



UNIVERSITY OF ZAGREB
Faculty of Electrical
Engineering and
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TECHNISCHE
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AIoTwin

Twinning action for spreading excellence in Artificial Intelligence of Things

Guidelines for startups with examples

(Deep) tech startups in EU

2024-09-17, <ivoras@equinox.vision>



Funded by
the European Union

Outline



- Why found a startup in Europe (or anywhere?)
- What is a Startup?
- Financials
- Marketing
- Buy my Book



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Why Europe?

Sadly, it's not a startup-friendly place

Startup topics in US and EU



Market

United States

- 330M people
- \$80k/person BDP
- Homogenous culturally, economically, legally
- More risk-taking, "hustle culture", fast sales cycles

Europe

- 450M people
- \$40k/person BDP
- Fragmented languages, cultures, law systems
- Risk-averse, marketing-averse, ponderous

<https://blog.g2vp.com/us-vs-europe-comparing-two-startup-ecosystems-4a916a9ee0aa>

Startup topics in US and EU



Labour market

United States

- Easier hiring and firing
- Security comes from strong economy that makes finding the next job easy

Europe

- Strong labour laws, no "at will" hiring and firing
- Employees tend to stay at a company longer, for lower salaries
- Security comes from regulation

Startup topics in US and EU



Financing

United States

- \$270B VC industry
- Most EU startups are funded in the US

Europe

- \$44B VC industry (6x smaller than the US)
- VERY risk averse
- Croatian examples:
 - Infobip - HQ in US
 - Rimac - HQ in US
 - SPAN - local HQ, low valuation
 - Data Privacy Manager (PI) - local HQ, low investment

Startup topics in US and EU



Law

United States

- There are jurisdictions with accelerated and templated contract & commercial law (Delaware, California)

Europe

- Very fragmented laws among countries
- Examples:
 - France & crypto
 - Germany & GDPR

https://en.wikipedia.org/wiki/Cryptography_law#France
<https://www.activemind.legal/law/de-data-protection/>

Startup topics in US and EU



**America
innovates**



**China
replicates**



**Europe
regulates**



(a joke, but close)

Why do it in Europe?



- Social safety nets (mostly theoretical in Croatia)
- Structured, EU-level government-academic partnerships (👉)
- EU funds
- "It's a nice place to live in"
- Still a lot of local opportunities due to technological level arbitrage



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What is a Startup?

Business.

What is a Startup?



Fast growth, international, high-tech

What is NOT a Startup?



Agency, lifestyle business, non-profit orgs...

Goals of a Startup



To create value, by solving a problem



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Financials

It's all about \$\$\$

Value = Revenue



Company value is measured in revenue
(NO EXCEPTIONS)
(there are temporary deviations)

Personal goals



Leaving your mark on the world?
Getting enough money for the next idea?
Making parents proud?

"Deep-tech" vs "regular" startup



Deep tech

- Potentially huge impact
- Long development cycle
- Large initial investments



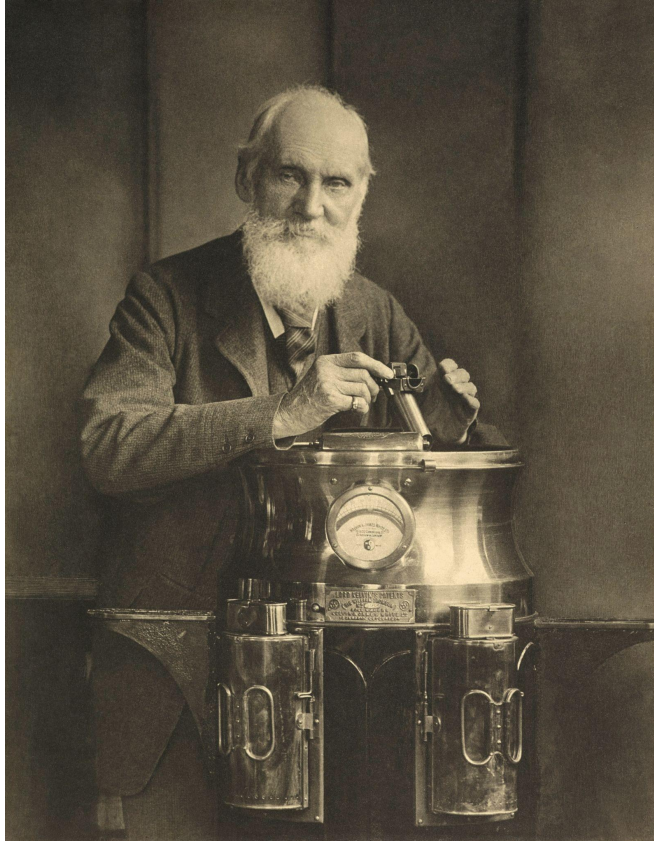
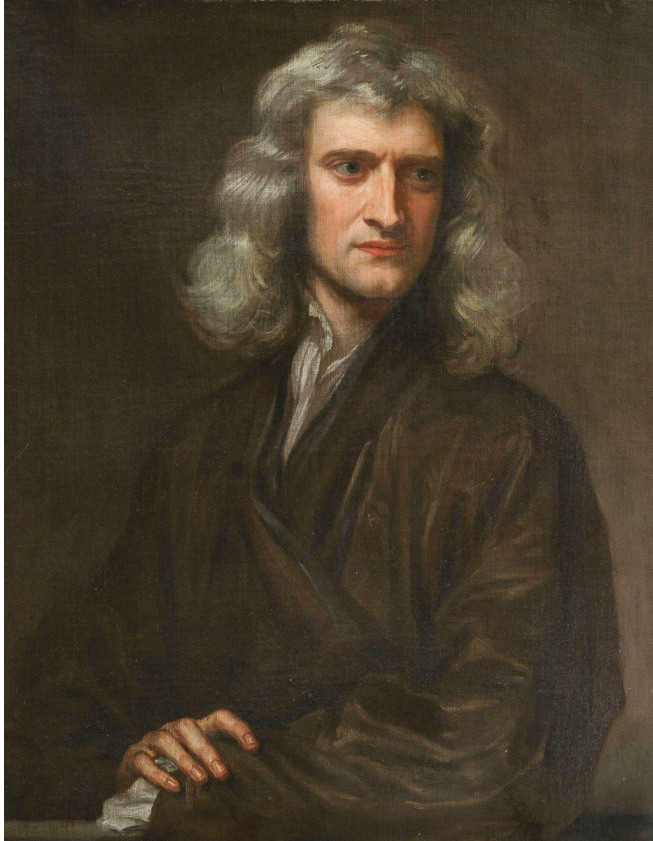
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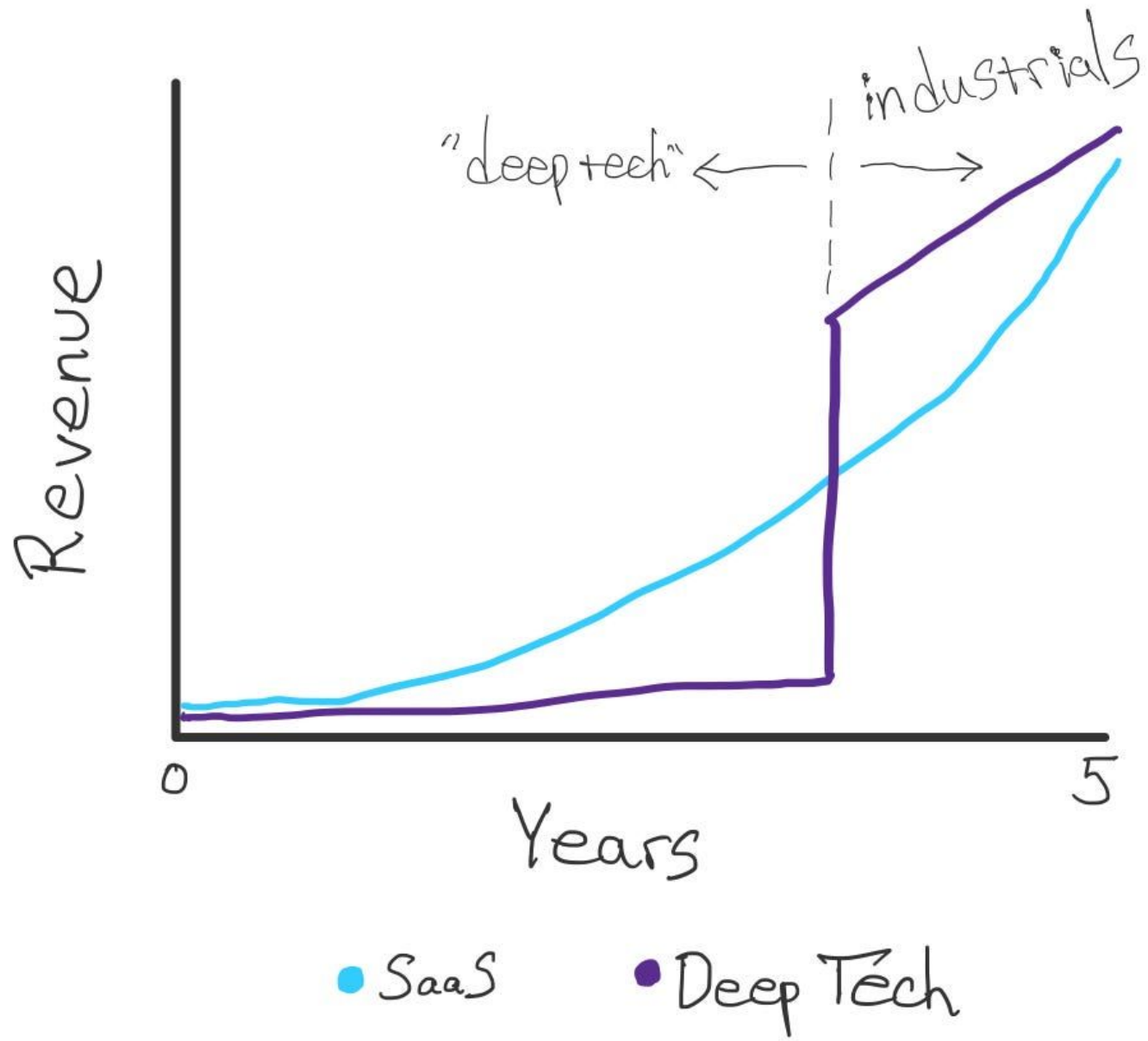
Regular

- "Normal" impact
- Can "move fast and break things"
- Can be started in a garage



Microsoft





Phase name	Description	Investment source	Expected outcome
Idea	You only have a PowerPoint slide deck and a gleam in your eye.	Friends, fools, and family (FFF). Possibly angel investors.	Make a PowerPoint deck that won't make an accountant weep.
Proof of concept	You cobble together something which looks like it may be useful to someone. It doesn't have to contain the entirety of your master plan.	Angel investors; incubators.	Get feedback on the proof of concept from FFF and potential clients, then iterate and refine it. Charm an investor.
Minimum viable product (MVP)	You've made something which can actually be used by a human being who isn't you, and they find it useful.	Accelerators; maybe even early customers if you are lucky.	Get a couple of early paying clients. Refine the MVP through feedback from them. Probably the right time to establish a company and think of hiring.
Beta product version	Something which you are not constantly ashamed of is being used daily by your client(s).	Accelerators; seed (early stage) VCs.	Prove that you are capable of selling it in a volume that makes money which could be interesting to VCs.
Version 1.0	You are transitioning from a startup to a scaleup. There is no doubt people want your product and that you are capable of both making and selling it. The question is "how much can you earn?"	"Series A" VCs – probably the first "serious" investors.	Grab a significant market share in a non-trivial niche. Make money.

Price of Money



Grants < Loans < Convertible loans < Equity

Venture Capital



"Necessary evil"

Equity vs Investment rounds



Time	Valuation	Round equity	Round cash	Founders % ¹⁸
Year 1 – FFF	€300,000	5%	€15,000	95%
Year 2 – Accel.	€750,000	10%	€75,000	85%
Year 3 – Seed	€3,500,000	10%	€350,000	75%
Year 4 – A	€50,000,000	30%	€15,000,000	45%
Year 5 – B	€220,000,000	20% (of everyone)	€50,000,000	36%
Year 6 – C	€1,100,000,000	20% (of everyone)	€220,000,000	28%

Equity vs Investment rounds



Time	Founders % ¹⁸
Year 1 – FFF	95%
Year 2 – Acco	85%
Year 3 – See	75%
Year 4 – A	45%
Year 5 – B	36%
Year 6 – C	28%

Valuations



If the startup has no revenue, valuation is guesswork
After it starts selling something,
there are numbers involved.

How to find Investors?



Networking.

The subtle art of Cold Calling



Google: "vc investor database"

Register at CrunchBase (& buy subscription)
100 cold e-mails per month is "normal"

Red Flags in Investors



Bad reputation among founders (network!),
No track record
Want to invest too little

Startup's goal: to stay afloat



CEO's goal: Raising money
There's usually not enough time to work on
both business and tech

Founder's goal: find a replacement



No-one can run the company and have the same *fidelity of vision* as the founders. Founders should be free to fight for the company.

"Work on the company, not in the company."

Founder's goal: Make an Exit



Exit = sell (the part of) your company.
75% of EU companies are bought by US companies.

<https://www.eu-startups.com/2024/02/the-eus-startup-landscape-is-ripe-with-opportunity-its-about-knowing-where-to-look/>

How shares work



Company shares are created out of thin air. (d.d.)
Initially, founders have all the shares.
Shares are created for each new investor (dilution).
Founders can sell their shares at the investment event.

Employee compensation



"ESOP": Employee Stock Ownership Plan
A way to get stocks to employees

(US has 10x more employee-owners than Europe)
(silly taxes)



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Marketing

Getting the product / tech sold

Marketing



None of this matters
if the company cannot sell its product / tech.

Ways of earning 1 million €



Usually B2C

- Get 100,000 people to pay €10 for your product.
- Get 10,000 people to pay €100 for your product.
- Get 5,000 people to pay €200 for your product.
- Get 1,000 people to pay €1000 for your product.
- Get 500 people to pay €2,000 for your product.
- Get 100 people to pay €10,000 for your product.
- Get 10 people to pay €100,000 for your product.

Usually B2B or B2G

Ways of earning 1 million € in a year




- | |
|---|
| • Get 30,000 people to pay €3/month (€36 yearly). |
| • Get 10,000 people to pay €9/month (€108 yearly). |
| • Get 5,000 people to pay €17/month (€204 yearly). |
| • Get 2,000 people to pay €42/month (€504 yearly). |
| • Get 1,000 people to pay €83/month (€996 yearly). |
| • Get 300 people to pay €278/month (€3,336 yearly). |
| • Get 10 people to pay 8,333/month (€100,000 yearly). |

Usually B2C



Usually B2B or B2G



Companies are made of people.

Good luck!



Instagram was bought by Facebook after 2 years
WhatsApp was bought by Facebook after 5 years
Skype bought by Microsoft after 8 years
LinkedIn bought by Microsoft after 13 years
Roblox IPO-ed after 17 years

About the author



Ivan Voras, PhD, is an entrepreneur, CTO, AI engineer, or a senior developer, depending on what's needed at the time. He is a dreamer and enjoys working on exotic and early-stage technologies, even though that often seems masochistic.

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