Boosting startups: *Evidence from the EBRD Star Venture programme*

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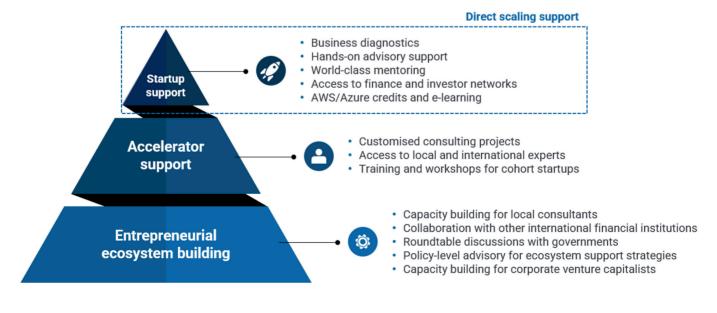
Structured technical assistance and training programmes seek to identify highpotential startups and to support their growth through funding and capacity building. There is limited evidence on the effectiveness of these programmes in developing countries and emerging markets, particularly with regard to the mentoring and entrepreneurship training they offer. This Impact Brief presents a rigorous analysis of the EBRD's Star Venture programme, which supports early-stage startups in a variety of industries with bespoke advisory services, training, mentorship and access to networks of investors. It shows that even short-term technical assistance can have a significant positive impact on high-potential startups.

The role of technical assistance programmes

Startups with high growth potential play an important role in sustaining and developing market economies because of their propensity for innovation and rapid scaling up, creating jobs and generating revenues along the way. Entrepreneurs who establish such firms tend to be highly skilled and driven. Consequently, they often require less training in fundamental business skills or developing an entrepreneurial mindset. Rather, they need more specialised support in refining their business model and strategically positioning their company to attract external investment. Academic studies underscore that not just financing, but also entrepreneurial knowhow, management skills and access to markets are key preconditions for firms to scale up successfully (González-Uribe and Leatherbee, 2018; McKenzie et al., 2023).

Against this backdrop, Chart 1 illustrates how the EBRD Star Venture programme aims to support promising startups with tailored advisory services for improving firms' productmarket fit, product discovery, competitor analysis, business modelling and access to risk capital. This specialised assistance is designed to help companies refine their business model and better position themselves to attract external financing from investors.

Chart 1. Star Venture provides three complementary components of support with different instruments tailored to their target audiences



The Star Venture programme

The EBRD Star Venture programme is a tailored technical assistance programme that supports high-potential startups by providing essential business know-how, mentorship and access to risk capital. The Star Venture team also collaborates closely with local accelerators, governments, corporations and other impact investors to:

- grow the local startup ecosystem
- enhance the entrepreneurial skills of startup owners
- support selected startup owners in realising their growth plans.

To qualify for the direct support programme, startups must have an active, potentially marketable product or service, demonstrate strong potential to scale up revenues and profits, and be less than 10 years old. Startups are recruited through public calls for applications, following which EBRD staff and contracted consultants short-list those that might be admitted to a given cohort based on available funding and implementation capacity. Shortlisted startups are invited to pitch to a group of three to six judges, which include local business and venture-capital experts. The judges then independently score startups on six dimensions.¹ These scores are used to rank the startups, and the top-ranking start-ups are offered the opportunity to participate in Star Venture.

Once selected for the programme, startups gain access to a network of mentors, investors, corporate partners, advisers and tools to grow their ventures, including:

- Business diagnostics: Online business diagnostics workshops in partnership with the University of Cambridge to help startups understand growth challenges and identify advisory support.
- Business advisory: Customised advisory services provided by local and international consultants in diverse business areas, such as sales, marketing, organisation, operations and finance.
- Mentoring: A network of more than 1,500 mentors and a dedicated online mentorship platform.
- Access to finance: Investor pitch events, demo days, fundraising advice, introductions to investors and crowdfunding support.
- Access to markets: Support to attend international conferences or meet potential business partners overseas.
- Cloud credits and e-learning: Access to free cloudcomputing services and entrepreneurial content in partnership with Amazon, Microsoft and Coursera.

The 18-month programme begins with business diagnostics, a five-day intensive business training workshop delivered by the University of Cambridge's Institute for Manufacturing. These "Strategic Compass" workshops aim to help entrepreneurs identify priority areas for scaling up, improving operational efficiency and assessing market opportunities. Further support is provided via mentorship and business advisory services. Over the last four years, Star Venture has directly supported more than 250 tech startups and 33 local accelerators in 26 countries with a budget of €25.7 million raised from 12 donors.

Table 1. Star Venture expansion over time

Year	Countries	Amount of donor funding	No. of high- potential startups supported directly	No. of partner accelerators
2019	3	€3.5 million	21	4
2020	9	€5.0 million	61	13
2021	11	€11.1 million	107	21
2022	22	€16.7 million	168	23
2023	26	€25.7 million	257	33

Methodology

To estimate the causal impact of the Star Venture programme, this Impact Brief compares the performance of the startups participating in the programme with the performance of a similar set of non-participating startups. To this end, additional data were collected on startups that applied to participate in Star Venture and were short-listed but not selected for the programme. The main analysis uses a quasi-experimental method called regression discontinuity design, which allows for the separation of treatment and selection effects. The analysis restricts the comparison to startups close to their cohort-specific cut-off in selection. The cut-off is defined by the capacity limit in each cohort (for example, if eight startups were admitted in a particular cohort, the cut-off for selection is rank number eight in the aggregated judges' scores/rankings).

This analysis rests on the assumption that close to the cutoff, selection into the programme is "as good as random". In other words, startups that just missed out on making it into the programme are assumed to be like startups that just made it into the programme. This allows for a credible estimate of what would have happened to selected startups had they not been selected (the counterfactual).

While the selection process is not strictly determined by the cut-off point, as judges occasionally altered score-based selection decisions, Chart 2 demonstrates a noticeable shift in the likelihood of being selected based on a startup's rank relative to the cut-off.

EBRD IMPACT BRIEF 10 EVIDENCE FROM THE EBRD STAR VENTURE PROGRAMME

¹ These dimensions are minimum viable product (up to 20 points), degree of innovation and market competitiveness (up to 10 points), scalability of technology (up to 20 points), market opportunity (up to 20 points), ability to raise funds (up to 10 points) and commitment to the programme (up to 10 points), resulting in a maximum number of attainable points of 100.

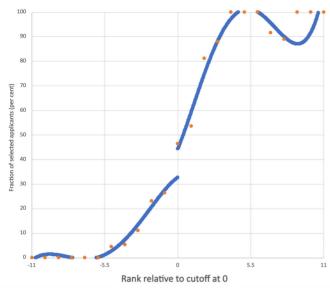


Chart 2. Fraction of applicants selected into the Star Venture

Note: This figure shows the average fraction of selected applicants across the relative ranking to the selection cutoff normalised at 0. Each circle represents a group of about 14 startups. The blue lines show a polynomial fit for the relationship. Selection is not strict, but fuzzy, as judges sometimes deviated from the ranking based on aggregated judges' scores for the final selection decision.

Study sample and data

The analysis uses data from 327 short-listed startups in 23 cohorts in 11 countries/regions.² Of these short-listed startups, 155 were selected to participate in Star Venture, while 172 were short-listed but eventually rejected. The cohorts started the programme between 2019 and 2022. In addition to these "regular" cohorts, the analysis includes two cohorts from the Green Star Venture programme and the Startup Innovation Challenge. ³

We use application files to collect data on startups' characteristics and performance prior to participating in the programme. These data are useful for understanding how the sample differs from startups in the rest of the economy and for checking for pre-existing differences between selected and non-selected startups. Data are also collected from Dealroom.com, a data provider focused on startups and tech ecosystems, as well as business network LinkedIn.⁴

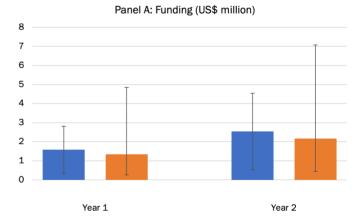
The median startup in our sample had nine employees at the time of application, US\$ 60,000 in sales in the year preceding the application and US\$ 62,500 in paid-in capital.

At the beginning of the calendar year in which it applied for the Star Venture programme, the median startup was 32 months old (that is, operational for just under three years). Eighty-one per cent of startups were registered as a limited liability company, 21 per cent had a female chief executive officer and 52 per cent were focused on technology-based products and/or services.

The impact of the Star Venture programme on participating startups

To assess whether the programme significantly affected startups by boosting employment, funding and market reach, we report outcomes for funding and employment one and two years after joining the Star Venture programme. We also provide statistics on followers on LinkedIn.⁴ These outcomes capture meaningful dimensions of business success. In particular, securing funding - such as the multi-milliondollar investments raised by Star Venture participants Trella, POSRocket and Filkhedma - showcase investor confidence and startup scalability. An increase in employment indicates business growth. An increase in the number of LinkedIn followers proxies enhanced market access and brand visibility, potentially attracting both consumers and employees. These factors collectively highlight the success and effectiveness of technical assistance for fostering startup growth and development.

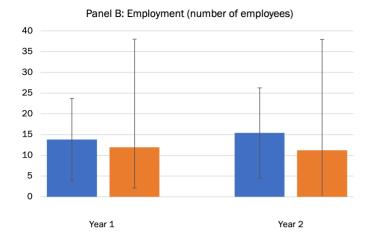
Chart 3. Estimated outcomes for funding, employment and online interest

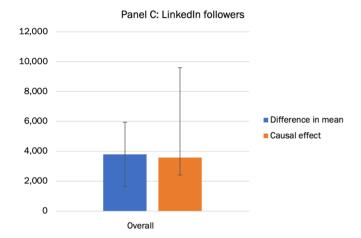


2 These are Bulgaria, Egypt, Greece, Jordan, Lebanon, Moldova, Morocco, Romania, Tunisia, Türkiye and the Western Balkans.

³ The Start-up Innovation Challenge was an online competition for high-potential startups in the EBRD regions that innovated their business model in response to the coronavirus. The Green Star Venture programme targeted innovative early-stage ventures with green technology and solutions.

⁴ Data on LinkedIn followers were collected in March 2024, but were not available for the time of application or the start of the programme for the startups in question. Due to this data constraint, reported results for this outcome are presented as averages over the years of programme exposure rather than as performance-based results for one and two years of programme exposure.





Note: These bar plots show estimates for simple differences in mean (blue) and estimates from a local randomisation regression discontinuity approach within an optimally chosen window of five ranks to the left and right of the relative cutoff for selection (orange). Error bars indicate confidence intervals at the 95 per cent level, calculated using ordinary least squares and local randomisation inference, respectively. Outcomes for funding and employment are measured one and two years after joining the Star Venture programme. LinkedIn followers were measured in March 2024 and represent outcomes at varying lengths of programme exposure.

Source: Data from Dealroom.com, Linkedin.com and application files.

A simple comparison of average outcomes for the two groups (the blue bars in Chart 3) suggests that startups that participated in the programme have on average (compared with similar rejected firms):

- US\$ 1.54 million more in total funding one year after the programme (US\$ 2.54 million after two years)
- 14 employees more one year after the programme (15 more after two years)

• 3,787 more LinkedIn followers than non-selected startups.

While these results are consistent with a strong programme impact, it is important to emphasise that this comparison does not yet provide a causal estimate. Selected startups differed from non-selected startups in meaningful ways even before the start of the programme, reflecting the good judgement of those overseeing the pitching competitions. Therefore, the difference in outcomes following programme participation captures both the "selection effect" of the judges' ability to identify promising startups and the "treatment effect" of the Star Venture programme itself. The local randomisation regression discontinuity approach selects an optimal "corridor" around the cutoff, within which units are comparable and treated as if they were randomly assigned to treatment and control.

Comparing the outcomes of startups above and below the cut-off within this optimal window, the startups that made it into the programme have on average:

- US\$ 1.34 million (US\$ 2.17 million) more in total funding after one year (two years)
- 12 (11) more employees after one year (two years)
- 3,577 more LinkedIn followers than non-selected startups.

These findings suggest that the Star Venture programme has indeed been successful in boosting employment and access to financing. They suggest that the impacts are durable, as the differences persist through the second year and indicate that the bulk of the effect can be attributed to the programme treatment effect rather than a selection effect.

Impact channels

To get a sense of the mechanisms through which the Star Venture programme improved business outcomes, a survey was conducted of startups' perceptions of the Strategic Compass workshops, business advisory projects and mentorship programme.

Strategic Compass workshops

Thirty-seven per cent of selected startups responded to non-mandatory questions on Strategic Compass workshops. Respondents overwhelmingly agreed the workshops helped them:

- develop a clear business goal (93 per cent)
- identify and select strategic opportunities (89 per cent)
- create a vision and action plan (89 per cent)
- build consensus on business priorities (85 per cent)
- foster collaborative relationships (73 per cent).

Most found the workshops helpful in building management

expertise (61 per cent), selecting EBRD services (54 per cent) and raising revenues (48 per cent). However, fewer found them useful for raising investment (18 per cent) or increasing employment (26 per cent).

EBRD advisory projects

Following the business diagnostics, the selected startups could take part in customised projects for business development, supported by local and international experts. Twenty-seven per cent of startups responded to questions on EBRD advisory projects. Most (76 per cent) agreed they improved market performance, with 72 per cent highlighting management effectiveness. Smaller shares found them helpful in financial management (60 per cent), cost reduction (54 per cent) and quality certification (44 per cent). Only 26 per cent found them helpful on environmental management.

EBRD mentorship programme

Twenty-seven per cent of startups responded on the mentorship programme. They found it most helpful in business development (58 per cent) and sales (55 per cent), with smaller benefits for product development (50 per cent) and fundraising (48 per cent). Fewer respondents cited benefits in digitalisation (33 per cent), environmental, social and governance (ESG - 18 per cent) and human resources (12 per cent).

Conclusion

Governments and aid agencies spend more than US\$1 billion annually on entrepreneurship support programmes. This Impact Brief provides the first cross-country evidence of how effective technical assistance for startups can be. The analysis of the Star Venture programme points to a strong causal impact from tailored technical assistance, which combines training with mentorship and customised business advisory services. Feedback from participants in the Star Venture programme suggests that developing near-term ambitions for startups and helping them identify the right strategic opportunities are the most effective tools. Participating startups tend to place the most value on advisory support that helps improve market performance and introduces mentors for business development. These findings can help inform the design of business accelerators and incubators more broadly.



Suggestions for further reading

C. Bircan, T. Deisemann and L. Kitzmüller (forthcoming), *Reaching for the stars? Cross-country evidence from a business competition*, London, EBRD.

J. González-Uribe and M. Leatherbee (2018), The effects of business accelerators on venture performance: Evidence from start-up Chile, *Review of Financial Studies*, 31(4): 1566-1603. Available at: <u>https://www.jstor.org/stable/48616687</u>.

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CONTRIBUTORS

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