



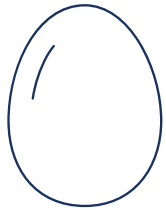
PHYSICS AND DEEP TECH ENTREPRENEURSHIP

HELIVALTNA, PHD

UT DELTA BUSINESS SCHOOL

CIPHR SUMMER SCHOOL 2024-06-30

DO THE COMPANIES GROW?



Idea and Vision



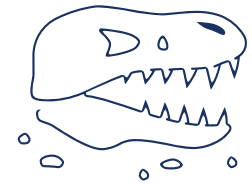
Idea Validation



Growth phase

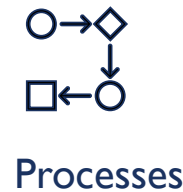
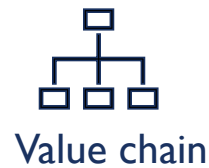


Plateau



Deceased

A COMPANY IS MADE OF BUSINESS FUNCTIONS



GROUPING FUNCTIONS TO 5-DIMENSIONAL SPACE

Strategy



Vision



Business model



Global trends



Decision making

Customer



Market Analysis



Marketing



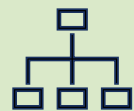
Sales



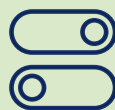
CRM



User story



Value chain

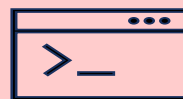


Switching cost

Product



Product dev.



Technology dev.



Supply chain



Manufacturing

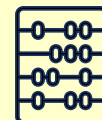
Organization



Personnel



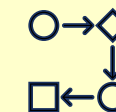
Culture



Finances



Legal



Processes



Admin

Networks



Business partners



Mentors



Development Partners



Funding agencies



WHERE DOES THE INNOVATION TAKE PLACE?



DEEP TECH

Deep Tech represents innovative **technologies of (cyber-) physical nature** that are

- characterized by **long development times**,
 - **high capital requirements**, as well as
 - **high market and technology uncertainty**, and
 - **addresses fundamental societal as well as environmental challenges.**
- Deep Tech exhibits significant technological advancement compared to established technologies and have the **potential to radically change existing markets or create completely new ones.**

WHERE DOES THE INNOVATION TAKE PLACE?

Strategy



Vision



Business model



Global trends



Decision making

Customer



Market Analysis



Marketing



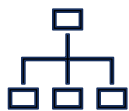
Sales



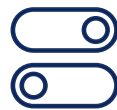
CRM



User story



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Switching cost

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Technology dev.



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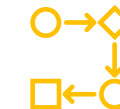
Organization



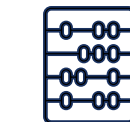
Personnel



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Processes



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Admin

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Business partners



Mentors

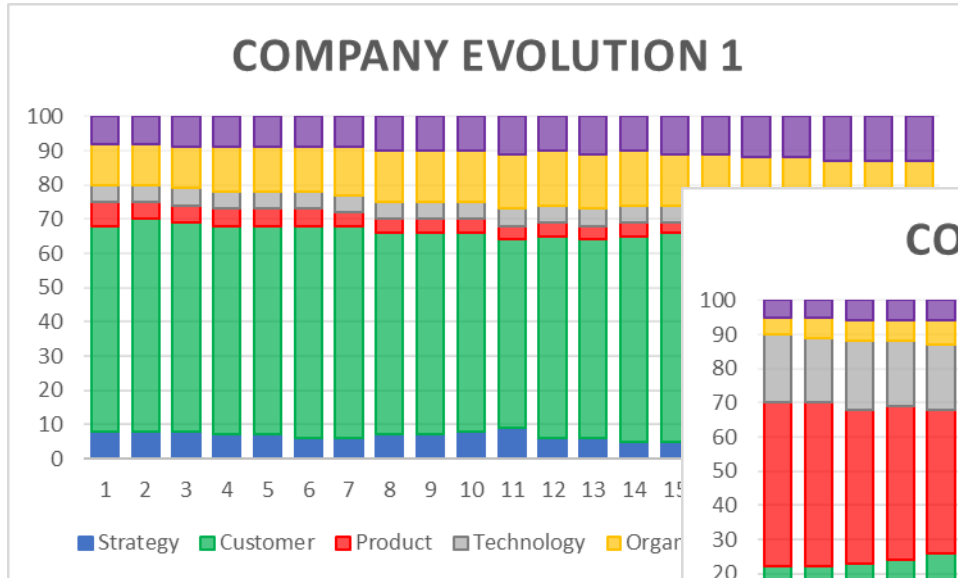


Development Partners

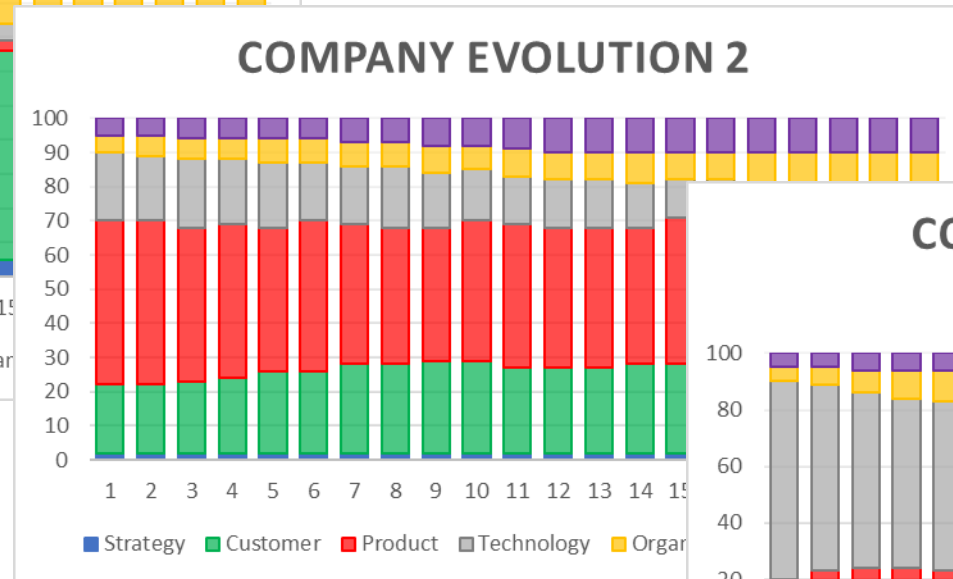


Funding agencies

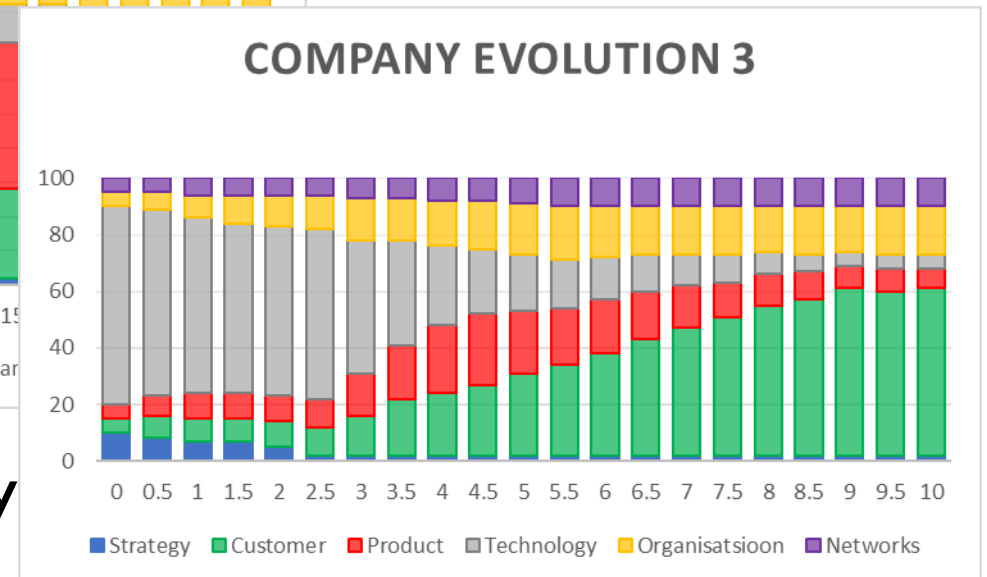
ARE THE COMPANIES ALIKE?



Focus on Sales



Focus on Technology
And Product

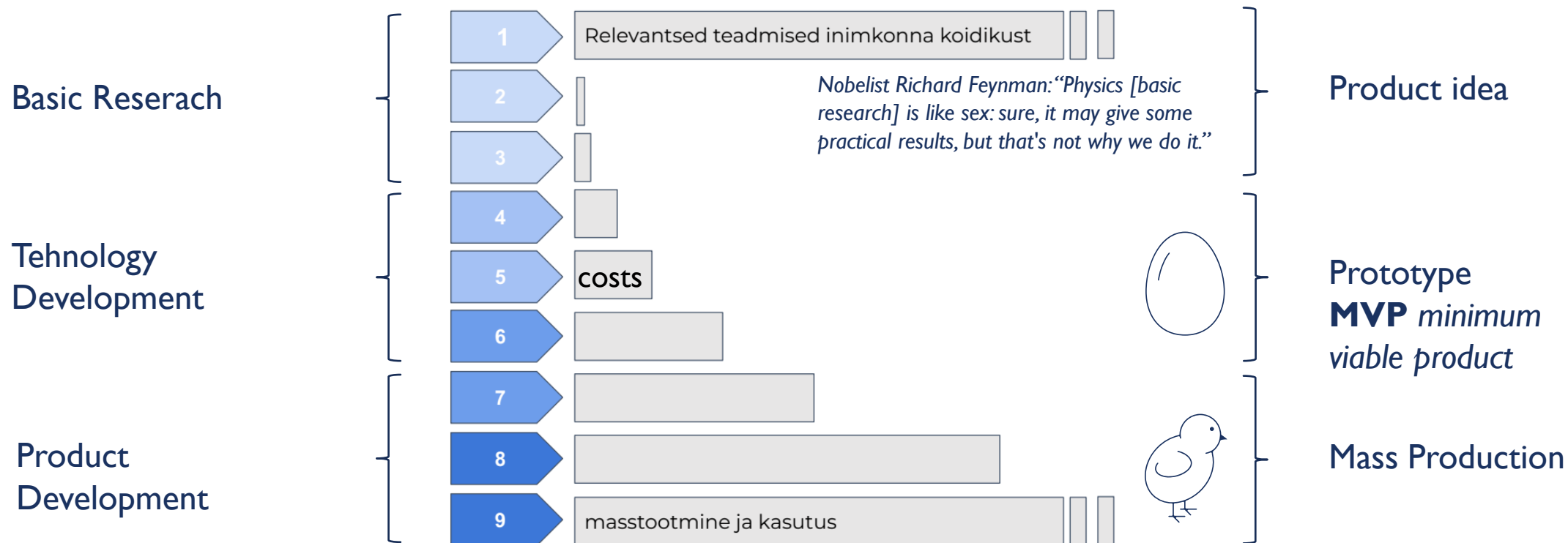


See the Phase Transition!
This is scaling deep
tech company!

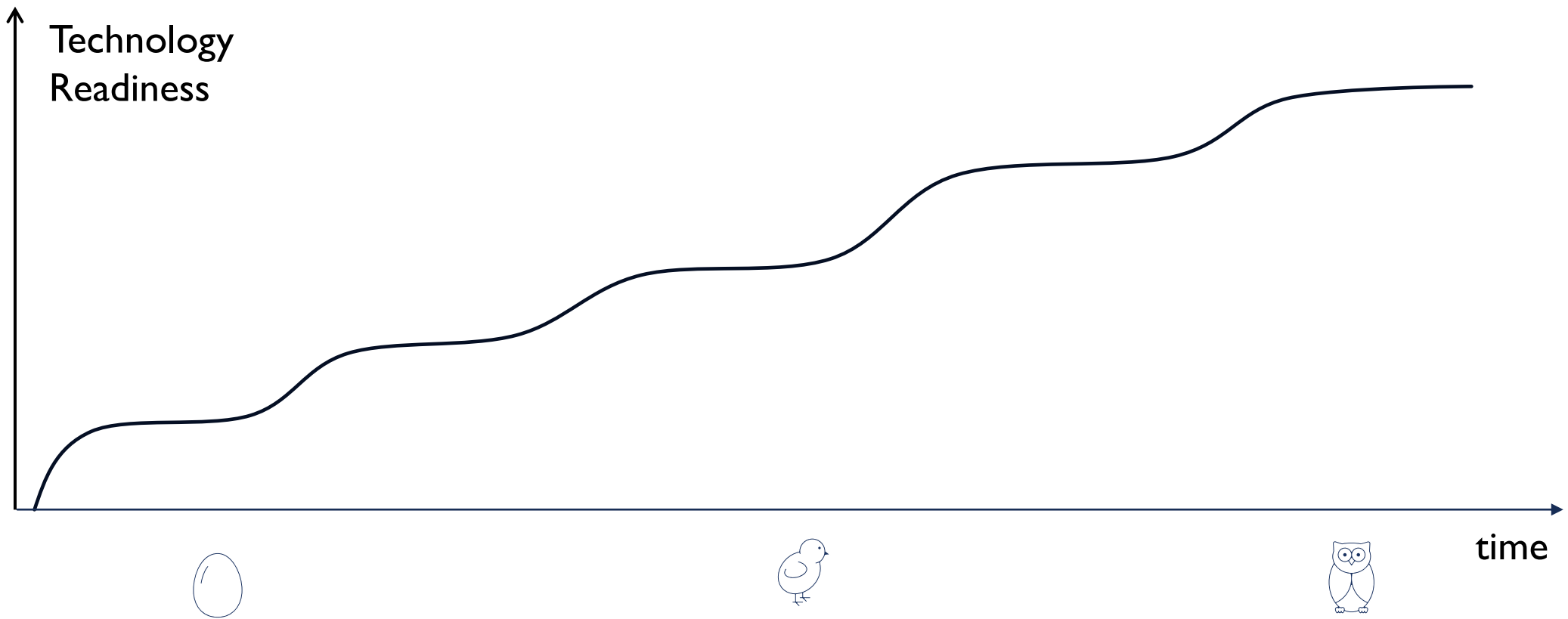


WHAT IT TAKES TO GROW A DEEP TECH COMPANY?

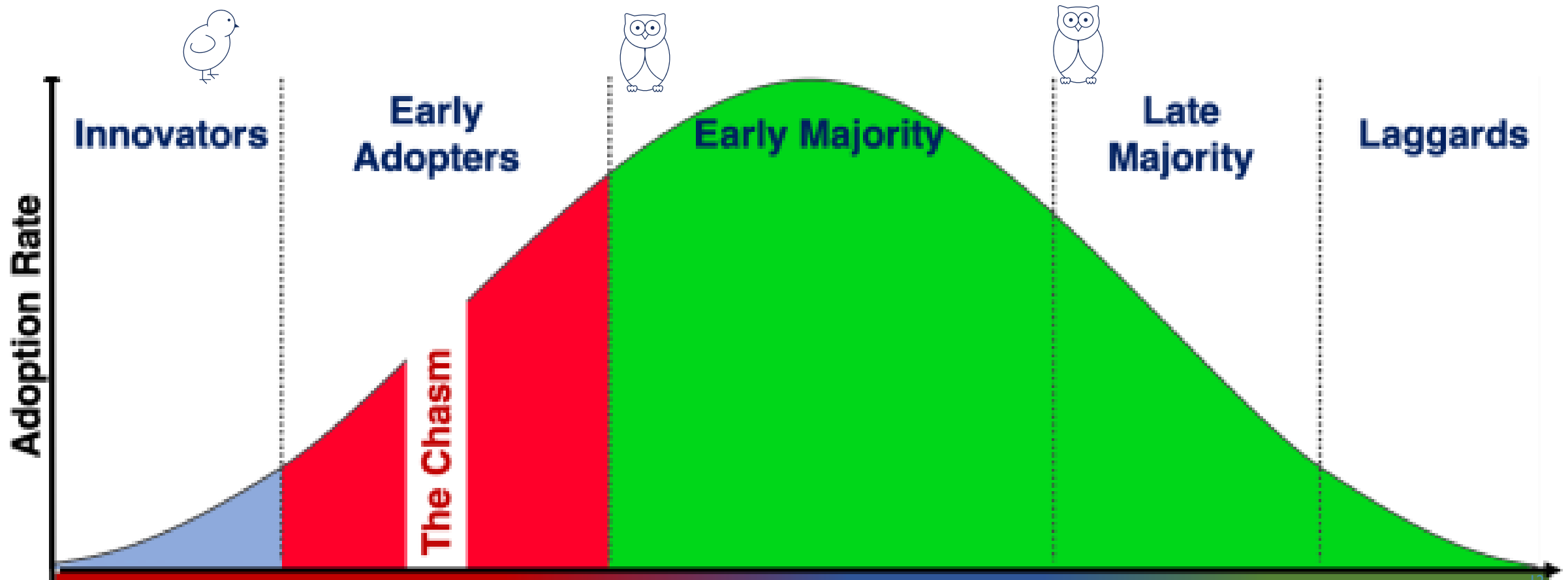
TECHNOLOGY READINESS



GROWTH SPURTS



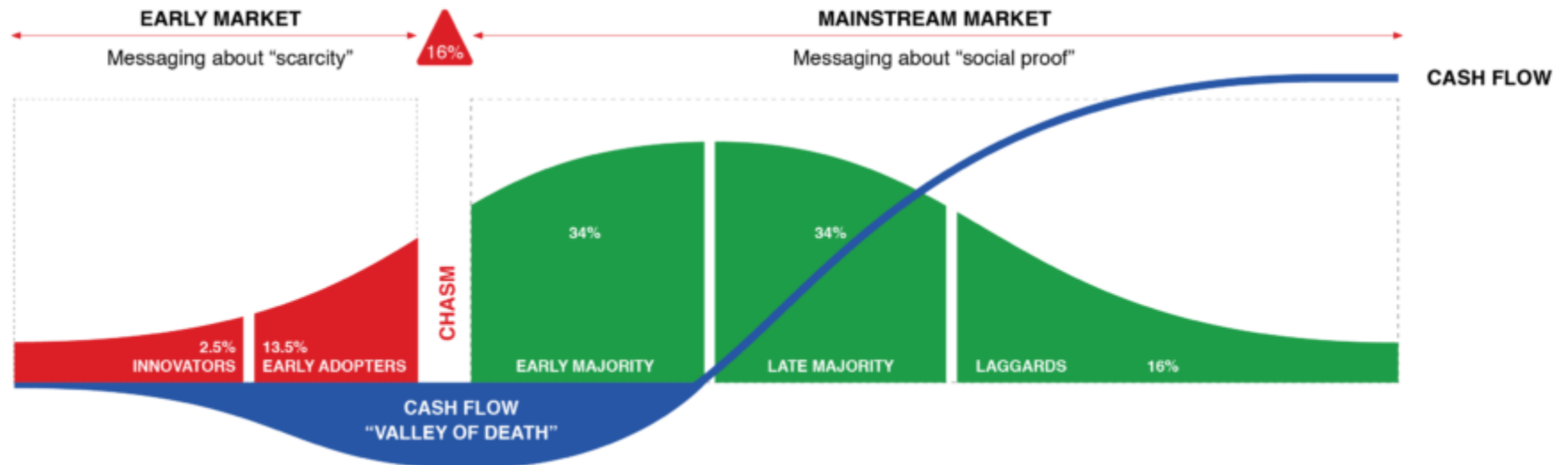
PRODUCT ADOPTION LIFECYCLE



VALLEY OF DEATH



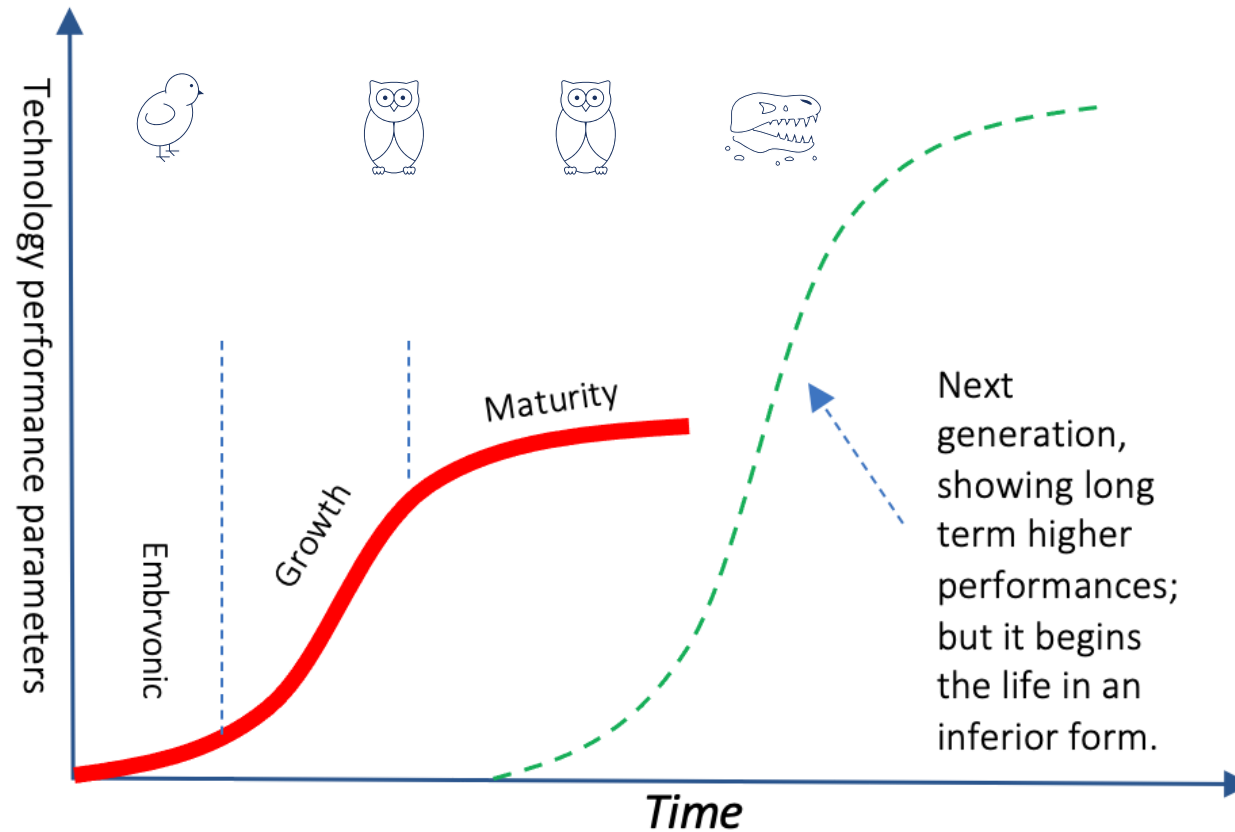
ADOPTION CURVE OF NEW TECHNOLOGIES THE 16% RULE



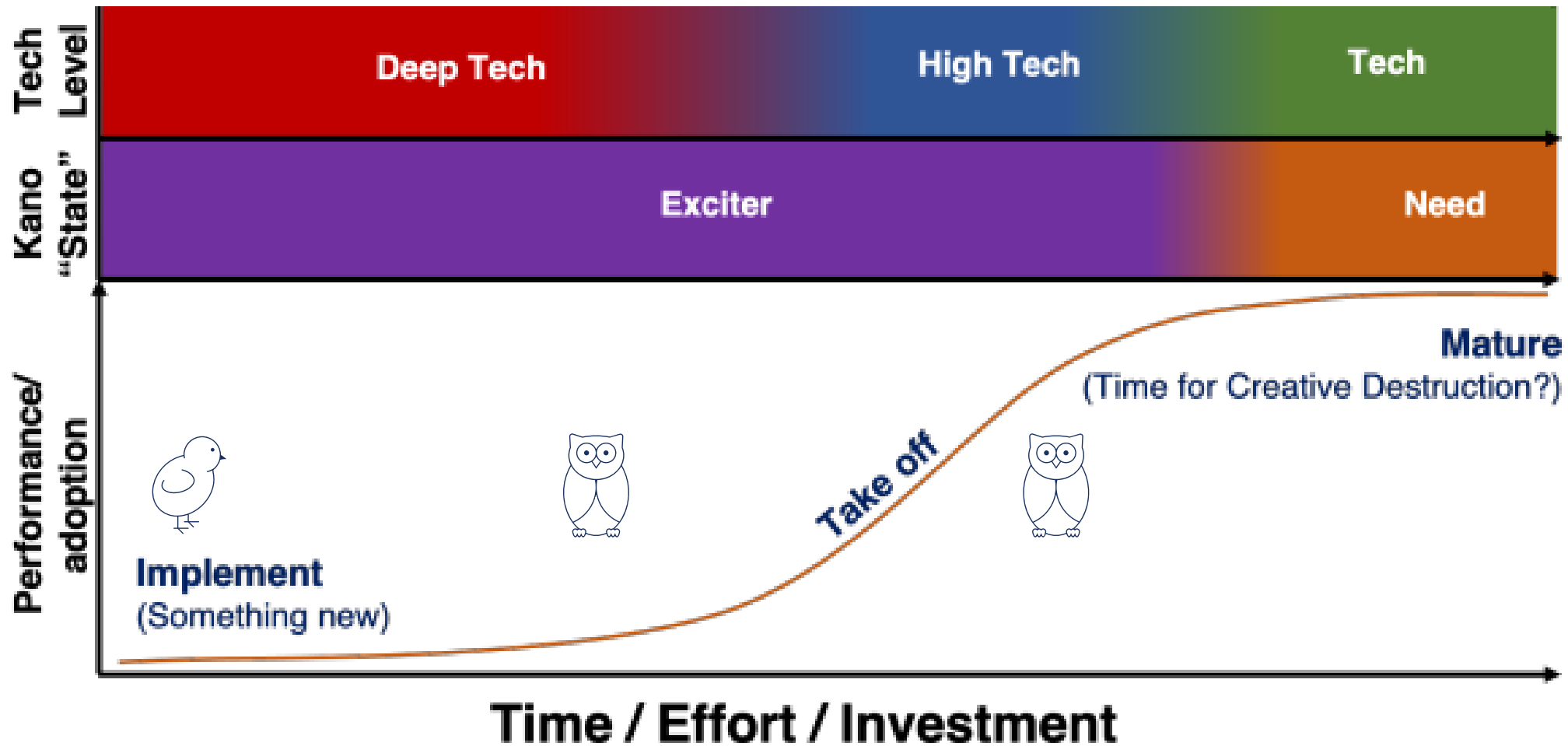
GARTNER'S HYPE CYCLE – INVESTMENTS AND MARKETS



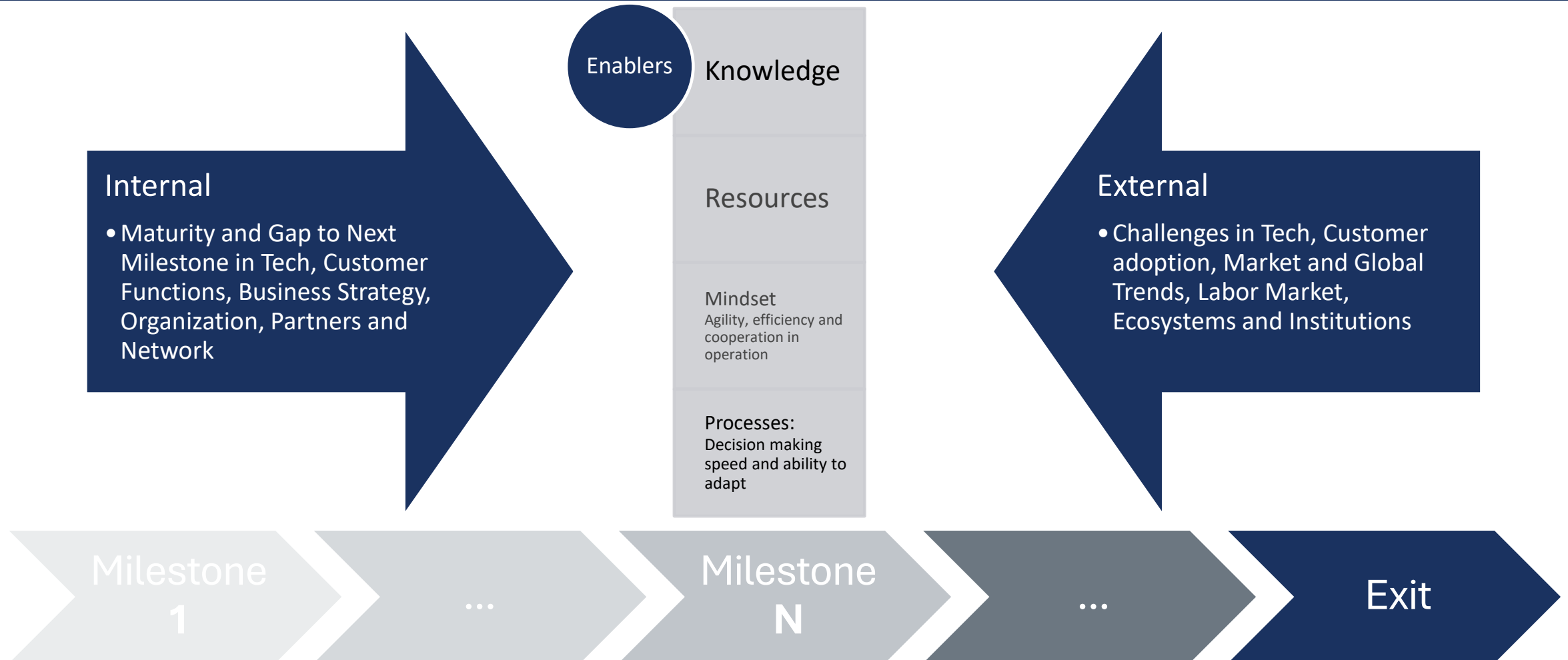
SYSTEM LEVEL - CREATIVE DESTRUCTION



FROM DEEP TO HIGH AND SETTING NEW STANDARD



DEEP TECH COMPANY GROWTH MODEL





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