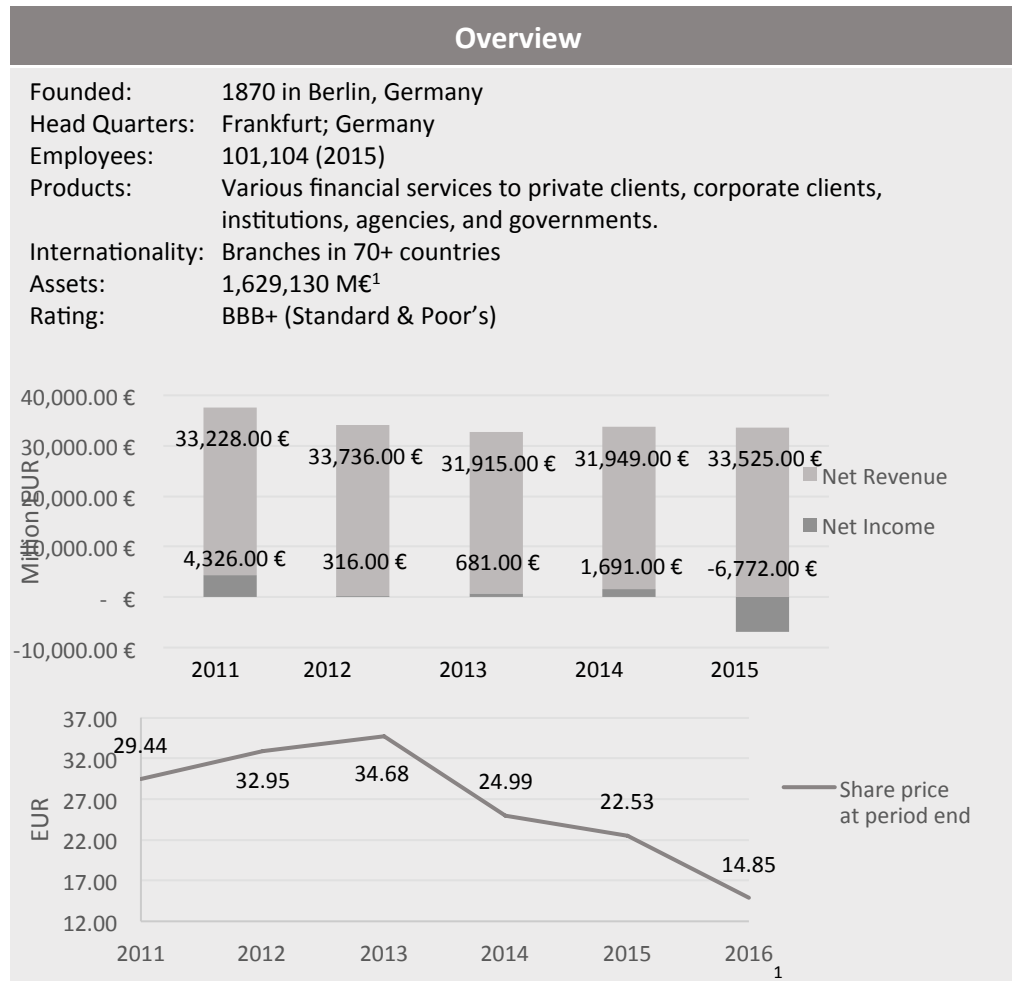
4. Recommendations



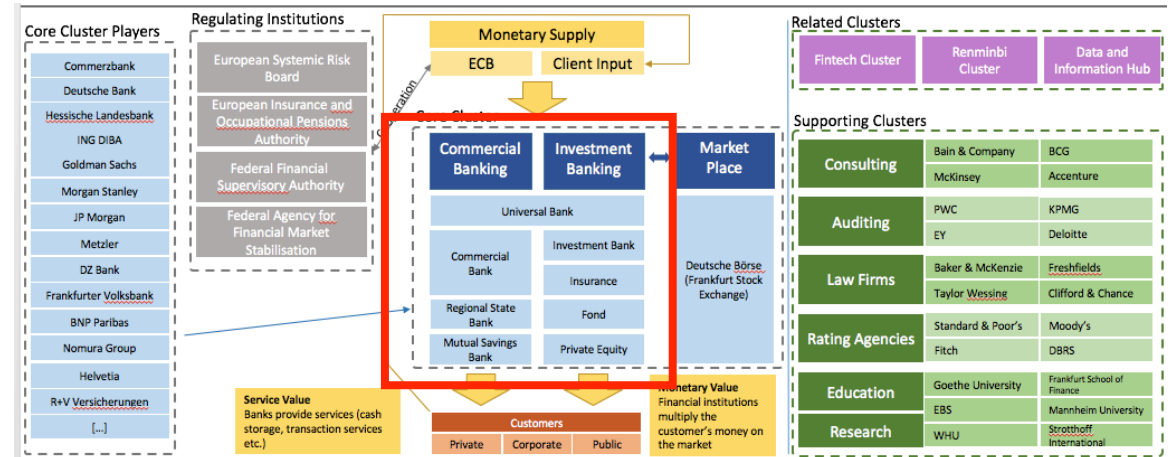


Deutsche Bank - Overview

Deutsche Bank is largest German bank. It faced a significant loss of EUR 6,7 billion in 2015 and experienced a dropping share price over the last three years.



Deutsche Bank is active in commercial banking and investment banking.



Education & Research

Deutsche Bank funds research and collaborates with leading universities in Frankfurt, for example the Goethe University, to intensify the exchange between research and practice. The company offers many graduate programs to attract top talent.

Other Banks

Most financial services skills are acquired by shared experience, and by technology innovation. As the knowledge often is tacit, knowledge sharing requires geographical proximity. The presence of Deutsche Bank is therefore attracting other players, and other players will help to improve skill level at Deutsche Bank.

FinTech

Deutsche Bank has included collaboration with/acquisitions of FinTech companies in their strategy to offer more innovative solutions to clients and to make internal communication more efficient.

Deutsche Bank – Strategy and Current State



Its strategic reaction is focused on process optimization and risk reduction. Cooperation with FinTech is only considered for incremental changes.

Goals	<ul style="list-style-type: none"> Deliver financial solutions, technology, products and services that exceeds the client's expectations. Become the most respected financial services provider across all customer segments in Germany; the number one bank for our corporate, institutional and fiduciary clients in Europe; and the best foreign bank in the United States and Asia.
Business Model	Strong partnership with clients, a large international network, highly skilled employees, and a broad range of banking products and services including commercial and investment banking, retail banking, transaction banking, and Asset and Wealth management.

SWOT Analysis	
Strengths	Weaknesses
<ul style="list-style-type: none"> - One of the biggest banks in Europe - Long history and strong brand name - High international presence - Big, loyal clients - Broad product offerings attracts big clients with varied needs 	<ul style="list-style-type: none"> - Reputation as risk-taking creates difficulties when economic and market conditions are becoming more challenging - \$19 Bn fine from the U.S. Justice Department for faulty trades is making investors leave the bank - Recent losses is forcing the bank to restructure and cut down on costs instead of focusing on growth
Opportunities	Threats
<ul style="list-style-type: none"> - Expansion into emerging markets - Acquisitions to sustain growth - Diversifying and increasing clients' portfolios - Investing in CSR to create reputation as caring - Collaborate with FinTechs to become market leading in technology solutions within the industry 	<ul style="list-style-type: none"> - Strong competition from other banks - Brexit causes an uncertain future as 19% of revenues comes from the UK - New rules and regulations from government or EU - Changes in interest rates

Strategy 2020	Application
Turn losses into profits by cutting costs <ul style="list-style-type: none"> Become more efficient by reducing the number of products and services and focus on deeper relationships with the best clients Lowering risk profile by saying no to marginal business more often when in doubt Be better capitalized in order to not have to play catch-up with regulation and market expectations Be a simpler and better run bank 	<p>Employment: The bank is letting 9'000 people go and has put on a hiring freeze on the organization.</p> <p>Locations: The bank is closing down offices both domestically and internationally and moving trading activities to global and regional hubs.</p> <p>IT systems: Increase collaboration with FinTech companies to offer better online banking and streamlining internal system.</p> <p>Clients: Decrease number of clients, especially in risky markets, and deepen the relationships with important ones</p> <p>Products: Exit certain products such as certain Credit Default Swaps and Legacy rates products, agency Residential Mortgage-Backed Securities trading, and higher risk-weight securitized trading.</p>

Example for Competitors

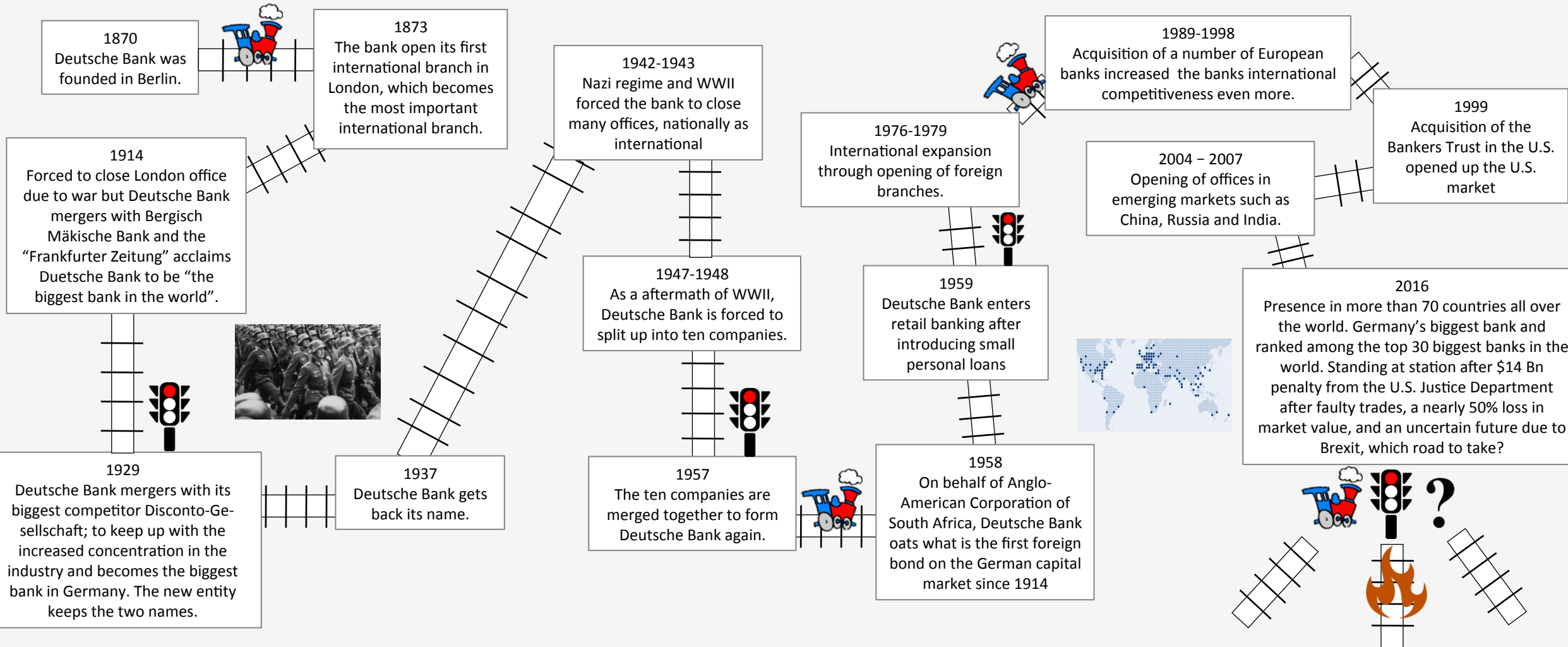
2015	Deutsche Bank	Commerzbank	BNP Paribas	HSBC Holdings
Head Quarters	Frankfurt, De	Frankfurt, De	Paris, Fr	London, UK
Assets	1,629.1 Bn€	532.6 Bn€	1,994.2 Bn€	2,217.4 Bn€
Net Profit	(6,772.0) Mn€	1,062.0 Mn€	6,694.0 Mn€	13,891 Mn€
Employees	101,000	51,000	190,000	257,000
Rating Standard & Poor	BBB+	BBB+	A	A





Deutsche Bank – Railway Model

Deutsche Bank is currently at a railway station and has to decide for a change of tracks, since it is obvious that the current way has little future.





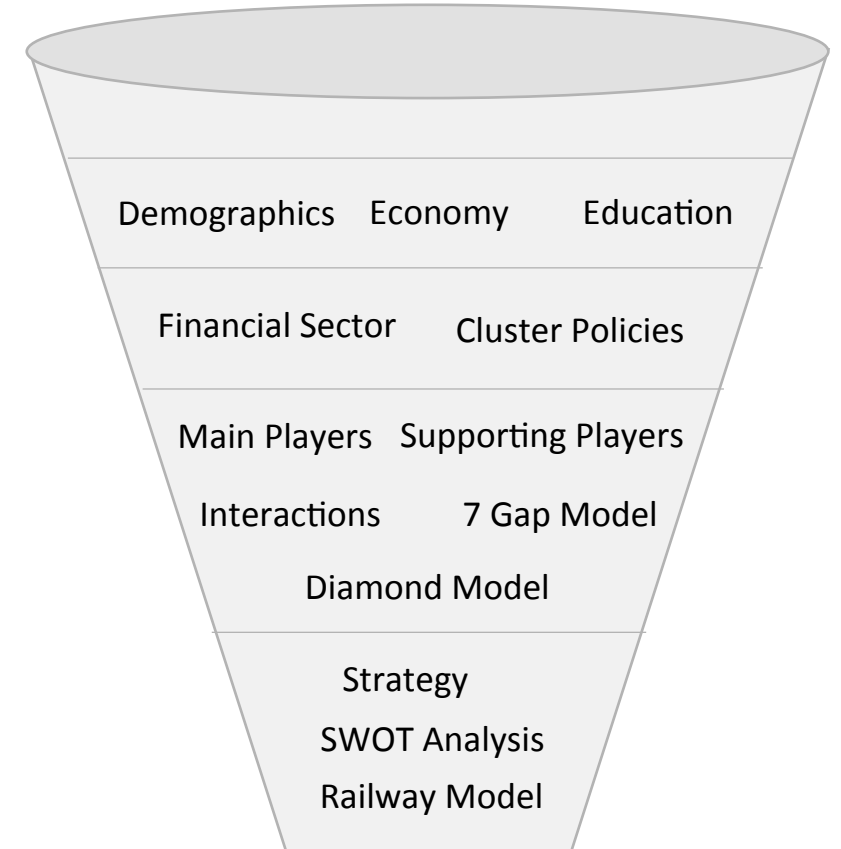
1. Environmental Analysis

2. Cluster Analysis

3. Firm Analysis

4. Recommendations

Measures are presented that will help the cluster to further increase competitiveness and take London's place as the leading European financial cluster after Brexit.



Recommendations



Recommendation – National Level

Germany Should lower corporate taxes and administrative processes for start-ups as well as lobbying Frankfurt as the financial center of the future

National Level Recommendations

Domestic Policies

General

- Lower corporate taxes to attract more businesses– Germany’s corporate tax level is 29.72%¹ which is clearly above EU average of 22.09%
- Lower bureaucracy for SMEs. Germany has already adapted system for implementation of new laws to “one in, one out”, but should continue to make it easier to start a business to attract more start-ups.

Innovation and Entrepreneurship

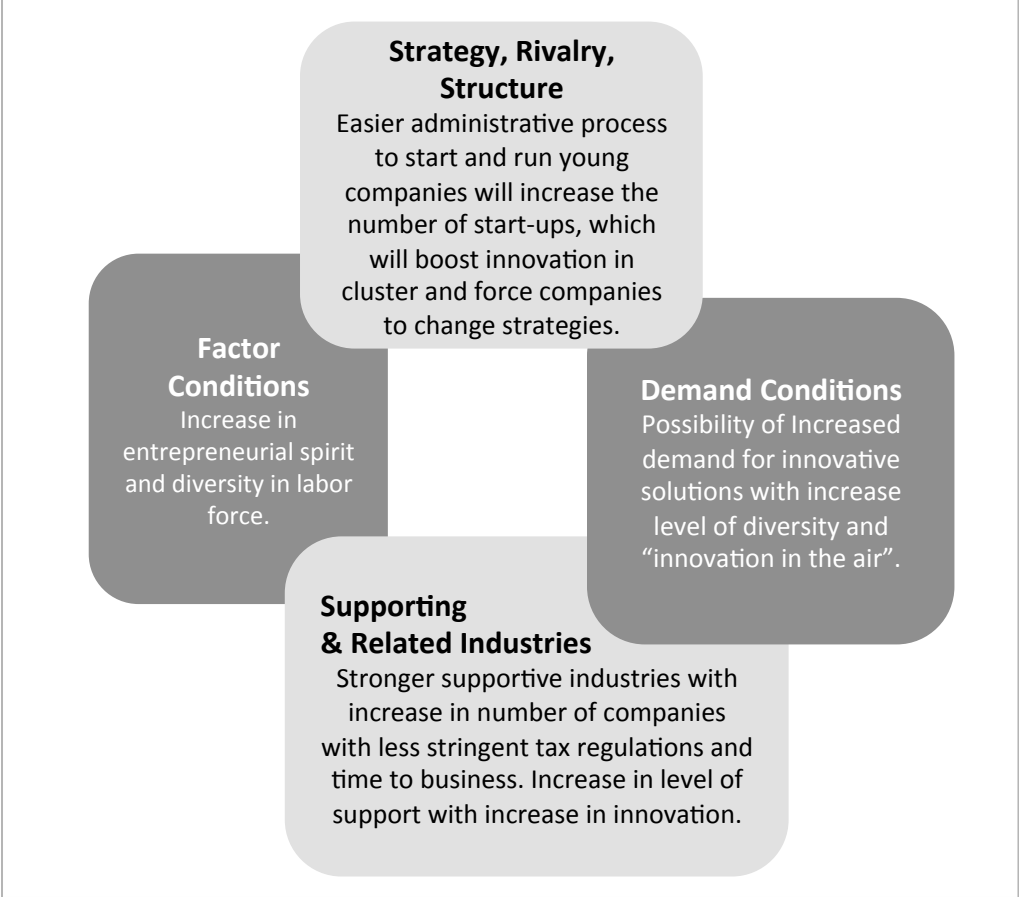
- Increase accessibility to capital for start-ups and young companies by simplifying policies for venture capital and crowdfunding.
- R&D tax incentives – encourage entrepreneurship and innovation by giving tax incentives for companies investing a lot in R&D.



Possible Outcomes National Level

- Increase in number of companies due to higher attractiveness with lower corporate taxes. A higher number of companies will also help to balance out the lower taxes provided by each entity.
- Lower bureaucracy and administrative processes and simpler policies for Venture Capital and other types of funding for SMEs will help to attract more young companies, which will help to boost innovation.
- R&D tax incentives will encourage entrepreneurship and attract start-ups as well and also strengthen the research conducted at German Universities.
- Frankfurt takes over London’s position as the biggest becomes Financial center in Europe after Brexit.
- Increase in entrepreneurial attractiveness will attract people from other countries and help to increase diversity.

Policy Effects on Cluster Diamond





Recommendation – Cluster Level

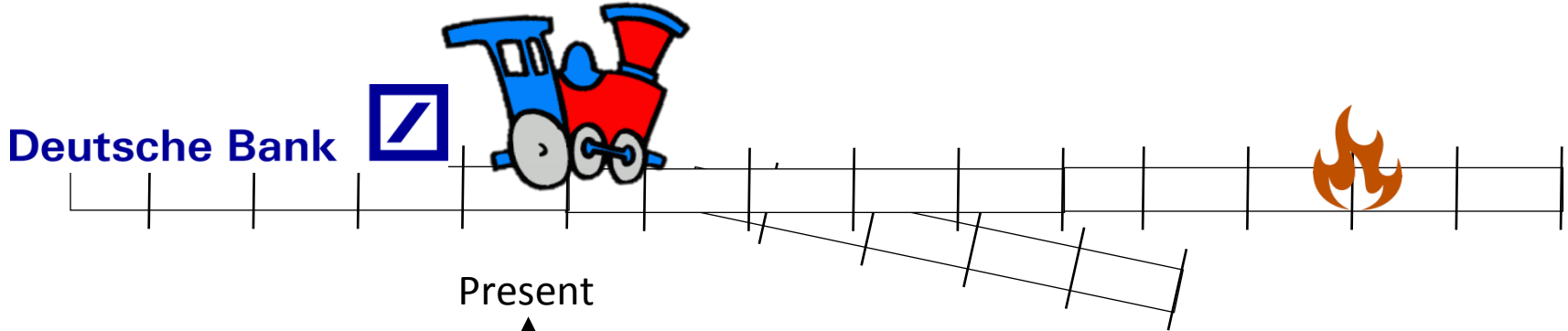
To be successful in the future, the cluster needs to lay priority on the integration of start-ups and new ideas, that will change the business model of banking.

Priority	1st	2nd	3rd	4th
Problem	Start-Up Integration	Education	Lifestyle	Close Gap to Population
Measures	<ul style="list-style-type: none"> Use existing bridge builders (e.g. Frankfurt-Main-Finance e.V.) to involve start-ups in discussions, knowledge exchange and provide a platform where start-ups can present their ideas to the financial institutions Banks should collectively engage in the platform and provide venture capital financing opportunities. This helps evolving an innovation focused scene around Frankfurt and ensures that banks are continuously informed about new developments. The city of Frankfurt and the state Hesse should promote and finance start-up incubators and provide educational support for founders. 	<ul style="list-style-type: none"> The general level of education in Germany is quite high. The German system, however, does not aim for single, outstanding universities. Especially the finance industry is seeking for top graduates of outstanding universities. As education is a federal matter, the state Hesse can focus resources in leading finance-centered education facilities. Further, the financial industry is in need for international, English speaking primary and secondary education. Especially employees currently working in London will face the need to place their children in international schools. Capacities have to be increased. 	<ul style="list-style-type: none"> Frankfurt has to realize the economic value of a vivid cultural and culinary life and encourage diversity. Further Frankfurt has to get rid of the false image of a cold, businesslike city. In reality has much to offer with a mix of modern, international culture in the city and lovely traditional hessian culture and beautiful landscapes in the Taunus area. To achieve that leading bank executives should be invited and introduced to the various facets of the area, which includes showing restaurants, hotels, bars, nature and of course office space and real estate projects for housing. Frankfurt has to show that it can provide an appropriate life to thousands of additional bankers. 	<ul style="list-style-type: none"> This task is the most difficult and calls for a lot of patience. Financial institutions are highly dependent on government policies. Currently the public opinion of the financial industry is bad - especially because of the public bail-out in the financial crisis – and public opinion naturally affects government actions. Banks have to communicate their strategic adaption towards lower risks (and of course actually implement changes). A simple act of apology can be a first step. The public should be educated in the dynamics of the financial markets and their economic effects. This can be done in free lectures in cooperation with the universities.
Actors	Bridge builders, banks, city of Frankfurt and the federal state	City of Frankfurt, federal state	City of Frankfurt, Frankfurt-Main-Finance e.V.,	Banks, Universities



Recommendation – Firm Level

In addition to their new Strategy, Deutsche Bank has to lay great focus on a cultural change. A big part in achieving this change is adapting the incentive system.



Past Culture
 Deutsche Bank is known for being particularly risk-averse in an industry that itself has a high tendency towards risks. The former CEO, Josef Ackermann, was known for holding the goal of 25% rate of return above everything. When other banks reacted to regulatory change and decreased the importance of investment banking, Deutsche Bank was still driving an aggressive expansion strategy.¹ For years, the bank was involved in legal processes for malpractice. Although these illegal activities were often conducted by individuals, the mere quantity of misdoings is a clear indicator for a corrupted culture.

Target Culture
 The aim is to change Deutsche Bank's culture towards compliance and a sustainable mindset without losing the high performance environment.

Failure Acceptance
 Hiding a prior bad investment or other mistake is often the reason for misconduct. Failure in good will has to be tolerated. This means that single failures must not critically affect ones career path. A great measure to start establishing such a culture is that successful executives share their prior failures.

Shared Benefit and Responsibility
 In order to limit the possibility of hidden illegal activities, responsibilities should be transferred to teams. This also means that superiors are held responsible for actions of subordinates. Prior reprocessing of illegal activities often led to simply finding a scapegoat. Therefore a independent ethic commission has to enforce compliance and also hold superiors accountable if they set unreachable goals that lead to illegal activity. Further this means that everyone's evaluation also is dependent on team performance, as shown in the incentive system.

Incentive System
 In general, the share of bonuses of the total salary has to decrease. Employees must not fear severe consequences on their lifestyle if the bonus is not reached. This otherwise would again promote fraud. DB should focus on non-monetary opportunities as complement for financial compensation (e.g. time for further education or social projects)

