

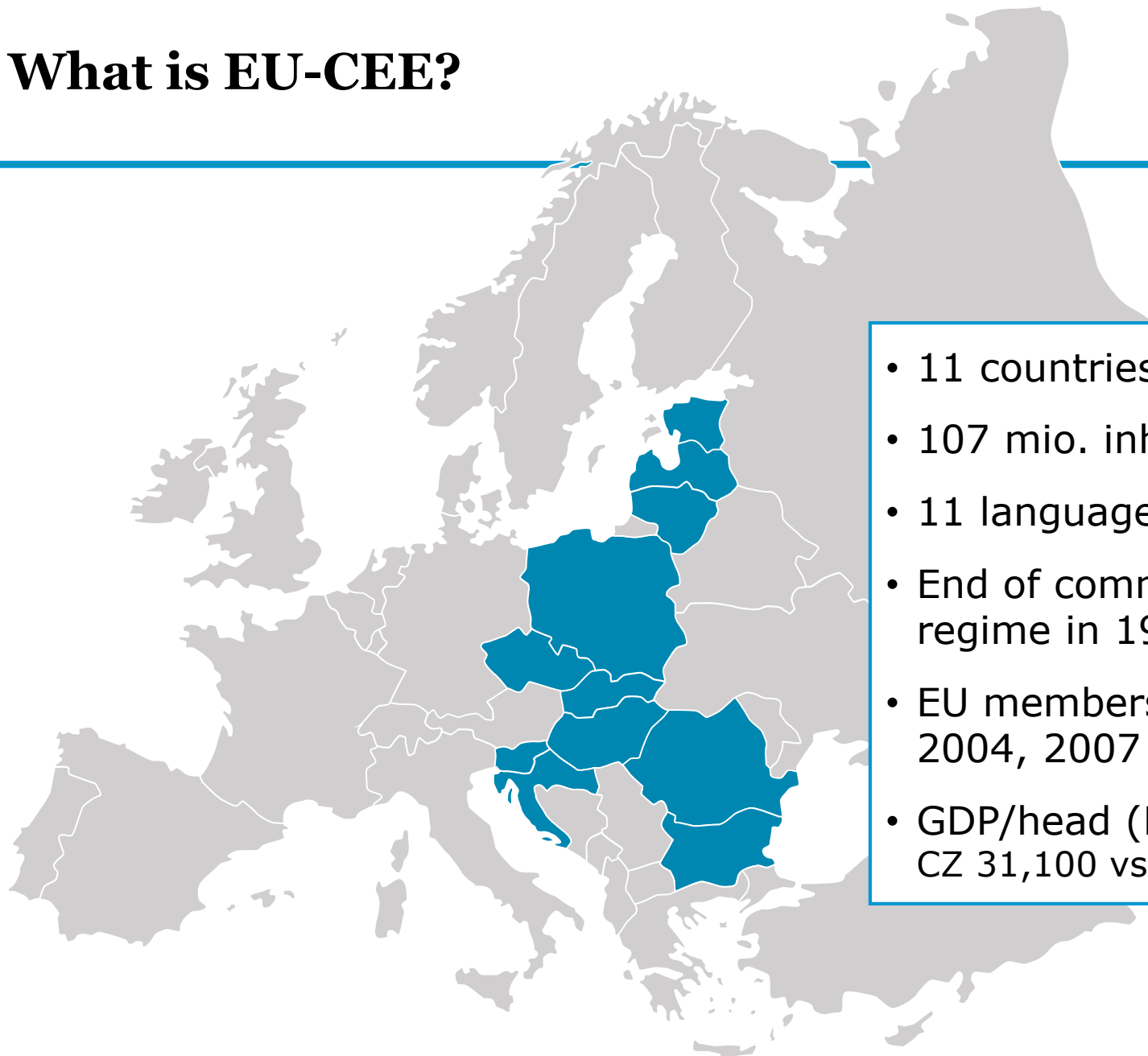
Arnold Schuh Innovation from Emerging Markets - The CEE Perspective



GBATA 2017 – 13 July 2017



What is EU-CEE?



- 11 countries
- 107 mio. inhabitants
- 11 languages
- End of communist regime in 1989/90
- EU members since 2004, 2007 and 2013
- GDP/head (PPP, \$):
CZ 31,100 vs BUL 17,700

What makes EU-CEE so special in the emerging markets innovation context?

- Technological **backwardness** of most industries in early 1990s
- Transition from a command to market-economy as a „**large-scale innovation event**“
- Impressive **economic catching-up** of CEE in the last 25 years
- Integration into **global value chains** via foreign FDI (e.g., automotive, electronics)
- Still lagging in building up modern **national innovation systems**
- How to innovate out of the „**middle income trap**“?

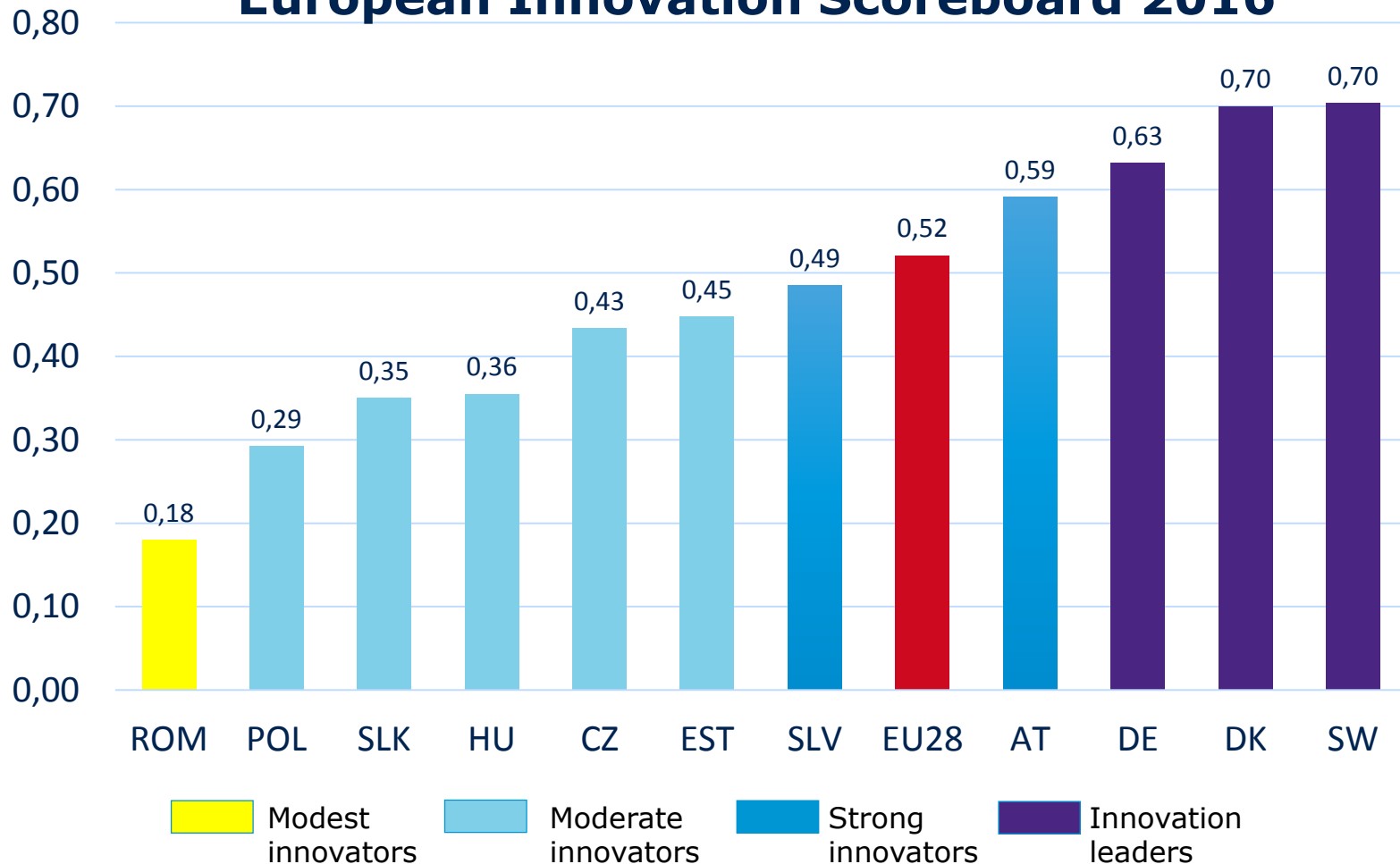
CEE economies have to become more innovative

Stages of economic development			
Stage 1	Stage 2		Stage 3
Factor-driven economies	Efficiency-driven economies	<i>Transition from Stage 2 > 3</i>	Innovation driven economies
India Moldova Pakistan	Albania BiH Bulgaria China Romania Serbia	Croatia Hungary Poland Slovak Rep. Turkey	Czech Rep. Estonia Germany Slovenia USA

World Economic Forum, Global Competitiveness Report, 2016

CEE countries are lagging behind in innovation performance

European Innovation Scoreboard 2016



Seen from a global perspective CEE is among the top 1/3

Global Innovation Index Ranking 2016

1. Switzerland	33. Hungary
...	...
10. Germany	37. Slovakia
...	38. Bulgaria
20. Austria	39. Poland
...	...
24. Estonia	43. Russia
25. China	...
...	47. Croatia
27. Czech Republic	...
...	66. India
32. Slovenia	

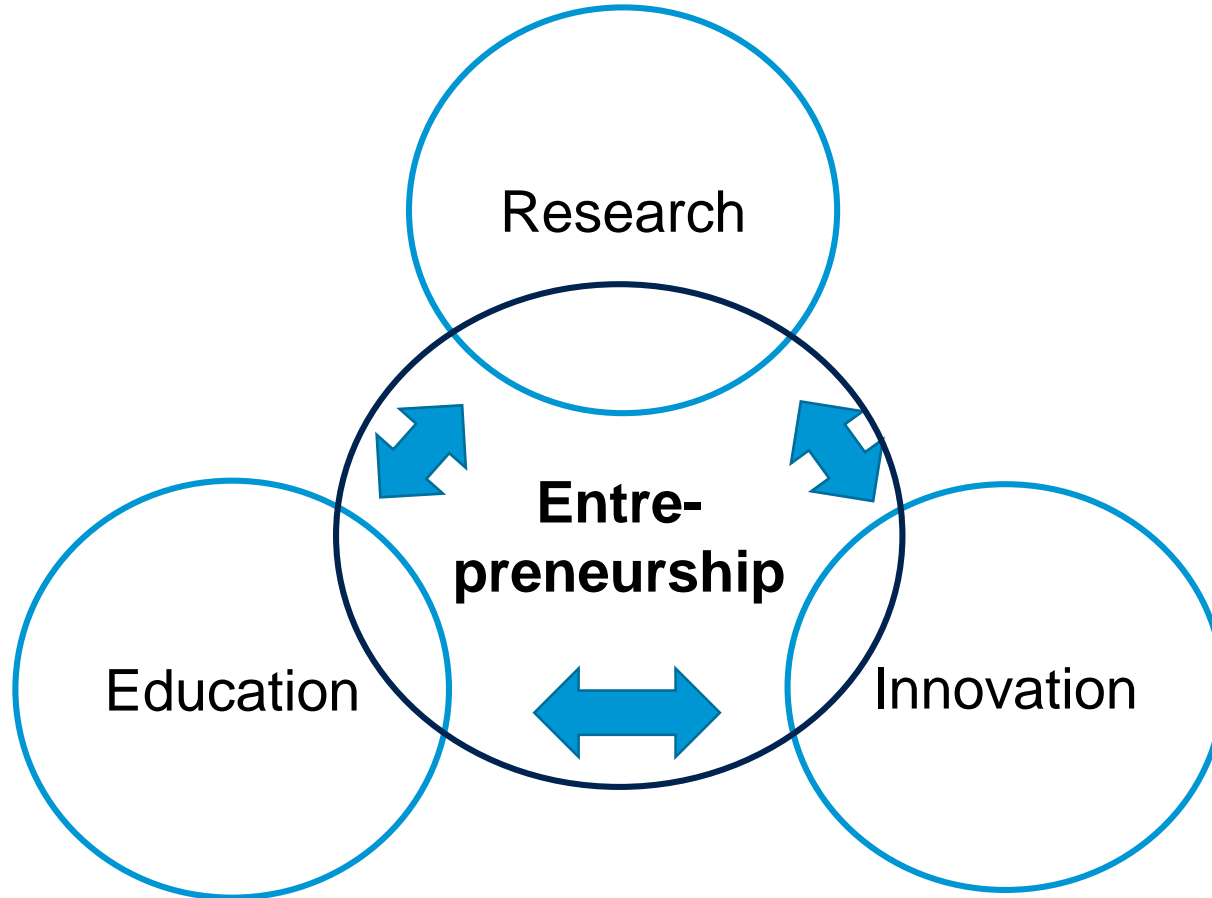
Global Innovation Index 2016 Report:
<https://www.globalinnovationindex.org/>

Innovation issues in CEE are complex

- Low **R&D intensities** (CEE Ø 1.2% - EU Ø 2.03%)
- Strong dependence on **foreign firms** - any spillovers?
- Lack of **talent** due to „brain drain“
- Weak **private equity financing** (3.4% of European PE investments)
- Prevalent business **mindset**: imitation/low-cost orientation but less R&D oriented
- Still weak **cooperation** between firms and universities
- Missing connection to **global innovation networks**
- Negative **country-of-origin** effect

The missing link in innovation systems

Tataj, 2015



National role model: Estonia

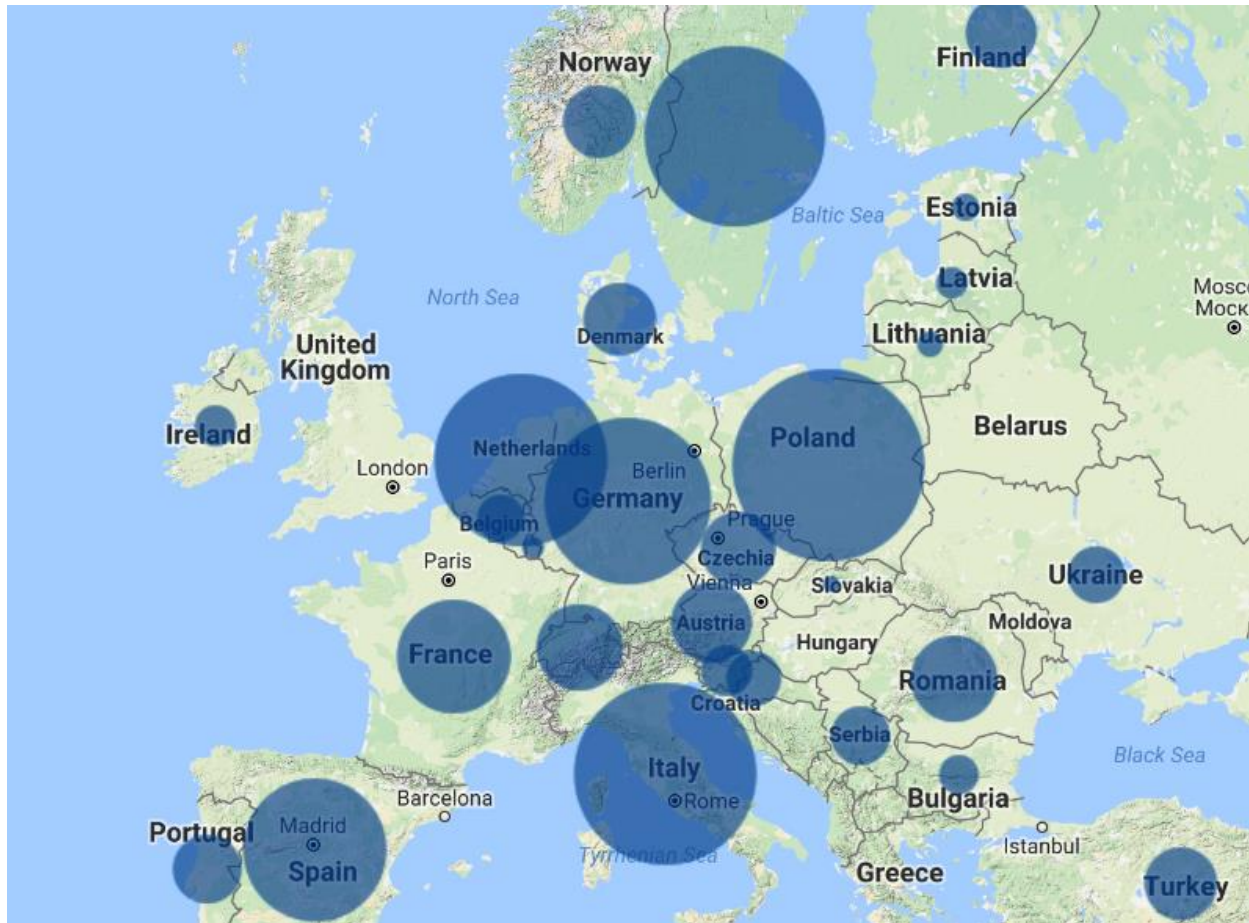
- 1.3 mio. inhabitants
- “e-Estonia”: branding as an innovation hub
- 350 startups – one per every 3,700 citizens!
- Skype, GRABCAD, TransferWise, Fortumo

“By creating, having, and maintaining Skype in Tallinn, we gained a great insight into how to launch a great global product, and it created a feeling that we can create big things in a small place.”

Taavet Hinrikus, Skype's very first employee and now a serial entrepreneur



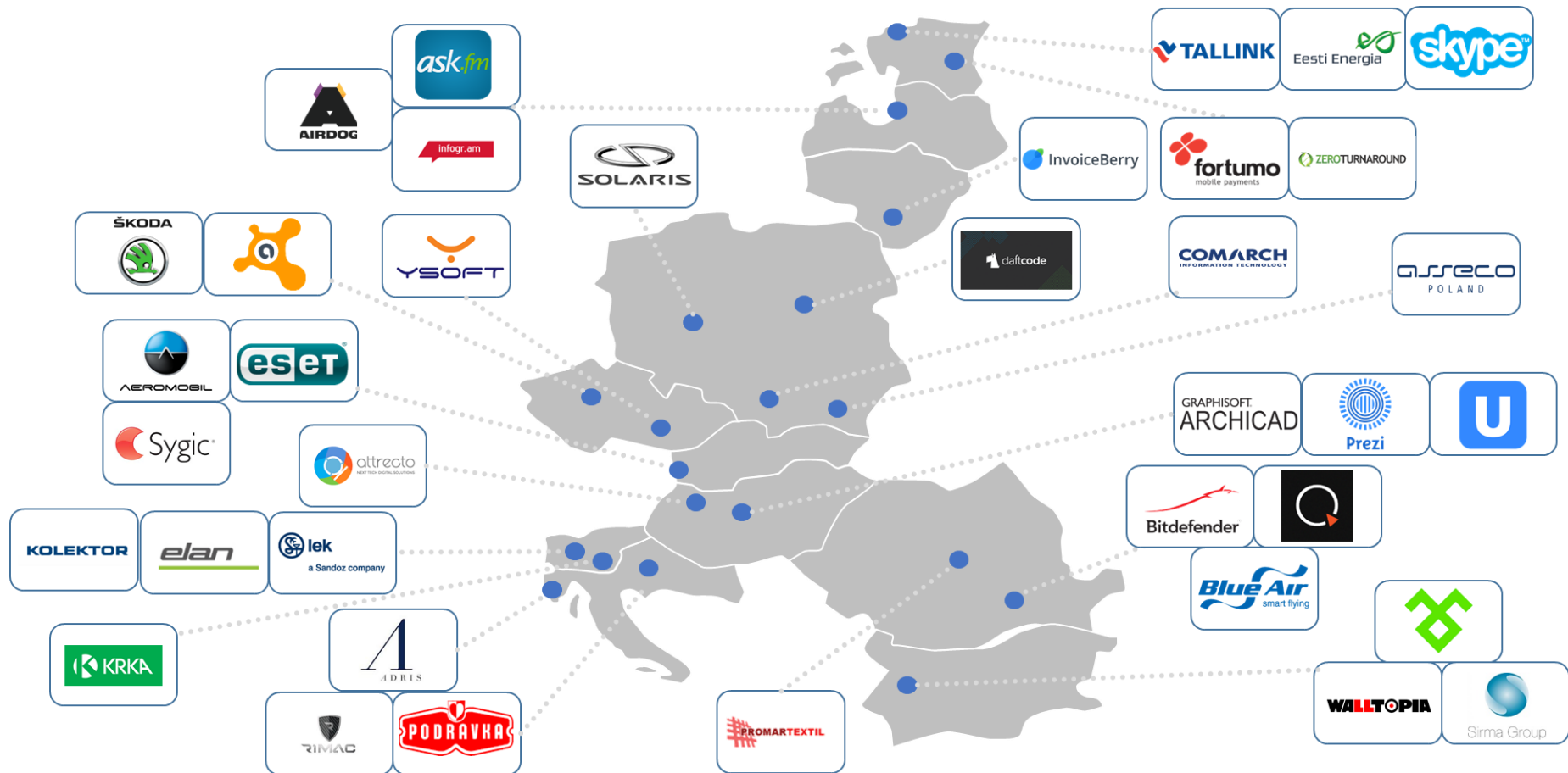
Sectoral excellence: IT & Digital as „star industry“



Number of IT-enterprises

- POL 25,000
- ROM 5,500
- SRB 2,500

Innovative companies in CEE



ESET: Pioneer of antivirus protection and among top-5 global vendors



- Antivirus protection & cybersecurity
- Bratislava, Slovakia



WALLTOPIA: World market leader from Bulgaria

WALLTOPIA

- Artificial climbing walls
- Sofia, Bulgaria



RIMAC Supercars: From zero to 100 km/h in 2.5 seconds



RIMAC
AUTOMOBILI

- Electric supercars & technology
- Sveta Nedelja, Croatia



CCC: Fastest growing footwear firm in Europe: 800 stores in 17 countries



- Market leader in CEE
- Polkowice, Poland



Innovation patterns of CEE firms

„Innovate locally“

- Complete strategy & innovation process in POL
- From design to production all in-house



„Foreign subsidiary with high autonomy“

- Strategy & innovation process for new car in CZ
- Coordination with VW (platform strategy, pricing)

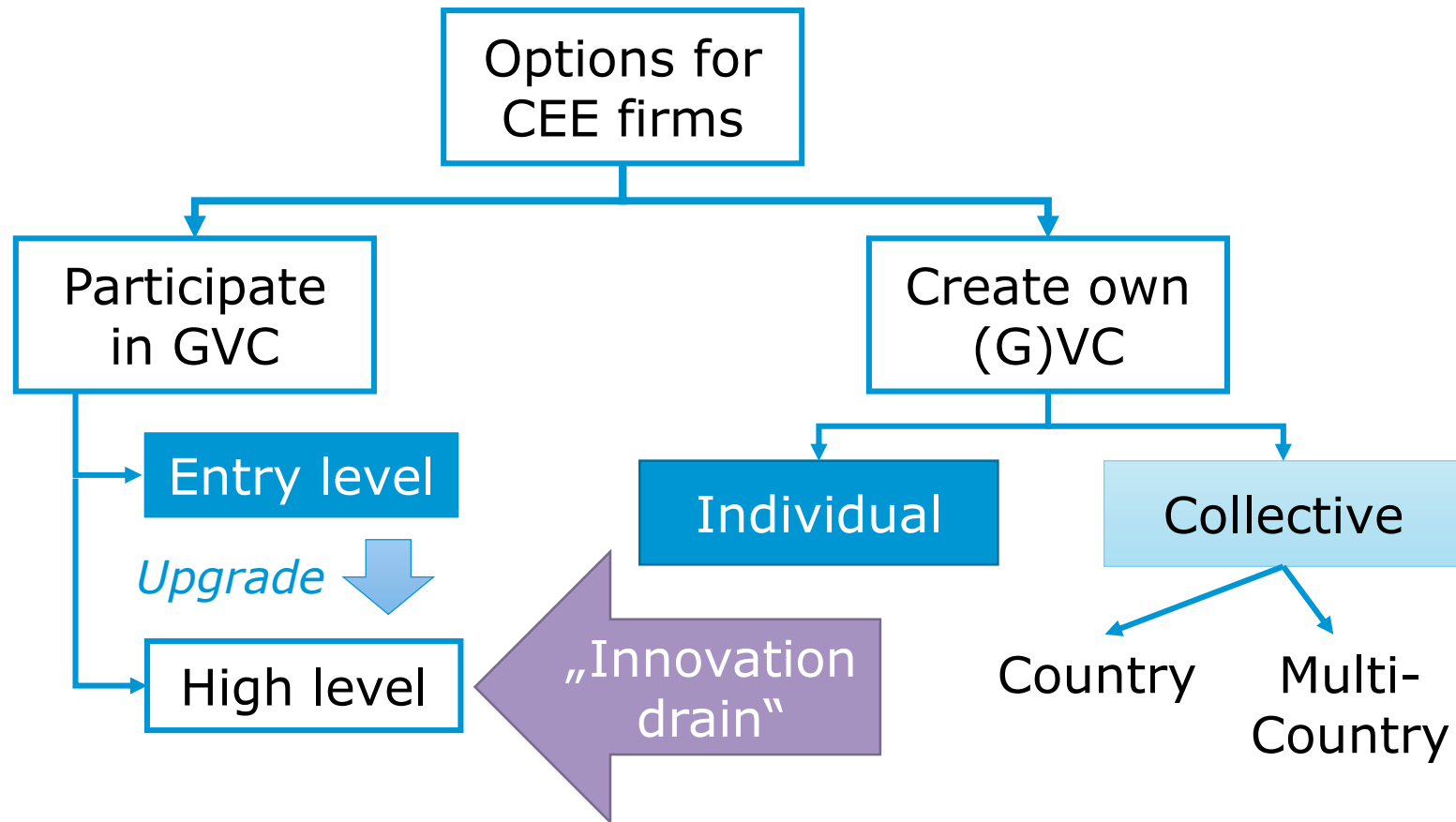


„Foreign subsidiary as R&D center“

- Integration of Telerik into Progress Group from USA
- Loss of strategic decision power since acquisition
- But Specialized research is kept in BUL



Stairway to higher innovation performance: Participate, cooperate, or go-it-alone



Future outlook: How to leverage local skills and build innovation ecosystems

- CEE governments copy Western innovation policies but **„one size doesn't fit all“**
- Many **isolated initiatives** of inventors and visionary founders
- Regional **„pockets of excellence“** as inspiring examples
- Great **potential** for knowledge economy: educated workforce, business services, and strong ICT base
- Convince foreign MNCs to move **R&D to CEE**
- Focus on **„home grown innovation“**



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