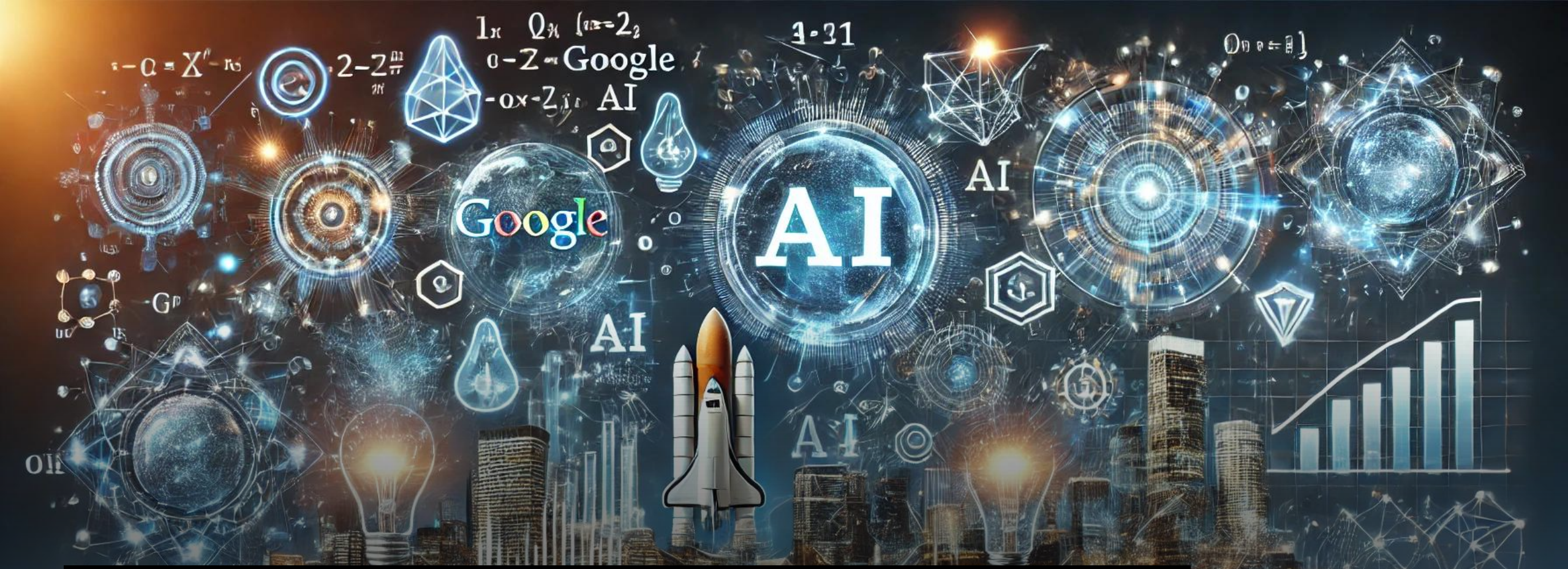
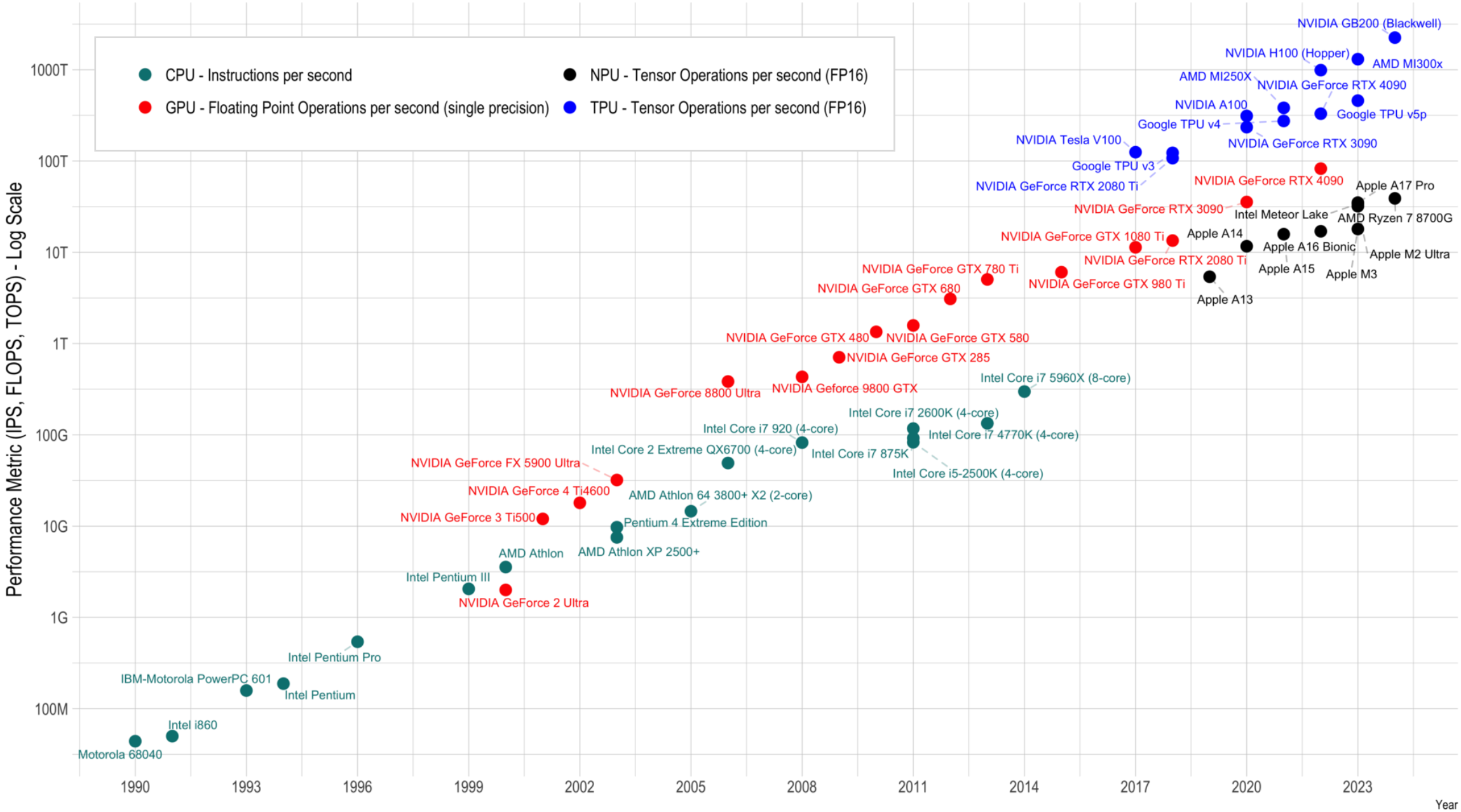


Jak matematika, Google, AI a startupy (z)mění náš svět

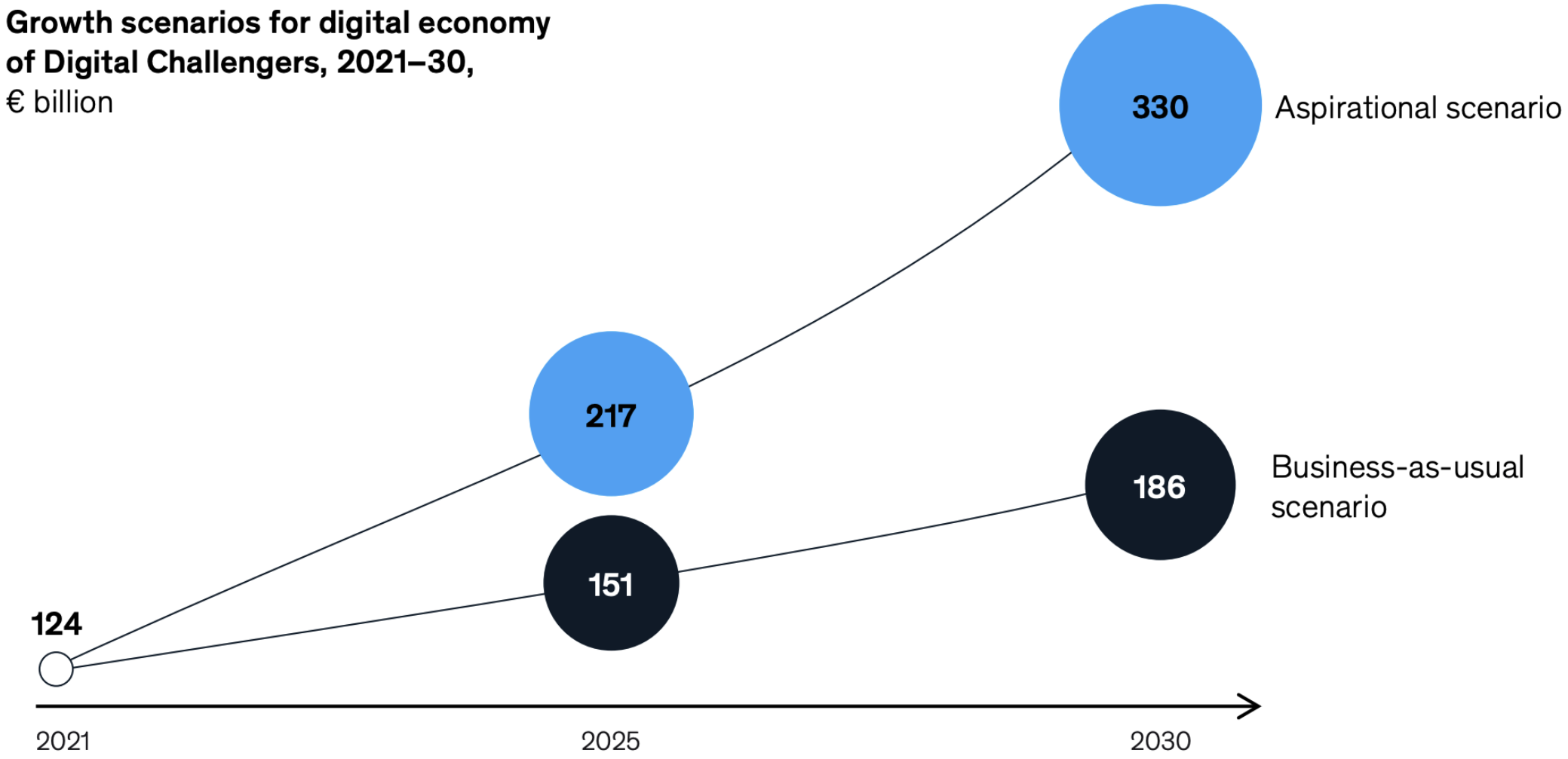
Petr Šmíd, Max Palko, Rockaway Ventures

AXIOS
DeepMind
AXIOS
DeepMind
AXIOS
DeepMind
AXIOS
DeepMind
AXIOS
DeepMind

CPU, GPU, TPU and NPU performance throughout history



Everyone in and out of this room should be interested in the tech sector



Source: Digital Challenegers on the Next Frontier, McKinsey

My path to tech sector

AI might be a hype in the short term, but is still underestimated in the long term

Google Search Interest in “AI“

*Also available at TAAFT.com
THERE'S AN AI FOR THAT®*
22,045 AIs for 15,463 tasks and 4,803 jobs.

perplexity

DeepMind

AlphaFold

Gemini

Claude

Google CEO Sundar Pichai: "We will move from mobile first to an AI first world"

Source: Google trends

We have good predispositions to be successful in tech

*„[CEE countries] have the **foundations for further digitization**. In particular, these include the following:*

- ***Good primary and secondary education** in terms of math and science literacy scores, according tothe international PISA ranking – almost on a parwith Digital Frontrunners*
- ***Large STEM (science, technology, engineering, and mathematics) and ICT talent pool**, with over 230,000 graduates in these subjects in 2015 – more than any of the EU Big 5 markets and twice as many as the entire Digital Frontrunner region*
- ***High-quality digital infrastructure with excellent 4G coverage**, some of the best coverage rates in the world for ultra-fast broadband and good affordability for ordinary citizens*
- ***Legacy "technology lock-in" that is milder than in Western and Northern European countries**. Having joined the digitization race rather late, CEE economies are less tied up with older technology."*

Source: The Rise of Digital Challenegers, McKinsey

What do you need to make impact with your idea?

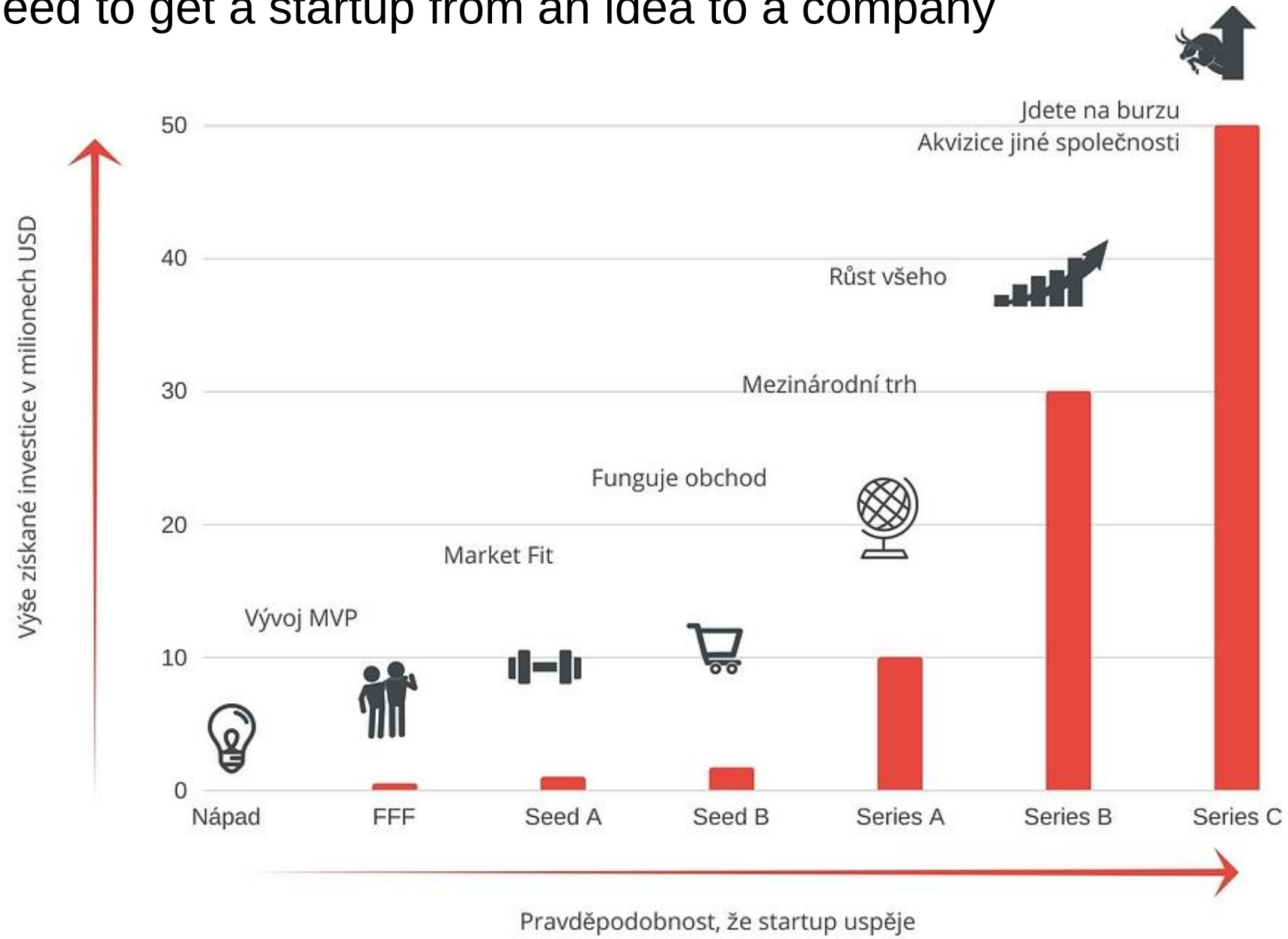
What do you need to make impact with your idea? … a company

avast

rohlik.cz

productboard

What you need to get a startup from an idea to a company

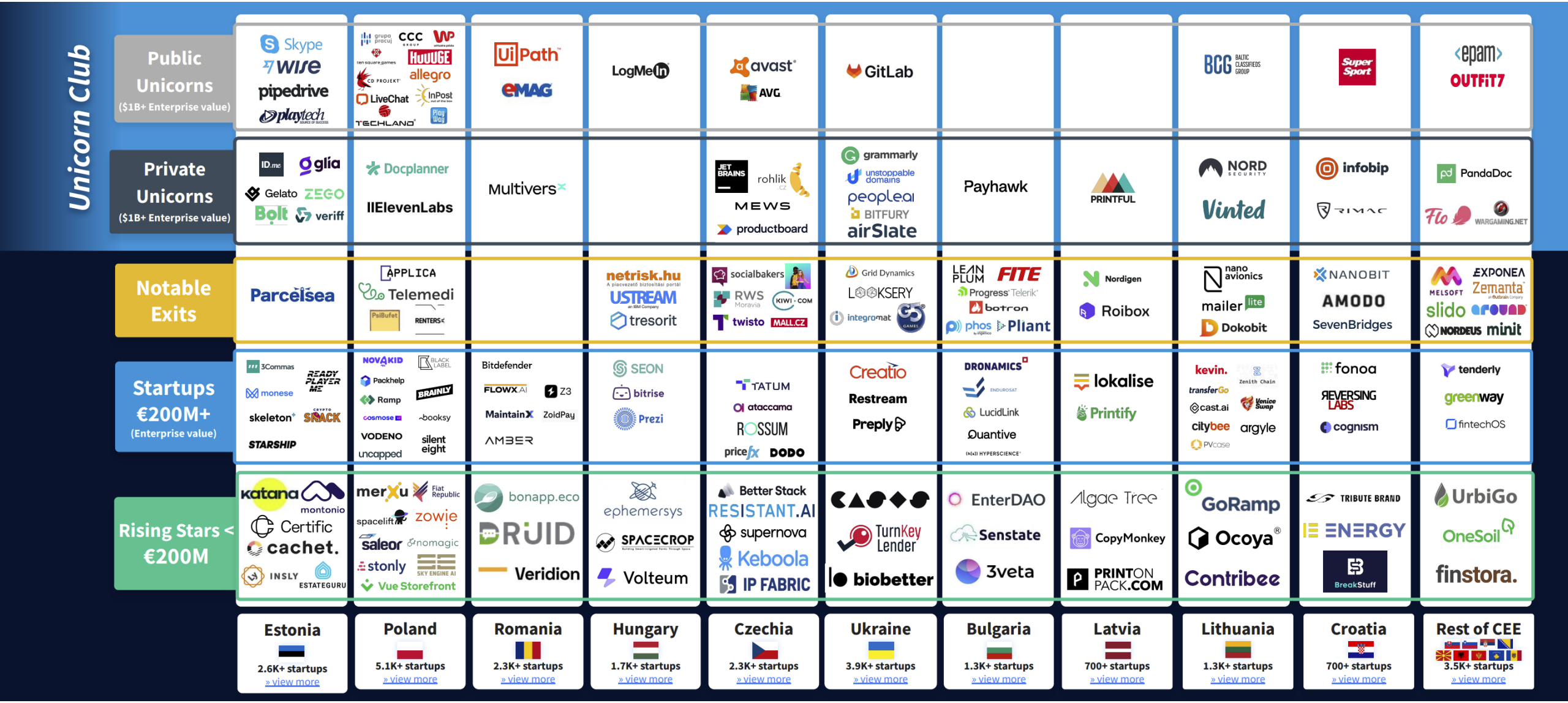


2019: CEE Unicorns and rising stars

		Estonia	Poland	Romania	Hungary	Czechia	Latvia	Lithuania	Belarus	Croatia
Unicorn club	$5-10B	skype								
	$2-5B		allegro	UiPath	LogMeIn	avast				
	$1-2B	TransferWise, taxify, playtech	CD PROJEKT	eMAG		KIWI.COM				
	Rising stars	pipedrive, monese, SKELE+ON TECHNOLOGIES	grupa pracuj, HOUUGE, Docplanner, BRAINLY	dcs, elefant.ro	Prezi, AIMOTIVE, tresorit	alza.cz, socialbakers, +Pilulka.cz	ATLAS DYNAMICS, mintos, sonarworks	citybee, Vinted, tesonet, NordVPN	Flo, banuba, WANNABY	RIMAC AUTOMOBILI, bellabeat, infobip

Source: Central & Eastern Europe: Startup & Investment Landscape 2019, Dealroom – Google for Startups

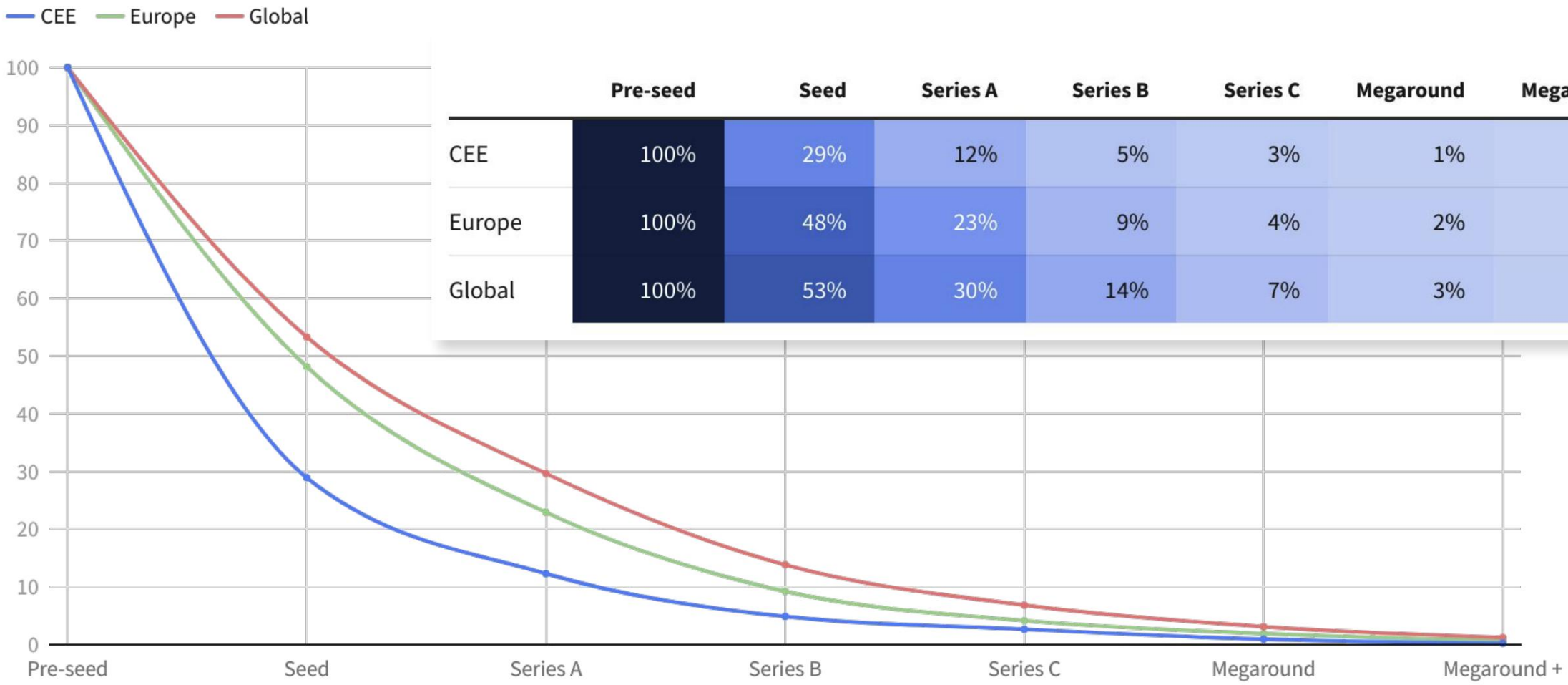
2024: CEE Unicorns and rising stars



Source: Central and Eastern European Startups 2024, Dealroom – Cogito – Uniqa – Vestbee

Moving your „idea“ from one stage to another is hard (& even harder in CEE)

Graduation rate of startups founded between 2008 and 2018



	Pre-seed	Seed	Series A	Series B	Series C	Megaround	Megaround+
CEE	100%	29%	12%	5%	3%	1%	0.2%
Europe	100%	48%	23%	9%	4%	2%	0.7%
Global	100%	53%	30%	14%	7%	3%	1.3%

Source: Central and Eastern European Startups 2024, Dealroom – Cogito – Uniqa – Vestbee

Key topics to consider when building a tech startup

Understanding the Lifecycle of a Tech Startup

- Focus on the key goals at each stage: idea, product, customers, scaling, and exit.

Building the Team

- Find and motivate skilled people who share your vision and complement your strengths.

Finding Product-Market Fit

- Build something that solves real problems for real customers.

Market Research

- Understand your market, customers, and competition deeply.

Funding Options and Navigating the Startup Ecosystem

- Explore funding options and use the startup community for support.

Failing Forward

- Treat failures as lessons to adapt and grow stronger.

The Role of STEM Skills in Entrepreneurship

- Use your technical expertise to innovate and stay ahead.

Great resource -> Scaling Through Chaos by Index Ventures: https://www.indexventures.com/scaling-through-chaos/

Building a Great Team: Attracting Top Talent with ESOP

What is ESOP?

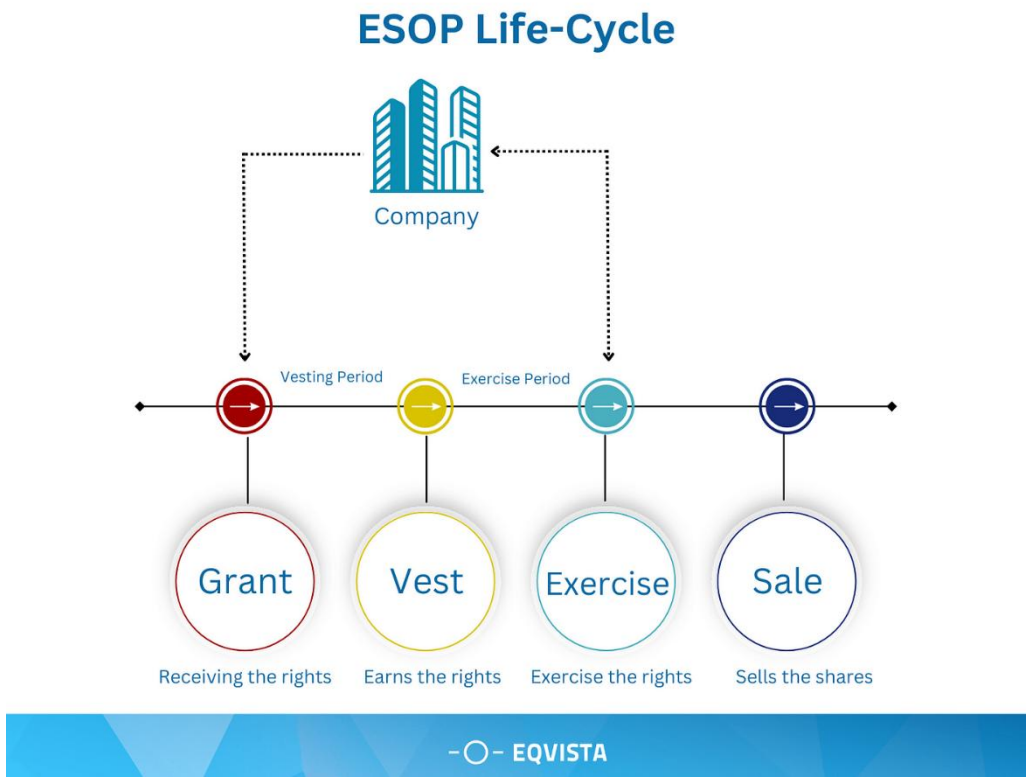
- An Employee Stock Ownership Plan gives team members a share in the company's success.

Why?

- Motivate employees to think like owners and stay for the long run.
- Attract top talent where small startup cannot offer market salary.

How it works?

- The company sets aside a percentage of shares in an ESOP pool, which is then allocated to employees as part of their compensation.
- Employees can sell their shares after a vesting period, benefiting from the company's growth.



Great resource -> Guide to Stock Option plans by Index Ventures: https://www.indexventures.com/rewarding-talent/

Finding Product-Market Fit: Building What Customers Truly Need

What is Product-Market Fit?

- When your product solves real problems and people want it.

Start with Customers

- Ask people what they need and what problems they have.

Build Together

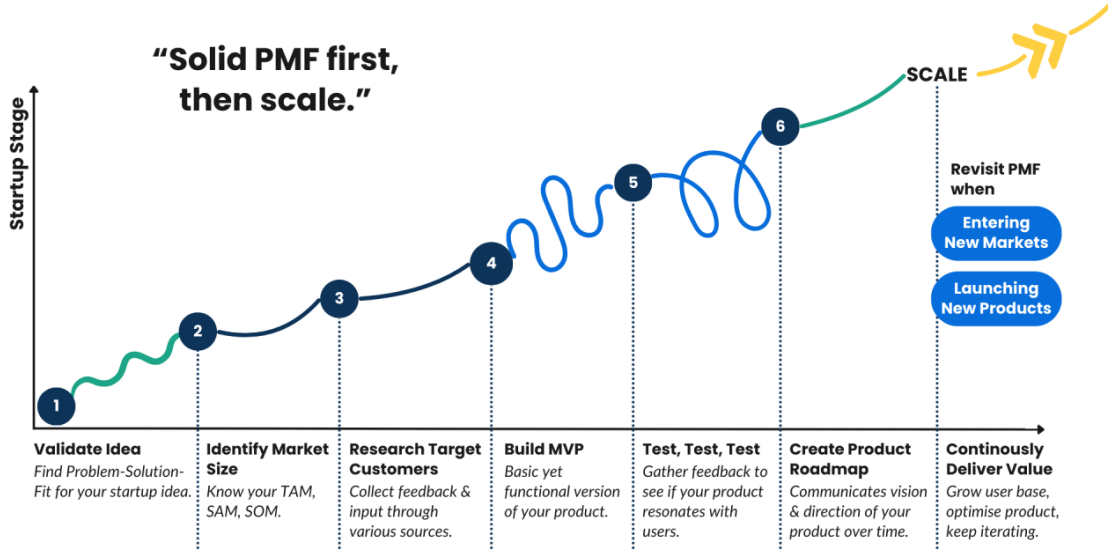
- Get feedback as you create your product to make it better.

Avoid the Garage Trap

- Don’t spend years building in isolation without testing your idea.

Use Validation Tools

- Try prototypes or MVPs to test your idea quickly.



Funding and Startup Ecosystem: Fueling Your Growth

Funding Options

- Startups can bootstrap, raise money from angel investors, or explore venture debt.

Startup Ecosystem Players

- Know who can help: angels, incubators, accelerators, family offices, and VCs.

What is Cap Table?

- Capitalization table is a document that outlines a company’s ownership structure.

What is the Cost of Equity Funding?

- Investors receive ownership stake in your company – the most expensive form of financing

Investor rights

- Investors receive additional rights to protect their investment:
  - Liquidation preference, reserved matters, pro-rata rights, anti-dilution protection, etc.

Explore Opportunities with Us

Learning Opportunity through Our Rockaway Academy Program

- Get real experience evaluating startups and making investment decisions.
- Work with founders, mentors, and investors to learn key skills.
- Build a network to help your future as a founder or investor.

The Intersection of STEM and Venture Capital

- STEM skills help spot great tech startups.
- Your technical knowledge makes it easier to judge innovations.
- STEM experts often connect founders with funding for smarter decisions.

Some resources to help you in the very early stage

Czech resources for the start:
- Czech founders https://czechfounders.org/resources/
- StartupBox https://www.startupbox.cz/
- Y Combinator https://www.youtube.com/@ycombinator

Index Ventures
- Guide to Stock Options: https://www.indexventures.com/rewarding-talent/
- Guide to Building and Leading Teams from 0 to 1,000: https://www.indexventures.com/scaling-through-chaos/
- Guide to Europe expansion: https://www.indexventures.com/destination-europe/
- Guide to US expansion: https://www.indexventures.com/destination-usa/