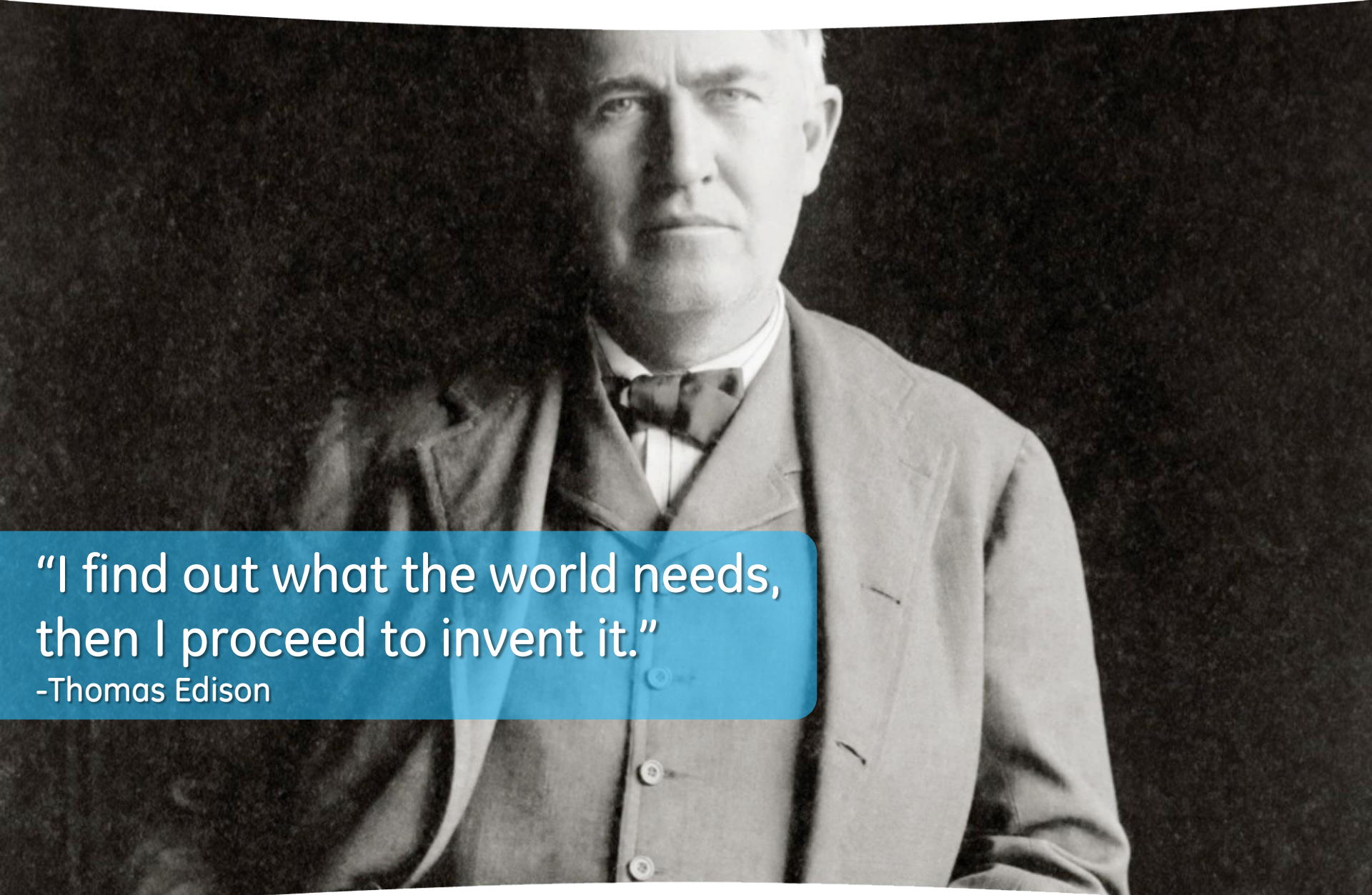


# Innovation Evolution

Michael Idelchik



imagination at work



“I find out what the world needs,  
then I proceed to invent it.”

-Thomas Edison

# A history of innovation



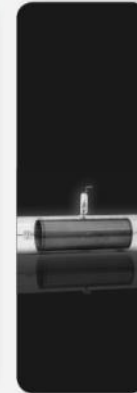
**1879**  
Carbon  
Filament  
Incandescent  
Lamp



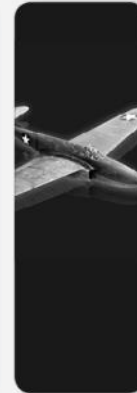
**1895**  
World's  
Largest  
Electric  
Locomotive



**1920**  
Portable  
X-Ray  
Machine



**1921**  
The  
Magnetron



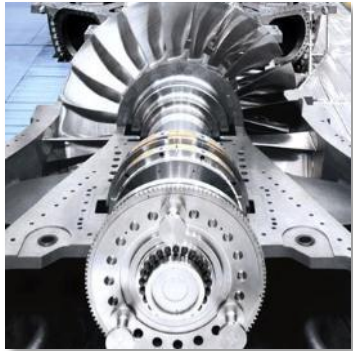
**1941**  
Entering  
the Jet Age







# GE today



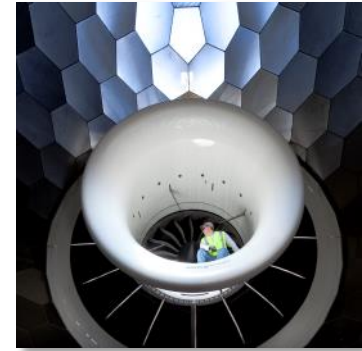
**Power & Water**



**Energy Management**



**Oil & Gas**



**Aviation**



**Healthcare**



**Transportation**



**Home & Business Solutions**



**GE Capital**

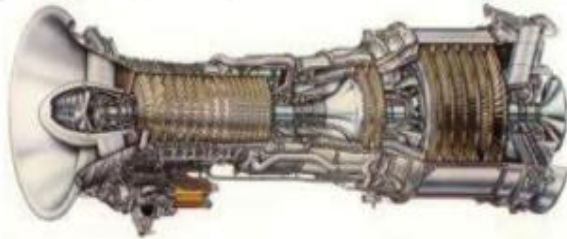
Aligned for growth



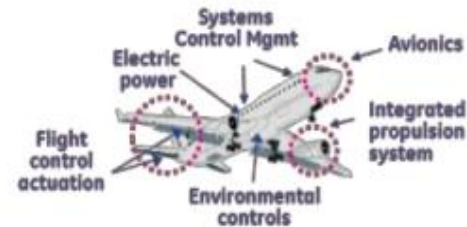
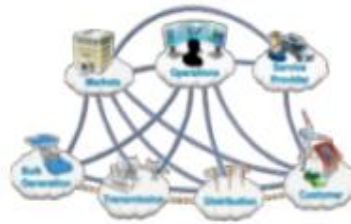
# The nature of innovation is changing

From Products Alone

To Integrated Systems



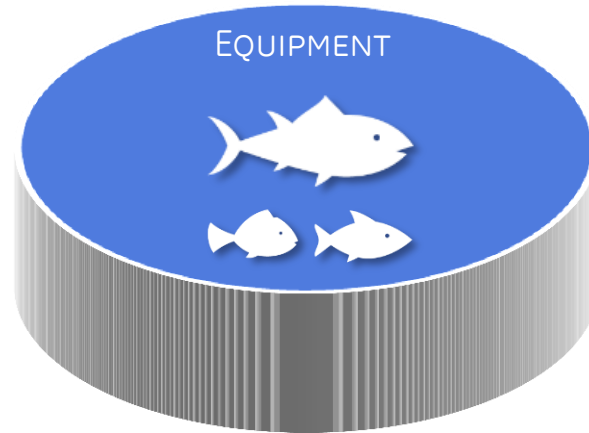
General Electric LM2500 Gas Turbine



Over the last 10 years, < 2% of innovation types have produced > 90% of value...rise of platforms and new business models



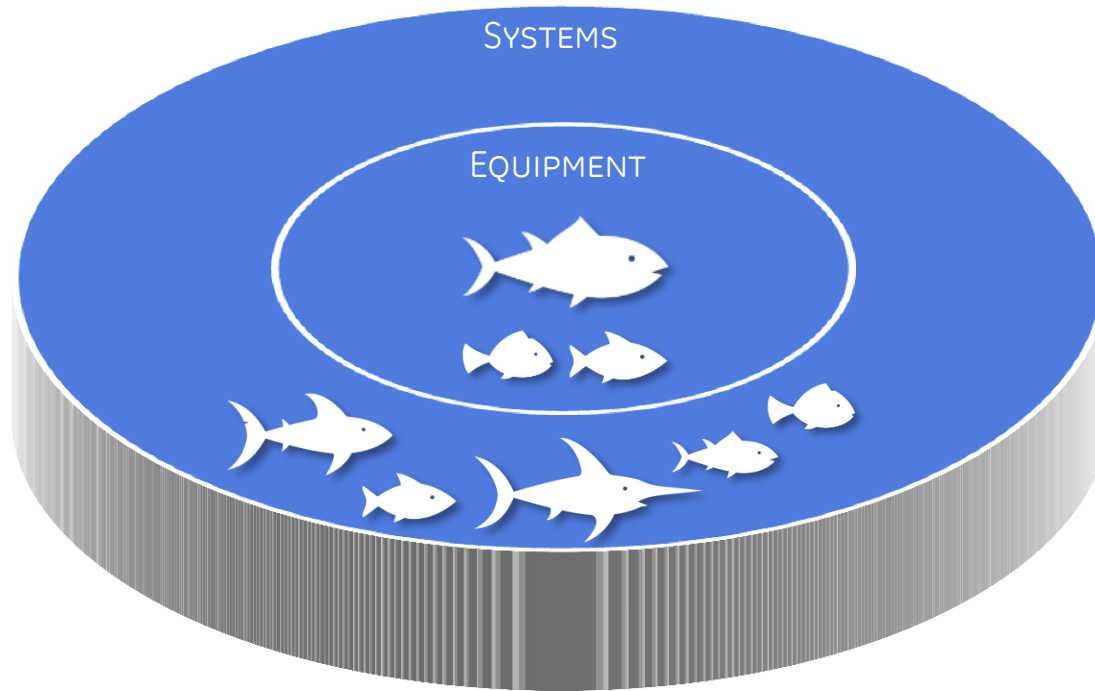
# Value through equipment



**Innovation ... 2-5 years**

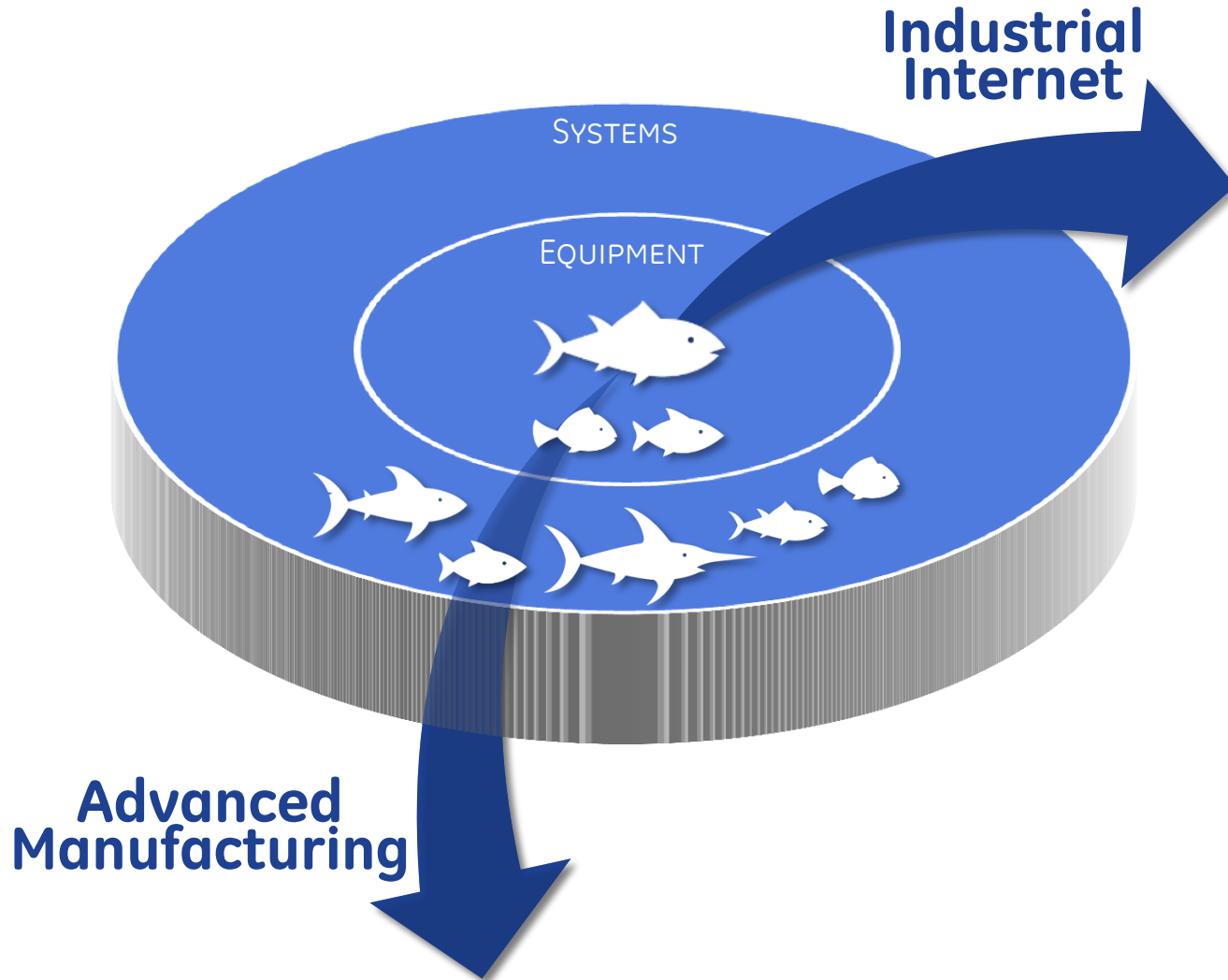


# Value through systems



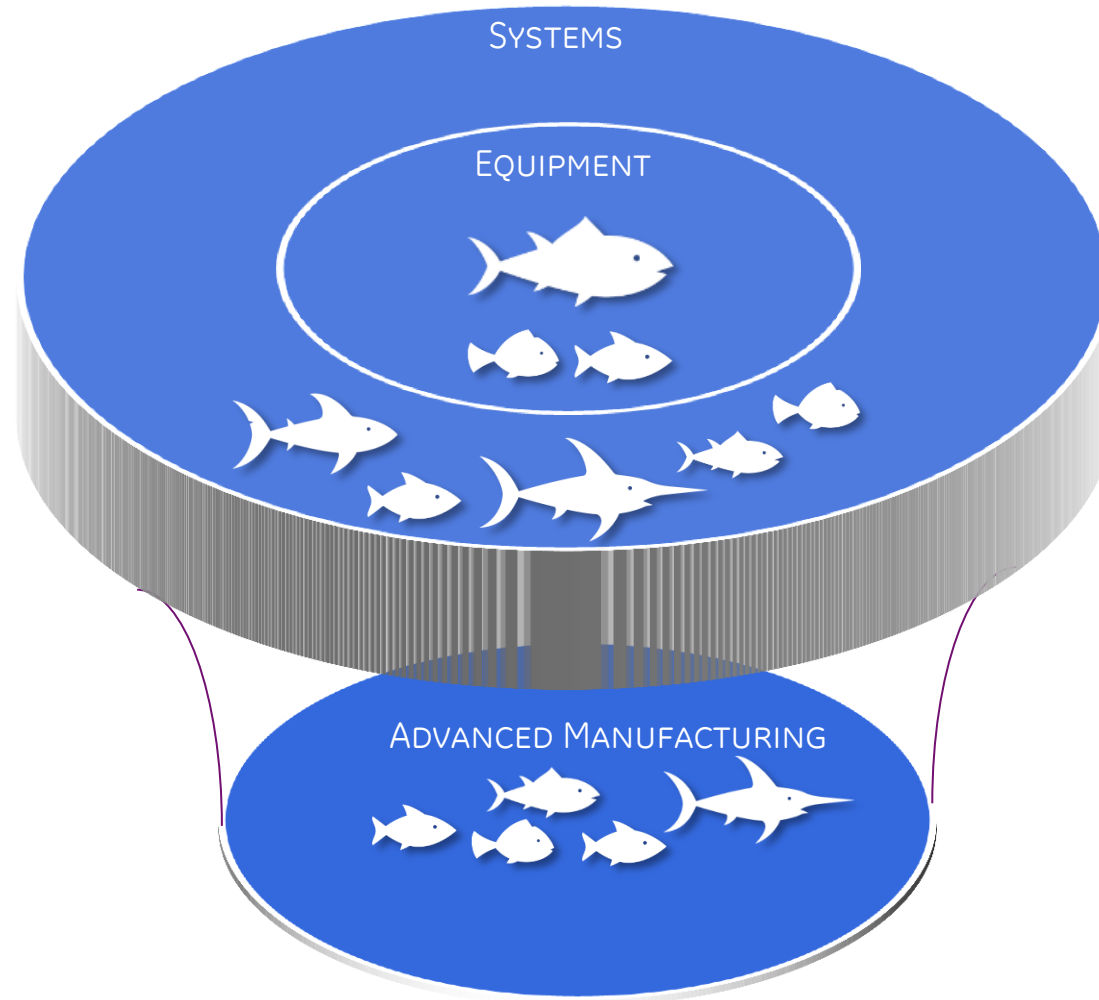
**Innovation ... 2-5 years**

# Value through ecosystems



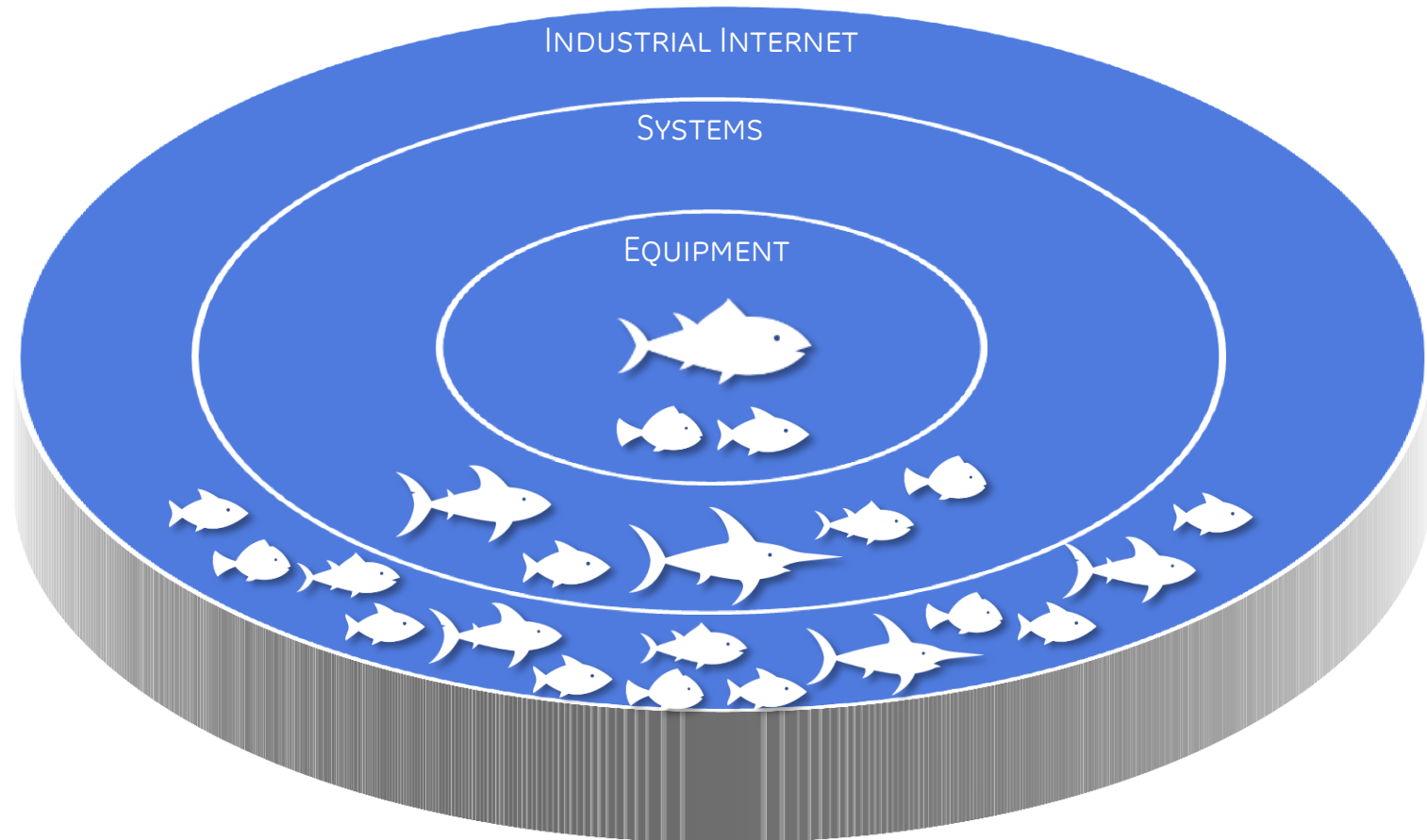
# Value through ecosystems ...

## *Advanced Manufacturing*



# Value through ecosystems ...

## *Industrial Internet*

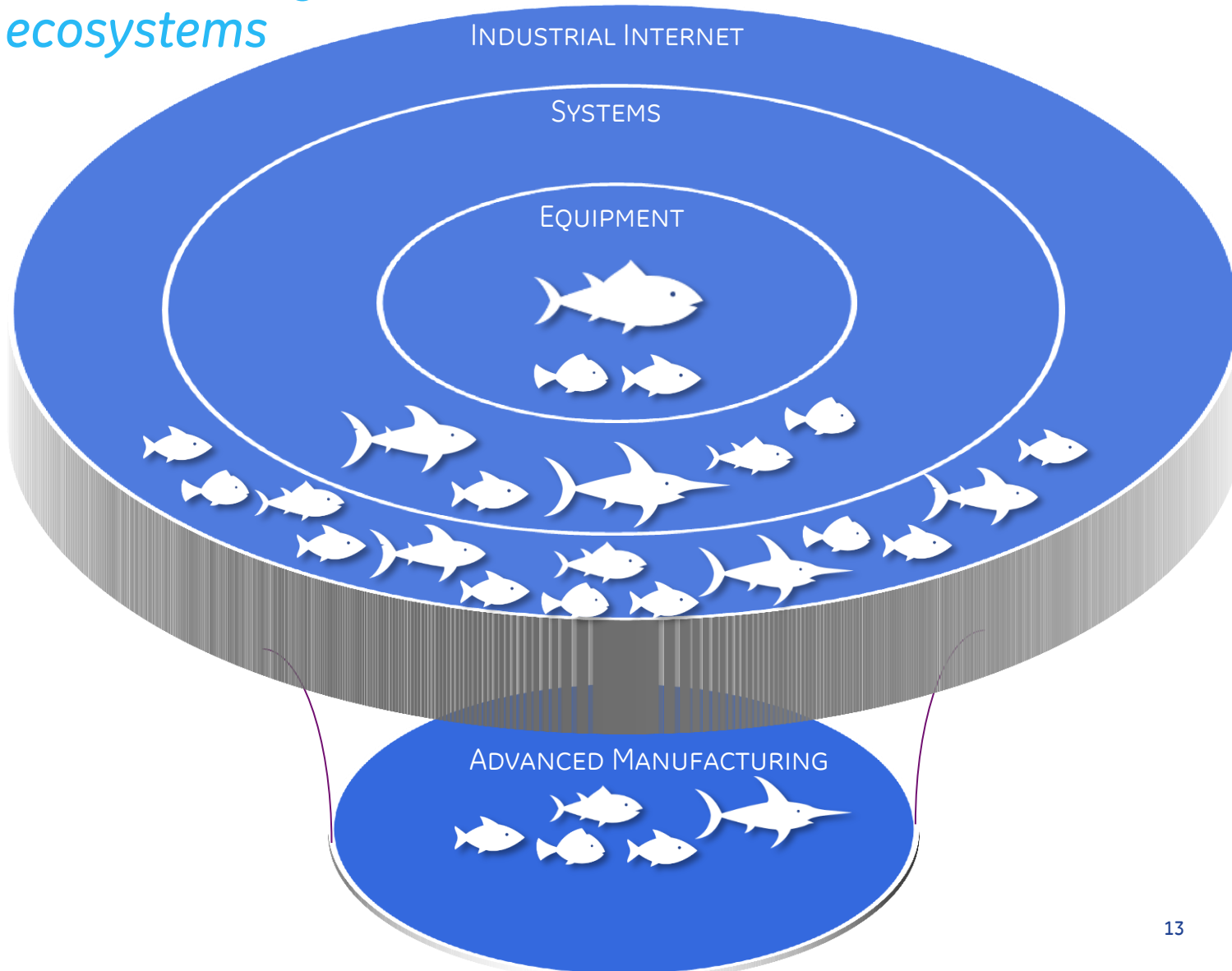


**Speed of innovation = speed of information**



# Re-inventing R&D

*Connecting core technologies to fast-moving ecosystems*



# Re-inventing R&D

*Connecting core technologies  
to fast-moving ecosystems*

## Talent pipeline ... depth and breadth

**Equipment** - ceramicists, metallurgy, combustion, aerodynamics/mechanics, computer science, gearboxes, electric machines.

**Systems**- controls, operations research, power electronics, HV physics.

**Manufacturing** - metals and ceramics processing, additive, instrumentation, manufacturing systems.

**Industrial Internet** - architects, data science, analytics, UX.

Much more to talk about ...

