

I PLAYER DELL'OPEN INNOVATION
IN ITALIA

I VOLUMI DI MERCATO

I TREND EVOLUTIVI

Deep Tech tra scienza e tecnologia

Stefano Mizio



IN COLLABORAZIONE CON:

LAB11 Srl

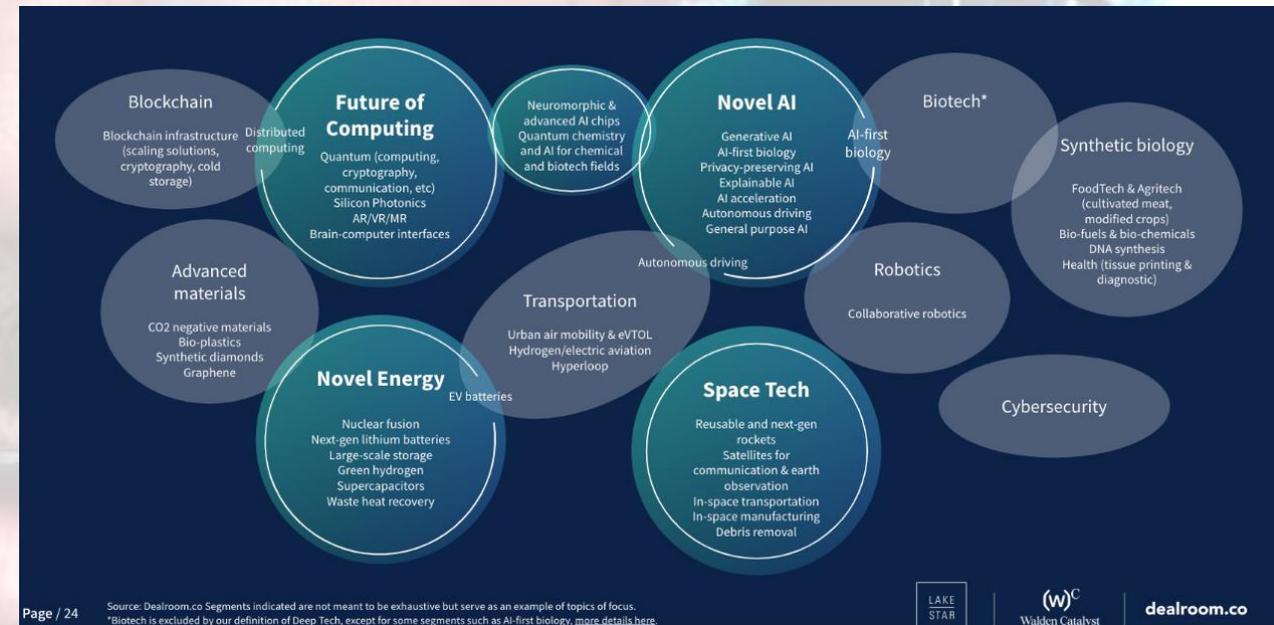
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- **Deep Tech definition**
 - **Why now**
 - **Challenge 1: Funnel's quality**
 - **Challenge 2: Team**
 - **Challenge 3: Geopolitical**
 - **Challenge 4: Venture Capital**
 - **Challenge 5: Supply & Value Chain**
 - **Conclusion**

Anything that's not an app

Shallow innovation is creating an app for finding the best time to go to the beach. Deep innovation is creating a way to clean plastics from the ocean.

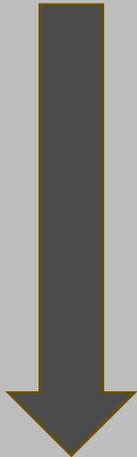
Rehn, Alf. Innovation for the Fatigued

Sector to which technology belongs



Presence of barriers to entry

High level of information asymmetry



Uncertainty

- Non linearity of innovation trajectory
- Regulatory
- Market Demand
- Ability to produce the solution



Science based technology solutions associated with critical dimensions of uncertainty

- Positioned at the knowledge frontier with a long and uncertain **R&D cycles**
- Physical and tangible products often based around **highly defensible IP**
- The best of both (research for fundamental understanding and research for use) – **Pasteur's Quadrant**

Research is inspired by:

		Considerations of Use?	
		No	Yes
Quest for Fundamental Understanding?	Yes	Pure basic research (Bohr)	Use-inspired basic research (Pasteur)
	No		Pure applied research (Edison)

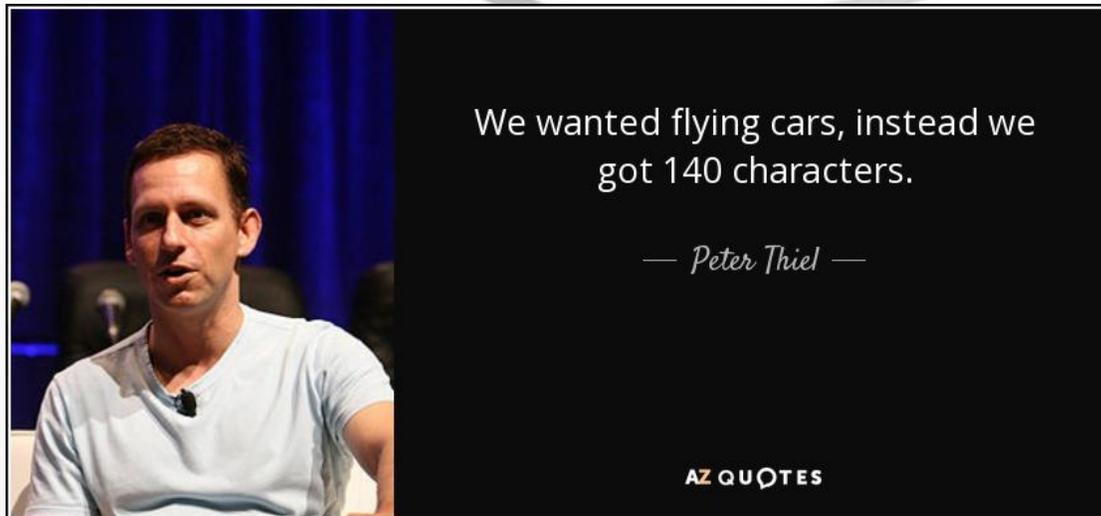
Pasteur's Quadrant Donald E. Stokes

The power of Convergence

Formerly independent waves of exponentially accelerating technology are beginning to converge with other independent waves of exponentially accelerating technology.

Diamandis, Peter H.; Kotler, Steven. The Future Is Faster Than You Think

Technology Cost Curve



Papers and patents are becoming less disruptive over time

[Michael Park](#), [Erin Leahey](#) & [Russell J. Funk](#) 



Ricerca, mettere la creatività sempre più al centro del sistema

[Gianmario Verona](#) | 28 agosto 2023

Si fanno cioè più innovazioni «al margine», che scoperte. Sembra mancare l'ambizione della grande scoperta che cambia il corso scientifico di un campo disciplinare

$$P(A|B) = \frac{P(A \cap B)}{P(B)}$$

Looking for people with their heads in the sky
but their feet on the ground

$$P(\bigcup_{i=1}^n E_i) \leq \sum_{i=1}^n P(E_i)$$

ILARITY

I.O.E.
↓

D-D FUSHION
↓

Inventor
Engineer

Entrepreneur
CEO

2100

2150

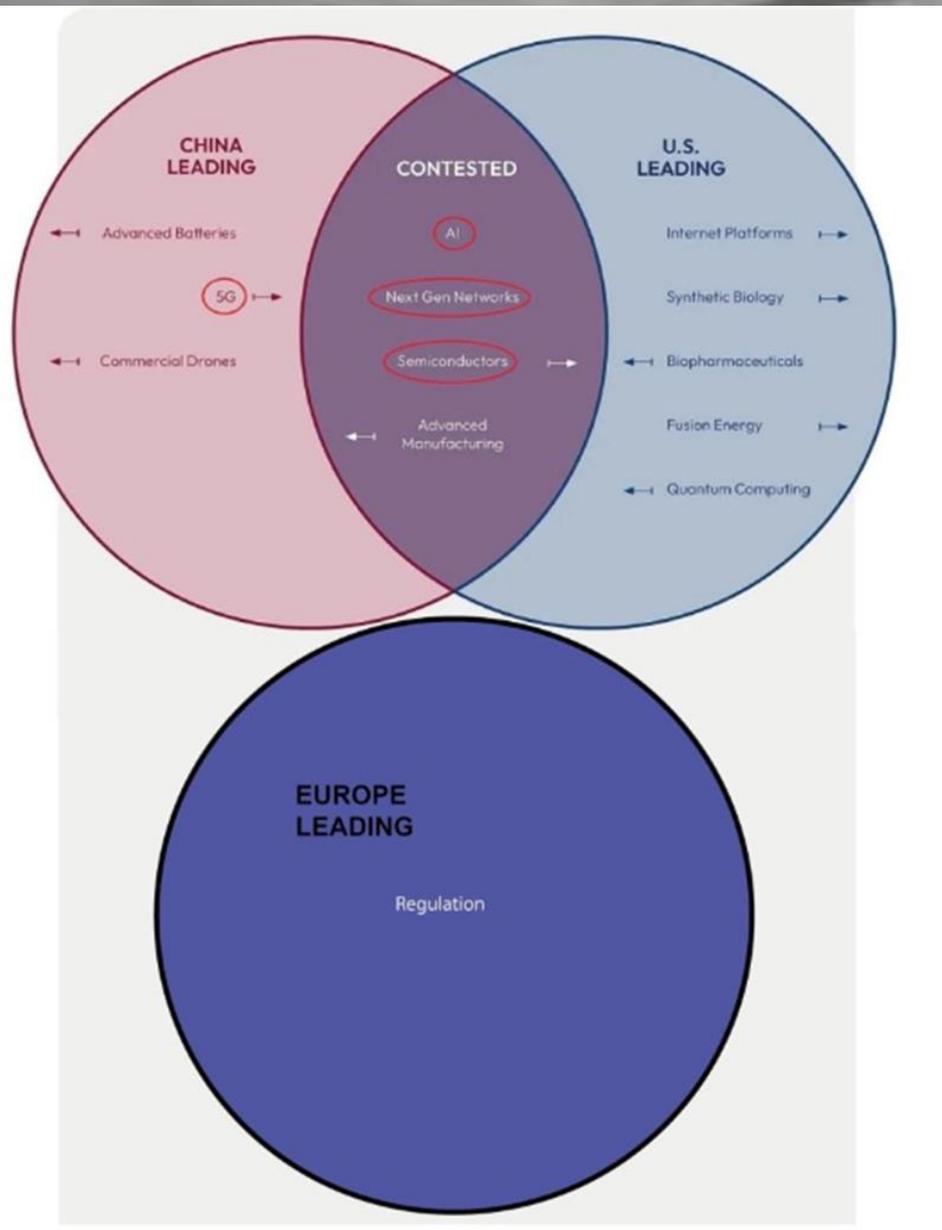
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Technology Sovereignty

Challenge 3 :Geopolitical





Member-only story

Death of The Generalist Seed VC

Leading Funding Rounds Now Requires More Thematic Focus To See, Pick, Win & Service Startups

Hunter Walk · Follow
3 min read · Jan 15

US Market

	Cumulative new revenue projected 5 years ¹	Total VC investment in past 5 years ²	# of VCs with real focus ³
Software & Services	~\$1.7T (40%)	~\$685B (90%)	>1,000
DeepTech	~\$2.5T (60%)	~\$70B (10%)	<30

Source: IDC, Gartner, Snowcloud Capital

Exhibit 3 – Deep-Tech Companies Believe That European Investors Have a Limited Understanding of Deep Tech

Deep-tech companies' assessment of European investors



Source: EuroQuity/Les Deeptech survey of European deep-tech companies (part of the EIC ScalingUp project), March 2022; BCG and Deepwave Ventures analysis.
Note: Because of rounding, not all percentages add up to 100.

The ability to produce the solution

Complexity dimension	Complexity drivers
Product	Quantity of subsystems and components
	Degree of customization of components
	Degree of customization of final system
	Batch size/volume
	Unit cost
Internal	Degree of physical assets necessary
	Range of (new) knowledge and skills
	Degree of industrial coordination
External	Degree of user and customer involvement
	Degree of supplier involvement
	Degree of key partner involvement
	Degree of other regulatory involvement

Conclusion

Optionality

Complexity

Corporate Deep Tech Strategy

