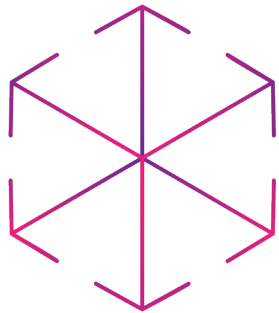


The Industry 4.0 Opportunity & India's Policy for Data



Anirudh Rastogi, Founder



IKIGAI LAW

THE EVOLUTION OF INDUSTRIAL 4.0

1.0: Mechanical assemblies

2.0: Mechanical assemblies +
Electrification

3.0: Mechanical assemblies +
Electrification + IT
and Automation
Control

4.0: Mechanical assemblies +
Electrification + IT and
Automation Control +
Connected IT systems

Pre-1700s
Driven by manual labour

Pre-industrial revolution





Industry 1.0

Mechanisation driven by
steam engines and water
in the mid 1780s

Electrification in
mid-1870s

Industry 2.0



Automation in mid-1960s

Industry 3.0

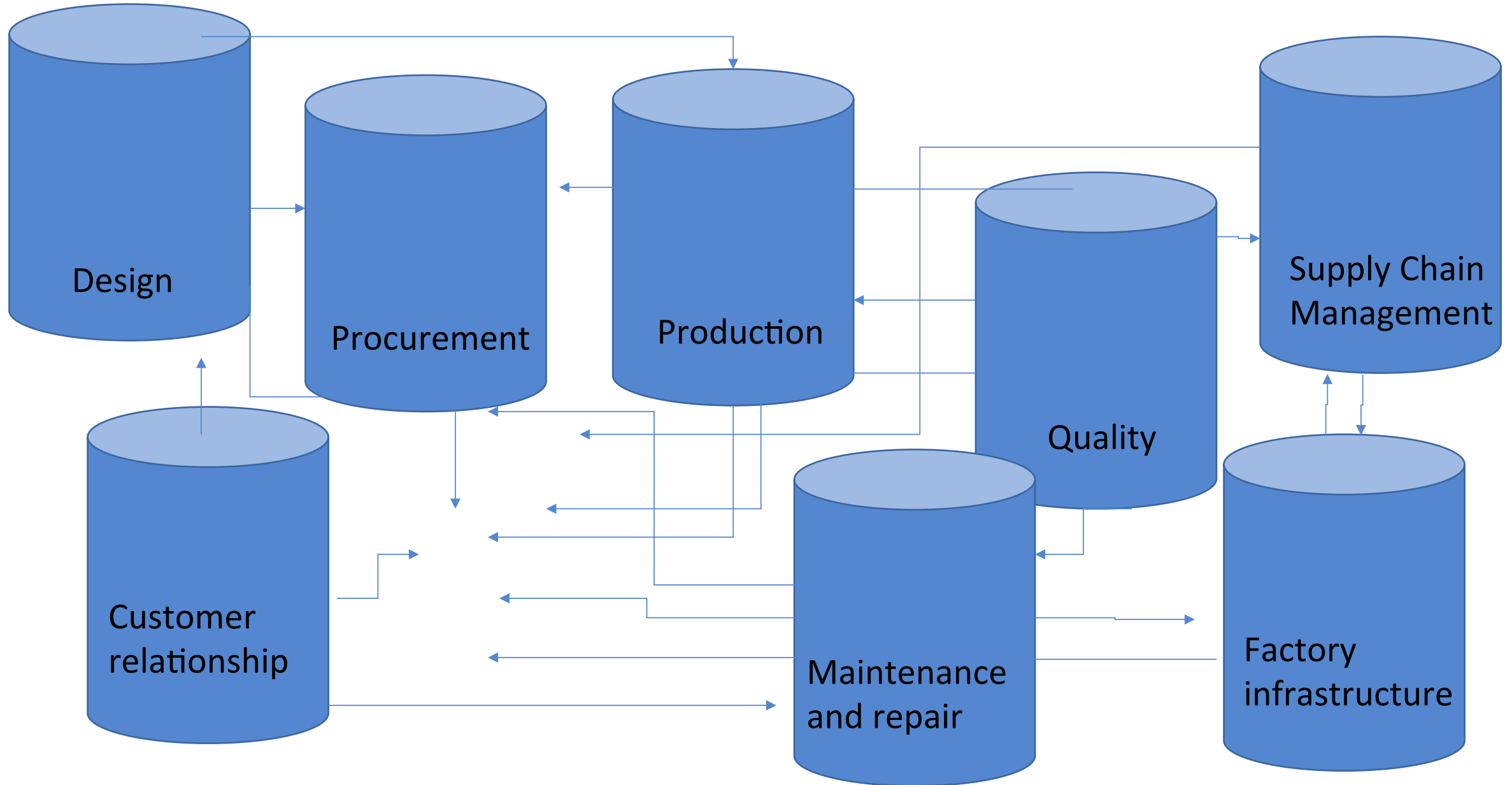


Cyber-physical systems in
2010+

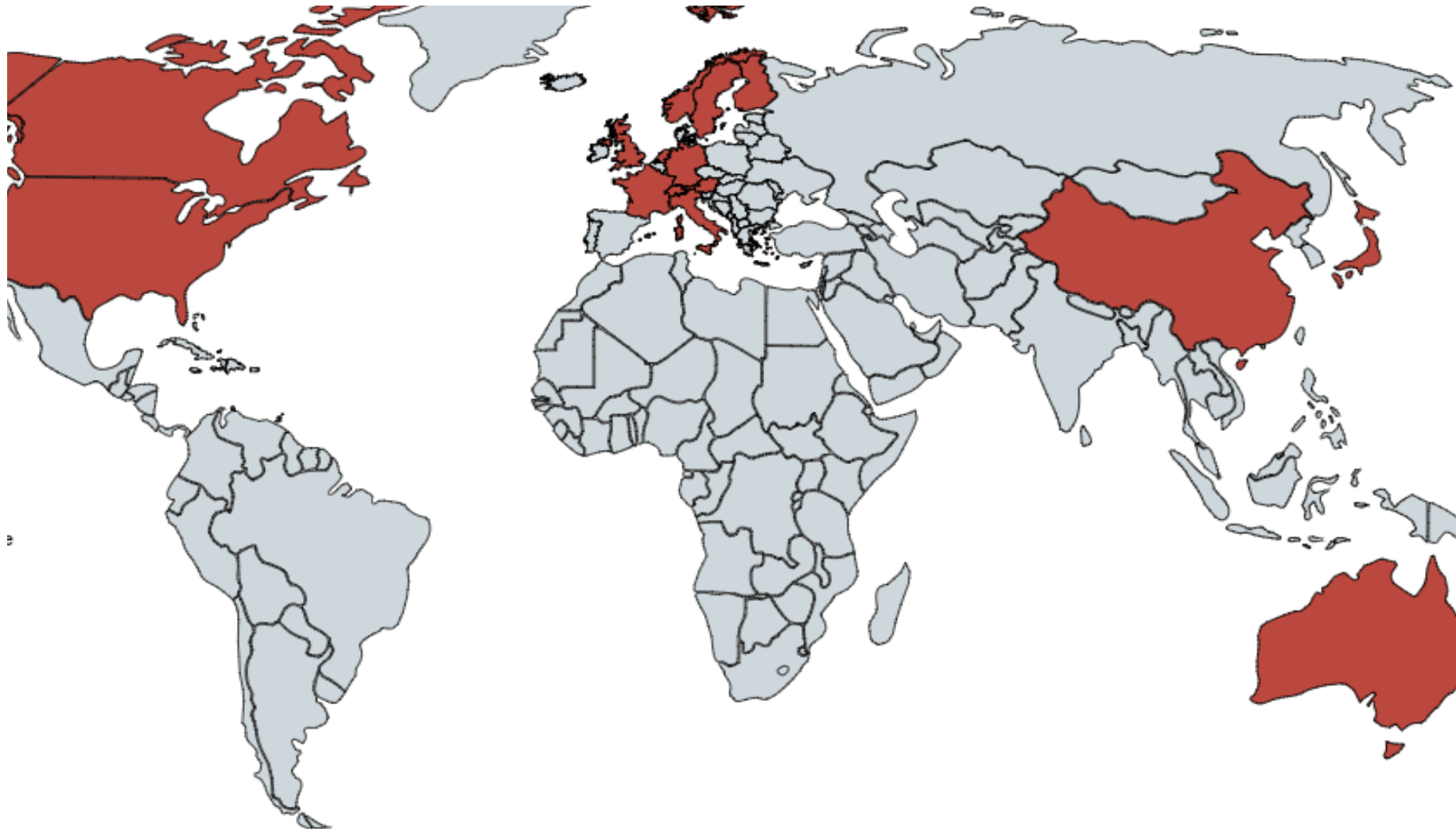
Industry 4.0



14.0: INTER-CONNECTING THE SILOS OF THE MANUFACTURING PROCESS



Unprecedented Globalisation: The electric car that is designed in North America, manufactured in China with the exception of the batteries made in Europe, and driven in Australia.



OTHER KEY FEATURES OF INDUSTRY 4.0

Interoperability: the ability of cyber-physical systems, humans and Smart Factories to connect and communicate with each other

Decentralization: the ability of cyber-physical systems within Smart Factories to make decisions on their own

Real-Time Capability: the capability to collect and analyze data and provide the insights immediately

Modularity: flexible adaptation of Smart Factories for changing requirements of individual modules

WITH THESE **GLOBALLY INTER-CONNECTING** SILOS,

AND

THE DEMANDS OF

REAL-TIME CAPABILITIES AND INTER-OPERABILITY, MODULARITY AND DECENTRALISATION

IT IS IMPORTANT

THAT CROSS-BORDER FLOWS OF DATA ARE UNRESTRICTED

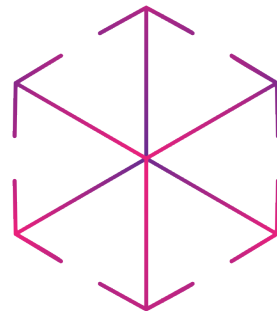
ALSO IMPORTANT: BIG DATA HAS TO BE BIG

Challenges:

- Consent fatigue
- Eg. IoT – How is it possible to get informed consent on the move and allow the IoT universe to operate?
 - Solution: “legitimate interest”?
 - Notice requirements
- Eg. Drones – how do drones put everyone on ground on notice that their data is being collected?
 - Solution: Technology specific exceptions?
 - Storage limitation and data minimisation
- Solution: Incentivise the individual to share data?

THANK YOU

Contact me at anirudh@ikigailaw.com



IKIGAI LAW