

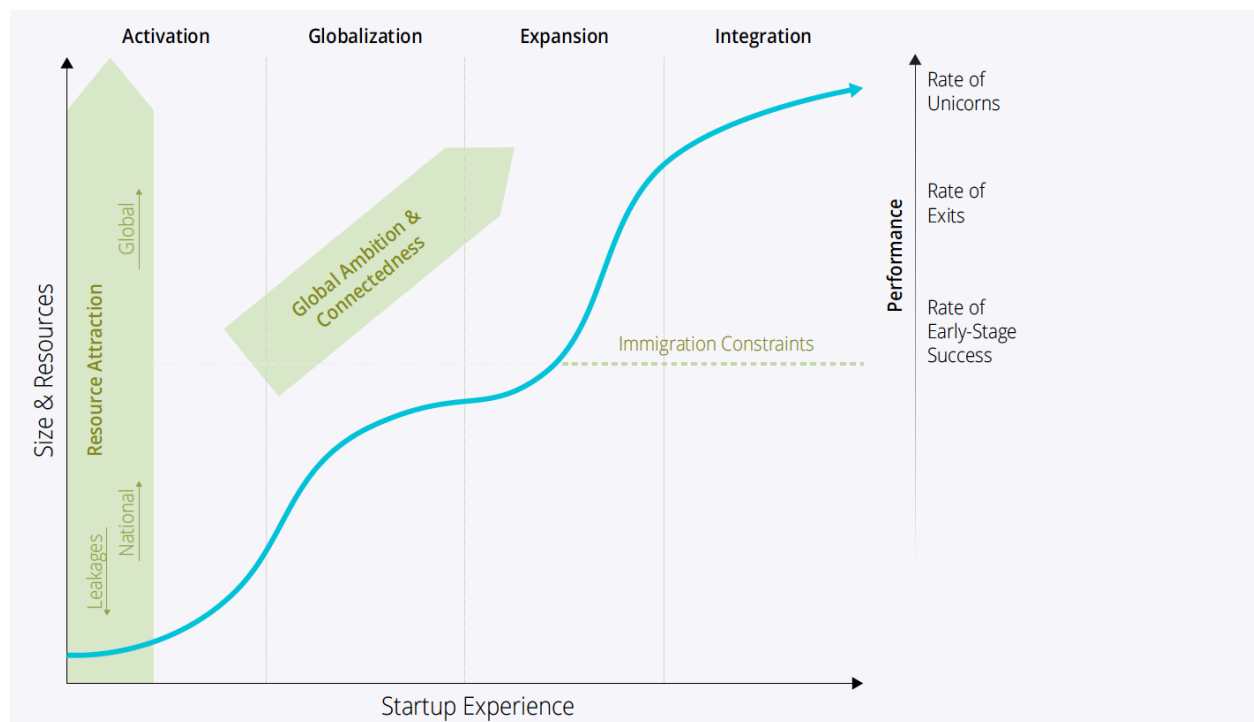


## Berlin’s Transition from a Global Startup to a Global Scaleup Ecosystem

*This article has been produced in collaboration with the Berlin Senate Department of Economics, Energy and Public Enterprises to kick off a partnership to further a data-driven understanding of the Berlin startup ecosystem in the global context. All data are from Startup Genome’s global survey of over 10,000 startup founders around the world, and the methodology detailed in the [2017 Global Startup Ecosystem Report](#). Main Data sources are CrunchBase, Orb Intelligence, and Dealroom.*

In Startup Genome’s 2015 Global Startup Ecosystem Report, Berlin took the title of being the world’s fastest-growing startup ecosystem. Due to a string of large exits, Berlin vaulted six spots in our ranking to number nine overall, joining the top 10 highest-performing startup ecosystems in the world, and moving into the third phase (Expansion) of our Ecosystem Lifecycle Model. The key challenge to spur growth in this phase is to expand on the role of an international pole of attraction for founders and startups—a focus area of this article.

### The Startup Ecosystem Lifecycle Model



Source: Startup Genome, Global Startup Ecosystem Report and Assessment, 2017



Our assessment confirmed the growth and recognition that Berlin had increasingly gained over the preceding few years, becoming one of Europe's most exciting startup ecosystems. In the 2017 ranking, Berlin went up again to the 7th spot—a slower pace of growth, but still among the world leaders.

By nearly universal acclaim, Berlin is not only one of the top spots for startups in Europe, but also one of the most dynamic startup ecosystems in the world. As shown in this article, Berlin's startup ecosystem excels on several metrics, including Resource Attraction and Global Connectedness.

Nonetheless, challenges and gaps remain. For Berlin, most of these challenges are a result of its rapid growth in recent years. The ecosystem benefitted from a handful of very large exits, including the initial public offering of Rocket Internet at €6.7 billion in 2014. Continuing attention was fueled by success stories such as ResearchGate, GetYourGuide, Soundcloud, and EyeEm. The principal challenge for Berlin is in sustaining the growth of recent years, including a steady generation of exits and the “recycling” of resources back into the ecosystem.

Here, we look at the state of Berlin's startup ecosystem, particularly as it compares to some other leading ecosystems: London, Stockholm, Paris, New York City, and Tel Aviv. Our analysis focuses on several global dimensions of startup ecosystem growth—for a place like Berlin, at the Expansion phase in the Ecosystem Lifecycle, global links and resources are essential for continued growth and economic value creation.

For ecosystem leaders and stakeholders in Berlin, key takeaways from this analysis are:

- *Berlin exerts a strong gravitational pull for startups from elsewhere: roughly one-fifth of startups in Berlin have moved there from another part of Germany or the world.*
- *Startups in Berlin are among the most globally-connected in the world, but there is ample room for growth in connecting Berlin founders to their peers in other top startup ecosystems.*
- *Berlin has exceptionally high levels of talent, particularly from other countries.*
- *To continue its growth, Berlin needs to improve its rate of scale-ups and raise the level of global ambition among founders.*



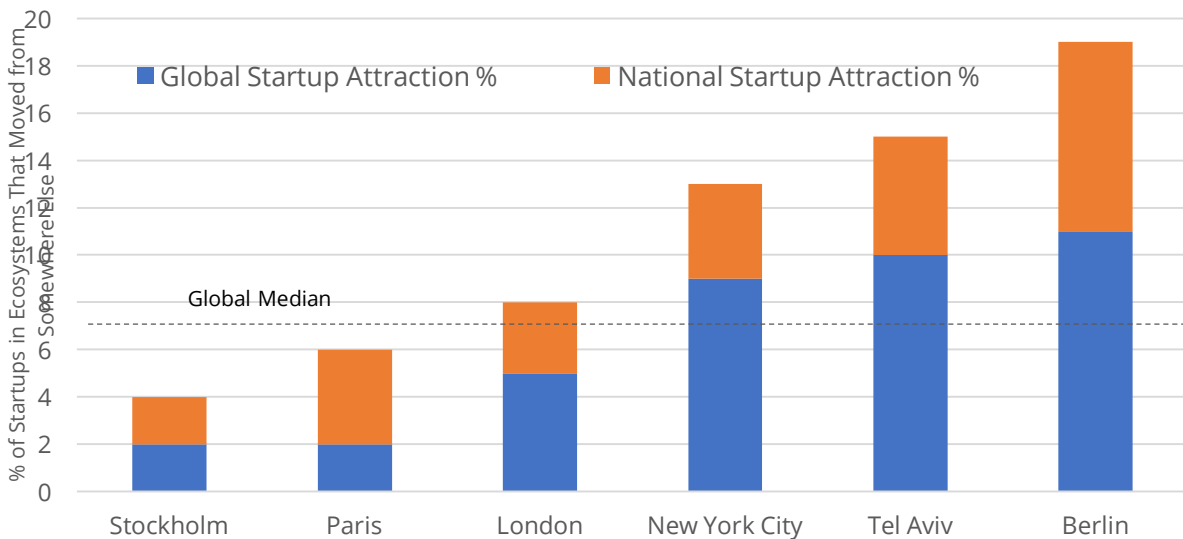
Building on key areas of strength and addressing remaining gaps will help ensure that the growth of Berlin’s startup ecosystem does not stall.

### String of Large Exits Has Driven High Resource Attraction

In the Startup Genome Ecosystem Lifecycle Model, large high-profile exits (initial public offerings and acquisitions) act as triggers for ecosystem growth because they help draw in additional resources from elsewhere. As an ecosystem grows, it moves from reliance on “organic” resources—the people, ideas, and capital available locally—to the attraction of “inorganic” resources drawn from beyond the immediate region, including other parts of the world.

This has certainly been the case in Berlin, where large exits such as Zalando and Delivery Hero have induced startups from other parts of Germany and the world to relocate to Berlin.

### Berlin Attracts Three Times as Many Startups as Global Median



Compared to other top ecosystems, Berlin has really excelled at drawing startups from elsewhere: nearly 20 percent of Berlin startups in our data have moved to the city from either somewhere else in Germany or another part of the world. This is almost three times the global median.



Why do startups and entrepreneurs move to Berlin? The number one reason (in any ecosystem) is personal—people move to new cities for a variety of reasons, but we’re interested here in focusing on business-related reasons. In our survey data and assessment, the top reason cited by founders for relocating to Berlin is the lower cost of living. Indeed, office rents and residential costs are dramatically lower in Berlin than other major cities. According to [real estate company Savills](#), costs in Berlin are one-fifth of the cost in New York.

### **Encouraging Startups to Circulate**

In the dynamics of startup ecosystem development, however, Resource Attraction is not necessarily a zero-sum game. A startup ecosystem can benefit from the relocation of startups from other places, yet it’s the circulation of startups around the world, not just their fixed location, that can also help a startup ecosystem. There is a global circulatory system of startup ideas, know-how, capital, and other resources—it is critically important for a startup ecosystem to be connected to that circulatory system.

The importance of Resource Attraction does not mean that losing, or “leaking,” resources is always a bad thing. Over a sustained period of time, of course, a high rate of what we call Startup Leakage—and a consequently negative level of Startup Net Attraction—will undermine the performance of an ecosystem. As an ecosystem grows in size and moves through the Lifecycle phases, Resource Attraction will be, on net, positive.

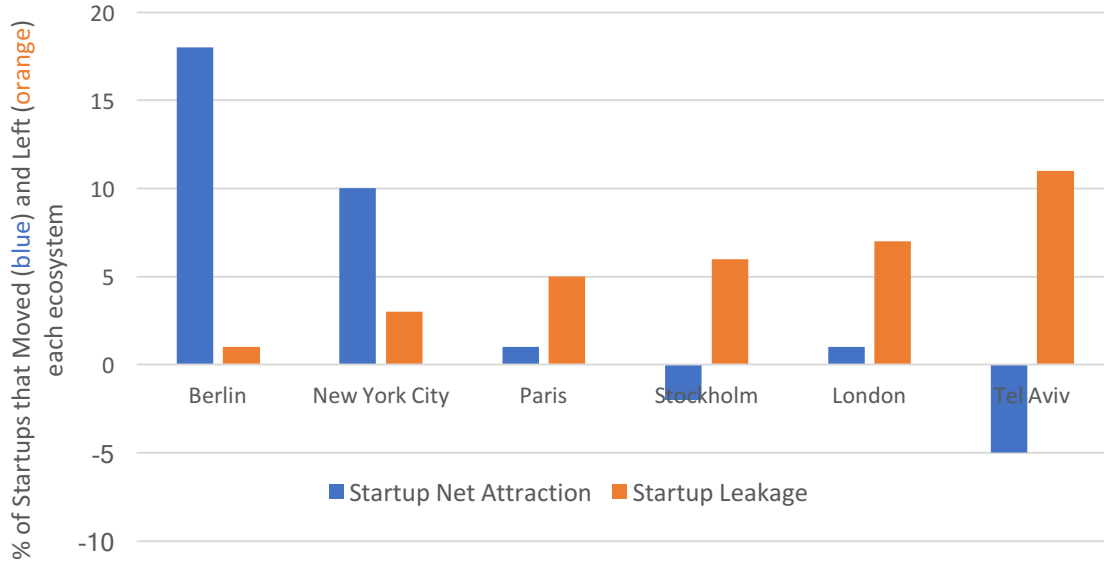
At the same time, if a startup ecosystem is not enduring some level of Startup Leakage—with local startups circulating through the world and helping build Global Connectedness (see below)—this will also hurt an ecosystem’s development. Being connected to this global circulatory system helps bring essential know-how to an ecosystem that helps raise the ambition and performance of local founders.

Here, the Berlin startup ecosystem might be able to improve the degree to which it is an important node within that global circulatory system.

On a net basis, Berlin’s overall Startup Attraction is highly positive—the city currently attracts more national and global startups than it loses. Its rate of Startup Leakage (capturing the relative degree of how many startups in our sample left Berlin) is also quite low, at least as compared to other leading ecosystems.

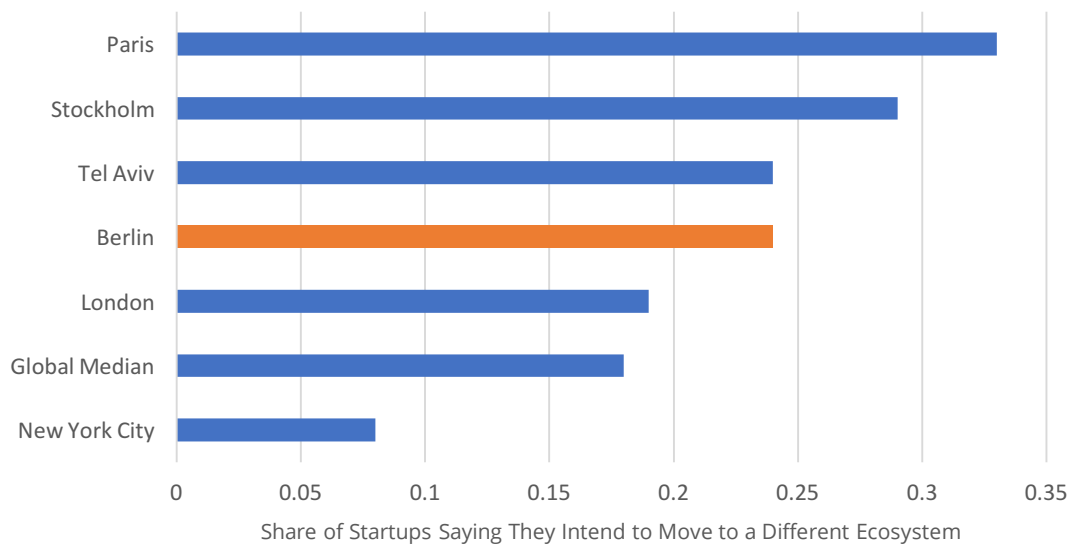


### Berlin Attracts a High Degree of Startups from Other Locations, and "Leaks" Only a Small Percentage



Likewise, one-quarter of Berlin startups in our sample report an “intent to leave” the ecosystem.

### Share of Startups Reporting Intent to Leave Ecosystem





This seems high, but is roughly in line with other leading ecosystems. Startup ecosystems such as Stockholm and Tel Aviv thrive in part because they are key nodes in the global circulatory system. Startups circulate through these places, which includes the departure of local startups, raising the profile, ambition, and know-how of the ecosystems as a whole.

Startup Leakage can hurt an ecosystem if it is not offset by Resource Attraction from elsewhere. But, the movement of startups from one ecosystem to another also helps build what we call Global Connectedness. A startup that leaves Berlin for, say, Santiago de Chile or Sydney, will retain connections to other startups in Berlin, thus drawing a connection between the ecosystems. We now look at Berlin's degree of Global Connectedness.

### **Globally-Recognized and Globally Connected, with Room for Growth**

When a startup ecosystem successfully attracts resources from other parts of the world, and when it becomes a key node in the global circulatory system of startup resources, it builds Global Connectedness. This means that startup founders in a place like Berlin don't just have LinkedIn connections to founders around the world, but that they have meaningful relationships with peers in other places. These relationships are conduits for assistance, introductions, foreign investment, customer leads, exposure to the innovation frontier, and so on.<sup>1</sup>

In our comparative analysis of startup ecosystems in over two dozen countries, we have found Global Connectedness to be one of the most important factors driving the performance of startup ecosystems. It links exits and resource attraction to the growth of founder ambition and know-how, and helps startups in a given ecosystem reach global markets, leading to faster growth.

Berlin has indisputably evolved from being a national startup hub to a European startup hub to being at the frontier of global startup ecosystems. In an overall comparison, Berlin's level of Global Connectedness—as measured by the average number of connections that startups in Berlin have with their peers in *top* ecosystems—outperforms most other places. Berlin startups report having 70 percent more connections to top global ecosystems than the global median.

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<sup>1</sup> Specifically, in our global survey we ask startup founders about someone they have met more than twice and, when asked, that person has made (or would make) a business-related introduction or accept a call to discuss assistance.



## Berlin Startups Have Strong Global Connectedness, but Room for Growth

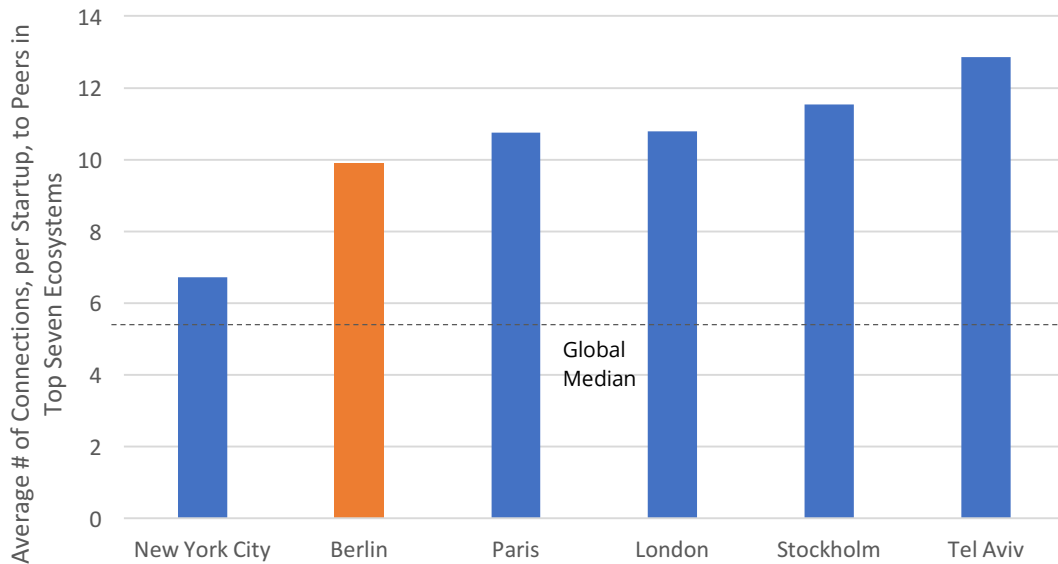


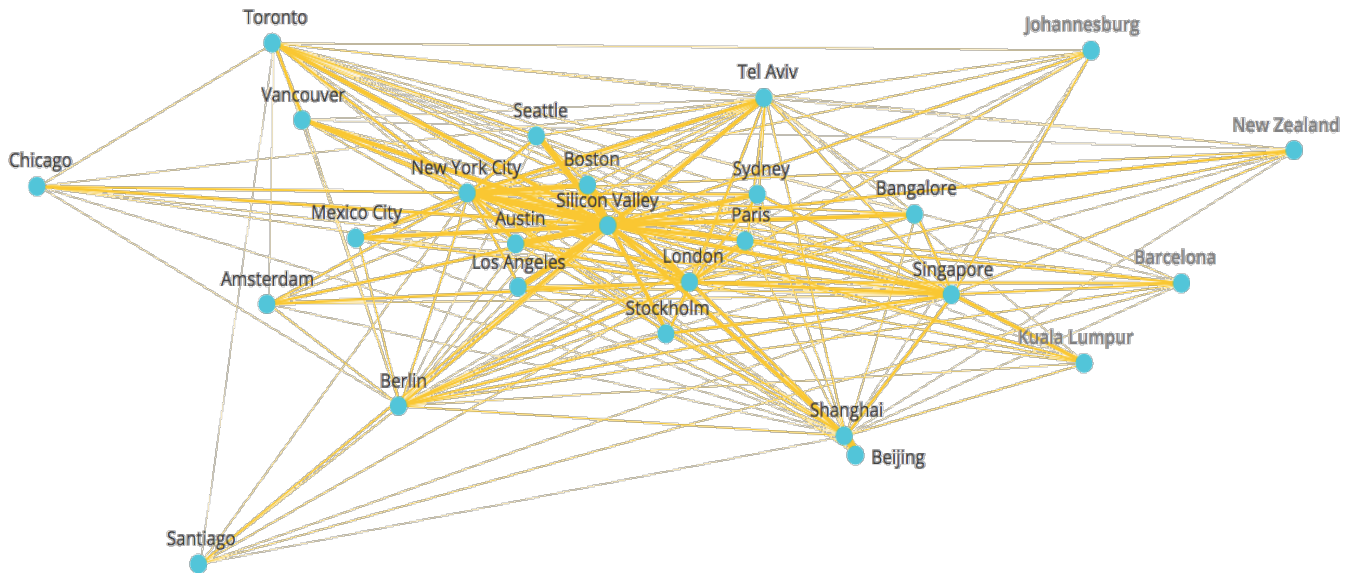
Chart shows the average number of connections per startup, that founders report having to their peers in the world's top seven ecosystems: Silicon Valley, New York City, London, Berlin, Tel Aviv, Singapore, and Shanghai. See Footnote 1 for more information on how we define Global Connectedness.

Compared to other leading ecosystems, however, Berlin startups have lower Global Connectedness. Why? Part of it may be related to the prior discussion of startups being part of the global circulatory system, moving from one place to another, building connections as they go. Even if Berlin's level of Resource Attraction is currently high, if not enough Berlin startups are *leaving* the ecosystem, gaining experience elsewhere, and building connections, it could hold back Berlin's overall Global Connectedness.



## Global Connectedness

Line thickness indicates the degree of Outbound and Inbound Entrepreneur Connections.



Thickness of lines denotes average number of connections among startup founders between each ecosystem.

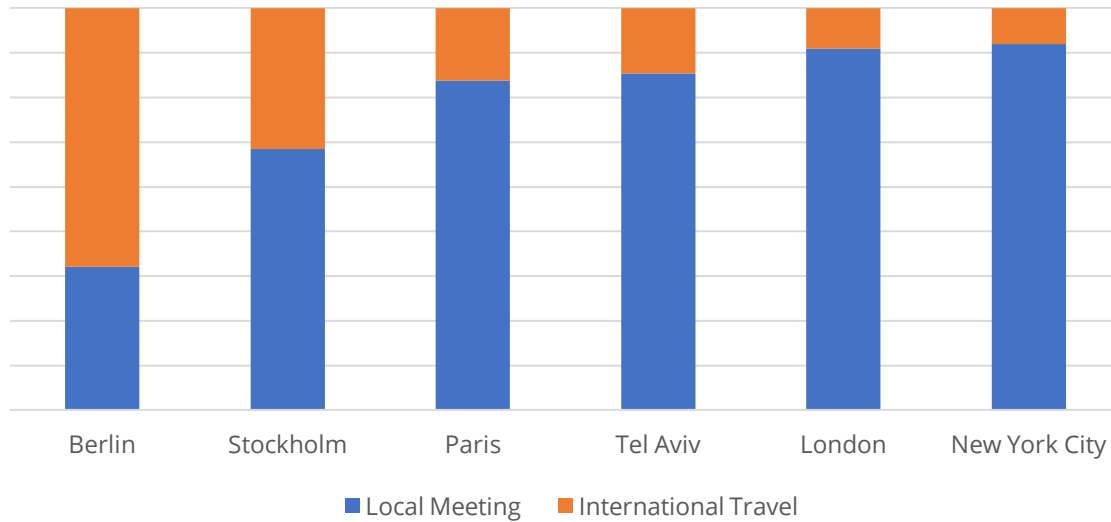
We can see this visually in the accompanying network map, that shows the “core” of this global circulatory system and the degree to which ecosystems are centrally located. While Berlin’s level of Global Connectedness is high in a global comparison, it is still a bit distant from the heart of the global startup ecosystem. By comparison, Paris and Stockholm are closer to that center.

Part of this may also be related to the way in which Berlin startups build Global Connectedness. We capture this by asking startup founders about how they make global connections: do they make them by traveling to other ecosystems, or do they make them locally when founders visit Berlin? In Lisbon, for example, we [found](#) that Web Summit generates an extraordinary degree of Global Connectedness because Lisbon startups are able to make such connections during a massive global conference.





## Berlin Startups Build Global Connectedness by Traveling to Top Ecosystems, Not by Startup Leaders Visiting Berlin



Numbers report (a) average number of startup leaders from other top ecosystems that founders in each ecosystem report having met locally; and, (b) percentage of startups who say they've traveled at least twice to other top ecosystems. Top ecosystems are defined as: Silicon Valley, New York City, London, Berlin, Tel Aviv, Singapore, and Shanghai.

Startups in Berlin make connections to founders in other top global ecosystems by traveling to those places: 10 percent of Berlin startups in our sample had traveled at least twice to ecosystems such as Silicon Valley, New York, London, and Tel Aviv. That's roughly five times the global median. Yet at the same time, compared to other leading ecosystems, Berlin startups make far fewer global connections locally—when startup leaders from other top ecosystems visit Berlin, it doesn't appear to result in meaningful connections with local startups.

Nevertheless, Berlin is unquestionably a global ecosystem in the talent it attracts: the shares of immigrant founders and foreign engineers in the ecosystems are very high compared to other places.



## Berlin Draws High Levels of International Startup Talent

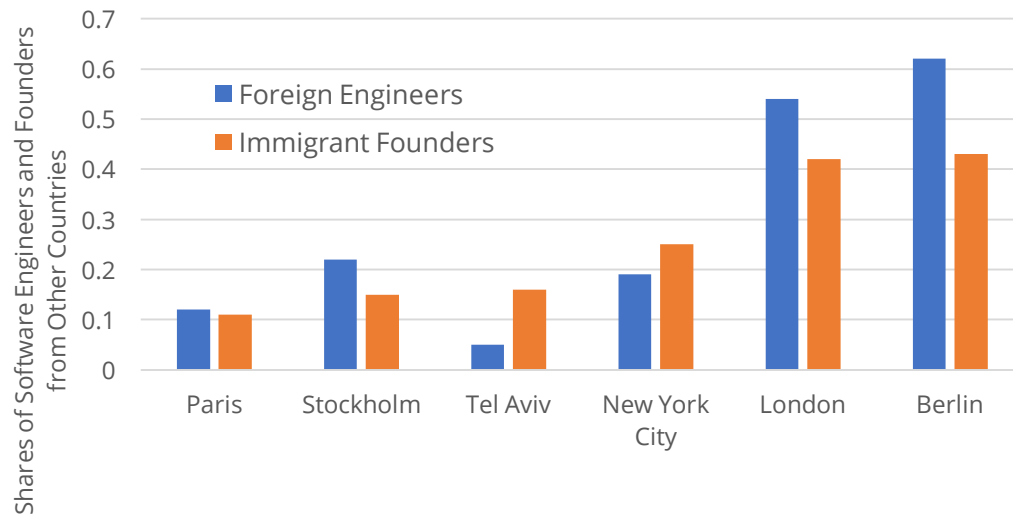
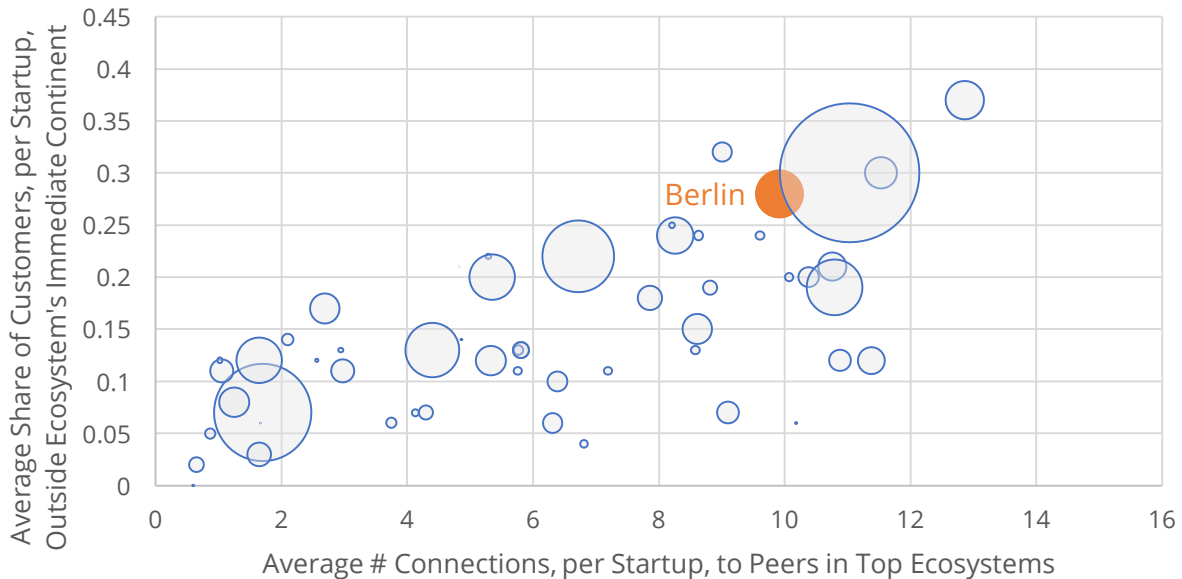


Chart shows the share of founders in each ecosystem that are immigrants, and the share of software engineers from other countries.

Global Connectedness also helps increase the Global Market Reach of an ecosystem's startups. The more that startups can sell to global markets, the faster they grow—twice as fast, to be precise, as startups that mostly sell to domestic markets. If an ecosystem can help its startups sell globally, those startups will grow faster and help raise the performance of the entire ecosystem. A strong degree of Global Connectedness helps startups access global markets because it exposes startups to globally-leading practices in innovation. Here, Berlin's healthy degree of Global Connectedness has helped lead to a high degree of Global Market Reach.



## A Higher Level of Global Connectedness to Top Ecosystems Helps Startups Sell More to Global Markets



For Global Market Reach, we strip out an ecosystem's immediate continental region. Berlin's startups, on average, have close to one-third of their customers outside of Europe.

The global links that have been developed by organizations in areas of the city such as between Hackescher Markt and Rosenthaler Platz have also surely helped extend the Global Market Reach of Berlin-based startups.

The more that the Berlin startup ecosystem can continue to increase Global Connectedness—perhaps through programs that will increase the number of startup leaders from elsewhere that visit Berlin—the more its startups will sell to global markets, and the faster startups will grow. Given Berlin's strong position in international talent, especially, further growth in Global Connectedness should be attainable. This will help sustain Berlin's recent record of growth.

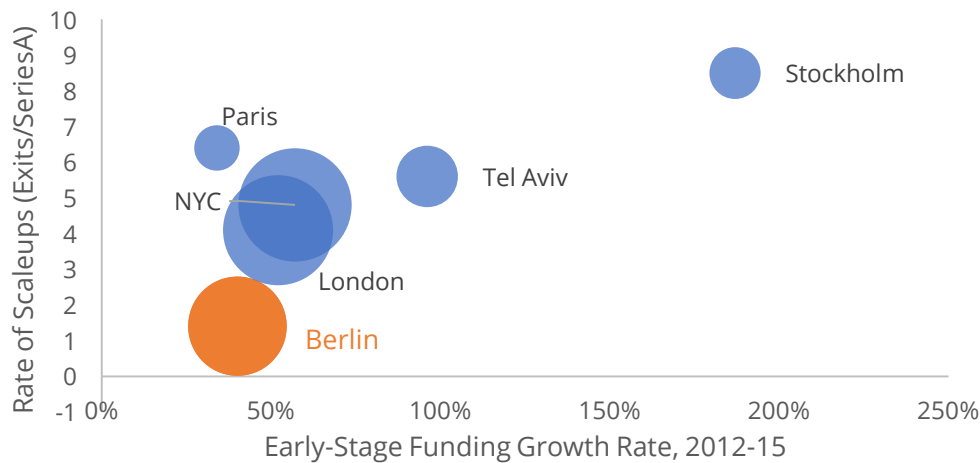
### Strengthening the Foundation for Berlin's Future Growth

In many ways, Berlin's startup ecosystem is well-positioned for continued growth. Startup ecosystems benefit from increasing returns, with exits triggering Resource Attraction and Global Connectedness, deepening the pool of Startup Experience in a given place, and helping generate a new round of scale-ups and exits.



Yet despite high-profile exits, Berlin's rate of scale-ups is lower than other top ecosystems. We measure this by looking at how many exits (IPOs and acquisitions) an ecosystem has produced relative to the total number of Series A funding rounds in that ecosystem.

### Berlin's Future Ecosystem Growth Depends on Sustaining High Pace of Scale-ups and Exits



The size of the bubbles corresponds to Exit Value (\$B) in an ecosystem. Early-stage funding includes both seed and Series A investments.

We can see in the accompanying chart that, while Berlin's Exit Value (the bubble size) is comparable to New York City and London, and larger than the others shown here, its Rate of Scale-ups and Early-Stage Funding Growth Rate were the lowest and second-lowest, respectively, among these ecosystems. While further data collection and analysis are needed here, it is possible that without faster growth in early-stage funding and a higher rate of scale-ups, Berlin will not be able to sustain its ecosystem performance.

It also seems likely that a low rate of scale-up production is related to the global ambitions of Berlin founders. As we saw, Berlin startups sell to global markets at a strong pace, but this does not seem to have raised the general level of global ambition among founders. While Berlin's large exits have provided the ecosystem with a strong pool of Experienced Growth Employees (see chart), Global Ambition is lower than the comparison ecosystems here and only just on par with the global median.



## Berlin Has Experienced Growth Employees but Needs Higher Global Ambition Among Founders



The numbers correspond to: (a) share of growth (customer acquisition) employees with at least two 2 prior years of startup experience; and, (b) share of founders who say they are developing a new product.

This could be a function of the ready availability of a large domestic market, as well as German-speaking markets in Austria and Switzerland (commonly referred to as the DACH region). But, for sustained startup growth, founders in Berlin may need to expand their ambitions to develop new and innovative products. This will further extend their Global Market Reach.

### Continuing to Strengthen the Local Foundations of Global Growth

Berlin's strong global position as a startup ecosystem rests on a solid domestic foundation. The city boasts a high quality of life, a progressive mindset, low cost of living, and strong local pool of talent fed by its universities. Three local universities—Humboldt University, Free University of Berlin, and Technical University of Berlin—are [ranked](#) among the top 100 in the world. The high quality of higher education in the city undoubtedly helped catalyze the rapid growth of startups in Berlin.

Now, even as Berlin's startup ecosystem needs to continue to expand its Global Connectedness and the Global Market Reach of startups, organizations such as regional universities will continue to play an essential role. To keep growing globally, Berlin's startup



ecosystem needs strong local talent: people trained in technical subjects, but also people who can navigate the complexities of business and problem-solving in startups, and who can use Berlin as a base for building globally-leading companies. If regional universities can provide this, Berlin's ecosystem will continue to attract talent from elsewhere and create economic value for its residents.

## Conclusion

At this point in time, Berlin is one of the world's best examples for a startup ecosystem to successfully drive growth beyond its borders. The excitement around the capital of cool and its trajectory of having become a significant startup hub in only a few years has resulted in a self-sustained cycle of international resource attraction. This in turn continues to fuel important connections, sophistication, and large success stories locally. That said, the transition from a startup to a scaleup ecosystem should not be taken for granted. Through smart policies and programs, local stakeholders should now invest in strengthening the foundation for the ecosystem to take the next step.

*We will publish more research on how to produce more scaleups as a startup ecosystem in our upcoming Frankfurt Startup Ecosystem Report, due July 2018, in close partnership with Tech Quartier, Goethe University Frankfurt and Yi Shi Foundation.*