Beyond “Asia”: Rethinking regional strategy through targeted partnerships

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Reddal 15 – CEO Forum Helsinki

Helsinki, May 28, 2025

Agenda

Why Asia matters

Asian countries’ delicate balancing act warrants customized strategies for Europe

China is a superpower facing structural slowdown

Korea and Japan are future labs of aging society

Southeast Asia is seeking growth and strategic autonomy

Deep tech as a lifeline – story of Korea

Europe needs to step up as a strategic partner in Asia

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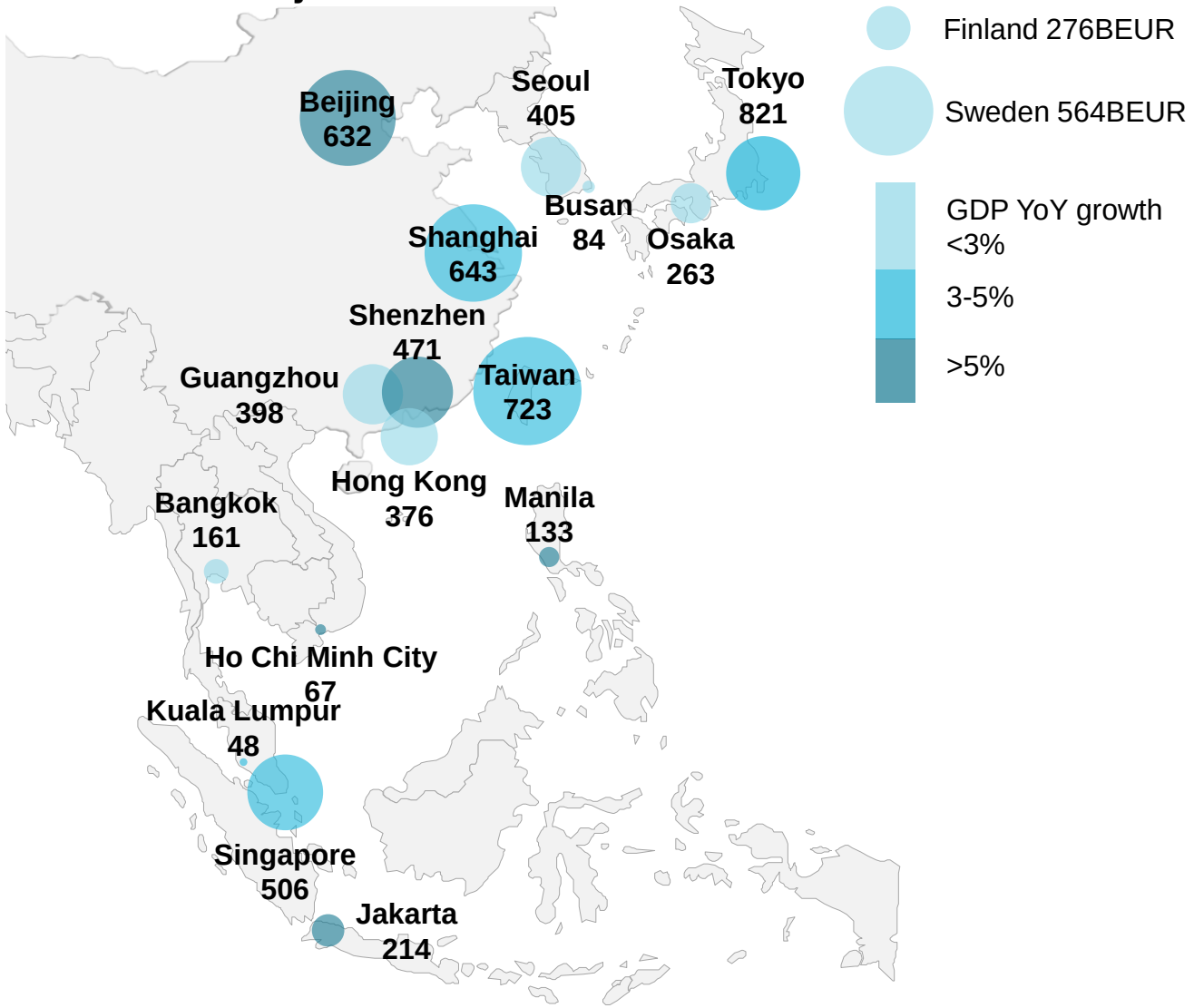
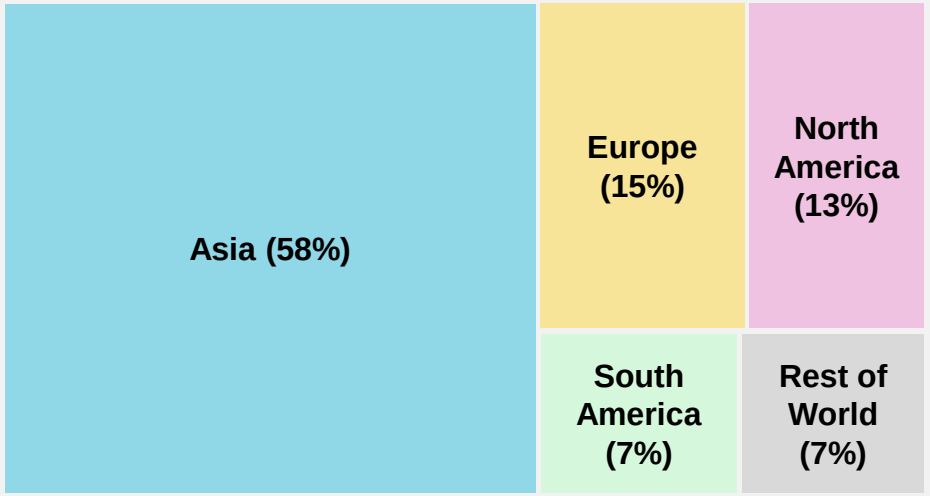
2024 GDP of major Asian cities



Asia's rising dominance: 2030 global GDP projections based on 5-year CAGR



- Asia contributes 55% of global GDP, led by China (18.3TUSD), Japan (4.1TUSD), and India (3.9TUSD)
- Korea (1.9T USD) follows, adding to the economic engine
- This is not the Asia of the 1980s – no longer defined by Japanese asset bubble
- Today's Asia is broader, faster, and more complex than ever
- The question for Europe is not "should we engage," but "when and how should we lead?"

Note: 2024 nominal GDP figures are used where available. For Seoul, Busan, and Kuala Lumpur, 2023 data is reflected. The figure for Bangkok is based on 2022 data. Data for Taipei City was not available.
Source: Government databases, IMF, World Economics.

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A world in flux – As the global landscape is becoming increasingly polarized, for most of Asia, it is about finding balance

Overview of Asia's strategic balancing act

Economic strategy

- Trade with China/US
- FDI dependency
- Supply chain security and reshoring
- Tech vulnerabilities and dependencies

Military/diplomatic allegiances

- Pressure to "choose sides"
- US security guarantees
- Territorial tensions with China
- Military modernization and defense partnerships

Strategic ambiguity is not indecision, but a survival strategy.

- Asia is not one market: fragmentation is growing, and country-specific strategies are needed for risk mitigation and localization
- Europe cannot approach Asia with a binary "with us or against us" lens; each country's unique balancing act should be respected
- For non-Chinese countries, long-term balancing is the new norm where they cannot fully align with either the US and China as their economies may depend on one, and their security on the other
- Countries hedging between powers may welcome Europe as a new partner for technology, trade, and standards

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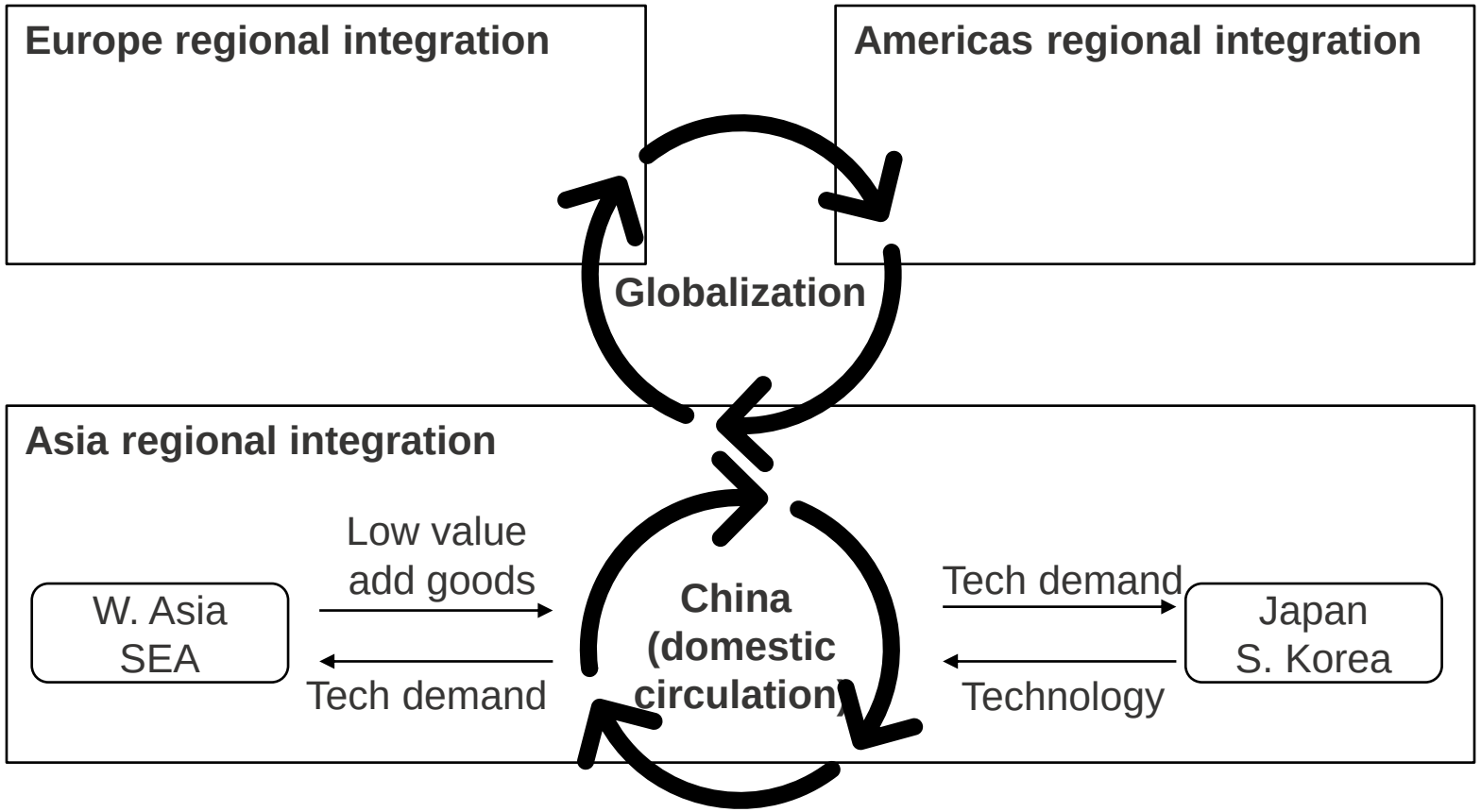
China has been actively preparing for a new vision of global trade and geopolitical dynamics since 2017

China's view on global trade dynamics



- Since 2017, China has been preparing a new norm of global trade and geopolitical dynamics to ensure continuous growth by the following
  - Developing domestic demand (consumer nationalism, subsidies)
  - Deepening supply-side structural reform to ensure independence (Made-in-China 2025)
  - Elevating industries focusing on high value-adds while offshoring low value add manufacturing to West Asia and South East Asia
- Foreign companies face increasing challenges to penetrate the market – "in China for China" becomes the norm

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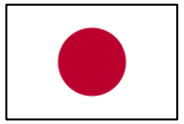
Korea and Japan have long been export powerhouses admired across Asia; today, they are future labs of aging societies

Challenges faced by Korea and Japan, implications for Europe

Legacy effects	Emerging structural issues
Careful diplomatic relationship with both West and rest	Staggeringly low birth rates (0.7 and 1.2 per woman for Korea and Japan)
Economies led by large corporations – chaebols and keiretsu	Fierce competition both domestically and globally
Strong domestic supply chain for high-tech manufacturing industries	Overconcentration of power in legacy firms
Education and meritocracy-driven human capital system	Geopolitical tension, supply chain realignments, and digital/green pressures

European strategic implications

- **European companies as partners**: leverage demands in automation, healthcare, digitalization
- **European as strategic investors**: invest in clean energy, chips, and digital platforms while positioning themselves as alternatives to US and Chinese capital
- **Europe as an ally in technology**: co-develop standards and collaborate in high-tech industries as Japan and Korea aim to maintain tech leadership in chips, batteries, and mobility
- **Europe as an educational and people exchange partner**: join forces in STEM and entrepreneurship

Source: European Journal of Contemporary Economics and Management (2014), World Bank.

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In Southeast Asia, ASEAN is aiming to build a strong regional bloc through unified economic and diplomatic efforts for strategic autonomy – European influence remains limited

Overview of ASEAN

ASEAN economy

3.98TUSD
Nominal GDP, 2024

5th largest economic bloc, after US, China, EU and Japan

ASEAN demographics

678 million
Population, 2024

Ca. 1.5 times larger than EU population

1992: ASEAN Free Trade Area (AFTA), creating a regional free trade zone to promote trade and economic integration among member countries.

2015: ASEAN Economic Community (AEC), creating a single market and production base with free flow of goods, services, investment, and skilled labor.

2019: EU-Singapore Free Trade Agreement (EUSFTA).

2020: EU-Vietnam Free Trade Agreement (EVFTA).

2020: Regional Comprehensive Economic Partnership (RCEP), a free trade agreement signed by 15 Asia-Pacific countries, forming the world's largest trade bloc (~30% global GDP).

2020: ASEAN-EU Strategic Partnership, elevating cooperation in political, security, economic and sustainable development.

Source: ASEANstats (2024), Wikipedia (2024), IMF (2025), European Union (2020).

Despite efforts, ASEAN member states often pursue fragmented strategies – shapes by diverse national interests and economic/diplomatic alignments

Challenges faced in ASEAN, implications for Europe

Internal development constraints	External pressures and misalignment
Workforce and technology investment gaps hold back industrial growth	Strong Chinese influence via trade, diplomacy, and soft power
Infrastructure remains fragmented across borders	Lack of cohesion in external trade policies
Political instability and divergent governance models persist	Varying stances on global strategic competition (pro-China, pro-US, hedging)

Recent development initiatives

Vietnam and Malaysia aim to become semiconductor hubs under “China Plus One” strategies	ASEAN’s Sustainable Finance Taxonomy now guides green investments across the region

Europe’s strategic role as the trusted 3rd option

- **Partner for scale and transition:** Advance green and digital growth, supporting smart city and low-carbon goals
- **Credible financier:** Provide alternatives to US/China capital by backing infrastructure, logistics, and energy
- **Integrator of ASEAN markets:** Accelerate economic harmonization through bilateral FTAs and trade alignment
- **Talent builder:** Help develop STEM and digital capabilities via mobility programs and training

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Vietnam has outlined an ambitious long-term roadmap to attract foreign investment, boost self-reliance, and establish itself as a leading global player in the semiconductor industry

Vietnam's semiconductor roadmap

Selective FDI attraction to build strategic foundation

2024-2030

- Design companies: 100
- Small-scale semiconductor chip manufacturing plants: 1
- Packaging plants: 10
- Revenue of the semiconductor industry: 25BUSD/year
- Revenue of the electronics sector: 225BUSD/year
- Number of engineers and graduates: 50 000

Domestic capacity strengthening to balance self-reliance and foreign investment

2030-2040

- Design companies: 200
- Small-scale semiconductor chip manufacturing plants: 2
- Packaging plants: 15
- Revenue of the semiconductor industry: 50BUSD/year
- Revenue of the electronics sector: 485BUSD/year
- Number of engineers and graduates: 100 000

R&D mastery to position as a top semiconductor nation

2040-2050

- Design companies: 300
- Small-scale semiconductor chip manufacturing plants: 3
- Packaging plants: 20
- Revenue of the semiconductor industry: 100BUSD/year
- Revenue of the electronics sector: 1 045BUSD/year
- Number of engineers and graduates: sufficient for whole country

Source: Decision No. 1018/QD-TTg, Vietnam Briefing (2025).

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Korean deep tech ecosystem is showing early success, yet building sustained momentum will depend on global reach, broader exit options, and active conversion of basic science research

Overview of deep tech as a means for future economy buildup

In this report

Reddal's deep tech list introduced

432 companies

Insights from

9 investors

8 startups

1 foreign expert

Growth perspectives

10 sectors including AI, robotics, quantum and nuclear

Early wins, global limits, and structural hurdles

- Korea's deep tech ecosystem has achieved early successes but faces significant challenges
- Many startups remain centered on domestic use cases, limiting their global impact
- Limited foreign capital availability significantly hinders the globalization of domestic deep tech companies
- The broader startup landscape and domestic IPO system have confined investors to safer bets
- Startup formation remains sluggish, and R&D outputs lag behind leading economies despite high investment levels and a strong researcher pool

Limited global reach and commercial innovation

- Attraction of foreign investors and customers is critical for global competitiveness
- Korea should focus on creating value at a global scale and establish a platform for transforming high-impact ideas into market-ready products
- A healthy deep tech ecosystem requires continuous translation of basic science research into private-sector commercialization
- Ecosystem development should not be solely government-driven but foster symbiotic relationships among innovators, end users, and funding providers

Growth via targeted stakeholder action

- A focus on global value creation through multi-stakeholder collaboration and a systematic approach is critical for success
- Rather than forcing innovation through artificial structures, the right conditions for natural innovation should be created
- Startups should target global challenges with strong commercialization strategies
- Domestic investors should hone their deep tech expertise, diversify the LP base, and enable high-impact, long-term returns
- The government should reduce regulatory barriers and cultivate a global testbed environment for breakthrough technologies

Global leadership: fast-follower to first-mover

- Over the next 3–4 years, startups and investors should build strong deep tech cases focused on globally impactful products, backed by consistently supportive regulatory environment
- For long-term growth (5+ years), diversification into emerging fields like quantum and nuclear will be key to achieving global leadership
- Moving beyond fast-follower strategies common in AI and robotics, startups should shift to first-mover approaches to drive differentiation

Korea’s large volume of deep tech companies can be attributed to its historically strong biotech industry; however, focus areas are rapidly shifting, driven by the influence of the global AI boom

Deep tech definition, segments and technologies

Our definition of deep tech

Reddal’s deep tech list includes 432 firms founded in Korea and hand selected based on the following criteria

- Possession of foundational technologies that solve complex engineering challenges
- Aligns with Korean government’s selected deep segments and technologies*
- Currently existing SMEs and startups that have raised at least a single round of investment from established investors like VCs and accelerators

Firms with AI-based core offerings

Biotechnology 215 companies — AI 26% — AI diagnostics, Cancer treatment, Antibody	**Robotics** 29 companies — AI 72% — Industrial robots, Robot surgery, AI robotics
AI and big data 78 companies — AI 100% — AI cores, AI engine, Generative AI, LLM	**Aerospace** 23 companies — AI 48% — Satellite, Drones, Aerial vehicle systems
Cloud and network 21 companies — AI 100% — Cyber security, MSP, Cloud computing	**Mobility** 22 companies — AI 77% — Autonomous driving, Battery materials
System semiconductor 14 companies — AI 86% — Microchip design, AI chips, NPU, Fabless	**Quantum technology** 4 companies — AI 50% — Quantum computing, Quantum engineering
Sustainability 26 companies — AI 15% — Bioenergy, Hydrogen, Recycling, CCUS	**Next generation nuclear** None detected — Small modular reactor

*10 pre-defined categories are biotechnology, AI and big data, sustainability, cloud and network, robotics, system semiconductor, aerospace, mobility, quantum technology, and next generation nuclear.

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Historically, Korean VC ecosystem has evolved rapidly, experiencing several boom-and-bust cycles; push for deep tech investments faces challenges amid a declining market

Korean venture investment – historical overview

1986

Early venture ecosystem development
- First VC (Small Business Investment Co) established in 1986
- KAIST alumni led fostering the foundation of tech venture entrepreneurs

1997

1st venture boom (1997-2000s)
- The Special Measure Act for the Promotion of Venture Business was enacted to promote venture business during the IMF crisis
- Many tech startups emerged particularly in IT and telecommunications sectors

2000

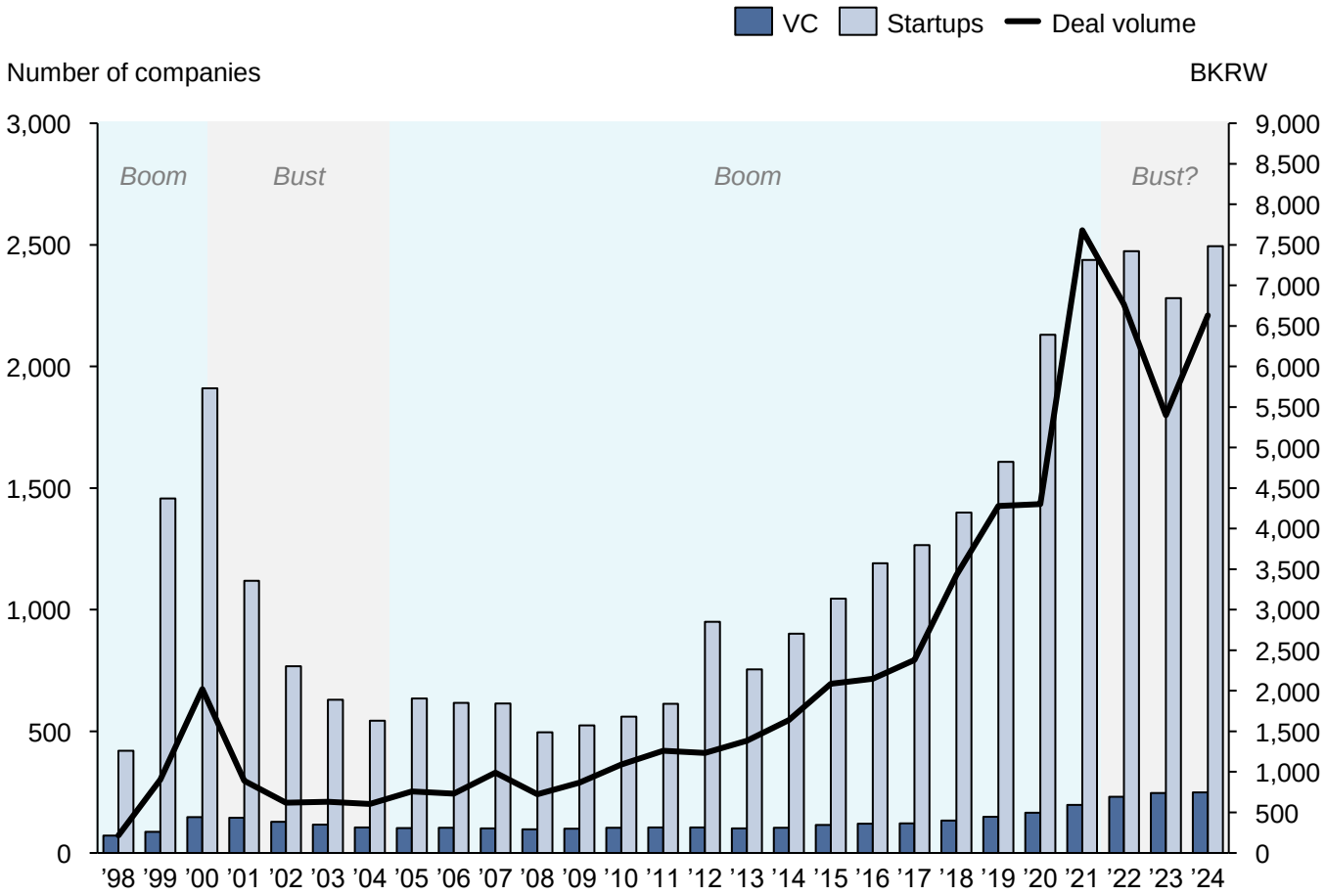
The dot-com bubble (2000-2002)
- South Korea's tech sector experienced a dramatic boom as Investors rushed into internet and IT companies since 1999
- The crisis forced many KOSDAQ-listed IT companies into bankruptcy

2005

2nd venture boom (2005-2018)
- In 2005, KVIC and Korea Fund of Funds were established
- Introduction of smartphone catalyzed a new wave of venture growth, particularly in platform businesses, with unicorns like Kakao (communication) and Coupang (e-commerce)

2019

Supply chain domestication, AI and deep tech (2019-present)
- Trade dispute with Japan (2019 – 2023) motivated government to support domestication of high-tech industry supply chains
- Deep tech is gaining momentum, driven by the AI boom and strategic government support



Source: Asia-Pacific Journal of Business Venturing and Entrepreneurship (2013), Korea Daily (2019), Government Index Portal, KVIC, KVCA.

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Sustainable growth of the deep tech ecosystem requires key stakeholders to collaborate effectively and systematically, tackling the most difficult challenges

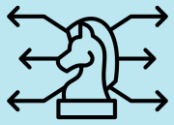
Recommendations for Korean deep tech stakeholders

		Recommendations	From	To
Startups: broaden ambition and commercialize globally	1.1	**Tackle globally challenging problems**	Regional application and tweaks of globally popular and trendy technologies	Focus on innovation to develop groundbreaking technologies and secure core intellectual property
	1.2	**Develop robust commercialization strategies and test them globally**	Core company functions focus on R&D while searching for domestic conglomerate partnerships	Recruit experienced commercial officers to design and implement go-to-market strategies at the top level Actively engage with global customers and differentiate from competitors by leveraging unique features and value propositions
	1.3	**Reduce dependence on government subsidies**	Reliance on government subsidies for operational expenses	Proactively engage private sector investors and strategic partners to support commercialization and sales strategies Focus on a limited number of government programs while ensuring adequate resources for independent business development
Investors: move beyond generalist VC habits to back real deep tech	2.1	**Increase internal deep tech competence to better distinguish and support startups**	Funding decisions follow traditional VC investment principles instead of specialized deep tech expertise, often focusing on AI or robotics without fully understanding underlying technologies	Build internal expertise in evaluating deep tech startups, focusing on technical potential and scalability Use tailored valuation models that account for technical competencies rather than relying solely on early financial data
	2.2	**Diversify LP composition**	Traditional VC LPs include government funds, financial institutions, and top conglomerates	Expand to include more diverse funding sources to boost funding for innovation-driven ventures
Government: enable innovation through deregulation and smart capital deployment	3.1	**Deregulate – investment restrictions and portfolio management**	Deep tech funds limited by rigid portfolio criteria (for example, company age, region, or application)	Grant greater freedom to GPs to select and fund startups based on return potential, promoting a diverse and innovative portfolio
	3.2	**Deregulate – testing environment for upcoming technologies**	Testing of new technologies hindered by laws requiring infrastructure-specific regulations	Establish flexible testbeds for emerging technologies, enabling rapid trials and scalable data collection without frequent regulatory changes

Source: Expert interviews, Reddal analysis.

A phased approach can effectively support ecosystem development, with policy, talent, and infrastructure serving as critical enablers for becoming a global innovation hub

Example ecosystem development roadmap

	Phase I: Nurture future global deep tech champions	Phase II: Ecosystem expansion	Phase III: Global positioning
	2025 - 2027	**2028 - 2029**	**2030 - onwards**
Example initiatives	**Policy and regulatory support** • Establish regulatory sandboxes to fast-track testing for globally scalable technologies • Provide targeted early-stage tax incentives and capital support for tech with export potential **Focused global talent development** • Launch elite fellowship and leadership programs tailored for top-tier deep tech firms • Develop partnerships between universities and industry to co-develop frontier technologies • Establish dedicated scholarships and subsidies for future talent aligned with global commercialization	**Funding and investment mechanisms** • Introduce venture matching funds or seed grants for promising research spin-offs • Incentivize private investors through co-investment and targeted capital gains exemptions • Attract global VC by showcasing early pilots and robust public-private partnerships **Infrastructure scaling** • Create shared testbeds to foster collaboration and lower entry barriers for startups • Upgrade country's digital backbone for scalable experimentation and deployment of new tech	**Collaborative ecosystem** • Form regional and global alliances with leading innovation hubs for R&D partnerships • Attract foreign experts and entrepreneurs in critical deep tech fields with targeted support • Organize flagship events or summits to attract global attention and strengthen partnerships **Commercialization and market development** • Pursue high-impact demonstration projects with leading international partners in Korea • Target global markets through trade missions, bilaterial agreements, and export strategies
Targets / milestones	 **Deployment of testbeds to validate early breakthroughs**  **Dedicated funding for export-ready technologies**	 **Major success cases with global traction and sales**  **Attraction of global talent and larger investment**	 **Diversification into emerging fields like quantum and nuclear**  **Established global deep tech hub**

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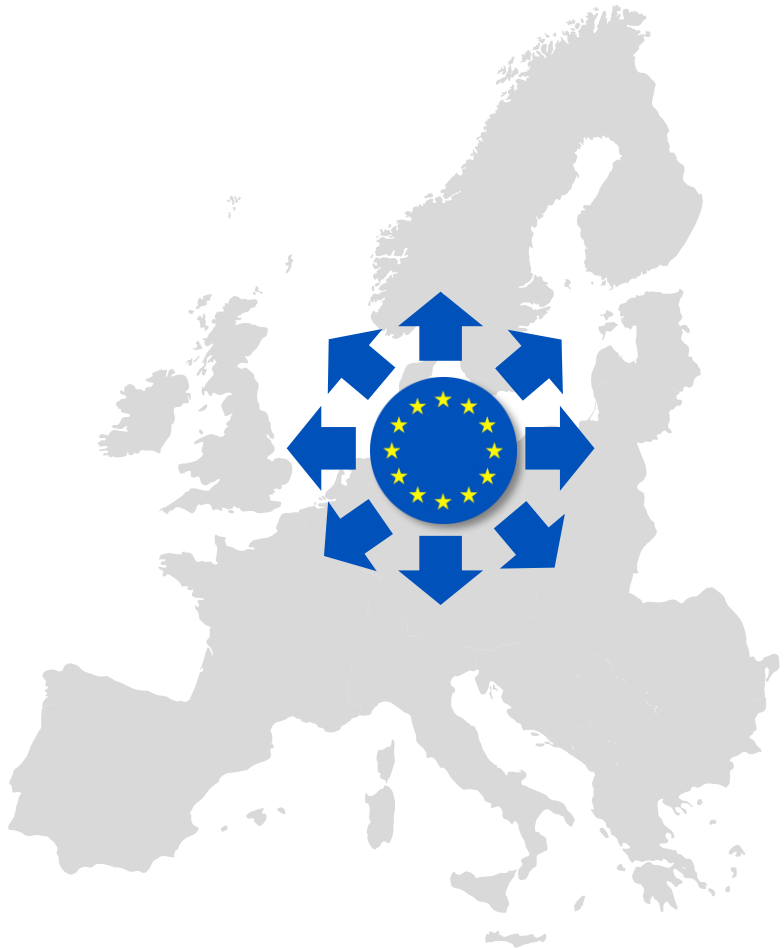
Volatility in Asia's economy and geopolitics creates openings for Europe; Finland should proactively define its future role in the region, and do so with the right levers of influence

Key takeaways for Europe



- Europe must move beyond passive observation and actively shape its role in Asia's evolving economic order
- Engagement must be country-specific as there is no single "Asia strategy" that fits China, Korea, Japan, and ASEAN alike
- Strategic ambiguity in Asia is here to stay – Europe should respect it and avoid farming choices in binary terms
- Opportunity exists for Europe as a trusted third partner – offering technology, standard, and capital without hard-power rivalry

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