





معرفی Startup Genome













گزارش جهانی اکوسیستم استارتاپی GSER 2023 یک تحلیل جهان جهان مای استارتاپی در سراسر جهان است.

- اکنون در یازدهمین سال خود، GSER بینش هایی را در مورد اکوسیستم های راه اندازی پیشرو در جهان، روندهای نوظهور و چالش های کلیدی پیش روی کارآفرینان ارائه می دهد. این بر اساس تحقیق و تجزیه و تحلیل گسترده دادههای 3.5 میلیون استارتآپ در 290 اکوسیستم جهانی و بیش از یک دهه تحقیق مستقل و ارائه مشاوره سیاستها به بیش از 145 مشتری در بیش از 50 کشور تا به امروز است.
- با GSER 2023، امیدواریم بتوانیم دیدگاههای ارزشمندی را در مورد چشمانداز جهانی استارتآپها و توصیههای عملی برای کارآفرینان، سرمایهگذاران، سیاستگذاران و سایر سهامدارانی که به دنبال نوآوری و رشد اقتصادی حتی در این زمانهای چالشبرانگیز هستند، ارائه دهیم.

آمار GSER

• 3.5 million

STARTUPS

290

GLOBAL ECOSYSTEMS

10+ years

INDEPENDENT RESEARCH

145

CLIENTS

50 COUNTRIES









- استارت آپ ژنوم، سازمان مشاوره و تحقیقات سیاستی پیشرو در جهان برای سازمان های دولتی و خصوصی است که متعهد به تسریع موفقیت اکوسیستم استارتایی خود هستند. آنها تا به امروز به بیش از 145 مشتری در شش قاره در بیش از 50 کشور مشاوره داده اند.
- ماموریت استارتاپ ژنوم تسریع موفقیت استارتاپ ها و عملکرد اکوسیستم در همه جا است. ما با رهبران فکری جهانی برای تعریف و اجرای سیاستها و برنامههای قوی کار میکنیم که موجب تغییر پایدار میشوند، شکافها را شناسایی کرده و اقدامات عملی را برای رفع آنها توصیه میکنیم. بسیاری از دولتهای پیشرو جهان و سازمانهای متمرکز بر نوآوری به شبکه دانش ما پیوستهاند تا پیچیدگیهای توسعه اکوسیستم استارتآپ را کاهش دهند و به رشد اقتصادی پایدار کمک کنند.
- در کنار 300 سازمان شریک، چارچوبها و روشهای ما در ایجاد پایههایی برای رشد مناطق مؤثر بودهاند. کار با ما به طور خودکار اکوسیستم شما را به متخصصان برجسته در اقتصاد نوآوری جهانی متصل می کند.

Startup Genome چیست؟













- سنگاپور برای اولین بار وارد 10 رتبه برتر شد و با 10 پله صعود از رتبه 18 در GSER 2022به رتبه هشتم رسید که بزرگترین پیشرفت در رتبه بندی است.
- میامی همچنین پیشرفت چشمگیری داشته است و به 30 اکوسیستم برتر در رتبه 23 رسیده است. رسیده است.
- همه اکوسیستم های اصلی چین در رتبه بندی کلی سقوط کردند: شنژن 12 پله، پکن دو پله و شانگهای یک پله سقوط کرد و اکنون به ترتیب در رتبه های 35، 7 و 9 قرار
- اکوسیستم های هند همچنان به رشد خود ادامه می دهند و بمبئی پیشتاز است و با پنج پله صعود در رتبه 31 قرار دارد. بنگالورو-کارناتاکا و دهلی هر دو دو پله صعود کردند و به ترتیب در رتبه های 20 و 24 قرار گرفتند.
- ملبورن نسبت به سال گذشته شش پله صعود کرده و به رتبه 33 رسیده است.
 اکوسیستم استرالیا 43 درصد از نظر ارزش اکوسیستم از GSER 2022رشد کرد.
- زوریخ پیشرفت چشمگیری داشته و نسبت به سال گذشته 10 پله صعود کرده است و در رتبه 36 به جمع 30 نفر برتر + نایب قهرمان قرار گرفته و بزرگترین پیشرفت سال به سال در اروپا را داشته است.

نکات کلیدی از GSER 2023



GLOBAL STARTUP ECOSYSTEM Startup Genome RANKING

(2019-2023)







رتبه بندی اکوسیستم راه اندازی جهانی









THE GLOBAL STARTUP ECOSYSTEM REPORT 2023



Our Services

We work with forward-looking governments and private sector organizations to accelerate the success of their startup ecosystems to fuel the growth of more startups, sustainable economic growth, and job growth.



Knowledge Exchange

- Establishing a global network of innovation policy makers in 50+ countries
- Providing access to latest research and policy best practices, and facilitating shared learning
- Organizing member meetings and leadership workshops for networking and collaboration



Positioning

- Enhancing ecosystem visibility and strategic positioning
- Focusing on attracting entrepreneurs, talent, and investors through targeted efforts
- Achieving global reach through our reports, events, and media outreach



Assessment

- Utilizing renowned frameworks and data science capabilities for decision-making
- Assessing ecosystem performance and strengths through data analysis
- Benchmarking against peers for competitive advantage and growth opportunities



Strategy

- Developing strategies for ecosystem development and differentiation
- Conducting scenario modeling to determine economic impact
- Creating clear and aligned upon multi year roadmaps for implementation



Execution

- Supporting local leadership in executing key policies and programs
- Measuring and reporting the impact of initiatives
- Delivering services in collaboration with global thought leaders







THE GLOBAL STARTUP ECOSYSTEM REPORT 2023



همراهان Genome Startup



TNW is a European digital brand that informs, inspires, and connects people who work in tech through media, events, and spaces. Primarily known for its media outlet and award-winning tech events, TNW also incorporates a coworking network and delivers custom innovation programs to corporates and governments.

crunchbase

Everyday investors, journalists, founders, and the global business community turn to **Crunchbase** for information on startups and the people behind them.



The foremost data provider on startups, growth companies, and tech ecosystems globally. **Dealroom.co** works with many of the world's most prominent investors, entrepreneurs, and government organizations to provide transparency, analysis, and insights on startups and venture capital activity.



Bella Private Markets provides actionable advice on private capital challenges. Combining rigorous academic approaches with real world industry expertise, its expert team focuses on complex, customized projects that require thorough analysis, whether quantitative or qualitative in nature, to help its clients assess or design strategies, improve performance, and chartwinning strategies for the future.



رتبه بندی جهانی در اکوسیستم های نوآوری



(Top 30 + Runners-Up)

This ranking identifies the top 30 global ecosystems and 10 runners-up. These ecosystems are more mature than other ecosystems globally, featuring a higher number of exits over \$50 million and more funding activity.

In previous years, the runners-up have been grouped as tied #31 and tied #36. For 2023 and future reports, we are showing the specific ranking of the runners-up for improved transparency and to allow easier future benchmarking. For more information about how this ranking is created, please see the **Methodology** section.

→ Key Findings

- The top three ecosystems have maintained their positions from 2020, with Silicon Valley remaining at the top, followed by New York City and London tied at #2.
- Boston and Beijing have both slipped out of the top five to #6 and #7 respectively, losing two positions each.
 This has paved the way for Los Angeles to rise to #4 and Tel Aviv to #5, both gaining two spots.
- Singapore has entered the top 10 for the first time, moving up an impressive 10 places to #8 from #18 in the GSER 2022, the biggest improvement in the rankings.
- Miami has also made impressive progress, making it into the top 30 ecosystems at #23, an improvement of 10 positions from last year.
- All major Chinese ecosystems dropped in the overall rankings: Shenzhen moved down 12 places, Beijing two, and Shanghai one, now standing at #35, #7, and #9 respectively.
- Indian ecosystems continue to rise, with Mumbai leading the way by moving up five places to tied #31. Bengaluru-Karnataka and Delhi both moved up two places, to #20 and #24 respectively.
- Melbourne has moved up an impressive six places from last year, to reach #33.
- Zurich has made remarkable progress and risen 10 places from last year, entering the top 30 + runners-up at #36, and making the biggest year-on-year improvement in Europe.



LOBAL INSIGHTS & RANKING





Global Startup Ecosystem Ranking 2023

(Top 30 + Runners-Up)

ECOSYSTEMS	OVERALL RANKING	PERFORMANCE	FUNDING	CONNECTEDNESS	MARKET REACH	KNOWLEDGE	TALENT + EXPERIENCE
SILICON VALLEY	1	10	10	10	10	9	10
NEW YORK CITY	2 (tied)	10	10	10	10	6	10
LONDON	2 (tied)	9	10	10	10	6	10
LOS ANGELES	4	10	10	8	9	6	9
TEL AVIV	5	9	9	9	10	5	8
BOSTON	6	9	9	8	9	6	10
BEIJING	7	10	4	3	8	10	10
SINGAPORE	8	7	9	9	9	1	7
SHANGHAI	9	9	3	1	6	10	9
SEATTLE	10	8	6	4	8	7	8
WASHINGTON, D.C.	11	8	5	2	9	3	8
SEOUL	12	7	8	7	1	8	7
BERLIN	13	6	8	9	5	1	6
AMSTERDAM-DELTA	14	6	7	10	6	1	6
токуо	15	4	7	7	1	8	9
SAN DIEGO	16	8	2	1	8	7	7
TORONTO-WATERLOO	17	5	8	8	5	2	6
PARIS	18	1	9	9	7	1	8
CHICAGO	19	7	5	6	6	1	7
SYDNEY	20 (tied)	5	7	7	5	1	5

Factors scored 1 to 10, with 1 the lowest and 10 the highest. For more information, please see Methodology.

CONTD.

IMPROVEMENT FROM GSER 2022

> **⊘** +10

⊘ +3

LOBAL INSIGHTS & RANKI







THE GLOBAL STARTUP ECOSYSTEM REPORT 2023

IMPROVEMENT
FROM GSER 2022
⊘ +2
<u></u>
<u> </u>
<u>───</u> +2
<u></u>
⊘ +5
<u></u> ⊗ +6
⊗ +10

LOBAL INSIGHTS & RANK

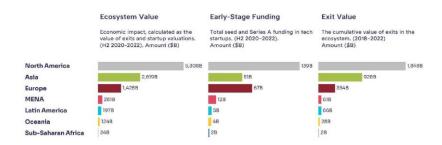




North America and Asia Are Leading in Ecosystem Value and Exit Value, but Europe Ranks Second in Early-Stage Funding

THE GLOBAL STARTUP ECOSYSTEM REPORT 2023

Source: Startup Genome, 2023



Zurich's recent performance has also been impressive, rising a remarkable 10 places from last year and making it to the runners-up, at #36, Exits over \$50 million have grown a massive 300%, with Healthtech Pharvaris exiting at a valuation of \$636 million. The unicorn count has increased from two to six, including Blockchain company **Dfinity**, which is valued at \$9.5 billion, all contributing to a nearly 60% increase in Ecosystem Value from July 1, 2019-December 31, 2021 to July 1, 2020-December 31, 2022.

Cooling Ecosystems

Although still globally leading ecosystems, both **Boston** and **Beijing** have lost their footing at the top of the rankings, each moving down two spots from the GSER 2022. However, it's not all bad news. Boston recorded a 55% increase in exits over \$1 billion and increased its number of unicorns by an impressive 29 since last year's ranking.

Meanwhile, Beijing experienced a decrease in exits both over \$50 million and over \$1 billion, as well as a drop in the number of unicorns from 45 to 36. It continues a trend of Chinese ecosystems slowing discussed in the GSER 2022. In fact, all major Chinese ecosystems have experienced drops in the global ranking, with Shanghai moving down one place to #9 and Shenzhen dropping 12 places to #35. However, Shenzhen still boasts 13 unicorns, more than doubling last year's six. Shenzhen's highest-valued unicorn, UBTECH Robotics, saw its value increase to \$4.5 billion, contributing to a 52% boost in Ecosystem Value.

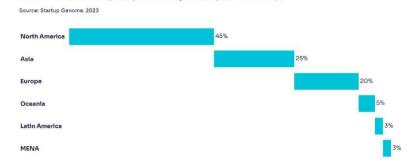
In the GSER 2022, Helsinki made a huge leap from #59 to #31, but this year has moved down four places to #35. The Finnish ecosystem experienced a 24% increase in early-stage funding deals since the GSER 2022. However, Series A rounds over the last decade have decreased by 24%, which indicates fewer experienced entrepreneurs in the ecosystem and thus impacts the Talent & Experience score.

Tokyo and Paris have each moved down three places in the ranking, landing at #15 and #18 respectively. While Tokyo's exits over \$50 million and count of earlystage funding decreased, affecting overall growth, its Ecosystem Value increased by 6%. The Japanese capital is also now home to six unicorns, with 2022 seeing currency digitization platform GVE Ltd. and robotics company RT Corporation join the \$1 million+ club. RT Corporation is the highest valued unicorn at \$3.5 billion. Fintech Paidy was the biggest exit from Tokyo, at \$2.7 billion.

Paris saw an increase in exits over \$50 million but recorded no exits above \$1 billion. However, the number of unicorns in the French capital increased by 16 to 30, contributing to an increase in Ecosystem Value of 62% and including online marketplace Back Market, which is valued at \$5.7 billion.

North America Is Home to 45% Of the World's Top Ecosystems

Share of the Global Startup Ecosystem Ranking 2023 (Top 30 + Runners-up)





Success Factor Highlights



To create the 2023 rankings, we measured six Success Factors in each ecosystem:

- Performance
- Funding
- Market Reach
- Connectedness
- Talent & Experience
- Knowledge

Each of these factors is assessed and awarded a score of 1 to 10, with 1 being the lowest and 10 being the highest. For more information, please see the **Methodology** section.

ECOSYSTEM	OVERALL RANK	EXIT	ECOSYSTEM VALUE	STARTUP SUCCESS
SILICON VALLEY	1	10	10	7
NEW YORK CITY	2 (tied)	10	10	5
LONDON	2 (tied)	10	9	9
LOS ANGELES	4	10	10	4
TEL AVIV	5	10	9	8
BOSTON	6	9	9	9
BEIJING	7	9	10	10
SINGAPORE	8	7	7	1
SHANGHAI	9	8	9	10
SEATTLE	10	8	8	5
WASHINGTON, D.C.	11	8	5	6
SEOUL	12	5	8	5
BERLIN	13	6	6	2
AMSTERDAM-DELTA	14	6	5	7
токуо	15	4	3	10
SAN DIEGO	16	9	6	8
TORONTO-WATERLOO	17	6	4	3
PARIS	18	1	8	7
CHICAGO	19	7	4	9
SYDNEY	20 (tied)	6	5	5
BENGALURU-KARNATAKA	20 (tied)	4	8	6
STOCKHOLM	22	6	6	5
міамі	23	8	6	2
DELHI	24	7	7	6
AUSTIN	25	2	4	3
SÃO PAULO	26	6	7	2
PHILADELPHIA	27	3	4	9
DENVER-BOULDER	28	2	4	5
ATLANTA	29	3	3	1
VANCOUVER	30	4	2	1
MUMBAI	31 (tied)	5	4	9
SALT LAKE-PROVO	31 (tied)	7	3	1
MELBOURNE	33	3	1	7
DALLAS	34	3	2	3
SHENZHEN	35	1	8	9
ZURICH	36	1	1	2
MUNICH	37	1	2	3
HANGZHOU	38	2	6	10
GREATER HELSINKI	39	4	1	6
MONTREAL	40	2	1	9

Performance

The Performance Success Factor assesses:

- Exits: The number of exits over \$50 million and \$1 billion, as well as the growth of exits.
- Ecosystem Value: A measure of the economic impact of the ecosystem, calculated as the total exit valuation and startup valuations over a two-and-a-half-year time period.
- Startup Success: How many startups succeed in the ecosystem. Measured in early-stage success (ratio of Series B to Series A companies), late-stage success (ratio of Series C to A companies, and speed to exits (both to IPO and other exits).



Funding

The Funding Success Factor assesses:

Access: A function of early-stage funding volume and growth.

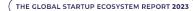
Quality & Activity: The number of local investors; those investors' experience (average years investing and exit ratio); and their level of activity (percentage of investors active in 2022 and the number of new investors).

ECOSYSTEM	OVERALL RANK	ACCESS	QUALITY & ACTIVITY
SILICON VALLEY	1	10	10
NEW YORK CITY	2 (tied)	10	10
LONDON	2 (tied)	10	10
LOS ANGELES	4	10	9
TEL AVIV	5	9	8
BOSTON	6	9	9
BEIJING	7	3	10
SINGAPORE	8	9	8
SHANGHAI	9	2	9
SEATTLE	10	7	5
WASHINGTON, D.C.	11	5	5
SEOUL	12	7	8
BERLIN	13	8	7
AMSTERDAM-DELTA	14	7	7
токуо	15	6	8
SAN DIEGO	16	3	1
TORONTO-WATERLOO	17	8	7
PARIS	18	9	8
CHICAGO	19	5	7
SYDNEY	20 (tied)	7	6
BENGALURU-KARNATAKA	20 (tied)	8	4
STOCKHOLM	22	5	4
MIAMI	23	7	5
DELHI	24	8	3
AUSTIN	25	6	8
SÃO PAULO	26	7	5
PHILADELPHIA	27	4	2
DENVER-BOULDER	28	5	4
ATLANTA	29	4	2
VANCOUVER	30	4	1
мимваі	31 (tied)	3	6
SALT LAKE-PROVO	31 (tied)	1	3
MELBOURNE	33	2	1
DALLAS	34	2	1
SHENZHEN	35	1	6
ZURICH	36	5	5
MUNICH	37	3	4
HANGZHOU	38	1	2
GREATER HELSINKI	39	2	2
MONTREAL	40	1	2









Market Reach

The Market Reach Success Factor assesses:

Local Market Reach: The size of local markets, proxied as a function of country GDP.

Global Leading Companies: A function of scaleups and unicorns in the ecosystem. Measured in terms of the ratio of companies valued at over \$1 billion to GDP; the ratio of \$1 billion exits to GDP; and the ratio of large exits to funding (exits over \$50 million to Series A rounds).

Quality: An indicator of how much policy encourages the commercialization of tangible IP, measured at the country level.

ECOSYSTEM	OVERALL RANK	LOCAL MARKET REACH	GLOBALLY LEADING COMPANIES	QUALITY
SILICON VALLEY	1	10	10	10
NEW YORK CITY	2 (tied)	10	9	10
LONDON	2 (tied)	5	10	10
LOS ANGELES	4	10	9	10
TEL AVIV	5	1	10	10
BOSTON	6	10	9	10
BEIJING	7	7	8	2
SINGAPORE	8	1	10	10
SHANGHAI	9	7	6	2
SEATTLE	10	10	4	10
WASHINGTON, D.C.	11	10	7	10
SEOUL	12	3	7	3
BERLIN	13	5	5	5
AMSTERDAM-DELTA	14	2	8	5
токуо	15	- 6	3	4
SAN DIEGO	16	10	6	10
TORONTO-WATERLOO	17	4	7	4
PARIS	18	4	7	5
CHICAGO	19	10	2	10
SYDNEY	20 (tied)	2	6	10
BENGALURU-KARNATAKA	20 (tied)	5	6	2
STOCKHOLM	22	1	9	3
MIAMI	23	10	3	10
DELHI	24	5	5	2
AUSTIN	25	10	1	10
SÃO PAULO	26	3	8	2
PHILADELPHIA	27	10	3	10
DENVER-BOULDER	28	10	1	10
ATLANTA	29	10	2	10
VANCOUVER	30	4	6	4
MUMBAI	31 (tied)	5	5	2
SALT LAKE-PROVO	31 (tied)	10	3	10
MELBOURNE	33	2	4	10
DALLAS	34	10	2	10
SHENZHEN	35	7	1	2
ZURICH	36	2	4	10
MUNICH	37	5	2	5
HANGZHOU	38	7	2	2
GREATER HELSINKI	39	1	8	3
MONTREAL	40	4	4	4

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Talent & Experience

The Talent & Experience Success Factor assesses:

Tech Talent

Quality & Access: A function of the number and density of top developers on GitHub, English proficiency, and history of exits. Quality is also a proxy for experienced scaled teams in the ecosystem.

Cost: Cost efficiency average of software engineer salaries. (Higher salaries lead to lower scores.)

Life Sciences Talent

STEM Access: Number of STEM students and graduates.

LS Access: Number of Life Sciences-focused universities and degree programs.

LS Quality: A function of Life Sciences quality of instruction and research at local universities as measured by the Shanghai Rankings.

Evnerience

Scaling Experience: The cumulative number of significant exits (over \$50 million and over \$1 billion) over 10 years for startups founded in the ecosystem.

Startup Experience: The cumulative number of early-stage companies started and funded at the Series A stage.

ECOSYSTEM	OVERALL RANK	QUALITY & ACCESS	COST	STEM ACCESS	LS ACCESS	LS QUALITY	SCALING EXPERIENCE	STARTUP EXPERIENCE
SILICON VALLEY	1	10	2	10	5	10	10	10
NEW YORK CITY	2 (tied)	9	2	10	10	6	10	10
LONDON	2 (tied)	10	7	10	10	9	9	10
LOS ANGELES	4	10	3	10	7	9	9	10
TEL AVIV	5	6	1	10	7	3	9	8
BOSTON	6	10	4	10	10	9	10	9
BEIJING	7	8	9	10	10	4	10	10
SINGAPORE	8	5	8	10	5	10	7	7
SHANGHAI	9	8	9	10	9	3	9	10
SEATTLE	10	9	1	10	1	10	8	7
WASHINGTON, D.C.	n	9	3	10	8	4	8	6
SEOUL	12	5	6	10	9	2	6	8
BERLIN	13	4	8	10	6	6	6	7
AMSTERDAM-DELTA	14	7	1	10	9	9	6	5
токуо	15	7	3	10	6	1	8	9
SAN DIEGO	16	9	3	10	2	7	7	5
TORONTO-WATERLOO	17	6	6	10	9	5	3	6
PARIS	18	8	8	10	8	7	1	9
CHICAGO	19	8	4	10	7	8	7	6
SYDNEY	20 (tied)	7	5	10	8	8	5	4
BENGALURU-KARNATAKA	20 (tied)	2	10	1	1	1	2	6
STOCKHOLM	22	4	7	10	6	8	6	4
МІАМІ	23	3	6	10	3	2	5	3
DELHI	24	1	10	10	2	1	5	5
AUSTIN	25	5	4	10	1	8	1	6
SÃO PAULO	26	1	10	10	4	2	4	3
PHILADELPHIA	27	5	3	10	7	8	5	3
DENVER-BOULDER	28	4	2	10	3	5	3	5
ATLANTA	29	7	5	10	5	5	5	3
VANCOUVER	30	3	6	10	4	6	2	2
MUMBAI	31 (tied)	2	10	1	1	1	2	2
SALT LAKE-PROVO	31 (tied)	4	6	10	2	2	8	1
MELBOURNE	33	6	6	10	8	5	3	1
DALLAS	34	4	4	1	3	3	4	1
SHENZHEN	35	6	9	10	4	5	4	8
ZURICH	36	1	1	10	3	10	1	4
MUNICH	37	2	8	10	4	7	2	3
HANGZHOU	38	2	9	10	5	3	7	7
GREATER HELSINKI	39	1	7	10	2	6	1	2
MONTREAL	40	3	7	10	6	4	3	1
		-						

02





THE GLOBAL STARTUP ECOSYSTEM REPORT 2023

ECOSYSTEM	OVERALL RANK	LOCAL CONNECTEDNESS	GLOBAL CONNECTED
SILICON VALLEY	1	10	9
NEW YORK CITY	2 (tied)	10	9

Connectedness

The Connectedness Success Factor assesses:

Local Connectedness: A function of the number of tech meetups in the ecosystem.

Global Connectedness: A calculation of international connectedness based on the ratio of international startups with secondary offices and international investors with investment in an ecosystem.

ECOSYSTEM	OVERALL RANK	LOCAL CONNECTEDNESS	GLOBAL CONNECTEDNESS
SILICON VALLEY	1	10	9
NEW YORK CITY	2 (tied)	10	9
LONDON	2 (tied)	10	10
LOS ANGELES	4	9	7
TEL AVIV	5	8	10
BOSTON	6	9	7
BEIJING	7	5	4
SINGAPORE	8	7	10
SHANGHAI	9	1	5
SEATTLE	10	7	1
WASHINGTON, D.C.	11	6	2
SEOUL	12	8	6
BERLIN	13	9	9
AMSTERDAM-DELTA	14	10	10
токуо	15	7	7
SAN DIEGO	16	3	1
TORONTO-WATERLOO	17	8	9
PARIS	18	9	8
CHICAGO	19	8	4
SYDNEY	20 (tied)	6	8
BENGALURU-KARNATAKA	20 (tied)	7	8
STOCKHOLM	22	3	4
міамі	23	2	3
DELHI	24	4	4
AUSTIN	25	5	5
SÃO PAULO	26	3	6
PHILADELPHIA	27	4	2
DENVER-BOULDER	28	5	2
ATLANTA	29	5	3
VANCOUVER	30	4	5
мимваі	31 (tied)	1	5
SALT LAKE-PROVO	31 (tied)	2	1
MELBOURNE	33	5	7
DALLAS	34	3	2
SHENZHEN	35	2	3
ZURICH	36	6	6
MUNICH	37	6	8
HANGZHOU	38	1	1
GREATER HELSINKI	39	2	6
MONTREAL	40	2	3

Knowledge

The Knowledge Success Factor assesses:

Patents: The volume, complexity, and potential patents generated in the ecosystem.

Research: Based on the H-Index, a measure of publication impact, this metric looks at the production of research at the country level.

SILICON VALLEY	1	9	10
NEW YORK CITY	2 (tied)	5	10
LONDON	2 (tied)	8	7
LOS ANGELES	4	6	
			10
TEL AVIV	5	8	2
BOSTON		6	10
BEIJING	7	10	4
SINGAPORE	В	6	1
SHANGHAI	9	10	4
SEATTLE	10	7	10
WASHINGTON, D.C.	n	3	10
SEOUL	12	9	2
BERLIN	13	5	6
AMSTERDAM-DELTA	14	3	5
токуо	15	9	4
SAN DIEGO	16	7	10
TORONTO-WATERLOO	17	7	6
PARIS	18	3	5
CHICAGO	19	2	10
SYDNEY	20 (tied)	2	5
BENGALURU-KARNATAKA	20 (tied)	9	2
STOCKHOLM	22	8	3
MIAMI	23	1	10
DELHI	24	6	2
AUSTIN	25	5	10
SÃO PAULO	26	1	1
PHILADELPHIA	27	2	10
	28	4	10
DENVER-BOULDER	29	1	10
ATLANTA			
VANCOUVER	30	4	6
MUMBAI	31 (tied)	5	2
SALT LAKE-PROVO	31 (tied)	1	10
MELBOURNE	33	2	5
DALLAS	34	4	10
SHENZHEN	35	10	4
ZURICH	36	7	4
MUNICH	37	8	6
HANGZHOU	38	10	4
GREATER HELSINKI	39	3	2
MONTREAL		5	6



Emerging ecosystems are startup communities at earlier stages of growth. The methodology for this ranking is intended to reflect this, showcasing the ecosystems displaying high potential to be top global performers in the coming years.

The factor weights used to rank these ecosystems are slightly different from those used with the top ecosystems to reflect their emerging status and emphasize the factors that have more influence in ecosystems that are just beginning to grow. Less weight is given to the number of exits over \$50 million and startup activity is more focused on early-stage funding than in the top 40 ecosystems. For more information, please see the Methodology section.

ECOSYSTEM	RANK	PERFORMANCE	FUNDING	CONNECTEDNESS	MARKET REACH	KNOWLEDGE	TALENT & EXPERIENCE
COPENHAGEN	1	10	10	9	10	4	10
HONG KONG	2	9	9	9	10	1	10
DETROIT	3	10	9	7	8	6	9
BARCELONA	4	9	10	10	6	3	10
DUBLIN, MI	5	9	8	10	9	7	10
MANCHESTER-LIVERPOOL	6	10	8	9	4	6	10
BRUSSELS	7	9	9	10	9	7	8
RESEARCH TRIANGLE, NC	8	9	8	9	9	9	9
MINNEAPOLIS, MN	9	10	9	8	6	6	9
ESTONIA	10	7	10	1	10	1	5
HOUSTON, TX	11	10	10	7	3	4	9
DUBAI	12	8	10	10	10	1	6
MADRID	13	7	10	10	4	4	10
GUANGZHOU	14	10	3	1	8	10	10
JAKARTA	15	10	10	8	1	1	7
ISTANBUL	16	7	10	6	3	1	9
OSLO	17	8	9	9	10	1	6
WUXI	18	9	7	1	5	10	10
PHOENIX, AZ	19	9	8	7	5	9	7
NEW ZEALAND	20	8	7	6	8	1	9
NANJING	21-30	10	3	1	2	10	10
METRO RHEIN-RUHR	21-30	7	8	10	6	9	7
BRISTOL	21-30	7	9	8	1	9	8
KUALA LUMPUR	21-30	8	9	3	1	1	8
CHENNAI	21-30	10	3	7	3	6	8
TAIPEI CITY	21–30	8	6	3	1	9	8
GENEVA-LAUSANNE	21-30	7	8	9	7	8	5
MILAN	21-30	5	10	8	1	6	6
TAMPA BAY, FL	21-30	8	6	9	7	6	8
FRANKFURT	21-30	8	6	10	1	8	9

Factors scored 1 to 10, with 1 the lowest and 10 the highest. For more information, please see Methodology

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THE GLOBAL STARTUP ECOSYSTEM REPORT 2023



- The top 100 Emerging Ecosystems are collectively worth over \$1.5 trillion in Ecosystem Value, a 50% increase from July 1, 2019–December 31, 2021 to July 1, 2020–December 31, 2022.
- Europe is the most represented region in the Emerging Ecosystems ranking and has expanded its share from 37% to 41% since the GSER 2022.
- Copenhagen is at #1, moving from the runners-up in the main ranking due to being outperformed by other regions such as Zurich. However, its Ecosystem Value increased by 29% and it saw growth in early-stage funding amount and in the number of exits over \$50 million, with review platform **Trustpilot** the top exit in an IPO valued at \$1.5 billion.
- Barcelona has moved up five positions since last year, reaching #4. Its highest-valued unicorn, tech-enabled delivery platform Paack, was valued at \$1.6 billion, helping to take the Ecosystem Value to \$21 billion, a 91% increase from 2022.

ECOSYSTEM	RANK	PERFORMANCE	FUNDING	CONNECTEDNESS	MARKET REACH	KNOWLEDGE	TALENT & EXPERIENCE
MOSCOW	31-40	7	6	3	1	10	10
EDINBURGH-GLASGOW	31-40	5	8	8	1	7	9
BIRMINGHAM	31-40	6	7	7	1	6	9
ORLANDO	31-40	8	4	7	6	1	8
PITTSBURGH, PA	31-40	6	8	4	3	5	6
PUNE	31-40	8	5	9	3	9	6
PRAGUE	31-40	6	8	8	9	1	3
PORTLAND, OR	31-40	9	2	1	9	10	4
HARTFORD, CT	31-40	10	1	1	7	7	7
LISBON	31-40	6	6	9	8	5	3
MEXICO CITY	41-50	4	9	9	1	1	4
HAMBURG	41-50	2	8	10	1	7	8
LITHUANIA	41-50	1	6	1	10	1	3
NASHVILLE, TN	41-50	5	6	3	2	2	7
ST. LOUIS, MO	41-50	6	5	5	3	3	7
KANSAS CITY, MO	41-50	6	5	3	6	1	5
BRISBANE	41-50	5	6	7	1	1	7
INDIANAPOLIS, IN	41-50	4	7	1	3	1	6
SANTA BARBARA, CA	41-50	9	1	1	8	8	6
STUTTGART	41-50	6	4	8	1	9	6
VIENNA	51-60	2	7	10	5	3	4
CAIRO	51-60	3	9	1	1	1	8
NICOSIA	51-60	3	3	1	10	1	1
TELANGANA	51-60	4	5	8	1	7	7
WARSAW	51-60	1	7	10	1	1	6
NAIROBI	51-60	4	7	5	6	1	2
CALGARY	51-60	4	7	6	1	1	5
BUENOS AIRES	51-60	5	5	7	5	1	4
LAGOS	51-60	2	10	3	1	1	4
CHARLOTTE, NC	51-60	5	3	7	4	5	5

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THE GLOBAL STARTUP ECOSYSTEM REPORT 2023

- Estonia has moved up an impressive 28 positions since the GSER 2022, reaching #10. Its rise is thanks to an increase in early-stage funding rounds, a 100% increase in exits over \$50 million, and the new inclusion of CRM and intelligence platform Pipedrive's 2020 \$1.5 billion buyout.
- New Zealand has moved up 14 positions, reaching #20
 in the Emerging Ecosystems ranking thanks in part
 to an increase in exits of over \$50 million and a new
 unicorn, Lodestone Energy, valued at \$1.3 billion.
- Further supporting the pattern of India growing and China declining, Pune has moved into the 31–40 range from 51–60 in 2022, experiencing both an increase in exits over \$50 million and in the number of unicorns, while Guangzhou dropped seven positions from last year, to #14.
- Riga has entered the Emerging Ecosystem ranking for the first time, in the 91–100 range, thanks in part to print-on-demand service **Printful** achieving unicorn status by raising \$130 million in 2021.

ECOSYSTEM	RANK	PERFORMANCE	FUNDING	CONNECTEDNESS	MARKET REACH	KNOWLEDGE	TALENT & EXPERIENCE
WILMINGTON, NC	61-70	1	9	1	8	1	1
SACRAMENTO, CA	61-70	5	3	1	4	9	4
WUHAN	61-70	9	1	1	6	10	7
RIYADH	61-70	4	7	1	4	1	2
CHENGDU	61–70	7	1	1	2	10	9
COLUMBUS, OH	61-70	7	2	4	3	4	3
BUCHAREST	61-70	5	4	6	7	1	2
SAN BERNARDINO, CA	61-70	7	1	1	9	8	2
LAS VEGAS, NV	61-70	1	5	5	2	1	5
BOGOTA	61-70	3	6	6	5	1	1
LYON	71-80	2	4	7	1	7	8
CLEVELAND, OH	71-80	4	2	3	2	2	4
CINCINNATI, OH	71-80	5	1	4	3	4	5
DURHAM	71-80	1	4	6	4	2	5
LILLE	71-80	6	1	1	1	1	4
VALENCIA	71-80	1	5	4	1	1	3
RENO, NV	71-80	6	1	1	9	1	1
KIEV	71-80	3	3	3	8	1	1
ROME	71-80	2	3	2	1	5	3
OTTAWA	71-80	1	1	6	1	8	6
SANTIAGO	81-90	1	7	5	1	1	2
ABU DHABI	81-90	2	6	1	1	1	1
HO CHI MINH CITY	81-90	1	5	1	1	1	7
BURLINGTON, VT	81-90	4	1	1	9	6	2
REYKJAVIK	81-90	2	1	1	10	1	1
WESTERN DENMARK	81-90	2	1	2	2	3	3
BUFFALO, NY	81-90	6	1	1	7	1	2
BANGKOK	81-90	3	1	3	1	3	2
BELFAST	81-90	4	1	2	1	1	4
RIO DE JANEIRO	81-90	2	2	2	1	2	2

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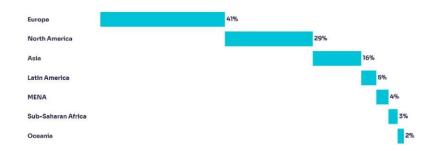
ECOSYSTEM	RANK	PERFORMANCE	FUNDING	CONNECTEDNESS	MARKET REACH	KNOWLEDGE	TALENT & EXPERIENCE
ZACREB	91-100	1	2	6	10	1	1
JACKSONVILLE, FL	91–100	3	1	1	5	1	3
LUXEMBOURG	91-100	1	4	4	1	1	3
MANILA	91–100	1	5	4	1	1	5
RIGA	91–100	1	1	1	10	1	1
LEIPZIG	91–100	1	1	5	4	5	3
MARSEILLE	91–100	2	1	1	1	1	5
GOTHENBURG	91-100	1	5	3	1	3	4
KANSAI REGION	91–100	3	1	1	1	10	1
CAPE TOWN	91-100	1	4	5	1	1	2

Europe is the most represented region in the Emerging **Ecosystems ranking and has** expanded its share from 37% to 41% since the GSER 2022.

Europe Is Home to 41% Of the Top 100 Emerging Ecosystems

Share of Emerging Ecosystems by Region

Source: Startup Genome, 2023



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THE GLOBAL STARTUP ECOSYSTEM REPORT 2023

TOP 10 EMERGING ECOSYTEMS BY ECOSYSTEM VALUE

ECOSYSTEM	ECOSYSTEM VALUE (\$B)		
Nanjing	\$127		
Detroit	\$103		
Jakarta	\$71		
Hong Kong	\$54		
Kuala Lumpur	\$46		
Copenhagen	\$45		
Guangzhou	\$43		
Minneapolis	\$39		
Bucharest	\$37		
Mexico City	\$30		

TOP 10 EMERGING ECOSYSTEMS BY TOTAL EARLY-STAGE FUNDING VALUE

ECOSYSTEM	EARLY-STAGE FUNDING (\$M)	
Guangzhou	\$1,560	
Jakarta	\$1,523	
Hong Kong	\$1,451	
Copenhagen	\$1,349	
Barcelona	\$1,233	
Wuxi	\$1,131	
Dubai	\$1,098	
Milan	\$1,092	
Wuhan	\$1,090	
Mexico City	\$1,074	

EMERGING
ECOSYSTEMS WITH
FOUR OR MORE
UNICORNS IN THE
LAST 10 YEARS

ECOSYSTEM	NUMBER OF UNICORNS		
Hong Kong	11		
Guangzhou	10		
Pune	7		
Jakarta	7		
Chengdu	7		
Nanjing	7		
Mexico City	6		
Dublin	6		
Phoenix	6		
Wuhan	6		
Wuxi	6		
Oslo	5		
Dubai	5		
Santa Barbara	5		
Taipei City	5		
Chennai	4		
Ho Chi Minh City	4		
Copenhagen	4		
Manchester-Liverpool	4		

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Strong Starters Ranking

The Strong Starters ranking identifies the top 25 ecosystems from the Emerging Ecosystems ranking where early-stage funding activity is most robust.

For more information on how this is calculated, please see the **Methodology** section.

Early-stage funding includes seed and Series A deals. Seed funding is the first VC round of funding that a startup raises and is typically used to validate the business model, build the product, and grow the team. Series A is an important step in the life of a startup as Series A rounds are typically much bigger than seed rounds and provide startups with runway to develop products, hire more employees, and develop and launch a market strategy.

Early-stage funding is an important indicator of potential success as most startups that receive Series A rounds have demonstrated their potential by the creation of a minimal viable product, by generating revenue, or by showing they are close to launching a product. Hence, both the count and amount of early-stage rounds in an ecosystem are an indicator of its success and growth.

₁ → Istanbul	14 → Bristol
2 -> Barcelona	15 — Detroit, MI
₃ → Estonia	16 → Oslo
4 → Madrid	17 — Mexico City
5 → Dubai	18 → Minneapolis, MI
$_{6}$ $ ightarrow$ Copenhagen	19 → Hong Kong
7 → Milan	20
8 → Jakarta	21 → Manchester-Liverpool
9 — Houston, TX	22 —> Dublin
$10 \longrightarrow Lagos$	23 → Research Triangle, NC
$n \rightarrow$ Wilmington, NC	24 → Hamburg

12 -> Brussels

13 — Cairo

02

25 → Metro Rhein-Ruhr





THE GLOBAL STARTUP ECOSYSTEM REPORT 2023

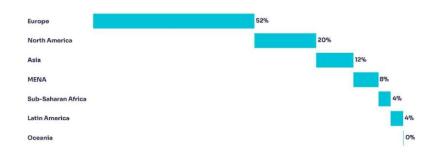


- The collective Ecosystem Value of the Strong Starters exceeds \$700 billion, with **Detroit** alone contributing \$103 billion, the highest individual Ecosystem Value in the ranking.
- Istanbul takes the #1 spot in the Strong Starters ranking thanks to a 60% increase in early-stage deal count and 35% increase in early-stage deal amount from the GSER 2022. The Turkish city has raised close to 600 early-stage rounds in the GSER 2023 timeframe. Gaming accounts for a large part of the success, with Dream Games raising a \$50 million Series A round in 2021 and Ace Games raising \$33 million in early-stage funding in 2022.
- Over half of the ecosystems in the ranking (13) are European, including the top four. Spain has two entries in the top five: Barcelona at #2 and Madrid at #4.
- Barcelona experienced an increase of 24% in early-stage funding deal count and 12% in early-stage deal amount from the GSER 2022. Yaba raised \$85 million in Series A rounds in 2022 and Splice Bio raised a \$56 million Series A the same year.

- Madrid saw an increase of 24% in early-stage funding deal count and 12% increase in deal amount from the GSER 2022, raising \$760 million in early-stage funding deals in the GSER 2023 timeframe. The biggest deals include digital entertainment platform Carousel Group, which raised \$50 million in a 2021 Series A round, and data platform Tinybird with a \$37 million Series A in 2022.
- Estonia takes #3 in the Strong Starters ranking, further cementing its status as a fast-growing tech hub. Estonia experienced an increase of 46% in early-stage funding amount from 2021 to 2022, but a 10% decrease in early-stage deal count. The biggest rounds include Eurora raising \$40 million in a 2022 Series A, and NFT developer platform NPTPort raising \$26 million at Series A in 2022.
- Dubai comes in at #5, with a 45% increase in early-stage funding count, and 114% in deal amount since the GSER 2022. Two of the biggest rounds were digital banking platform YAP's \$41 million Series A round in 2022, and Buy Now, Pay Later platform Cashew's \$40 million Series A round in 2021.

Europe Is Home to More Than Half of the Strong Starters Ranking

Share of Strong Starters Ecosystems by Region







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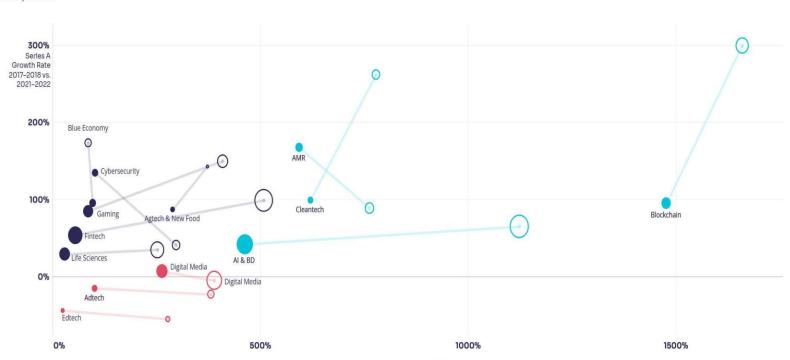
THE GLOBAL STARTUP ECOSYSTEM REPORT 2023

Global Sub-Sector Lifecycle In \$ Terms by Total Series A Funding and Exit Value

GSER 2022 (2016-2017 vs. 2020-2021) and GSER 2023 (2017-2018 vs. 2021-2022)

Bubble Size Refers to Ecosystem Value

Source: Startup Genome, 2023



*AMR = Advanced Manufacturing & Robotics

Exits (all) Growth Rate 2017-2018 vs. 2021-2022







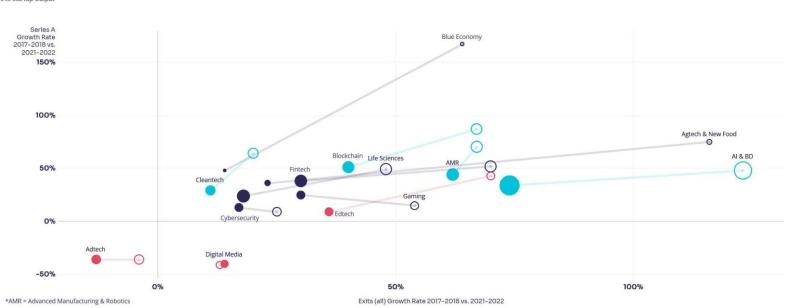
THE GLOBAL STARTUP ECOSYSTEM REPORT 2023

Global Sub-Sector Lifecycle by Series A Deals and Exit Count GSER 2022 (2016–2017 vs. 2020–2021) and GSER 2023 (2017–2018 vs. 2021–2022)



Bubble Size Refers to Startup Output

Source: Startup Genome, 2023



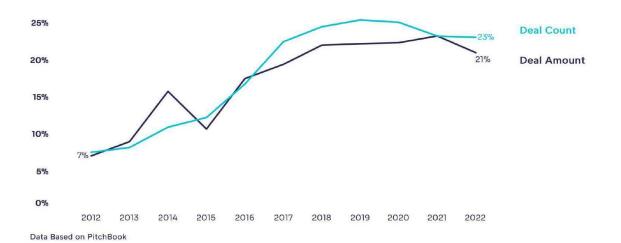
LEARN MORE AND CET CONNECTED AT -> STARTUPGENOME.COM



PHASE	GROWTH	MATURE	DECLINE	
SUB-SECTORS	Advanced Manufacturing & Robotics, Al & Big Data, Cleantech, and Blockchain	Agtech & New Food, Cybersecurity, Fintech, Gaming, Life Sciences, and the Blue Economy	Digital Media, Edtech, and Adtech	
SERIES A DEAL AMOUNT GROWTH RATE	101%	81%	-18%	
EXIT VALUE GROWTH RATE	788%	196%	129%	

Al Intersects Over 20% With Other Tech Sectors

Al Intersects With Other Tech Sectors Among All Venture Deals by Deal Year, 2012–2022







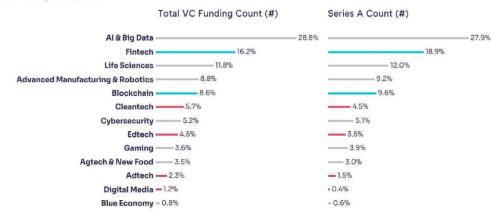


THE GLOBAL STARTUP ECOSYSTEM REPORT 2023

Cleantech is likely to see more investment despite the current economic downturn.

Fintech and Blockchain Have a Higher Share of Series A in 2022 Than Their Total Funding Share in the Long Term

Share of Total VC Deal Count (2018-2022) and Series A Deal Count (2022) by Sub-Sector









THE GLOBAL STARTUP ECOSYSTEM REPORT 2023

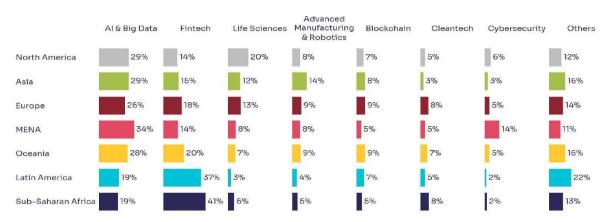


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Fintech accounted for <u>41% of Series A deals</u> in sub-Saharan Africa in 2018–2022

Sub-Saharan Africa and Latin America Have the Largest Shares of Fintech Series A Deals

Share of Series A Deal Count (#) by Sub-Sector by Region (2018-2022)









Regional Insights

NORTH AMERICA

New York City Los Angeles Boston

Seattle

Detroit

Minneapolis

Phoenix

LATIN AMERICA

São Paulo Mexico City

Curitiba

Belo Horizonte

EUROPE

TOP PERFORMERS

London

Berlin

Amsterdam-Delta

Stockholm

TOP EMERGING ECOSYSTEMS

Copenhagen

Barcelona

Dublin

Manchester-Liverpool

Brussels

MENA

TOP PERFORMERS

Tel Aviv

INNOVATIVE IRAN

Dubai

Cairo

Riyadh

Abu Dhabi

TOP EMERGING ECOSYSTEMS

Amman

Sharjah

Casablanca

Tunis

Beirut

ASIA

TOP PERFORMERS

Beijing

Singapore

Shanghai

Seoul Tokyo

TOP EMERGING ECOSYSTEMS

Hong Kong

Guangzhou

Jakarta Wuxi

Nanjing

OCEANIA

TOP PERFORMERS

Sydney

Melbourne

New Zealand

Brisbane

Adelaide

TOP EMERGING ECOSYSTEMS

Perth

Canberra



Silicon Valley

TOP EMERGING ECOSYSTEMS

Research Triangle

Houston

TOP PERFORMERS

Buenos Aires

Santiago-Valparaiso

TOP EMERGING ECOSYSTEMS

Rio de Janeiro

Monterrey

Porto Alegre











SUB-SAHARAN AFRICA

TOP PERFORMERS

Nairobi

Lagos Cape Town

Johannesburg

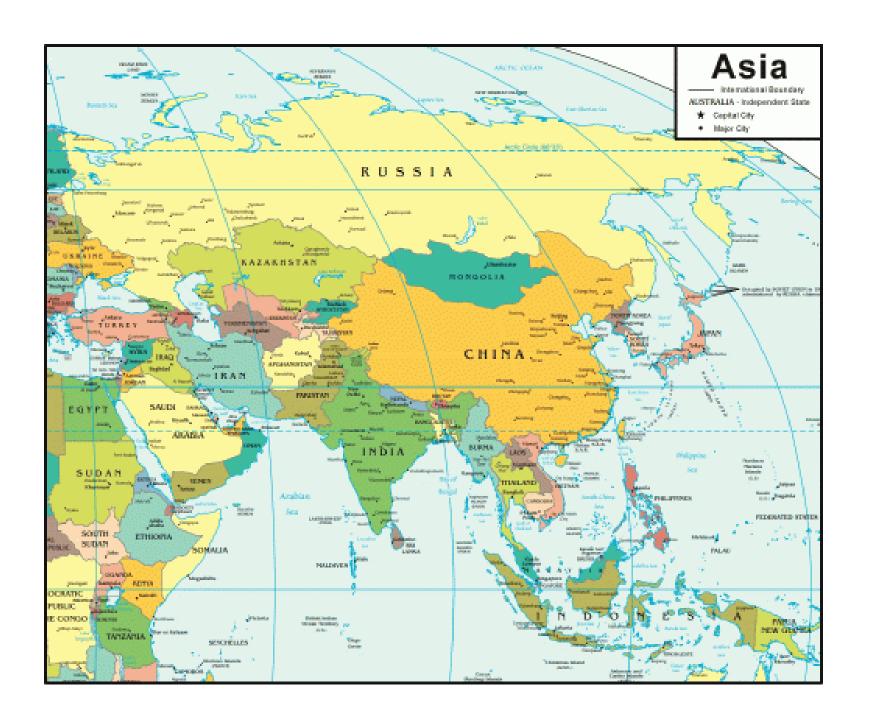
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TOP EMERGING ECOSYSTEMS

Kampala Dar es Salaam

Abidjan Abuja

Dakar





آسیا Asia





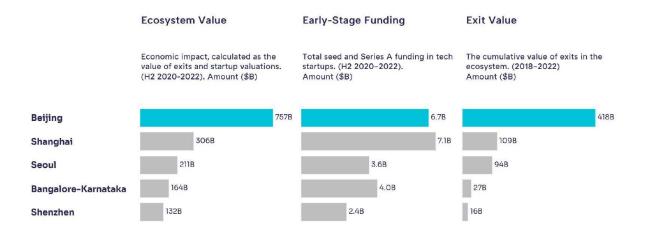
Regional Insights **ASIA**

TOP FIVE ECOSYSTEMS

- 1 -> Beijing
- 2 -> Singapore
- 3 -> Shanghai
- 4 -> Seoul
- 5 Tokyo

- 1 → Hong Kong
- 3 -> Jakarta
- 4 --- Wuxi
- 5 Nanjing

Beijing Is the Regional Leader in Ecosystem Value and Exit Value





TOP FIVE ECOSYSTEMS BY VC FUNDING PER CAPITA

1 -> Beijing

2 -> Singapore

3 -> Seoul

5 --> Bengaluru-Karnataka

VC Investment in Asia Decreased 31% Overall From 2021 to 2022 Asian VC Funding Amount (\$B) by Stage

Source: Startup Genome, 2023

Seed Series A Series B+

\$100B

\$75B

\$50B

2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022







نكات مهم

China

Beijing

#7 Global Ranking #8 Agtech Ranking #6 Fintech Ranking

Startup Genome

Asian Ecosystem

in Performance

Country Contents

Global Ecosystem Global Ecosystem in in Knowledge Talent & Experience

#1 #1

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XStartup Genome

Top 10

در اکتبر ۲۰۲۲، پنجمین کنفرانس شهر هوشمند چین برگزار شد، اجلاس سرمایههای مخاطره آمیز ۲۰۲۳ در اکتبر ۲۰۲۳ در کنفرانس بین المللی شبکه اطلاعات و ارتباطات رایانهای در همان ماه برگزار می شود. در آوریل ۲۰۲۲، پلتفرم توسعه محتوای تعاملی دیجیتال آوریل ۲۰۲۲، پلتفرم توسعه محتوای تعاملی دیجیتال سری ۵۰ میلیون دلاری سری ۶ را در ۱۶ ژوئن ۲۰۲۲ بست. شرکت سری ۶ را در ۱۶ ژوئن ۲۰۲۲ بست. شرکت رباتیک MegaRoba Technologies یک سری ۳۰۰ میلیون دلاری را بست.

• به شدت تحت تأثیر میزنند که محدودیت، اقتصاددانان تخمین میزنند که اقتصاد چین در سال ۲۰۲۲ فقط ۳ درصد رشد کرده است. با باز شدن مجدد کشور برای تجارت، فناوری پر جنب و جوش و اکوسیستم استارتآپی پکن در حال بازگشت از رکود سرمایه گذاران خطرپذیر متمرکز بر چین هستند که تقریباً سطوح سرمایه در دست دارند. ۱۰۵ میلیارد دلار تا مارس دست دارند. ۱۰۵ میلیارد دلار تا مارس دست دارند. ۲۰۲۲ و معاملات همچنان انجام می شود.

• حمایت قوی پکن از SME موضوع تکراری از ۲۰۲۱ امین برنامه پنج ساله دولت (۲۰۲۱ گذاری برنامه ها شامل افزایش سرمایه گذاری در فن آوری، توسعه استعدادهای محلی، جذب کارشناسان خارجی و تقویت قوانین حفاظت از مالکیت معنوی است، چین در حال ساخت Huafrog Science









ECOSYSTEM VALUE (H2 2020 - 2022)

\$757 bn



TOTAL EARLY-STAGE FUNDING (H2 2020 - 2022)

\$6.7 bn



ECOSYSTEM VALUE GROWTH (H2 2020 - H2 2022 VS H2 2018 - H2 2020)

3%



NUMBER OF UNICORNS (H2 2020 - 2022)



MEDIAN SEED ROUND (H2 2020 - 2022)

\$3.1m



MEDIAN SERIES A ROUND (H2 2020 - 2022)

\$15 m



SOFT. ENGINEER SALARY



EARLY-STAGE FUNDING GROWTH (2019 - 20 VS. 2021 - 22)



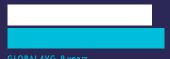
TOTAL VC FUNDING (2018 - 2022)

\$110 bn



TIME TO EXIT (2018 - 2022)





EXIT AMOUNT (2018 - 2022)

\$418 bn



EXIT COUNT (#) (2018 - 2022)













AI, Big Data & Analytics

Beijing had an estimated 1,048 major AI companies as of October 2022, approximately 29% of the national total. The city has more than 40,000 professionals in core AI technologies. In October AI startup Bishi Technology raised a \$27.7 million Series C.



Fintech

Beijing topped the ranking of 50 cities around the globe for the fourth time in the Global Fintech Hub Report 2022. Tsinghua University PBC School of Finance and Tsinghua University National Institute of Financial Research co-organize the annual China Financial Research Conference with the ultimate goal of encouraging financial innovation in China. The FinTech World Forum took place here in May 2023. In February, corporate spend provider Fenbeitong raised a \$140 million Series C+ round, reaching unicorn status.



Life Sciences

Beijing has three Life Sciences clusters: Zhongguancun Life Sciences Park, China Bio-medicine Park, and Beijing Economic-Technological Development Area. Sinovac Biotech, a biopharmaceutical product provider, began construction of a new vaccine quality research center here in 2022, and a new biomedical imaging facility was unveiled in Huairou Science City in the same year. In January 2022 synthetic biology firm Bluepha raised a \$235 million Series B. In July 2022, Helixon raised a \$75 million Series A round for its AI drug-development platform. In August 2022, biotech Sironax closed a \$200 million Series B.











#26 Fintech Ranking



M EM BERS:

Seoul Business Agency



Startup Genome

Startup Genome

Global Ecosystem in Funding

Global Ecosystem in Knowledge Global Ecosystem in Talent & Experience

Top 15

Top 15

Top 15

نكات مهم

• کره جنوبی که برای غول های فناوری مانند سامسونگ و ال جی شناخته شده است، به طور فعال در حال توسعه اکوسیستم استارتاپی خود است که هدف آن تطبیق بیش از 1000استارتاپ با شرکت های بزرگتر تا سال 2024است، وزارت شرکت های کوچک و متوسط و استارت آپ کره جنوبی بودجه 10.2میلیارد دلار را اعلام کرد .

• در سال 2022، کره جنوبی دارای 231شرکت فعال VC بوده است.









ECOSYSTEM VALUE (H2 2020 - 2022)

\$211bn



TOTAL EARLY-STAGE FUNDING

\$3.6 bn



ECOSYSTEM VALUE GROWTH (H2 2020 - H2 2022 VS H2 2018 - H2

100%

2020)



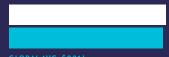
NUMBER OF UNICORNS (H2 2020 - 2022)



GLOBAL AVG. 4

MEDIAN SEED ROUND (H2 2020 - 2022)

\$841k



GLOBALAVG.\$821k

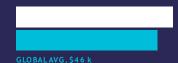
MEDIAN SERIES A ROUND (H2 2020 - 2022)

\$3.4 m



SOFT. ENGINEER SALARY (2022)

\$51k



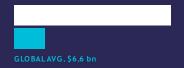
EARLY-STAGE FUNDING GROWTH (2019 - 20 VS. 2021 - 22)



Scale of 1 (lowest) to 10 (highest)

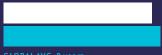
TOTAL VC FUNDING (2018 - 2022)

\$34 bn



TIME TO EXIT (2018 - 2022)





LOBALAVG. 9 years

\$94 bn



EXIT COUNT (#)

(2018 - 2022)

132

GLOBALAVG. 91 ◆











Al, Big Data & Analytics

Al Yangjae Hub is the first Al startup development institution in Korea. In February 2023, Rebellions Inc launched an AI chip to challenge global leader Nvidia Corp in hardware. In March 2022, Alibaba Cloud announced its first data center in Seoul. Singapore's Empyrion DC announced a 40 MW green data center in Seoul will launch in 2024. AI Summit Seoul 2023 is scheduled for September. AI Expo Korea 2023 took place in May. StradVision, a maker of software for autonomous driving, raised an \$88 million Series C in August 2022. Industrial AI leader onepredict raised a \$25 million Series C in March 2022.



Life Sciences

In December 2022, South Korea's four leading biotech firms announced plans to launch an investment fund of up to \\$0 billion (\$37.6 million) to support smaller domestic biotech firms. Vaccine and biotech company SK bioscience plans to establish its headquarters and R&D center in Seoul. BIO KOREA International Convention 2023 is set for May. Drug developer Onconic Therapeutics, raised a \$19.5 million Series B in December 2022. Remote medicine company Doctornow raised a \$33.0 million Series B in June 2022.



Advanced Manufacturing & **Robotics**

South Korea has emerged as a leader in the fourth industrial Revolution. The Third Basic Plan on Intelligent Robots of South Korea aims to make Robotics a core industry, and the government has allocated \$172.2 million towards this goal. In February 2023, ASM International announced plans to invest around \$100 million in its manufacturing and innovation center in South Korea. Service robot maker Bear Robotics raised a \$81 million Series B in March 2022. Seoul Robotics has raised a total of \$43.1 million, including a \$25 million Series B in September 2022.







Singapore

Singapore







M EM BERS:

Enterprise Singapore







Asian Ecosystem in Funding













REGIONAL INSIGHTS ASIA





ECOSYSTEM VALUE (H2 2020 - 2022)

\$128 bn



GLOBAL AVG. \$34.6 bi

TOTAL EARLY-STAGE FUNDING (H2 2020 - 2022)

\$5.7 bn



GLOBAL AVG. \$970 n

ECOSYSTEM VALUE GROWTH (H2 2020 - H2 2022 VS.H2 2018 - H2 2020)

61%



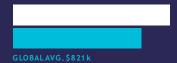
NUMBER OF UNICORNS (H2 2020 - 2022)



GLOBAL AVG.

MEDIAN SEED ROUND (H2 2020 - 2022)

\$1m



MEDIAN SERIES A ROUND (H2 2020 - 2022)

\$6.3 m



SOFT. ENGINEER SALARY (2022)

\$47 k



GLOBALAVG.\$46

EARLY-S TAGE FUNDING GROW TH (2019 - 20 VS. 2021 - 22)



Scale of 1 (lowest) to 10 (highest)

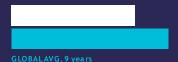
TOTAL VC FUNDING (2018 - 2022)

\$26 bn



TIME TO EXIT (2018 - 2022)

7.1 years



EXIT AMOUNT (2018 - 2022)

\$11bn



EXIT COUNT (#) (2018 - 2022)

252 GLOBALAVG.91 ◆













Life Sciences

Singapore is a hub for manufacturing advanced medical technologies. BioNTech acquired a mRNA facility here in November 2022. SGInnovate, an ecosystem builder and investor backed by the Singapore government, launched the Helix Immersion Programme to offer Life Science researchers on-the-job training. mRNA company RVAC Medicine has raised \$140 million. In June 2022, Tessa Therapeutics, a clinical-stage cell therapy company, closed a \$126 million Series A. In November TauRx Pharmaceuticals, a global leader in research in Alzheimer's, raised \$119 million.



Al, Big Data & Analytics

Singapore will invest \$50 million to attract and develop AI talent and open three new centers of innovation. 100 Experiments is Al Singapore's flagship program to solve industries' AI problems and help them build their AI teams. AI Singapore provides cofunding to organizations working on an Al-focused innovation. ATxAI took place here in June 2023 and Big Data & AI World will return in October.



Agtech & New Food

Republic Polytechnic launched the first cloud-based Agtech laboratory in an institute of higher learning in Singapore. The facility will support Singapore's 30 by 30 initiative, which aims to provide 30% of the country's nutritional needs by 2030. The government has committed \$300 million to innovation in future foods, sustainable urban food production, and food safety under the Singapore Food Story R&D Programme. In September 2022, insect-protein producer Nutrition Technologies closed a \$20 million equity round.











Regional Insights **EUROPE**



TOP FIVE ECOSYSTEMS

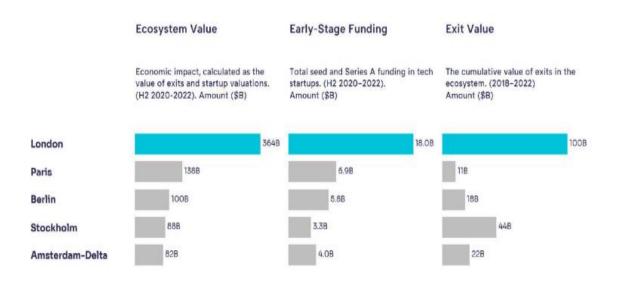
- $1 \longrightarrow London$
- 2 -> Berlin
- 3 -> Amsterdam-Delta
- 4 -> Paris
- 5 -> Stockholm

TOP FIVE EMERGING ECOSYSTEMS

- 1 -> Copenhagen
- 2 -> Barcelona
- $3 \rightarrow Dublin$
- 4 --> Manchester-Liverpool
- 5 -> Brussels

London Is Europe's Top Performing Ecosystem

Source: Startup Genome, 2023





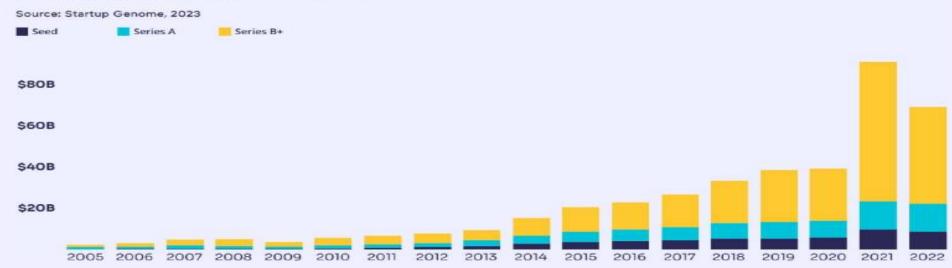
TOP FIVE ECOSYSTEMS BY VC FUNDING PER CAPITA

INNOVATIVE IRAN

- 1 -> London
- 2 --> Stockholm
- 3 -> Zurich
- 4 --- Munich
- 5 -> Dublin

VC Investment in Europe Decreased 24% Overall From 2021 to 2022

European VC Funding Amount (\$B) by Stage









Fintech Has Been the Driving Force Behind the Dutch Capital's Startup Ecosystem

Funding by Sector From January to June 2022

Source: Startup Genome, 2023



Amsterdam Is Above the European Average of Active Unicorns by Ecosystem









Netherlands

Amsterdam-Delta

\$14 Global Ranking #7 Cleantech Ranking #4 Blue Economy Ranking







Global Ecosystem in Funding Global Ecosystem in Performance Global Ecosystem in Talent & Experience

Top 15

Top 20

Top 20







ECOSYSTEM VALUE (H2 2020 - 2022)

\$82 bn

GLOBAL AVG. \$34.6 bn

TOTAL EARLY-STAGE FUNDING (H2 2020 - 2022)

\$3.9 bn

GLOBAL AVG. \$970 m

ECOS YSTEM VALUE GROWTH (H2 2020 - H2 2022 VS H2 2018 - H2 2020)

37%

GLOBAL AVG. 47%

NUMBER OF UNICORNS (H2 2020 - 2022)

MEDIAN SEED ROUND (H2 2020 - 2022)

\$765 k

GLOBAL AVG. 4

GLOBAL AVG. \$821 k

MEDIAN SERIES A ROUND (H2 2020 - 2022)

\$6.1 m

GLOBAL AVG. \$6 m

SOFT. ENGINEER SALARY (2022)

\$64 k

GLOBAL AVG. \$46 k

EARLY-STAGE FUNDING GROWTH (2019 - 20 VS. 2021 - 22)



Scale of 1 (lowest) to 10 (highest)

TOTAL VC FUNDING (2018 - 2022)

\$17 bn



TIME TO EXIT (2018 - 2022)

10.7 years

GLOBAL AVG. 9 years

EXIT AMOUNT (2018 - 2022)

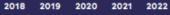
\$22 bn



GLOBAL AVG. 11.3 bn

EXIT COUNT (#) (2018 - 2022)















Fintech

More than 20% of startup jobs in the Amsterdam ecosystem are in Fintech, with 1,200 added in 2022. Canadian cross-border payments network Buckzy and U.S. banking startup Trovata are set to open offices in the area. Amsterdam placed #2 in the 10th Global Green Finance Index. The city also took second place in the 2022-23 fDi Intelligence Global Cities of the Future rankings. Fintech event Money 20/20 EUrope 2023 took place in June. Amsterdam FinTech Week (XFW) is set for September.



Life Sciences

The Netherlands is the top European importer and exporter of medical devices. The city has access to 95% of Europe's biggest consumer markets, with the Schiphol Airport housing a specialized pharma zone and the Port of Amsterdam biomass transhipment facilities. In 2022, Life Science Partners announced it had raised over €1 billion for its flagship fund, the largest Life Sciences VC fund raised in Europe to date. Cancer immunotherapies startup CimCure raised a €5 million seed round in June 2022. Lapsi Health raised a \$3.7 million seed round in January 2023.



Al, Big Data & Analytics

The Global Observatory for Urban Al places Amsterdam among the world leaders in developing ethical AI solutions, listing 17 initiatives based here, and two of the city's universities offer programs in Al. In January 2023, the Netherlands Organization for Scientific Research announced an additional €25 million in funding towards opening 17 new AI labs and supporting students in the field. The AI & Big Data Expo Europe 2023 is set for Amsterdam in September, and the World AI Summit 2023 will take place in October. Business intelligence and analytics firm Pyramid Analytics raised \$120 million in May 2022.







London

#2 Global Ranking #3 Agtech Ranking #3 Fintech Ranking







Global Ecosystem in Funding Global Ecosystem in Performance Global Ecosystem in Talent & Experience

#3

Top 5

#2







ECOS YSTEM VALUE (H2 2020 - 2022)

\$364 bn



GLOBAL AVG. \$34.6 bn

TOTAL EARLY-STAGE FUNDING (H2 2020 - 2022)

\$18 bn



GLOBAL AVG. \$970 m

ECOS YSTEM VALUE GROWTH (H2 2020 - H2 2022 VS H2 2018 - H2 2020)

47%

GLOBAL AVG. 47%

NUMBER OF UNICORNS (H2 2020 - 2022)



GLOBAL AVG. 4

MEDIAN SEED ROUND (H2 2020 - 2022)

\$889 k

GLOBAL AVG. \$821 k

MEDIAN SERIES A ROUND (H2 2020 - 2022)

\$8.5 m

GLOBAL AVG. \$6 m

SOFT. ENGINEER SALARY

\$65 k



GLOBAL AVG. \$46 k

EARLY-STAGE FUNDING GROWTH (2019 - 20 VS. 2021 - 22)



Scale of 1 (lowest) to 10 (highest)

TOTAL VC FUNDING (2018 - 2022)

\$102 bn



TIME TO EXIT (2018 - 2022)

10 years



GLOBAL AVG. 9 years

EXIT AMOUNT (2018 - 2022)

\$100 bn



GLOBAL AVG. 11.3 bn

EXIT COUNT (#) (2018 - 2022)

1529



GLOBAL AVG. 91 🔷











Cleantech

London has Europe's highest concentration of Cleantech startups, with 353 calling the capital home. In January 2022, London set a goal to become a zerocarbon city by 2030 and a zero-waste city by 2050. Cleantech London links companies with investors. Launched in June 2022, Kiko Ventures is a \$450 million platform to invest in the next generation of Cleantech innovators. Announced in February 2023, Cleantech for the UK is a collaboration of Cleantech investors and entrepreneurs supported by Bill Gates' Breakthrough Energy.



Fintech

London's Fintech firms raised a total of \$9.7 billion in 2022, more than any other city globally. In December 2022 EY announced the launch of its first Fintech lab in London. EY is also launching a Fintech growth program aimed at early-stage and growing businesses. Fintech Week London 2023 took place in June. Digital payment services provider Checkout.com raised a \$1 billion Series D in January 2022, more than doubling its valuation to ~\$40 billion. In June 2022 card reader company SumUp raised €590 million. In March 2023, consumer loans startup Abound raised over £500 million.



🙀 Al, Big Data & Analytics

As of 2022, London is home to 1,300 Al companies. The sub-sector has grown on average 48% year-onyear since 2016. UK GDP will be up to 10.3% higher in 2030 than 2022 as a result of AI, according to estimates by London & Partners. The UK's Spring Budget 2023 allocated £900 million for the establishment of an Al Research Resource and the creation of an "exascale" supercomputer. The budget also calls for a new AI sandbox.







France

Paris













European Ecosystem in Bang for Buck Global Ecosystem in Funding Global Ecosystem in Talent & Experience



Top 10

Top 10







ECOSYSTEM VALUE (H2 2020 - 2022)

\$138 bn



GLOBAL AVG. \$34.6 bn

TOTAL EARLY-STAGE FUNDING (H2 2020 - 2022)

\$6.9 bn



GLOBAL AVG. \$970 m

ECOSYSTEM VALUE GROWTH (H2 2020 - H2 2022 VS. H2 2018 - H2 2020)



NUMBER OF UNICORNS (H2 2020 - 2022)



GLOBAL AVG. 4

MEDIAN SEED ROUND (H2 2020 - 2022)

\$1.6 m



GLOBAL AVG. \$821 k

MEDIAN SERIES A ROUND (H2 2020 - 2022)

\$9.1 m



SOFT. ENGINEER SALARY (2022)



GLOBAL AVG. \$46 k

EARLY-STAGE FUNDING GROWTH (2019 - 20 VS. 2021 - 22)



Scale of 1 (lowest) to 10 (highest)

TOTAL VC FUNDING (2018 - 2022)

\$37 bn



TIME TO EXIT (2018 - 2022)

9.5 years



EXIT AMOUNT (2018 - 2022)

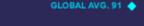
\$11 bn



GLOBAL AVG. 11.3 bn



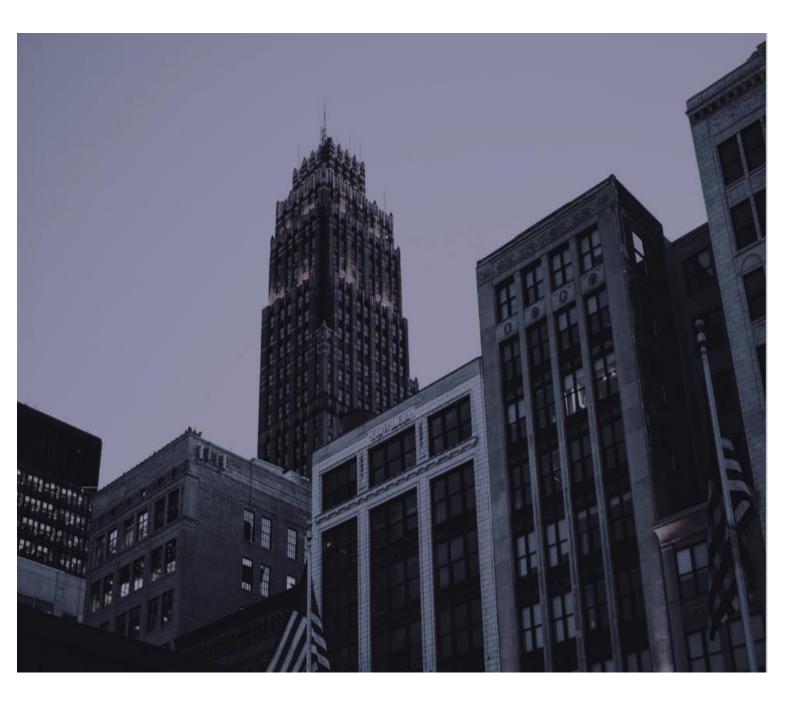
586











آمریکای شمالی North America







Regional Insights NORTH AMERICA

TOP FIVE ECOSYSTEMS

Silicon Valley

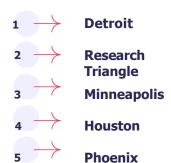
2 New York City

3 Los Angeles

4 Boston

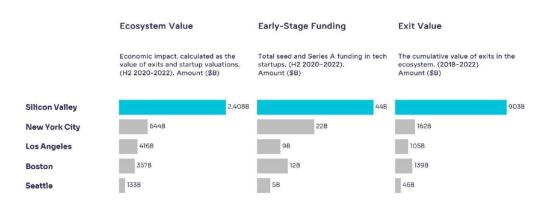
5 Seattle

TOP FIVE EMERGING ECOSYSTEMS



Silicon Valley Is North America's Top Performing Ecosystem

Source: Startup Genome, 2023





TOP FIVE ECOSYSTEMS BY VC FUNDING PER CAPITA

- 1 -> Silicon Valley
- 2 --- Boston
- 4 ------ Seattle
- 5 --- New York City

VC Investment in North America Decreased 37% From 2021 to 2022

North American VC Funding Amount (\$B) by Stage











United States

New York City



MEMBERS:

New York City Economic Development Corporation / Tech:NYC









ECOSYSTEM VALUE (H2 2020 - 2022)

\$647 bn

GLOBAL AVG. \$34.6 bn

TOTAL EARLY-STAGE FUNDING (H2 2020 - 2022)

\$22 bn

GLOBAL AVG. \$970 m

ECOSYSTEM VALUE GROWTH (H2 2020 - H2 2022 VS. H2 2018 - H2 2020)

50%



NUMBER OF UNICORNS (H2 2020 - 2022)

98



GLOBAL AVG. 4

MEDIAN SEED ROUND (H2 2020 - 2022)

\$1.5 m

GLOBAL AVG. \$821 k

MEDIAN SERIES A ROUND (H2 2020 - 2022)

\$10 m

GLOBAL AVG. \$6 m

SOFT. ENGINEER SALARY (2022)

\$104 k

GLOBAL AVG. \$46 k

EARLY-STAGE FUNDING GROWTH (2019 - 20 VS. 2021 - 22)



Scale of 1 (lowest) to 10 (highest)

TOTAL VC FUNDING (2018 - 2022)

\$138 bn

GLOBAL AVG. \$6.6 bn

TIME TO EXIT (2018 - 2022)

9.1 years



GLOBAL AVG. 9 years

EXIT AMOUNT (2018 - 2022)

\$162 bn



EXIT COUNT (#) (2018 - 2022)

1558

GLOBAL AVG. 91



2019

2020











Al, Big Data & Analytics

In 2022, generative AI companies in New York raised a whopping \$483.6 million over 28 funding rounds. Alphasense, an Al-powered market intelligence search engine, reached unicorn status with \$100 million in additional Series D funding in April 2023. Canoe, makers of an Al-powered solution that captures data from documents for institutional investors, raised a \$25 million Series B in February 2023. Massive Bio, which uses AI to match cancer patients to clinical trials, made the New York City Digital Health 100 for the second consecutive year.



Life Sciences

New York sits in the middle of a corridor of Life Sciences innovation stretching from Boston to Raleigh-Durham. The metro area is home to nearly 5,100 Life Sciences companies, has received the most National Institute of Health funding in the U.S., and raised \$3.1 billion in VC deals in 2021. New York ranked #2 in the best states for Life Sciences incentive programs in CBRE's 2023 U.S. Life Sciences Outlook. Ten early-stage Life Sciences incubators have been launched across the five boroughs.



Cleantech

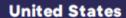
NYC announced two startup programs as part of its sustainability focused PlaNYC agenda: one to help early-stage companies incubate solutions for urban environments and another to attract international companies. Governors Island is being transformed into a \$700 million "living laboratory" for climate solutions, and a \$20 million biotech hub will open for startups using sustainability focused biotechnology. In 2022, Fifth Wall closed a \$500 million commitment for its inaugural climate fund and Union Square Ventures announced a \$200 million fund dedicated to investments in startups mitigating or adapting to climate change.











Silicon Valley

#1 Global Ranking #1 Agtech Ranking #1 Fintech Ranking











Global Ecosystem in Funding

Global Ecosystem in Performance

Global Ecosystem in **Talent & Experience**















ECOSYSTEM VALUE (H2 2020 - 2022)

\$2400 bn

GLOBAL AVG. \$34.6 bn

TOTAL EARLY-STAGE FUNDING (H2 2020 - 2022)

\$44 bn

GLOBAL AVG. \$970 m

ECOS YSTEM VALUE GROWTH (H2 2020 - H2 2022 VS H2 2018 - H2 2020)

28%



GLOBAL AVG. 47%

NUMBER OF UNICORNS (H2 2020 - 2022)

251



•

GLOBAL AVG. 4

MEDIAN SEED ROUND (H2 2020 - 2022)

\$2.1 m



GLOBAL AVG. \$821 k

MEDIAN SERIES A ROUND (H2 2020 - 2022)

\$14 m



SOFT. ENGINEER SALARY

\$125 k



GLOBAL AVG. \$46 k

EARLY-STAGE FUNDING GROWTH (2019 - 20 VS. 2021 - 22)



Scale of 1 (lowest) to 10 (highest)

TOTAL VC FUNDING (2018 - 2022)

\$344 bn



TIME TO EXIT (2018 - 2022)

7.9 years



EXIT AMOUNT (2018 - 2022)

\$903 bn



GLOBAL AVG. 11.3 bn

EXIT COUNT (#) (2018 - 2022)

2238



GLOBAL AVG. 91 🔷











Life Sciences

Silicon Valley's highly educated workforce and proximity to leading research institutions has made it one of the top Life Sciences clusters in the world. South San Francisco boasts more than 250 biotech companies, accounting for about 30% of the city's jobs. The Precision Medicine World Conference took place in January 2023. BIOMEDevice Silicon Valley is scheduled for November 2023. DNA-sequencing startup Ultima Genomics raised \$600 million in May 2022. Endpoint Health closed \$52 million in equity and debt financing in June 2022.



Fintech

The birthplace of many world-famous Fintechs, including PayPal, Stripe, and Bill, Silicon Valley is now nurturing another generation of Fintech innovators. Step, a financial platform aimed at teens and young adults, has raised a total of \$500 million. Insurance payments platform Ascend raised a \$30 million Series A in January 2022. Credit card platform Deserve announced a new \$250 million credit facility in May 2022.



Al, Big Data & Analytics

OpenAl is undoubtedly Silicon Valley's most visible Al success story in recent months. It launched an early demo of ChatGPT in November 2022 and amassed over 1 million users in five days. Since then, Microsoft invested \$10 billion in OpenAI, gaining a 46% stake in the company, and ChatGPT has attracted an estimated 96 million users per month. The world's leading AI and Big Data event, AI & Big Data Expo 2023 took place in Silicon Valley in May.

