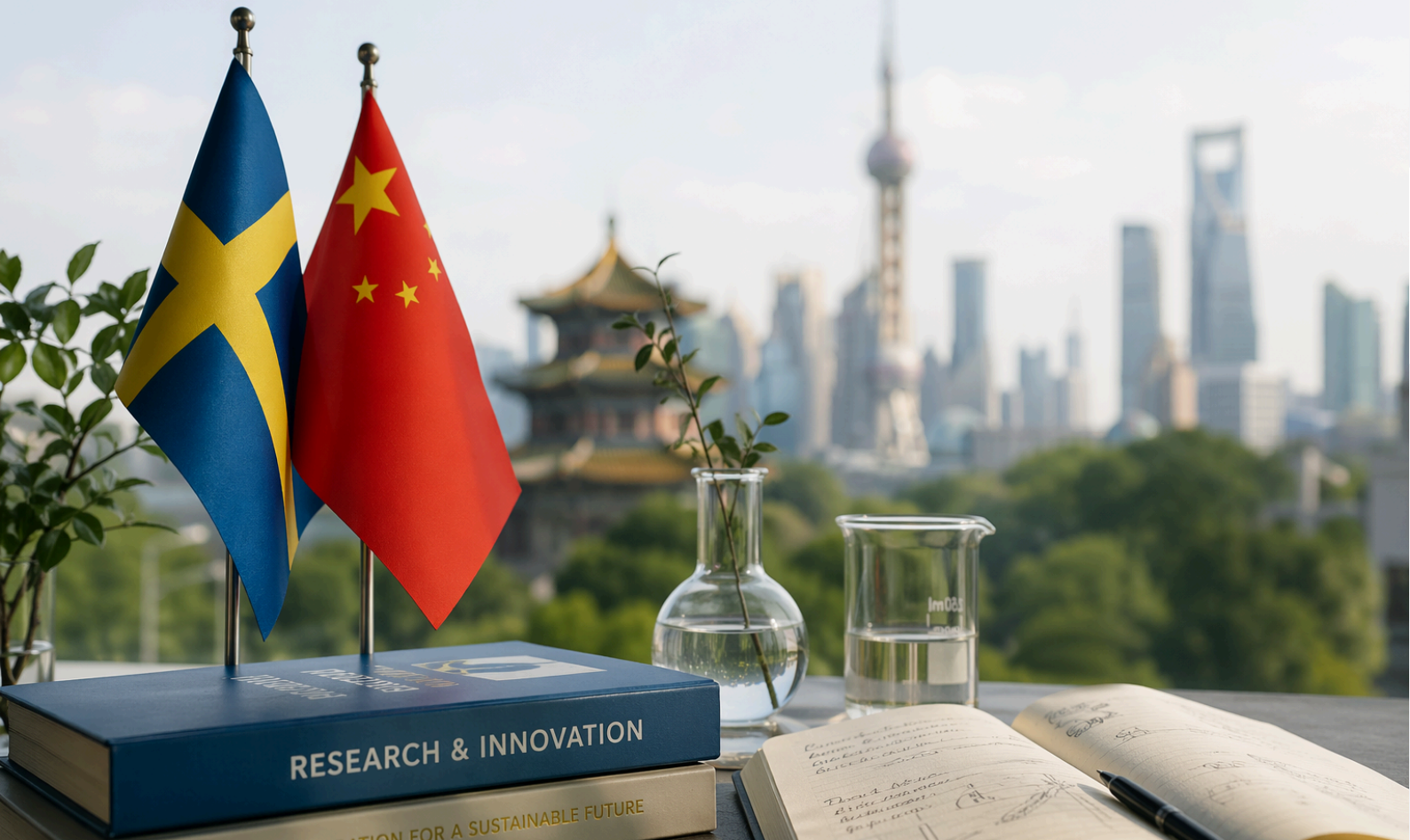


RESEARCH- AND INNOVATION-INTENSIVE SWEDISH COMPANIES IN CHINA

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CURRENT STATUS AND PERSPECTIVES ON THE WAY FORWARD



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(Commissioned by Intsam)

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Foreword from Intsam¹

Sweden's engagement in international research and innovation is shaped by a rapidly changing global landscape, marked by geopolitical shifts, accelerating technological development, and intensifying competition. China remains one of the most significant arenas in this context - both as a major market and as an increasingly important environment for innovation, product development, and industrial scaling for many Swedish companies.

Intsam, the Swedish Research and Innovation Funding Agencies Coordination Platform, welcomes this report by the Swedish Chamber of Commerce in China (SwedCham China). The report provides up-to-date insights into how Swedish companies active in China assess current opportunities and challenges, with a particular focus on innovation-to-market dynamics and the relationship between company needs and available support instruments within Sweden's research and innovation ecosystem.

We would like to express our appreciation to SwedCham China for conducting this study and for its important role in capturing the perspectives of Swedish companies operating in the Chinese market. We would also like to thank the participating companies for sharing their experiences and assessments.

We hope this report will serve as a useful foundation for further evidence-based discussions and coordinated efforts across Sweden's national research and innovation ecosystem.

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¹ This report has been produced by SwedCham. The analysis, methodology, and conclusions reflect SwedCham's independent observations and assessments. Intsam and its member agencies, including Vinnova, have not been involved in the selection of respondents, the interview process, or the editorial work, and do not assume responsibility for the report's findings or conclusions.

Executive Summary

Against the backdrop of a rapidly changing geopolitical and geoeconomic landscape, Swedish companies operating in China are reassessing how to safeguard long-term competitiveness in one of the world's most consequential and demanding markets. China's growing capabilities in research, innovation, industrial scaling, and frontier technologies are reshaping global innovation dynamics, creating both new opportunities and increasing pressures for Swedish multinational companies - particularly those whose competitiveness depends on deep market integration and local innovation capacity. This report analyses the current positioning of research- and innovation-intensive Swedish companies in China, the challenges they encounter, and the types of support required from Sweden's national research and innovation ecosystem going forward.

The report is based on targeted interviews conducted by the Swedish Chamber of Commerce in China with nine Swedish companies operating across transportation, life sciences, supply chains, manufacturing, and technical solutions during September 2025. The interviews examined companies' strategic roles in China, their engagement with local innovation ecosystems, experienced challenges, and perceived support needs related to sustainability-driven innovation and business development.

The findings indicate that Swedish research- and innovation-intensive companies increasingly regard China not only as a key market, but as a strategic node for innovation, product development, and long-term competitiveness. Deeper integration with China's innovation ecosystem is becoming structurally important for companies operating in fast-moving, technology-intensive sectors. At the same time, companies face increasing complexity related to geopolitics, regulatory and trade compliance, intellectual property protection, and internal coordination with European headquarters.

Key Findings:

- China has evolved into a strategic innovation market, not solely a sales or production base.
- Swedish companies are shifting from localisation towards "local-for-local" innovation models.
- China's comparative strengths lie in speed, rapid prototyping, scaling, and execution.
- Sweden's and Europe's strengths remain in early-stage innovation, quality, and sustainability.
- Companies emphasise the strategic importance of Sweden–China collaboration based on complementary capabilities.
- Active participation in local innovation ecosystems strengthens competitiveness and responsiveness.

- Key challenges relate to geopolitics, trade compliance, supply-chain risks, and IP/data governance.
- Companies highlight the need for enhanced Swedish support in R&I partnerships, funding access, policy dialogue, and regulatory and IP frameworks.

Background and Rationale

Over the past decades, the Swedish business sector has made long-term investments and demonstrated strong commitment, positioning itself as a frontrunner in the sustainability transition in the Chinese market. Today, the rapidly evolving geopolitical and geoeconomic landscape, alongside China's emergence as a global leader in research and innovation capacity, presents both challenges and opportunities for the Swedish companies operating in China. This is particularly important for those Swedish companies, whose competitiveness depends on deep market integration and the ability to leverage China's innovation ecosystem, both locally and within a broader global context.

Amid rising competitive pressures and shifting requirements for long-term strategic positioning, many Swedish companies in China are reaching a pivotal moment. Strengthening research and innovation capabilities has become a key consideration, supported by increased investment and the development of new operational and collaborative models on the ground. This trend is reflected in the key findings from the Business Climate Survey for Swedish Companies in Mainland China (June 2025), which highlight several insights relevant from an "innovation-to-business" perspective (See Annex for more details):

- A majority of surveyed companies conduct R&D activities in China across multiple stages of the innovation value chain.
- Innovation and product/service differentiation have become top investment priorities, second only to efficiency improvements and enhanced service offerings.
- Large Swedish companies are accelerating localisation efforts in both supply chain and Research & Development (R&D) functions.
- More Swedish firms have established R&D operations in China in 2025 compared with previous years.

The performance of these research- and innovation-driven firms in one of the world's most competitive markets is directly linked to Sweden's overall global competitiveness and attractiveness. From a policy standpoint, their development requires stronger and more efficient connections to Sweden's national and regional research and innovation ecosystems.

Methodology

To deepen the understanding of the operational activities and strategic positioning of Swedish companies in China, particularly in relation to research and innovation, the Swedish Chamber of Commerce in China was tasked with identifying key operational issues and policy questions for future strategic dialogue between Swedish companies and national research and innovation agencies. The aim is, with close dialogue and joint efforts, to strengthen Sweden's global competitiveness and contribute to the future Sino-Swedish bilateral relations.

As part of this work, the Swedish Chamber of Commerce in China conducted targeted interviews with core member companies across five key sectors: transportation, life science, supply chain, manufacturing, and technical solutions. In total, nine Swedish companies participated in the study during September 2025.

The interviews focused on four dimensions of sustainability-driven innovation-to-market activities:

1. Strategic positioning and key drivers
2. Engagement with local innovation ecosystems in China
3. Success stories
4. Experienced challenges
5. Support needs from the Swedish research and innovation ecosystem

These insights form the basis of the analysis presented in this report.

Key Findings

I. Strategic Positioning and Key Drivers

Companies were asked to reflect on the development of China's research and innovation landscape and to describe the internal and external factors influencing their innovation-related investments in China.

Internally, several elements were highlighted as particularly important. The interviewed companies emphasised the need to ensure alignment with their global strategies and long-term growth ambitions, while also adopting a customer-centric approach that adapts global offerings to local market needs. Building strong local talent and capabilities was seen as essential for sustaining innovation activities, as was safeguarding investments through rigorous compliance practices and strengthened IP protection.

Externally, companies pointed to China's large market size and continued economic growth as central drivers of investment. For interviewed firms, particularly those in manufacturing, China represents one of their largest global markets. This makes a strong innovation and production presence in China strategically essential, not merely optional. Government support and targeted policies in strategic sectors, such as artificial intelligence, electric vehicles, semiconductors, and green energy, further encourage companies to expand their R&D presence. China's high speed and efficiency in prototyping, iteration, and scaling were repeatedly cited as distinct advantages, while the intensity of competition from local competitors was described as a force that continually pushes firms to accelerate product development and adapt to rapidly changing market conditions. This competition in China was repeatedly described as a powerful motivator for continuous improvement. Local companies are no longer seen merely as fast followers; in several sectors they now compete directly on technology, quality, and speed. This competitive pressure pushes foreign companies to accelerate product development cycles and deepen their innovation activities in China.

All participating companies agreed that Europe need to deepen its collaboration with China in research and innovation. They emphasised complementary strengths: Europe's leadership in sustainability, early-stage creation, and long-term development, combined with China's ability to scale, commercialise, and speed. For the interviewed companies, early-stage innovation is initiated in Europe, while development, manufacturing, and large-scale implementation are carried out in China. As one respondent noted, Europe often takes the critical step from "0 to 1," whereas China advances innovations from "1 to 100." This dynamic makes the collaboration not only advantageous, but necessary.

Interviewees repeatedly highlighted contrasts between European and Chinese innovation cultures. Europe was associated with structured processes, long-term planning, high quality, and a strong sustainability orientation. China, by contrast, was described as fast-paced, iterative, and pragmatic - focusing on rapid prototyping, "good-enough" solutions. Quick failure, and equally rapid improvement. Similarly, the concept of "China speed" was mentioned in every interview. While it enables reduced costs, faster time-to-market, and increased competitiveness, it can also challenge quality assurance processes. Many companies stressed the need to find the right balance between speed and long-term validation. There is a clear potential in combining Swedish innovation strengths with China's speed and execution capabilities.

Interviewees frequently remarked that innovation processes in China differ substantially from European norms. Rather than following a clear, structured sequence, innovation in China can emerge at any stage of research, design, or production. This creates a more complex but also more dynamic and engaging environment, often involving multiple stakeholders simultaneously. Compared to

Sweden or the EU, where innovation follows more linear processes and relies on market-driven adjustments, China's government takes a far more active role in shaping innovation priorities, industries, and sectors. This raised broader reflections among companies concerning the role of active innovation policy in shaping market outcomes. Such targeted government policies and large-scale infrastructure investments also act as support in narrowing the gap that is clearly observed in regards to China's uneven economic development. Coastal regions are highly advanced, while central and western provinces continue to lag behind. This will hopefully create new opportunities for expansion and collaboration.

On the topic of sustainability, knowledge and inspiration often flow from global headquarters to China, reflecting Sweden's strong leadership and values in this field. At the same time, several companies noted that China is also viewed as an emerging centre to the future of sustainability and development. Stemming from their research intensity and rapidly evolving sustainability landscape, which align with global ambitions. In digitalisation, China continues to serve as a pioneer and an important testing ground for new concepts and new solutions.

The interviewed companies stressed that Europe need to continue to engage with China, particularly in frontier technologies requiring significant investment and broad real-world application. They noted that while risks indeed exist, a zero-risk approach is neither realistic nor conducive to competitiveness. Instead, informed, calibrated risk-taking is needed to protect core interests while enabling innovation and market development. Several companies also observed a growing trend toward China-for-global strategies among Chinese firms. As more Chinese companies expand internationally, they increasingly turn to international companies already established in China for support - creating opportunities for Swedish companies to jointly develop and deliver global solutions.

II. Engagement with Local Innovation Ecosystems

China's innovation ecosystem has expanded significantly in recent years, driven by a combination of targeted government incentives and the entrance of private enterprises as a major driving force behind national R&D investments. While many of these incentives are designed primarily for domestic companies, foreign enterprises, particularly those investing in research and development, can also benefit from selected policies and programs.

Companies noted a clear evolution in their China strategies over the past two decades. During the early 2000s, efforts focused primarily on localising European technologies for the Chinese market. Over time, this approach reached its limits as domestic competitors began designing products tailored more precisely to local needs and outperforming traditional localisation models. This led to a shift toward "local-for-local" innovation: developing products directly in China for the Chinese market, often with

entirely new design concepts. In some cases, these locally developed solutions are later adapted for other global markets.

In the meanwhile, China's innovation culture has evolved from being siloed and prestige-driven to becoming more collaborative, application-oriented, and commercially focused. Swedish companies operating in China increasingly adopt an ecosystem-based approach, recognising the importance of linking academia, industry, and end-users to drive innovation with speed, relevance, and impact. This approach integrates suppliers, customers, government actors, universities, and other key stakeholders into a shared innovation environment.

When identifying collaboration partners, Swedish companies consider both hard capabilities - such as scientific expertise, research infrastructure, and publication output, and soft capabilities, including institutional frameworks for contracts, intellectual property management, and mechanisms for industrial cooperation.

Most of the interviewed Swedish companies have established R&D centres or innovation hubs in China to facilitate direct engagement with the local ecosystem. Several emphasised that without a physical presence in China, companies risk losing competitiveness. As one respondent noted, "If you can make it in China, you can make it anywhere," highlighting China's intense competitive environment and its role as a benchmark and testing ground for new solutions.

The observed key characteristics of effective collaboration within China's innovation landscape include:

- Broad engagement across the ecosystem, where companies work with universities, hospitals, startups, and supply chain partners to accelerate knowledge exchange and co-creation.
- Active participation in forums, associations, and joint projects aimed at developing new technologies and products.
- Long-term continuity is reinforced through structured platforms such as research grants, exchange and fellowship programs, and strategic partnerships.
- The ability to combine China's strengths in rapid prototyping and fast execution with Europe's capabilities in long-term planning, validation, and quality assurance.
- China's role as a testbed, using the domestic market for piloting and refining innovations that may later be scaled globally.

III. Success Stories

Across the interviews, companies shared numerous concrete examples of how innovation activities in China have led to successful outcomes. A recurring theme was

the creation of dedicated collaboration platforms that bring together large enterprises, startups, artists, academic institutions, non-profit organisations, and local governments. These platforms provide structured environments for co-creation and experimentation, and several have expanded rapidly across multiple locations in China. Many interviewees described them as emerging best-practice models within the Swedish business community.

Firms also reported strong results from partnerships with local retail technology companies and direct engagement with Chinese consumers. By leveraging China's rapid prototyping and iterative development capabilities, companies were able to accelerate product refinement and improve market responsiveness. Additionally, the integration of digital platforms, used for customer interaction, data collection, and sustainability initiatives, has further strengthened their innovation processes.

Several companies emphasised the advantages of combining European technological expertise with China's highly capable and competitive supply-chain ecosystem. This combination has enabled faster development timelines, reduced costs, and more flexible manufacturing solutions. For many, decisions to base production in China were driven not only by the size of the domestic market but also by the increasing sophistication and reliability of local suppliers.

Structured internal innovation initiatives, such as "Science Days," "Innovation Days," and similar, were also highlighted as effective tools for fostering engagement with the local ecosystem and encouraging cross-functional collaboration.

Overall, nearly all interviewed companies reported having developed significant new products, processes, or solutions through Sweden–China innovation collaboration - demonstrating the concrete and lasting impact of these joint efforts.

IV. Experienced Challenges

The interviews reveal several key challenges affecting Swedish companies' innovation activities in China, many of which stem from the broader geopolitical landscape. Geopolitical tensions, tariffs, and restructuring within global supply chains have created uncertainty, making companies more cautious and potentially delaying investment decisions. Another frequently mentioned challenge is the disconnect between China operations and headquarters in Europe. Risk perceptions at the headquarter level are often overemphasised, which can slow down decision-making and innovation efforts in China. Several companies highlighted the need for more frequent visits, deeper dialogue, and stronger internal alignment, noting that understanding the Chinese market and innovation environment requires direct on-the-ground experience - something that has become increasingly limited in recent years.

In addition, new trade compliance requirements have disrupted established supply chains, adding operational complexity and increasing costs. Companies also noted that innovation in China is becoming increasingly capital-intensive, particularly in rapidly advancing sectors such as artificial intelligence and electric vehicles. While this enables fast growth, it can sometimes come at the expense of sustainability, an area where Swedish companies maintain high standards. Striking a balance between remaining competitive and upholding Swedish values of quality and sustainability remains an ongoing challenge.

Another barrier lies in collaboration between multinational companies and local universities or research institutions. While Swedish headquarters may maintain strong academic partnerships in Sweden or Europe, these relationships do not automatically extend to operations in China. Only a few of the interviewed companies have established local university collaborations, and even then, primarily for specific, limited projects. Strengthening such partnerships is seen as important for long-term innovation capabilities.

Intellectual property (IP) protection remains a sensitive issue as well. Companies continue to face risks related to data leakage and gaps in cross-border IP frameworks. Innovations patented in China may not automatically receive protection in Europe, creating barriers for bringing new products to global markets. Despite these concerns, several companies reported increased confidence due to improved enforcement within China, including successful legal cases where offenders received criminal penalties. This positive trend may contribute to greater willingness to invest in R&D within the country.

V. Needs for Deepened Policy Dialogue and Practical Public Support

Across all nine interviews, it became clear that the participating companies face similar challenges and articulate largely overlapping needs for support in two distinct areas: practical support and broader policy-level engagement.

Practical Support

On a practical level, many companies expressed the need for assistance in identifying suitable universities and research institutions with the right technical capabilities, infrastructure, and openness to industry collaboration. While some companies have already established relationships with local partners, most find it challenging to navigate the landscape and distinguish between institutions that can deliver high-quality, long-term collaboration and those that cannot. Companies also emphasised the value of more structured and predictable platforms for cooperation, such as coordinated funding mechanisms, fellowship programs, and long-term partnership frameworks, that can ensure continuity beyond individual projects or personal relationships.

A recurring theme was the imbalance in access to funding when compared to local companies. Domestic firms often benefit from strong public support for research collaborations, and several Swedish companies noted that more equal conditions would significantly enhance their ability to participate in innovation ecosystems on comparable terms. Another area where practical support is needed relates to sustainability and green innovation incentives. Companies see growing collaboration opportunities on low-carbon technologies, circular economy solutions, and sustainable materials. Welcoming targeted incentives that encourage joint development in these domains, where Swedish firms traditionally possess strong expertise.

Policy Support

In addition to these practical elements, companies identified several important areas where policy-level support is needed. Many emphasised the demand for clearer and more transparent frameworks governing academic–industry collaboration, ensuring that foreign companies are able to cooperate with leading Chinese universities on fair and predictable terms. Several interviewees also highlighted the need for strengthened policy dialogue on systemic issues such as standardisation, regulatory alignment, and the broader innovation environment. Companies expressed that consistent, internationally aligned frameworks would significantly improve market efficiency and reduce uncertainty when cooperating across Sweden and China. They further noted that improved communication between China-based operations and Swedish stakeholders, including headquarters and national innovation agencies, would help reduce internal misalignment and facilitate better strategic decision-making.

Finally, intellectual property protection remained a central concern throughout the interviews. While companies recognise recent improvements in enforcement in China, they continue to see significant risks in areas such as data security, cross-border IP transfer, and the lack of standardised frameworks across jurisdictions. Stronger support and policy engagement in these areas would create a more secure foundation for conducting advanced R&D activities in China and enable more ambitious forms of innovation collaboration.

Summary of Key Issues and Future Perspectives

The findings from the interviews illustrate that Swedish research- and innovation-intensive companies in China are navigating a rapidly evolving ecosystem with both opportunities and challenges. While the specifics vary by industry and company size, several common themes emerged regarding innovation strategies, ecosystem engagement, sustainability, and policy support. Across all cases, there is strong agreement that deepening collaboration between Sweden and China in research, innovation, and business development is essential, not optional. Some key issues and strategic perspectives on the Swedish research- and innovation-intensive companies' future China operation and development include:

1. **Sweden/Europe - China Cooperation:** The focus should not be on if collaboration should occur, but how it can be most effectively realised. Practical, solution-oriented engagement that strengthens innovation ecosystems is key.
2. **Competitiveness:** Achieving competitiveness is not a unilateral objective. Mutual competitiveness emerges from deeper understanding and cooperation between Swedish companies and Chinese partners, leveraging complementary strengths.
3. **“China Speed”:** The rapid pace of development and iteration in China is both an opportunity and a significant challenge for Swedish companies. While it accelerates product development and scaling, it also requires balancing speed with quality and long-term validation.
4. **Sustainability:** Sweden has long been a global forerunner in sustainability, and China is rapidly emerging as a leader as well. Collaborative innovation in sustainability represents a strategic opportunity for both countries and underscores the importance of joint research and development.
5. **Government Support from Sweden:** Companies identified numerous concrete ideas for enhancing support, from facilitating university-industry partnerships to strengthening IP frameworks and policy dialogue. More regular engagement with Swedish stakeholders in China, including headquarters and national innovation agencies, is needed to align priorities and create actionable solutions.

Annex

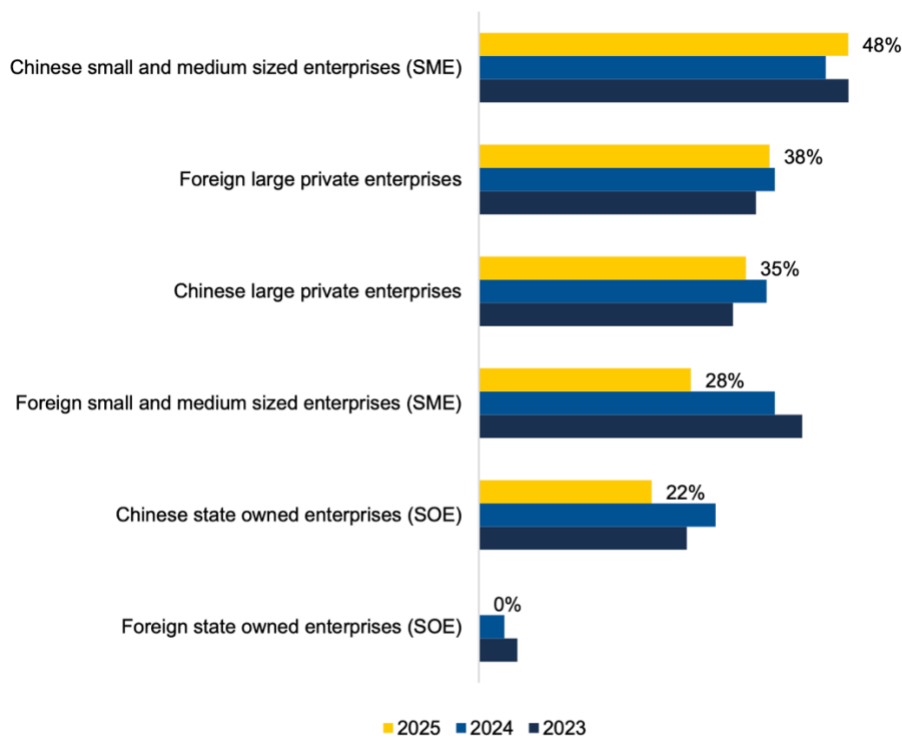
Key observations from Business Climate Survey for Swedish Companies in Mainland China 2025

WHO ARE YOUR MAIN COMPETITORS IN MAINLAND CHINA? (Page 22)

Competition is not entirely a bad thing. Our competitors also helped to build consumer awareness of our segment and even Sweden as a country.

Fierce price competition on a level we have not seen before.

We do not have government relationships like local companies do, but decision makers of our clients are governments.



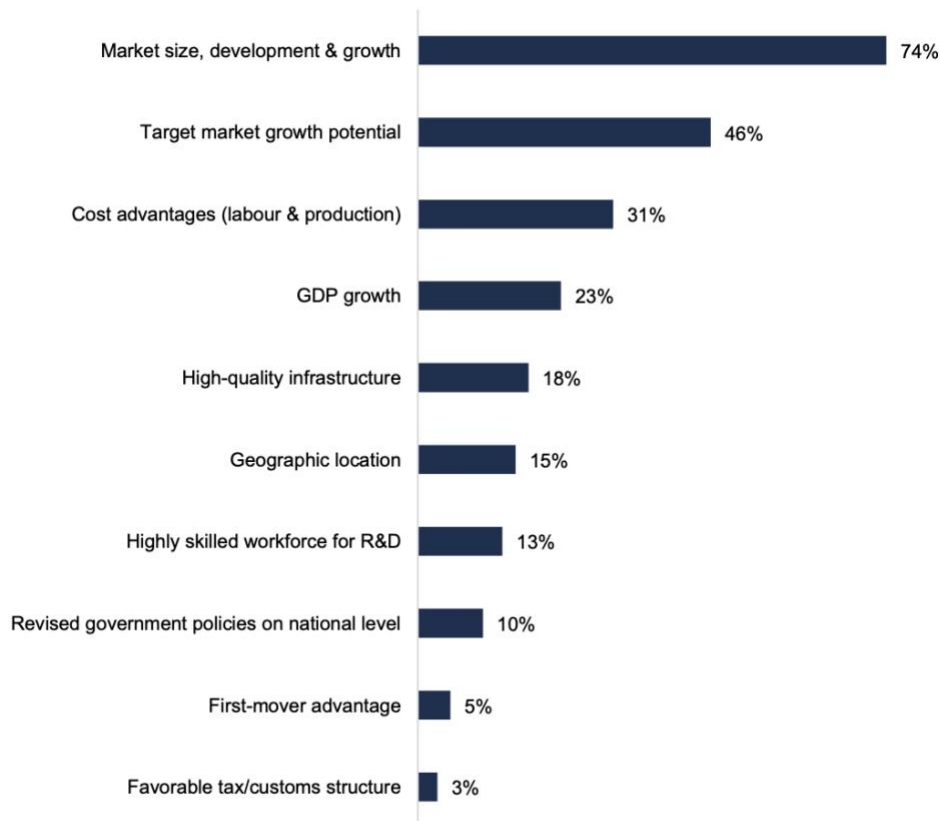
NOTE: The number of respondents for this question was 72. "Don't know/Not applicable" responses are included but not shown in this figure.
 SOURCE: Business Climate Survey for Swedish companies in Mainland China 2025.

WHAT ARE THE KEY EXTERNAL FACTORS CONTRIBUTING TO OPPORTUNITIES FOR YOUR COMPANY IN MAINLAND CHINA IN THE SHORT TERM? (Page 22)

Our commitment to the Chinese market is long-term.

We will continue driving both organic and inorganic growth in China.

Previously our industrial clients could gain a lot without making too much effort, but now they have to be on their toes to compete, especially through investing in innovation.

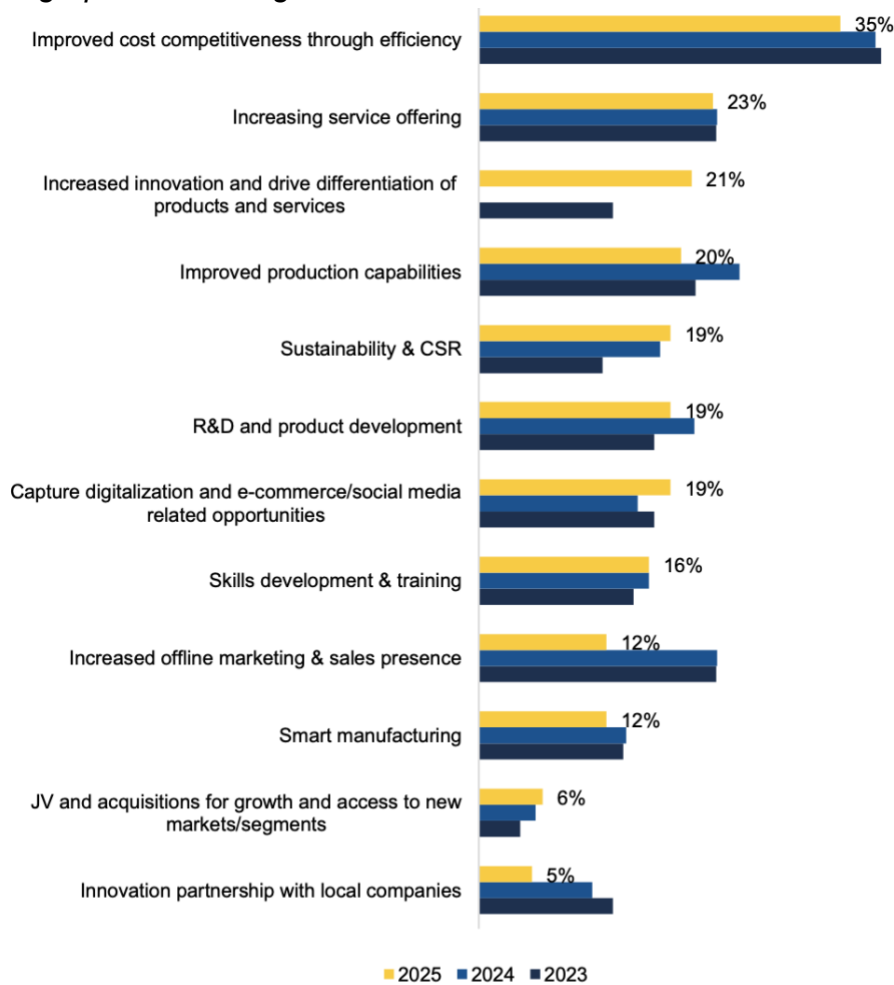


NOTE: The number of respondents for this question was 97. "Don't know/Not applicable", "Other" responses are included but not shown in this figure.

SOURCE: Business Climate Survey for Swedish companies in Mainland China 2025.

WHICH ARE THE AREAS WHERE YOU PLAN TO INCREASE YOUR INVESTMENTS THE MOST? (Page 24)

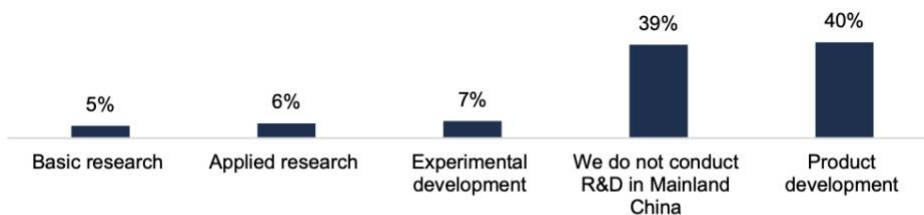
We have broadened our business scope by expanding client segments and geographical coverage.



NOTE: The number of respondents for this question was 97. "Don't know/Not applicable" responses are included but not shown in this figure. Maximum 3 alternatives.
SOURCE: Business Climate Survey for Swedish companies in Mainland China 2025.

WHAT TYPE OF R&D AND INNOVATION EFFORTS DOES YOUR COMPANY FOCUS ON IN MAINLAND CHINA? (Page 38)

Over 60 per cent of Swedish companies carry out R&D and innovation in Mainland China, mainly focusing on product development.



NOTE: The number of respondents for this question was 97. "Other" responses are included but not shown in this figure.
SOURCE: Business Climate Survey for Swedish companies in Mainland China 2025.