

# Moving to a Zero Trust Supply Chain

## Assurance Through Fabrication

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# DoD Advanced Technology Center in Albany, NY



A trusted, assured, and protected ecosystem for  
advanced technology

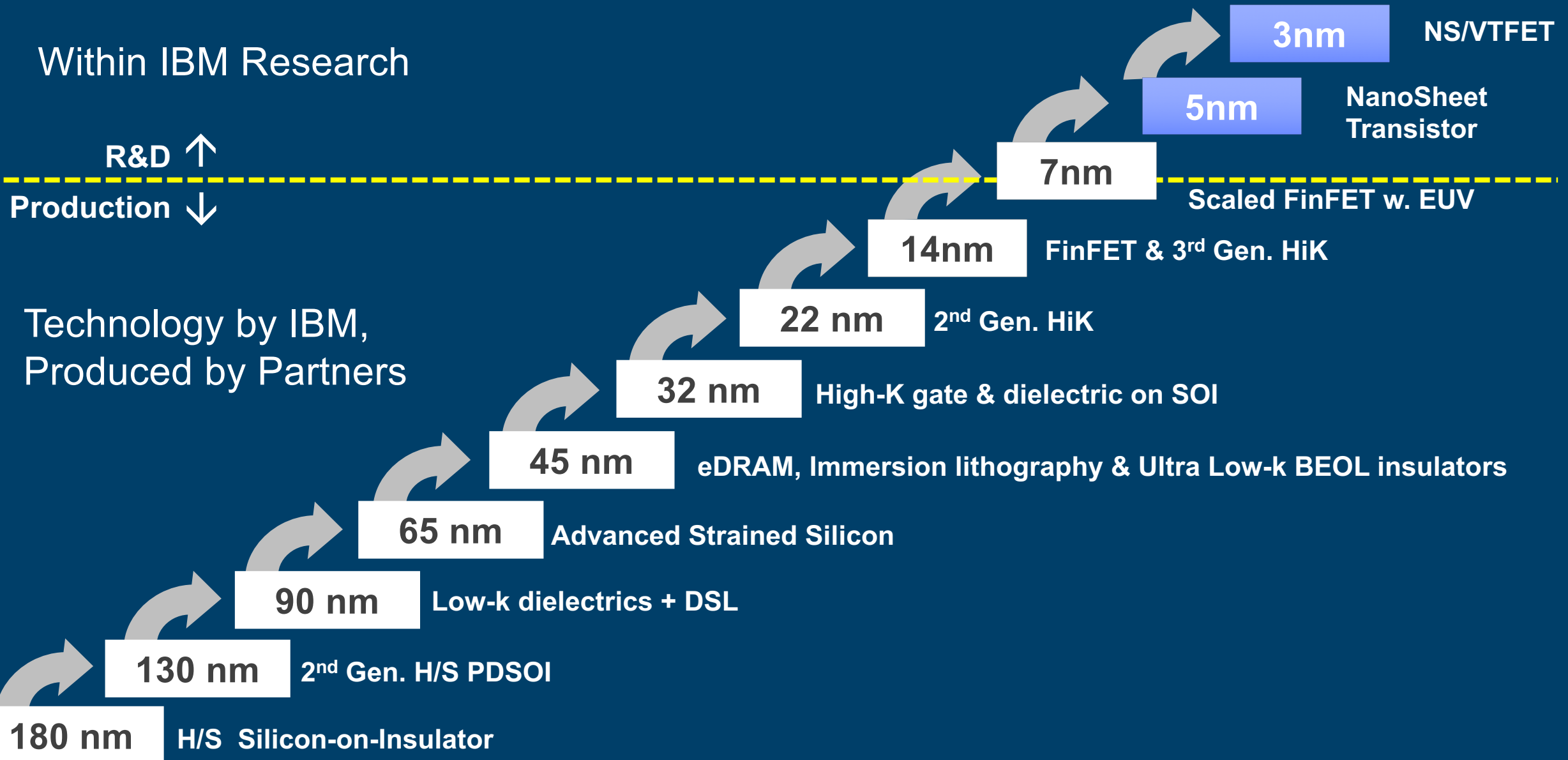
# IBM: 30 Years of Technology Leadership



Within IBM Research

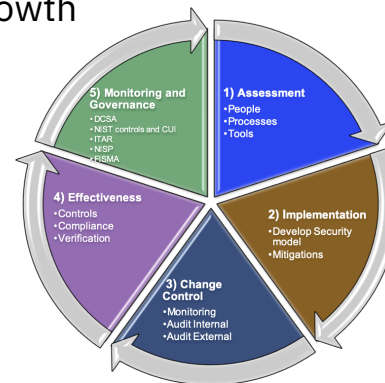
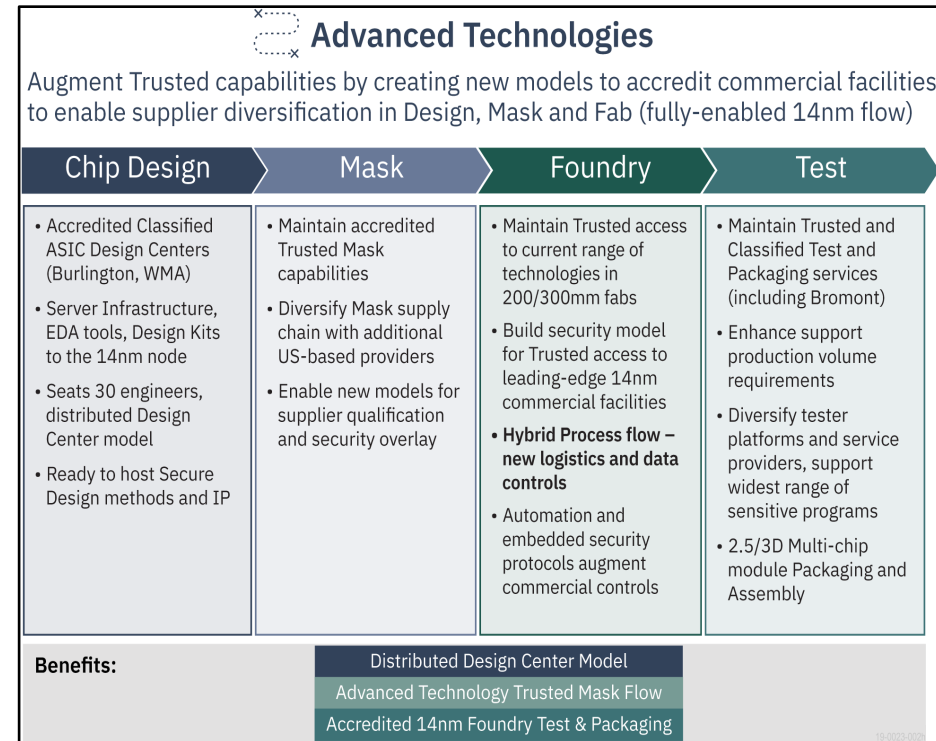
R&D ↑

Production ↓



## IBM Aligned with Emerging DoD Requirements

1. Developed the original security protocols for Trusted Foundry accreditation
2. PMO: Defined the support and operational needs of the systems through the product lifecycle
3. Information Assurance: systems architecture and infrastructure, integration plans with commercial systems
4. Manufacturing Assurance: Development of CLASS manufacturing processes
5. Secure Facilities, Secure Network capabilities
6. Targeted risk-based framework for assessment of ongoing operations and growth of capabilities



## Evolving Threat Landscape

### Sample Event - Business Data Leaks

- Major DIB manufacturers had recent major data exposure which leaked trade secrets, IP libraries, factory layouts, blueprints, automation methods, robotic specs

### Sample Event - Digital Connections & IoT

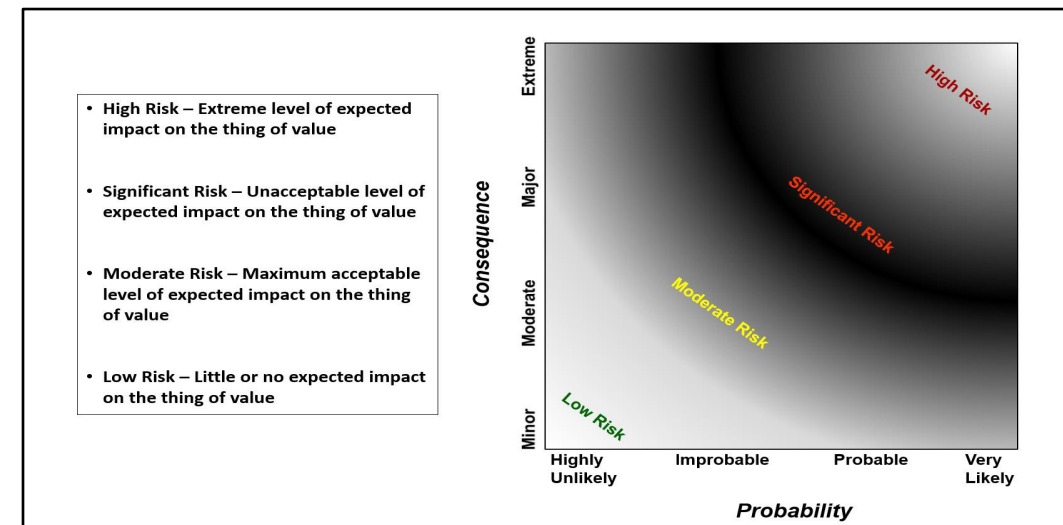
- Engineering service provider was breached, leaking all NDAs, describing details of sensitive work engagements with 100 companies, including SPI

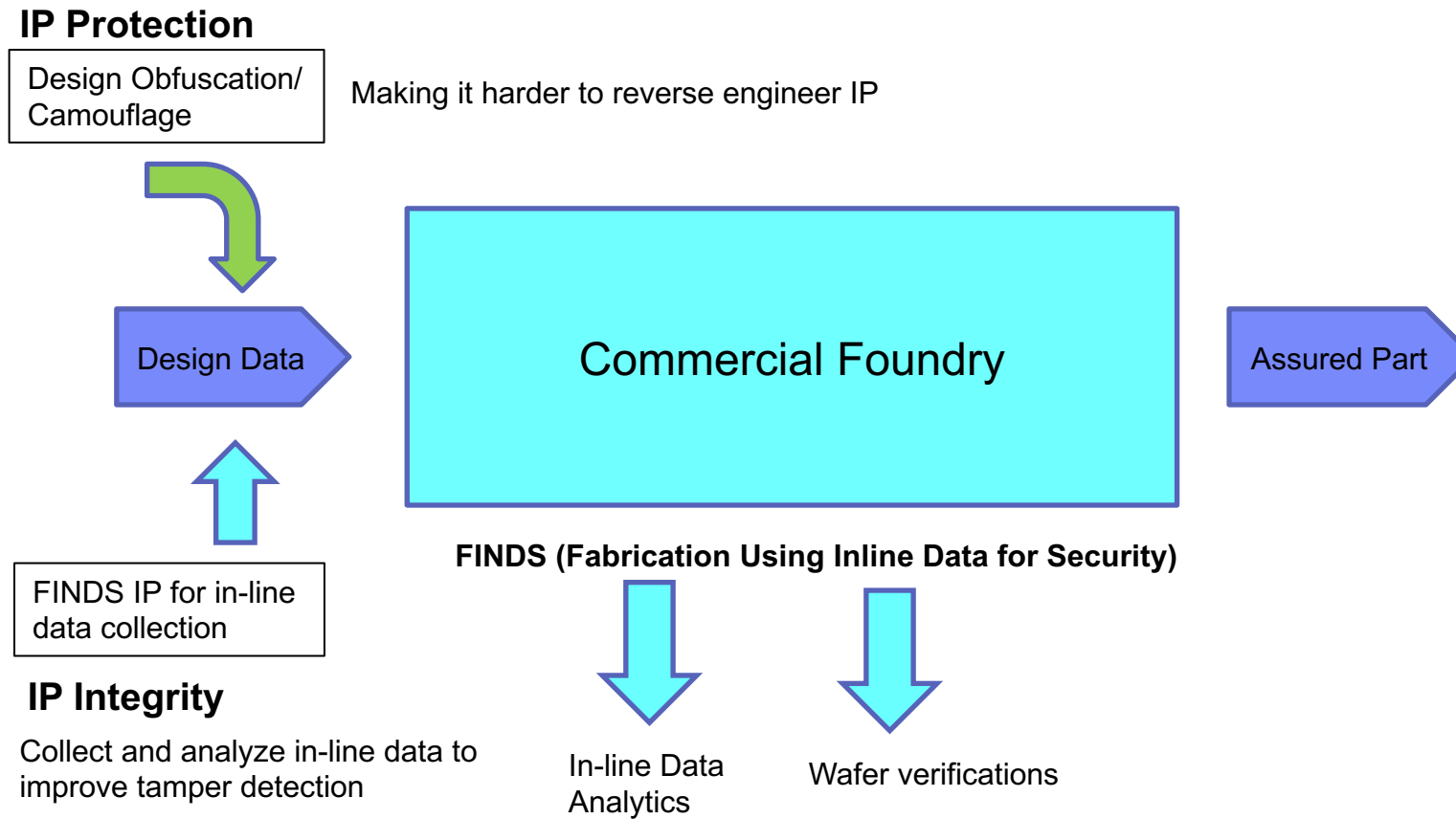
### Sample Event - National Attacks

- A Chinese state-owned company and a Taiwanese company were charged with conspiring to steal trade secrets from a U.S. chipmaker

## Framing the Problem

- Zero Trust can open a broader range of technology offerings**
- However, risk acceptance and mitigation strategies need to be properly measured against probability and consequence**
- Defining risk for microelectronics fabrication will ultimately be determined by *national security imperatives***





- **Metrics and data for fabrication assurance decision making can be developed**
- **Increased traceability and provenance will enable automated model with significantly reduced risk**
- **Data driven assurance will improve confidence**
- **Integrated policy and standards are needed**