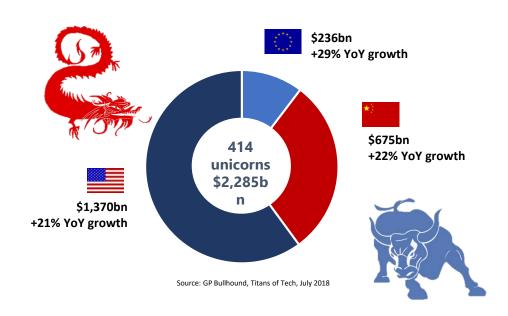


Combining forces to compete globally

Europe's market valuations are far behind the US and Asia – to catch up, it must overcome fragmentation



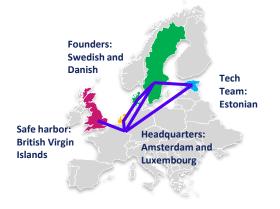
Only 16% of unicorns are from Europe

To activate the capital, tech talent, market opportunities and regulatory frameworks needed to build a global company, European entrepreneurs move and connect across borders.

63% of all founders from London participating in our surveys from 2016-2018 were born abroad. In Berlin the number is 53%. 60% of startups in the 2018 survey state they have employees, investors or entities abroad. European founders have bred a completely new form of entrepreneurship: The interconnected or distributed startup company. The question is: Are they fast enough?

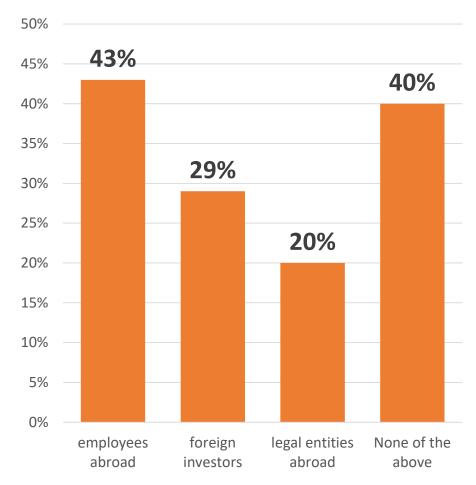
The <u>Startup Heatmap Europe</u> aims to monitor these connections and map the emerging networks of growth. We aim to educate policy-makers and industry leaders on the speed of these developments, how to adapt and how to play a constructive role in the pan-European innovation system, that we see evolving.

The Story of Skype: An interconnected Unicorn



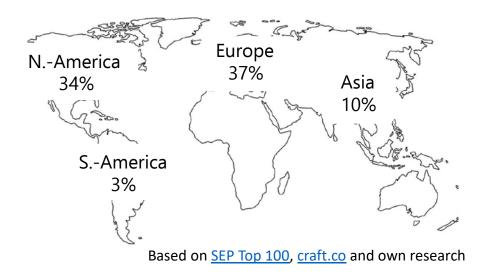
The Rise of the Interconnected Startup

What kind of business relations do you have abroad?



Based on >450 founders' responses in 2018 survey

Foreign office locations of top 100 EU startups:

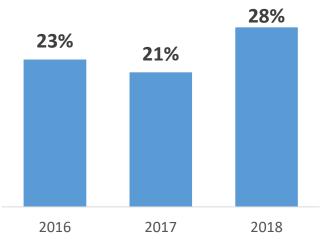


60% of startups in Europe have investors, legal entities or employees abroad

28% of founders in Europe are foreign-born

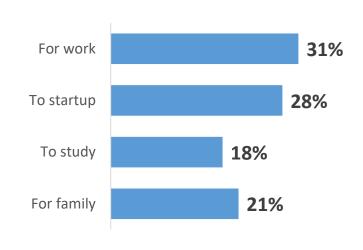
Almost a third of them moved specifically to startup

Foreign-born Founders in Europe



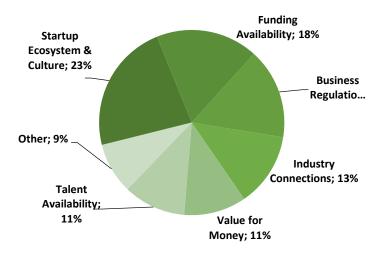
Based on sample of >1,500 mostly self-identified founders over 3 separate surveys.

Initial Motivations to move



Based on sample of >550 founders in 2018 survey

Push Factors for Founders



Based on sample of >150 founders in the 2018 survey, who moved

This data is available for download

FOUNDER STORIES



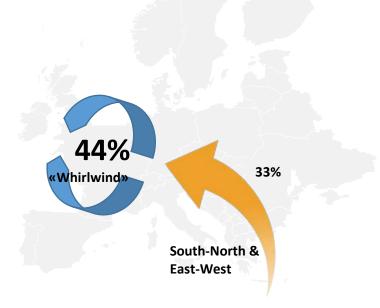
«The Telegram team had to leave Russia due to local IT regulations and has tried (..) Berlin, London and Singapore. We're currently happy with Dubai, although are ready to relocate again if local regulations change.»



«Since SoundCloud was part music platform and part social network, we didn't want to launch the site only with our Swedish friends (..) so we thought it might be good to move to another city (..) creating an international platform from start.»

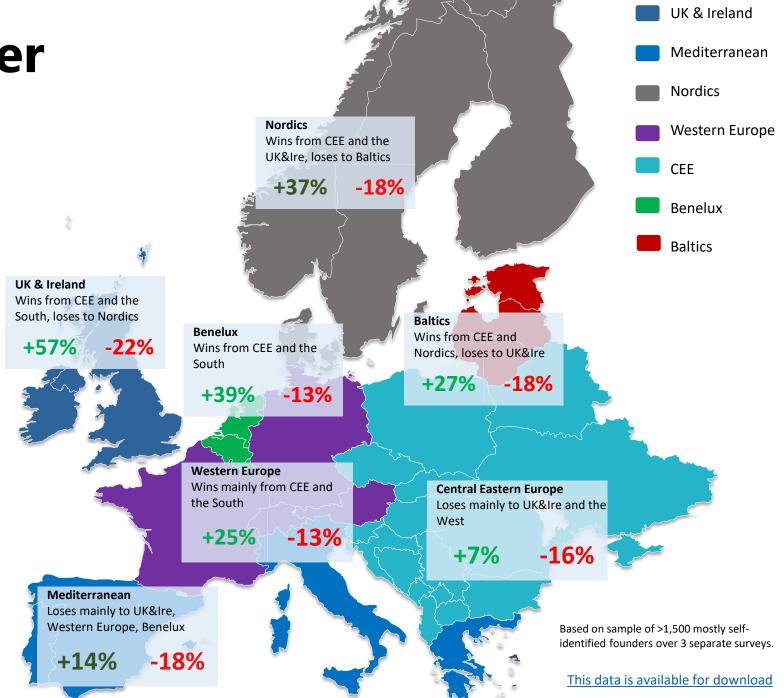
Observed Founder Migration Flows

(% of origin startup population)

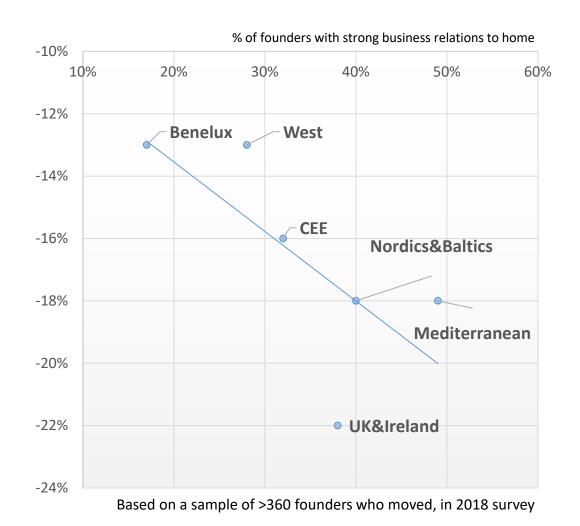


The majority of founder movements happen

within the "West"



34% of founders maintain strong business relations to home after moving abroad



Mediteranean region, having the 2nd highest emigration rate, has the highest connectivity rate of 49% founders maintaining strong relations back home.

stronger connection with the founders who left. The



Daniela Braga, Founder and CEO of DefinedCrowd raised >10mn € in funding and established their company in the US early-on, but raised also funds in Portugal and setup their R&D offices in her home country.

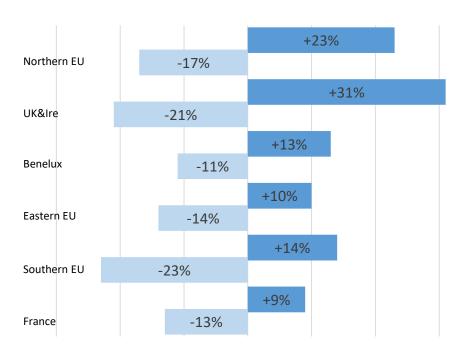
"Being Portuguese myself and knowing the quality and stability of the talent in Portugal, setting up an R&D center in Lisbon was a no-brainer for me."

http://blog.definedcrowd.com/2016/09/05/definedcrowd-closes-1-1m-seed-investment/

Regions with higher emigration, tend to have a

European tech talent moves 10x more than the average EU citizen

Origins and Destinations of Tech Talent who moved between regions in the EU



Tech Talent on the move

"I left San Francisco for Paris. I accepted a job with Sqreen, left my old position at Slack, and with a lot of help from my wife, sold our home, packed up all our belongings and we got on an airplane with our 8 year old daughter in tow (..) Why? (..) The French tech scene is a goddamned rocket ship. Better yet, it's still on the launchpad — the best time to climb aboard."

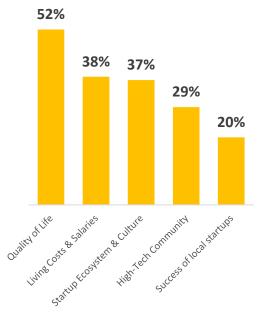
https://hackernoon.com/so-yeah-i-left-san-francisco-and-slack-to-move-to-paris-a71a730f1a5d



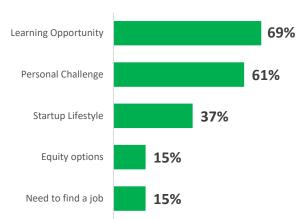
Don Goodman-Wilson, Developer Moved from San Francisco to Paris last year and is now on his way to Amsterdam for even another startup job

Centre for Europen Policy Studies, How mobile is tech talent? A Case Study of IT professionals based on data from LinkedIn, 2016 https://www.ceps.eu/system/files/CEPS%20-%20LINKEDIN%20study%20FINAL.pdf; Sample size >295,000. Northern EU: Austria, Denmark, Finland, Germany and Sweden, Benelux: Belgium, the Netherlands, Luxembourg, Southern EU: Cyprus, Greece, Italy, Malta, Portugal and Spain, Eastern EU: Estonia, Latvia, Lithuania, Hungary, Romania, Czech Republic, Bulgaria, Poland, Slovenia, Slovakia and Croatia;.

Location Factors for Tech Talent



Why tech talent wants to join startups



Based on sample of 100 self-identified tech talents from the 2018 survey.

This data is available for download

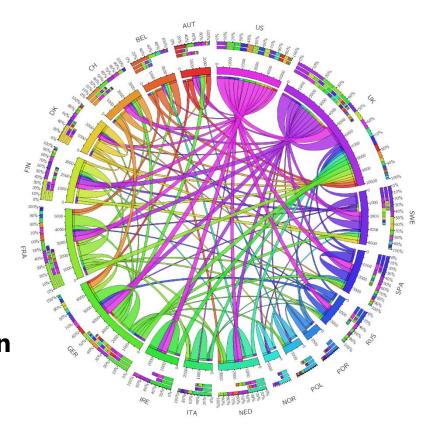
Each region has a surplus of international investments

UK investors close 22% of all international early-stage deals in Europe (<5mn)

The UK also captures 53% of the total of international investments in the EU.

On average

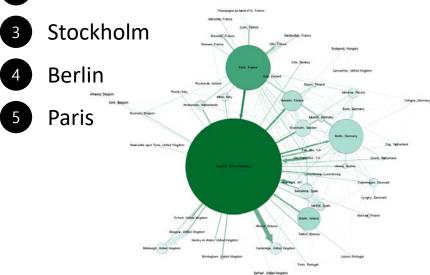
only 17% of European investments go abroad



The 5 most central investment hubs

1 London

2 Helsinki



Based on a dataset provided by <u>Pitchbook</u> showing origins and destinations of investment deals in Europe between 2014 and 2017. Deal sizes were between 0.1mn and 5mn €. The investment type was Venture Capital



Where international talent (doesn't) meet capital

Talent is not always motivated to move where capital concentrates. Yet, capital takes time to adjust to identify new centers of entrepreneurial activity giving way to massive misalignments of talent and capital.

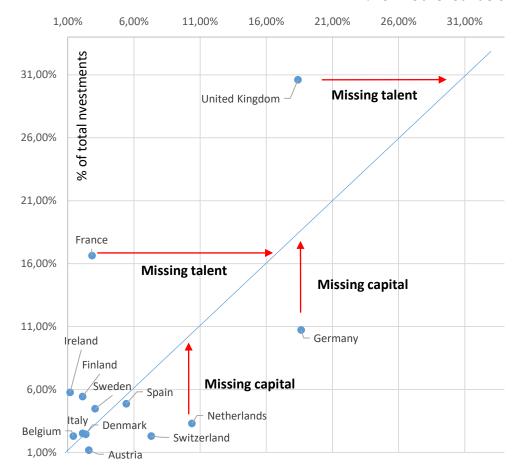
Germany's talent inflow is 61% higher than the capital available.

On the other side, France's talent inflow is 66% lower than the percentage of all EU deals France captures.

In the graph we compare the % of international founders a country captures with the % of all European early stage deals done in the country, visualizing gaps of capital or talent availability.

Read more on this on our blog

% of mobile founders



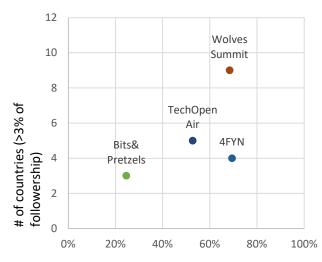
Conferences can be connectors

We analyzed facebook followership of 38 European Tech conferences with a total of >860k followers

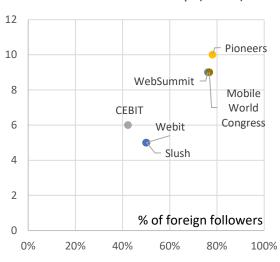
The Pioneers Festival in Vienna reaches 80% foreign followers

After eliminating spam followers, startup conferences reach on average 40% foreigners via social media. However, reach often is limited to a small number of individuals per country. Only half of the conferences have a significant audience (>3%) in more than 3 countries. This might hinder the function of conferences to link whole ecosystems versus bringing together only small entrepreneurial clubs with international membership.

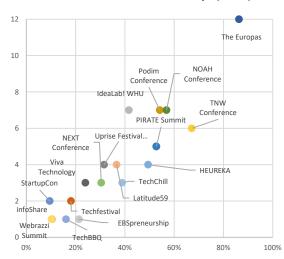
Large Followership (>15k)



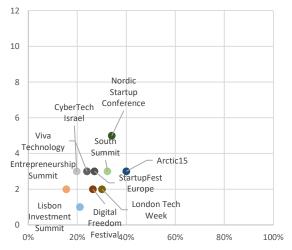
Global Followership (>30k)



Medium Followership (>3k)



Small Followership (<3k)



Data based on facebook and own research

This data is available for download

Founders' 10 Most Favorite Startup Hubs

«Where would you start a company tomorrow?»

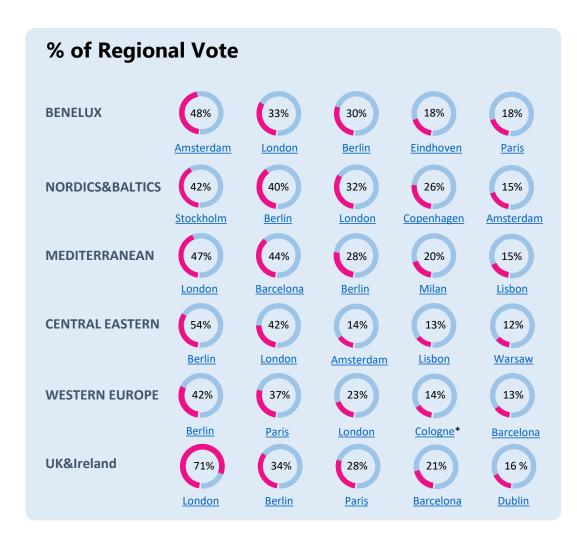
- Ranking based on founders' weighted opinions only, maximum 3 choices
- 93 startup hubs were named (last year: 78)
- The top 5 received roughly 50% of all votes
- But there are 50 hubs attracted 1% or more of the founders, but only 13 more than 5%



Founders could allocate 3 votes. Percentages indicate how many founders would like to startup in each respective city.

Click on a city and to learn more on our interactive <u>Startup Heatmap Europe Platform</u>

Regional & Category Champions



Percentages indicate how many founders coming from a region imagine to startup in the mentioned city. Founders had up to 3 choices.

Best Ratings by Followers (% of «very high»)

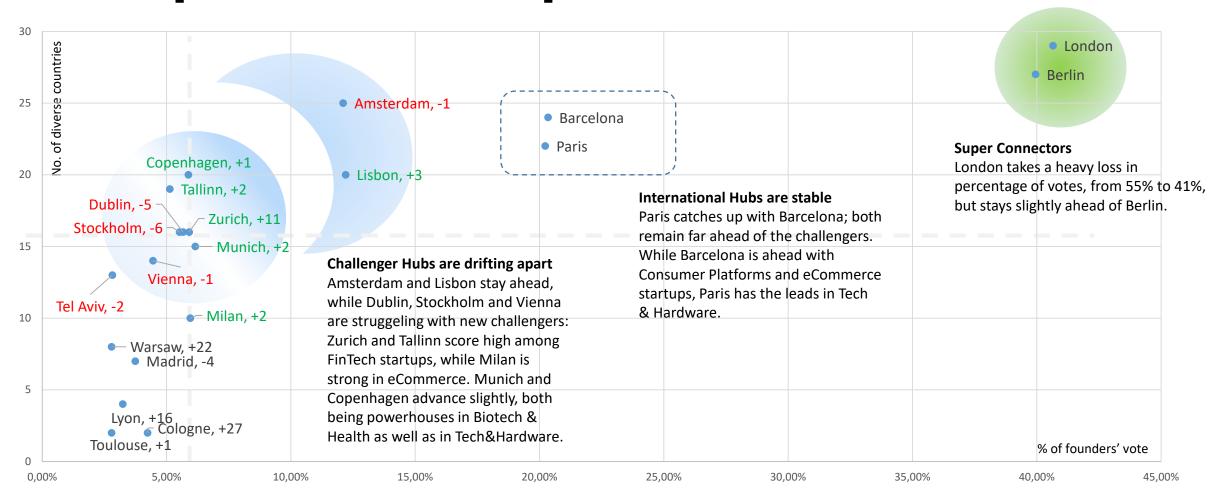
Talent Availability	Funding Availability
Eindhoven 97%	London 94%
Porto 83%	Tel Aviv
Prague 83%	Berlin 83%
Business Regulations	Startup Ecosystem
Tallinn 91%	Tel Aviv 91%
Dublin 87%	Berlin 91%
Eindhoven 82%	Helsinki / 90% Tallinn
Industry Connections	Value for Money
Eindhoven 97%	Prague 90%
London 90%	Porto 87%
Düsseldorf / Zürich	Tallinn 87%

Percentages show number of voters for a hub who have rated the mentioned factor at least very high. Excluded are hubs, who did not receive >20 outside votes to avoid «upvoting» of your own hub.

This data is available for download

^{*}Cologne had an unusual high amount of own votes in the survey and Cologne based founders were slightly overrepresented among the cities in Germany

Evolution of Top 20 Most Recognized Startup Hubs in Europe



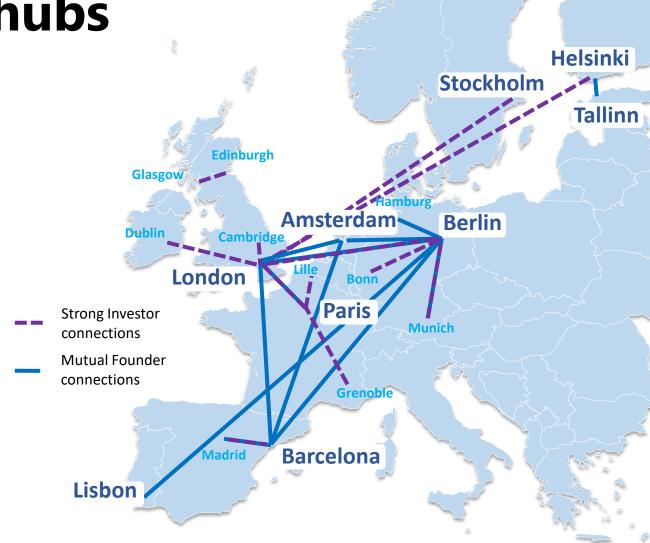
The Network: Mutually strong connections between hubs

Europe's startup ecosystem is a network of hubs, which is constantly evolving. Taking founders' perceptions and investors' location choices as indicators, we attempt to depict the network on a map showing which hubs are most connected to each other.

Internationally, the Munich-Berlin-London-Paris connection is the only equally strong for founders and investors.

Strong founder connections are defined as mutual brand recognition, where at least 5% of the founders of each place voted for the other location.

We identify a strong investors connection between two hubs, if more than 1% of total rounds originating in one place go to same location and more than 9 investment rounds have taken place in this connection.



Methodology & Demographics

The Startup Heatmap Europe Report is based on an annual survey among founders and other members of the tech community.

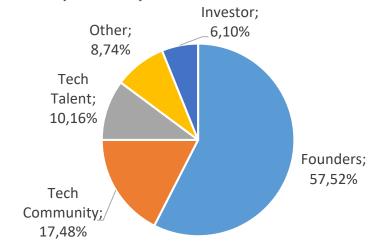
The survey was distributed between April and August 2018 using direct messages to startups, user groups and multipliers like accelerators and incubators.

More than 1,500 participants in 2018 survey

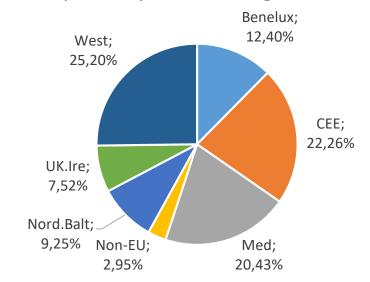
This year more than 1,500 participants shared their favorite startup hubs. These can be seen on the <u>Startup Heatmap Europe</u> webpage.

After cleaning the data, 984 full datasets were used for the actual analysis. We controlled the data for representativeness by population both on country and on regional level. Having overall acceptable levels of deviation, we weighted answers for rankings to counter over- or underrepresentation of certain regions. Where we see overrepresentation of single cities within one country, we indicate this in the results.

Participants by Role

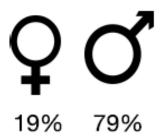


Participants by Current Region



Methodology & Demographics

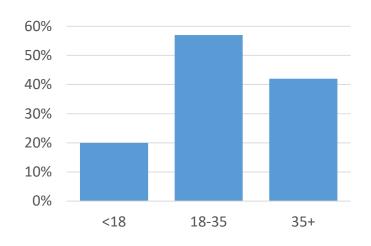
Founders Demographics





>60% of respondents had a master degree or above

Founders by age groups



For questions of startup migration, we use a combined dataset of 1,661 distinct founders and tech talent having shared their mobility patterns over the past three years.

Additionally, we use unique datasets collected by the Startup Heatmap Europe team on social media followership of startup conferences, the office locations of Europe's Top 100 startups as well as the international reach of Europe's most prominent accelerators.

For investment data, we collaborate with PitchBook who provided a unique dataset of investment directions in Europe from 2014-2017 (<5mn €) and Dealroom who provided investment levels on city level for our top 20 cities.

Thank you to our supporters

Thomas Kösters. Founder of the Startup Heatmap Europe



Main Supporter



Networkpartners









Further Partners



















MESSAGE FROM THE FOUNDER

The european startup initiative which is behind the Heatmap is an entrepreneur driven non-profit organization. Without the passion of our diverse team of entrepreneurs, academics and practitioners who dedicate their time and knowhow to this unique project all of this would not be possible.

I am deeply grateful for everyone who contributed his or her share to our mission to make Europe's startup ecosystems readable and to allow the tech community to connect to the right centers of gravity in this rapidly evolving environment.

I hope that we continue to serve the tech community as a whole and that every ecosystem builder, startup founder or tech talent reading this draws valuable conclusions from our insights.

Thank you! Thomas Kösters

List of contributors 2018:

Alex Thannhuber Jonas Muster Artem German Luciano Recupero Davide Gianni Natalie Novick Deborah Busari Olga Usachova Elena Scolaro Serghei Glinca Fabrizio Dell'Acqua Valentina Benini Harald Eisenhauer Victor Umeh



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Are you making most of your startup city brand?

We are supporting cities and ecosystem players with:

- Visibility on our platform
- <u>Workshops</u> for ecosytem builders
- Comparable <u>data</u> on founder mobility, brand visbility, startup conferences, accelerators, and many more
- Strategic analysis of your startup city brand

CONTACT US:

european startup initiative info@europeanstartupinitiative.eu

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List of all mentioned Startup Hubs in Europe

London Madrid Krakow Cluj-Napoca Stuttgart Utrecht Nuremberg Birmingham Berlin Cologne Edinburgh Oslo Las Palmas Bari Plovdiv Liverpool Barcelona Warsaw Budapest Porto Istanbul Brno Leeds Bristol **Paris** • Lyon Brussels Luxembourg Wrocław Thessaloniki Catania Wakefield Lisbon Malta Gdansk Palma de Dresden Łódź Cardiff Prague Mallorca Amsterdam Hamburg Bucharest Vilnius Belfast Aarhus Revkjavik Poznan Munich Tel Aviv Ljubliana Nicosia Hanover Leicester Lausanne Kiev Copenhagen Athens Leipzig Duisburg Minsk Toulouse Bologna Alicante Frankfurt Stockholm Manchester Gothenburg Bochum Geneva Malmö Dublin Riga Florence Valencia Essen Antwerp Sarajevo Tallinn • Eindhoven • Genoa Bilbao Nice Malaga Moscow • The Hague Milan Helsinki Belgrade Palermo Coventry Zagreb Zurich Sofia Trento Marseille Rotterdam Szczecin Naples Vienna Bielefeld • Rome Bratislava • Turin Dortmund

Learn more on each hub on our interactive **Startup Heatmap Europe Platform**

Thank you to our Multipliers











































































































































