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Entrepreneurship in Focus

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What distinguishes academic spinoffs from other startups in Germany?

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Summary

The Global Entrepreneurship Monitor (GEM) shows, among other findings, that academic spin-offs in Germany are predominantly launched by younger entrepreneurs, pursue more purpose-driven motives and plan patent applications more frequently than non-academic start-ups. The findings highlight the importance of well-developed start-up and transfer infrastructure at higher education institutions.

Academic spin-offs transform scientific knowledge into market-oriented applications and thus make a substantial contribution to technological development and economic dynamism in Germany. Since 2025, spin-offs have been included in the representative population survey conducted as part of the Global Entrepreneurship Monitor (GEM). This enables a comprehensive comparison between academic and non-academic entrepreneurs. In the GEM study, entrepreneurs are defined as individuals who have established a business within the past three and a half years or are currently in the process of starting one. They constitute the Total Early-Stage Entrepreneurial Activity (TEA) indicator and are referred to as TEA entrepreneurs. Academic spin-off entrepreneurs are defined as TEA entrepreneurs who agree that their business was established or planned directly out of a research institution or higher education institution with the aim of commercializing at least some of the knowledge generated within these institutions. Within the GEM framework, academic spin-offs therefore include both conventional university spin-offs based on specific research findings or technological developments and businesses founded by individuals who have used, or continue to use, the university as an environment for acquiring skills, finding inspiration, or building networks. In the following, these individuals are referred to as TEA spin-off entrepreneurs (n = 73) and are compared with the remaining group of TEA entrepreneurs, excluding TEA spin-off entrepreneurs (n = 260). To assess the statistical significance of differences between the groups, t-tests were used for metrically scaled variables and chi-square tests for categorical variables, depending on the level of measurement of the dependent variable. Unless otherwise indicated, all differences discussed below are statistically significant at the 5% level.

Personal characteristics

The average age of TEA spin-off entrepreneurs is just under 30, making this group significantly younger than other TEA entrepreneurs, whose average age is approximately 36. There are no statistically significant differences in gender distribution: men account for just under 60% of both groups. Among both TEA entrepreneurs (75%) and TEA spin-off entrepreneurs (65%), the majority have prepared their business ventures but have not yet launched them; this difference is not statistically significant.

Start-up motives

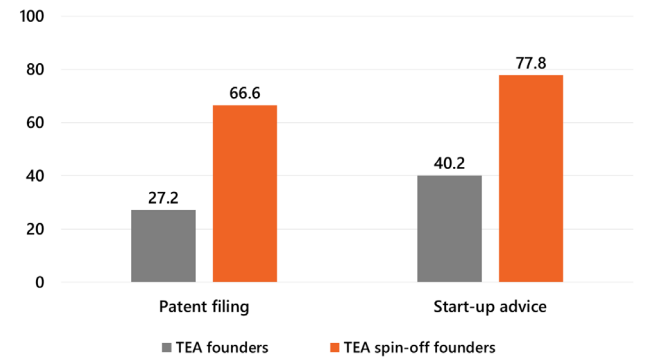
With regard to motivations for starting a business, significant differences between the two comparison groups emerge in two respects. The majority of TEA spin-off entrepreneurs (62.2%) agree that they want to change the world through their new venture, compared with only 42.5% of other TEA entrepreneurs. TEA spin-off entrepreneurs are also significantly more likely to continue a family tradition (50% vs. 30.2%). Entrepreneurial role models within the family and the transmission of economic knowledge in entrepreneurial families can have a substantial influence on career decisions. Among TEA spin-off entrepreneurs, 61% have at least one parent who is or has been entrepreneurially active. Among other TEA entrepreneurs, this proportion is considerably lower, at 32%. However, no significant differences are evident for the following two motivations. Both groups frequently start a business to earn a living because jobs are scarce (68.7% and 57%; difference not statistically significant). In addition, the majority of both groups aim to achieve a high income and accumulate wealth (over 60%; difference not statistically significant).

Start-up advice and patent applications

The GEM findings show that TEA spin-off entrepreneurs (78%) are significantly more likely than other TEA entrepreneurs (40%) to report having already used business advisory services. One key reason is likely that individuals with concrete plans to establish a spin-off have direct access to entrepreneurship centers at universities and other higher education institutions. Moreover, academic spin-offs can receive support from the EXIST program during the early stages of venture creation. By contrast, founders of ventures such as

spin-outs from established companies do not have access to comparable funding programs during the early stages (see Bünstorf et al., 2025). Potential entrepreneurs outside these structures must first identify suitable advisory and support services themselves, making it more difficult to access the relevant assistance. In addition, almost 67% of TEA spin-off entrepreneurs plan to file patent applications within the next two years, compared with only 27% of other TEA entrepreneurs. Further studies confirm that academic spin-offs in Germany engage in patenting activity significantly more frequently than the overall population of start-ups (see OECD, 2022).

Use of start-up advice and planned patent applications by TEA founders and TEA spin-off founders, 2025



Source: GEM Adult Population Survey 2025

Implications for practice

The findings of the Global Entrepreneurship Monitor reveal clear, statistically significant differences between TEA spin-off entrepreneurs and other TEA entrepreneurs. However, it is important to bear in mind that this is a comparison between groups: it identifies associations but cannot establish causality. The underlying reasons why spin-off entrepreneurs exhibit different motivations for starting a business, for example, should therefore be examined in future research. The group comparison shows that TEA spin-off entrepreneurs are relatively young and that a large proportion are still in the venture creation stage. Researchers should therefore be provided with sufficient time and financial resources from the early stages of venture development. Relevant measures include start-up fellowships, teaching-release semesters, and university-based start-up and technology-transfer funds. Academic ventures also require support after their establishment, particularly in accessing markets, expanding internationally, and raising venture capital. It is also notable that TEA spin-off entrepreneurs are often driven by purpose and impact. Many seek to “change the world” through their new ventures. Funding programs should therefore focus not only on commercial success but also on societal impact and sustainability.

Finally, the findings show that TEA spin-off entrepreneurs frequently plan to file patent applications and often make use of start-up support services. It would therefore be beneficial to expand the entrepreneurship infrastructure at higher education institutions. In particular, technology transfer offices, patent advisory services, and access to laboratory, testing, and prototyping facilities should be strengthened. Because academic spin-offs are often based on research findings, patenting and licensing procedures should be simplified and administrative barriers reduced. At the same time, transparent and legally secure access to intellectual property must be ensured.

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