

## Berlin: an innovative ecosystem

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What does Technology Foundation Berlin do and what is our purpose? We are a private foundation in terms of legal status but we are mandated by the City Government of Berlin to develop innovative policies, institutions and infrastructures. The idea behind this was to make sure that, apart from political changes in Berlin, there is an institution that has its own capital and a way of projecting its own plans longer than the five-year term that you usually have in the Parliament. That is what we have been doing since 1996. One of the institutions that we invest in is Berlin Partner, which you have probably already heard of and is Berlin's economic development agency.

I stole my first slide from the company APCO, it is entitled "Ingredients for a successful start-up ecosystem". However, I think that this is also true for all dynamic ecosystems, in a way.

## Ingredients for a Successful Startup Ecosystem



Source: http://blog.up.co/2014/09/08/white-paper-announcing-5-ingredients-fostering-thriving-startup-ecosystem/

What you first have to have is **talent** and, **when you compare Berlin with other cities, especially in Germany, that is one of our biggest assets.** A lot of young people from all over the world – and when I talk about young people I am not just looking at age, but more the mindset of starting and trying something new – are coming to Berlin. I was recently in Tel Aviv, for example, and when the person at the reception heard that I was from Berlin, he said that he had been there three times and that he wanted to move there. That is a very new experience for people from Germany, that a lot of young people from Israel are now actually coming to Berlin. It is something that is really good and gives a lot of hope, that differentiates Berlin from the rest of Germany.

There is then **density**, of course. When you want something to develop, you have to put things together and they have to boil up in a way. **Density is something that you only find in cities**; you do not find it in regions or rivers or mountains. **Culture** is another very important part. When I talk about culture a little later on, I will look not only looking at the classical culture, such as going to the museum or opera, but at a very broad field and variety of cultural offerings.



**Funding** is of course another important part. You need to have money to fund things. We had a governing mayor called Klaus Wowereit, who coined the term "poor but sexy" to refer to the state of Berlin's finances. That was Berlin's idea for the last couple of years. However, when we look at Berlin's budget today, **this is the first time that we are earning more money than we are spending**. Berlin is on the track of not being really austere, we now have a stable financial system and are therefore also able to spend money. We also have a **regulatory base** that makes sure that things that have been promised yesterday will be fulfilled tomorrow, which is also quite important when it comes to fostering an ecosystem.

Then, I think that **a city should be inspirational**. When people want to start something new they need to have some kind of inspiration. They have to dream up things that have not been around before. Here we have the logo of KaterHolzig.



©Katerholzig

This is one of the clubs that we have in Berlin. There used to be Bar 25 in the same area, which was replaced by KaterHolzig, another of those bars that popped up on the river Spree where people just enjoyed life. There are a lot of founders in Berlin who claim that they only came here in the beginning because of Bar 25, which was a very interesting techno club. There was a lot of fun and loud music, and other things that can help to foster inspiration.

The next thing that we have in Berlin, apart from inspiration, is that we are looking at the **data**. We have a department in our Technology Foundation called Data-Driven Innovation. We believe that **data is one of the most important assets for building a city of the future**. We have a **Smart City Strategy** in Berlin as well, which was enacted by the Berlin Government. You will remember that Berlin is a state on its own and is part of the federal system in Germany, so we are able to enact a certain level of laws. Berlin's Smart City Strategy is looking into the aspects of **open data** and of a **responsive**, **resilient and cultural city**: one that is able to provide a sustainable system for the next 20 or 50 years.



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I would now like to focus a little on the question of data. We had a study in Berlin called *Digital Gold* (February 2014), which is a term that we use because Neelie Kroes always used it when she was Commissioner at the European Commission. We asked ourselves what **the value of open data** is in



Berlin – or the data hold by the public administration if it were made open. There is then an equation that we can see here.

benefit =  $F \lambda_1 \lambda_2 \lambda_3 \varepsilon$ 

 $\begin{array}{ll} F & costs \\ \lambda_1 & cost multiplier \\ \lambda_2 & benefit multiplier \\ \lambda_3 & indirect benefit multiplier \\ \epsilon & demand elasticity \end{array}$ 

## =32 Millionen EUR

©Technologie Stiftung

The factor is the cost, which corresponds to what it costs to have the data collected. We then have a cost multiplier, which is used to figure in how much money we spend to provide the data to people who are using it. We also have a benefit multiplier, which is what people can build directly as a business built on the data. There is then the next multiplier, which is the indirect benefit multiplier. I usually explain this as the hedonist factor. It is something that explains how a city improves and how the quality of life is raised when you have something such as open data that is provided in a way that is useful to people. It is also about participation. It is something that you cannot really grab as a financial figure but which is very important when it comes to having a system that takes in everyone. We then have demand elasticity that says that the more you ask for data, the cheaper the data gets and vice versa.

"Show me the money": the question is actually "Is there any money?" Can you build a business based on open data? If I ask myself, if somebody gave me access to all the open data in Berlin and EUR 0.5 million as seed funding, I am not sure what scalable exit-oriented business I would build on that because it is tricky. There are some datasets that are very useable in a scalable system, especially when we are talking about transportation data. That makes sense because there are international standards and we have companies that are building a business based on that. However, when we are talking about data on the opening times of kindergartens, for example, I am not really sure if you can build something on that that is economically viable.

We therefore want to tackle that question in a way where we want to see if it is possible to build something in Berlin like an incubator where we have open data and access to the administration, and also a little bit of funding, and then ask people to try to build something based on open data. When you are talking to people who are working with open data, there are two groups. On the one hand, there are people who are **data keepers** and want to make sure that no-one has access to the data. That is usually a part of the administration. On the other hand, you have **data liberators**, who want to set all the data free although they do not have a clear idea of what to do with it.

However, when we are talking about what those people are building, I always refer to it as **upper white middle-class topics**. They are building things such as a transportation system for children who go to the Waldorf School, for example. They are not really tackling the problems of a city or building something that is important for people who live in Neukölln or Wedding – the areas of Berlin that are not the best-educated ones. We need to answer the question of how we bring the benefit of open data to people who are really in need of having their lives and circumstances improved. This issue is not answered by those people who are looking more at building something that is very nice but not realistic comparing to what is really needed.

I would just like to go quickly through what the Berlin start-up scene is like, because that is also something playing a role when it comes to building an open city. **Start-ups in Berlin are usually people-centric.** More precisely, they are **consumer-centric** as they are businesses. However, they are



not business-centric. I will now show you the most important start-ups in Berlin -they are important when you look at how much funding they received from venture capitalists.



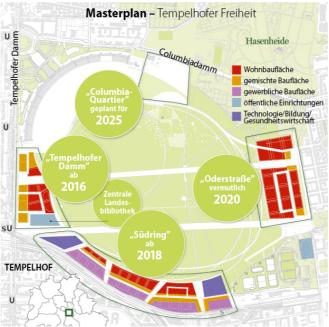
Berlin's start-ups

The biggest logo here is SoundCloud, which is a platform for sharing music and is something that is clearly **consumer-oriented**. We then have tape.tv, which are also into music, and Wooga, which are into games. We also have ResearchGate, which is a little different and is like Facebook for researchers, and even Bill Gates has invested in this. We then have 6 WunderKinder, who have been bought by Microsoft for an undisclosed amount, which is about EUR 180 million. 6 WunderKinder have a to-do app, and people use this because they like the way that it looks and how they can work with it. It is more the question of **usability** that is playing an important part in the success of a company such as 6 WunderKinder, and not technological innovation on an algorithm.

What we can do here in Berlin is build things that people like, which is a good thing. On the other hand, when you look at where the money really is, it is more on the business side, and that is something that we have to really think about in Berlin, in terms of ensuring that this talent that we have when it comes to creating nice user interfaces is also something that helps build businesses which do B to B and bring more money into the city.

Participation is part of that hedonistic multiplier. It is one of the most important things when you want to understand Berlin. We have an airport that is closed, Tempelhof. This airfield is also a great place for people to use and it would also be a great place to redevelop. However, we had a referendum in Berlin and when it came to the question of whether there should be redevelopment in the outer area of the airfield -which was not about building industry but homes for people and units that were not very big- in the end people voted to stop any redevelopment of Tempelhof airport.

## LA FABRIQUE



©Berlin Senate for Urban Development and Environment

People in Berlin have been very engaged in the question of Tempelhof and one of the important things we can learn from that is that people used open data to get to understand the different scenarios that were proposed for Tempelhof. There have been interactive maps provided by *Berliner Morgenpost*, which is one of the biggest newspapers in Berlin, and people were able to see what changes different scenarios would mean for the airfield. They then came to the conclusion that it would be better to change nothing. I am not sure whether that was a wise decision or not, but it is interesting to learn about how the referendum went. If the Berlin Government had used open data from the beginning to explain to people what they wanted to do there, I am sure that the referendum would probably have gone differently.

Within our Technology Foundation, we want to tackle the question of how we can involve people in developing their city in a different way other than using that interactive map. We have a **3D city model** which is now open data. This is part of a hackathon where we encourage people to build something with that open data set.

#Berlin3D - Hacking Berlin's City Model



Source: http://hacking-berlin.de

People are dealing with this 3D city model in different ways. We have data liberator people, but we also have people who are really looking at building something that are more business-like. Then comes the question of **how to bring open data to people who are not academics**. How can we find a way for people to make use of open data in a way that is accessible to them? Our idea –inspired by others- is to



use the Minecraft game. Minecraft is an online game where you can build different scenarios and cities. The idea is to join that with our 3D city model in Berlin and have a playful way for people to imagine how their city might look like if things change where they can develop their own ideas. Through gamification, people can see how they can have an impact on the city that they are living in.

I talked earlier about the incubator that we are planning to build and I would just like to say a few words about other things that we are planning. At the moment, we are in the process of building **a city lab for Berlin's state**, which is basically an institution that is trying to be dynamic in the same way in which we are encouraging the building of infrastructure, digitisation and businesses in Berlin. We have a cluster strategy in Berlin and we are trying to follow a very liberal way when it comes to the dynamic digital scene. We are looking at all aspects of digitisation and people's everyday life: how digitisation is changing people's lives when they are senior, when they are going to school, when they are having a young family, when they are doing business and when they are a teacher in school. We are trying to find lighthouse projects where we can funnel in public money to develop certain infrastructure pieces that could be something like a net where other things could become entangled. The idea therefore is to build something that is more or less like a grassroots approach: we are providing the fertiliser, soil and seeds and people should then be able to build something on that. This city lab is also very close to the Berlin Government and we are trying to implement the ideas that have been developed in the city lab in the public administration so that even our Town Halls work smarter.

Regarding the grassroots approach, we can refer to Chris Anderson, who was Editor-in-Chief of WIRED. What he is telling us— "Give enough people the capacity to create and inevitably gems will emerge"- is the idea that we have. Berlin is like open source. People can take something out of it, remix it and bring something back to the city. When this is not just a vision but is becoming reality, when all the talent that is available in Berlin can be used, when very low hurdles exist for people to engage and they are enabled with modern, digital, IT tools to create the city that they love, Berlin will definitively thrive. This is something also true for all other cities.



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