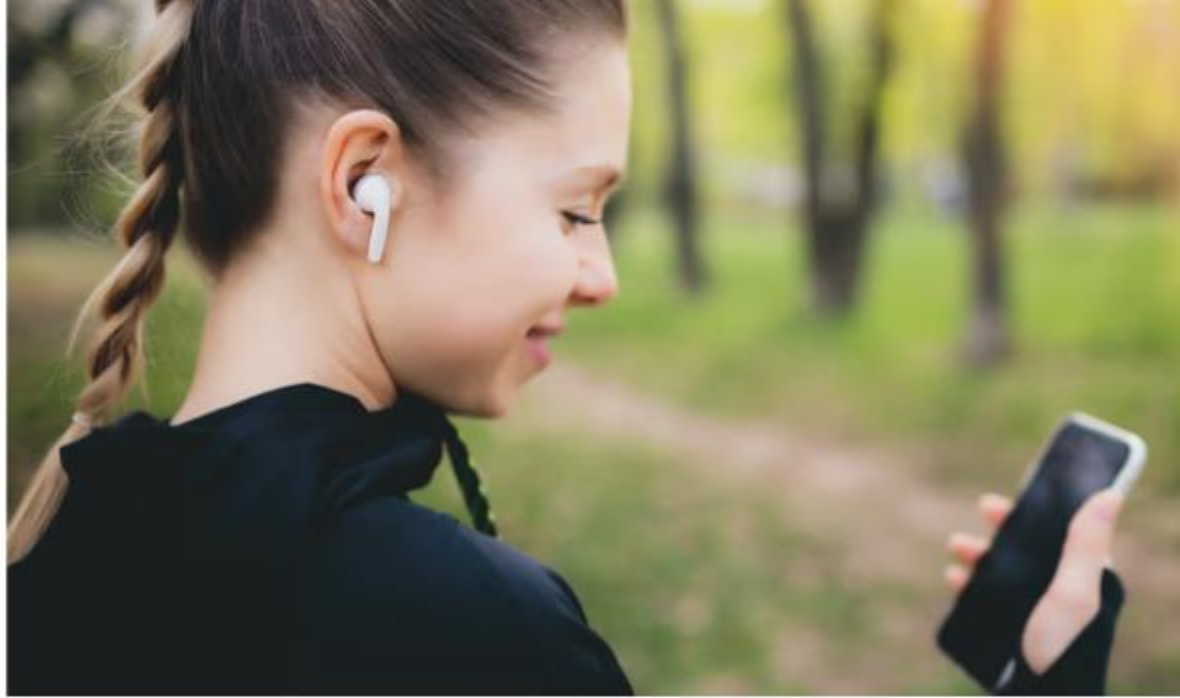




HardTech

Manufacturing and Supply Chain



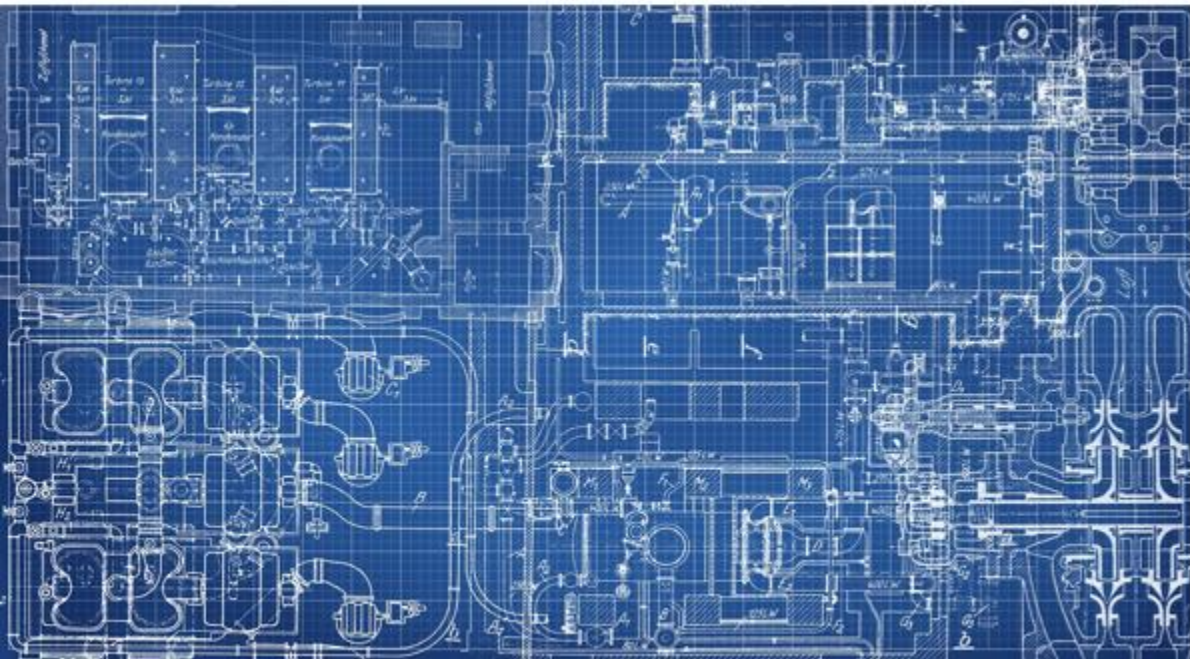
THE HARD... IN HARD TECH

- Long Development Cycles
- High Capital Expenditure (Cap-Ex)
- Critical Physical Integration
- The Linearity of Scale

CURRENT MARKET IMPACTS: THE NEW NORMAL

- Volatility
- The Valley(s) of Death
- Key Metrics Impacted

A BLUEPRINT OF BEST PRACTICES



[1] FOUNDATION AND TRANSITION (PROTO TO PILOT)

- Documentation is Destiny
- Design for Manufacturing (DFM) & Assembly (DFA)
- Prototyping + Production-Intent

[2] STRATEGIC SCALING: IN-SOURCE vs OUTSOURCE

- Make vs Buy
- Contract Manufacturing (CM) as a Strategy
- The Role of Contract Design / Engineering (CDMs/ODMs)

[3] BUILDING A RESILIENT SUPPLY CHAIN ARCHITECTURE

Local vs. Global Sourcing

<u>Sourcing Type</u>	<u>Priority/Goal</u>	<u>Pros (Hard Tech Relevance)</u>	<u>Cons (Risk for Startups)</u>
Local/Regional	Resilience, Speed, Quality Control	Shorter lead times, faster quality fixes, lower logistic costs, reduced geopolitical risk.	Higher unit cost, limited component/material availability, capacity constraints.
Global/Offshore	Cost Optimization, Volume, Material Access	Lower first-cost, access to massive scale/capacity, wider material selection (specialized components).	Long lead times, high compliance/tariffs risk, complex communication, low agility.

...Go Hybrid!

[4] DE-RISKING THE SUPPLY CHAIN

- Component Dual-Sourcing
- Buffer Stock Strategy
- Digital Visibility and Strategic Relationships

ACTION PLAN

Prioritize Relationships*

Document and Define (Destiny)

Go Hybrid Early



*Amazing INdiana Ecosystem!

Help for the Hard (Tech) Stuff

BEN WRIGHTSMAN



bmw@xc.technology | www.xc.technology