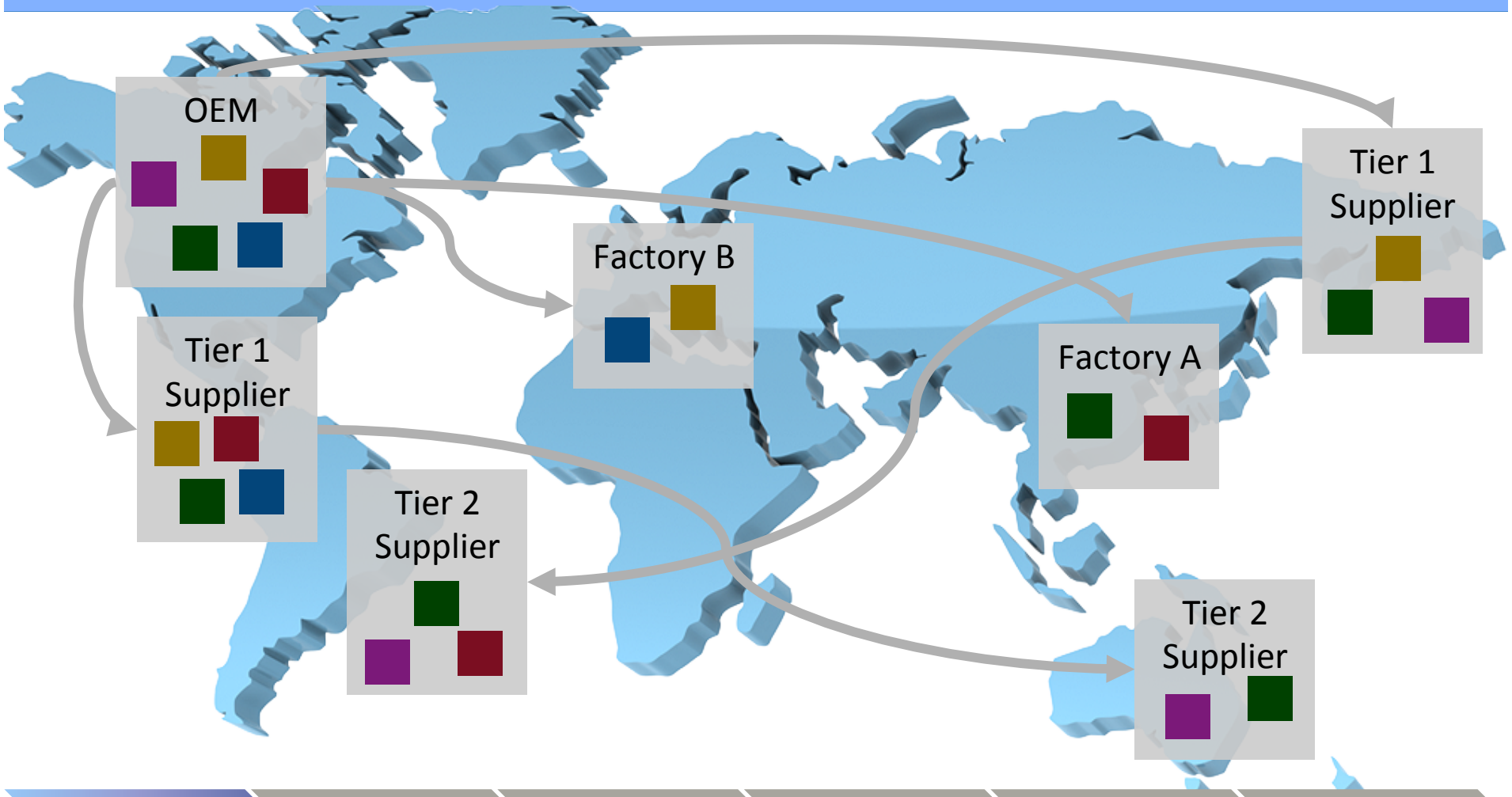
PLM in a Massively Multidisciplinary World

Rob McAveney
Chief Architect
Aras

Massively Multidisciplinary?

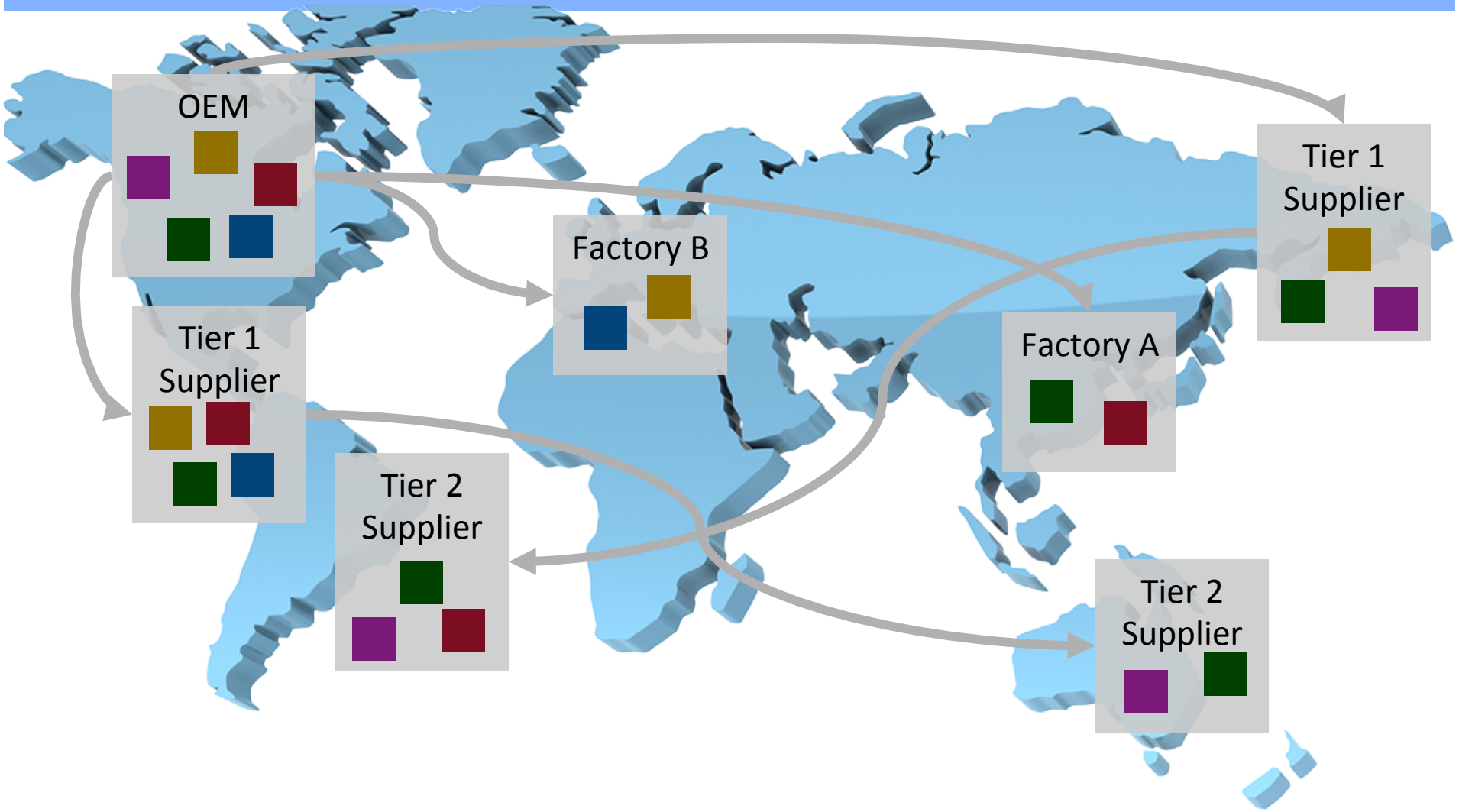
Mechanical Design	Procurement	Technical Documentation
Thermal Analysis	Reliability Engineering	Software Development
Program Management	Materials Management	Test Methods
Field Service	Electronics Design	Portfolio Management
Software Testing	Quality Assurance	Kinematics
Systems Engineering	Supply Chain Management	Customer Service
Structural Analysis	Production	Process Planning
Simulation Management	Wire Harness	Environmental Compliance
Mass Properties	Regulatory Compliance	Sales
Tooling	Costing	Inventory Control
Logistics	Contract Deliverables	Manufacturing Engineering

Massively Multidisciplinary

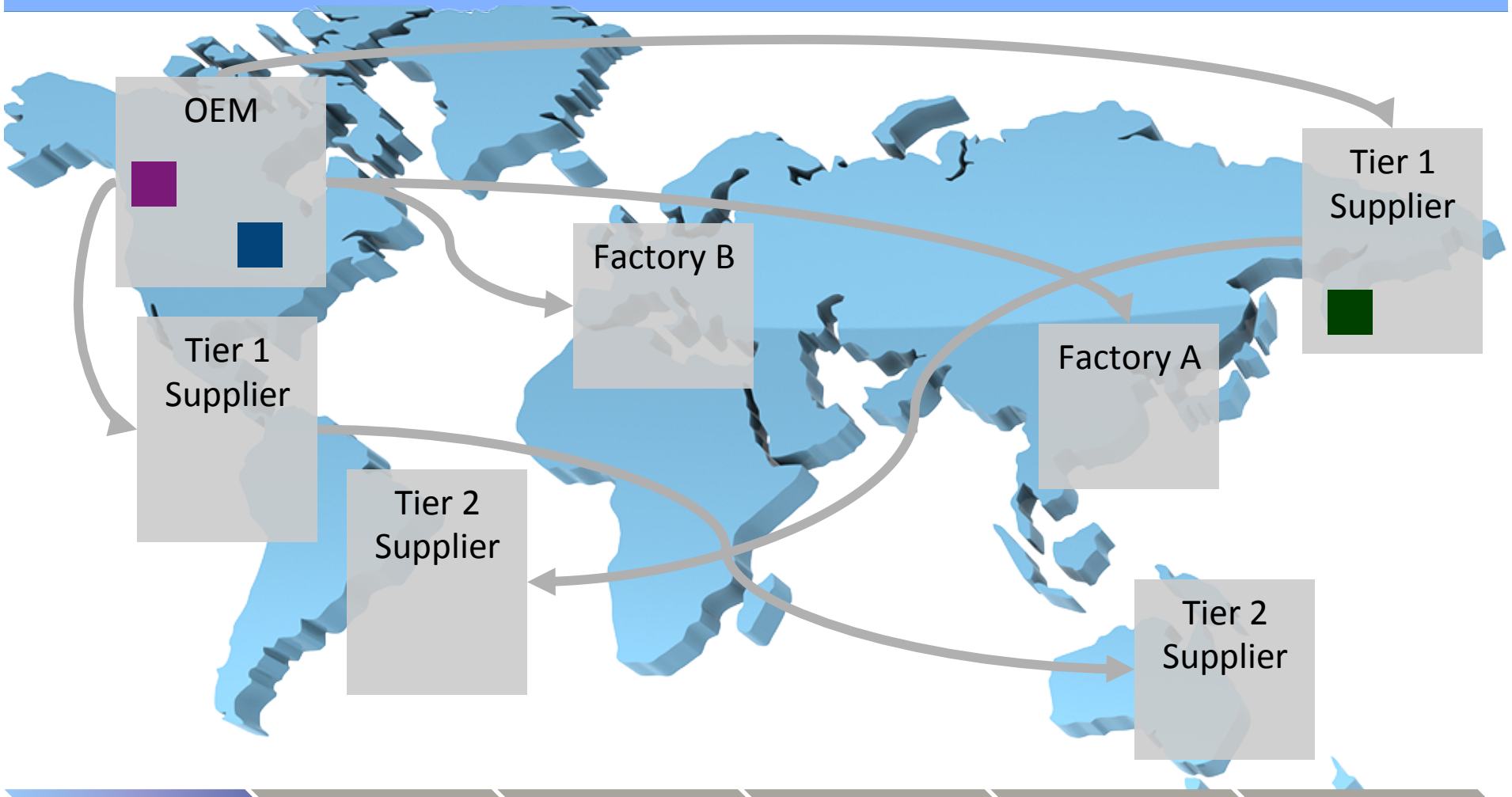


Concept | Design | Development | Launch | Manufacture | Support

Massively Multidisciplinary

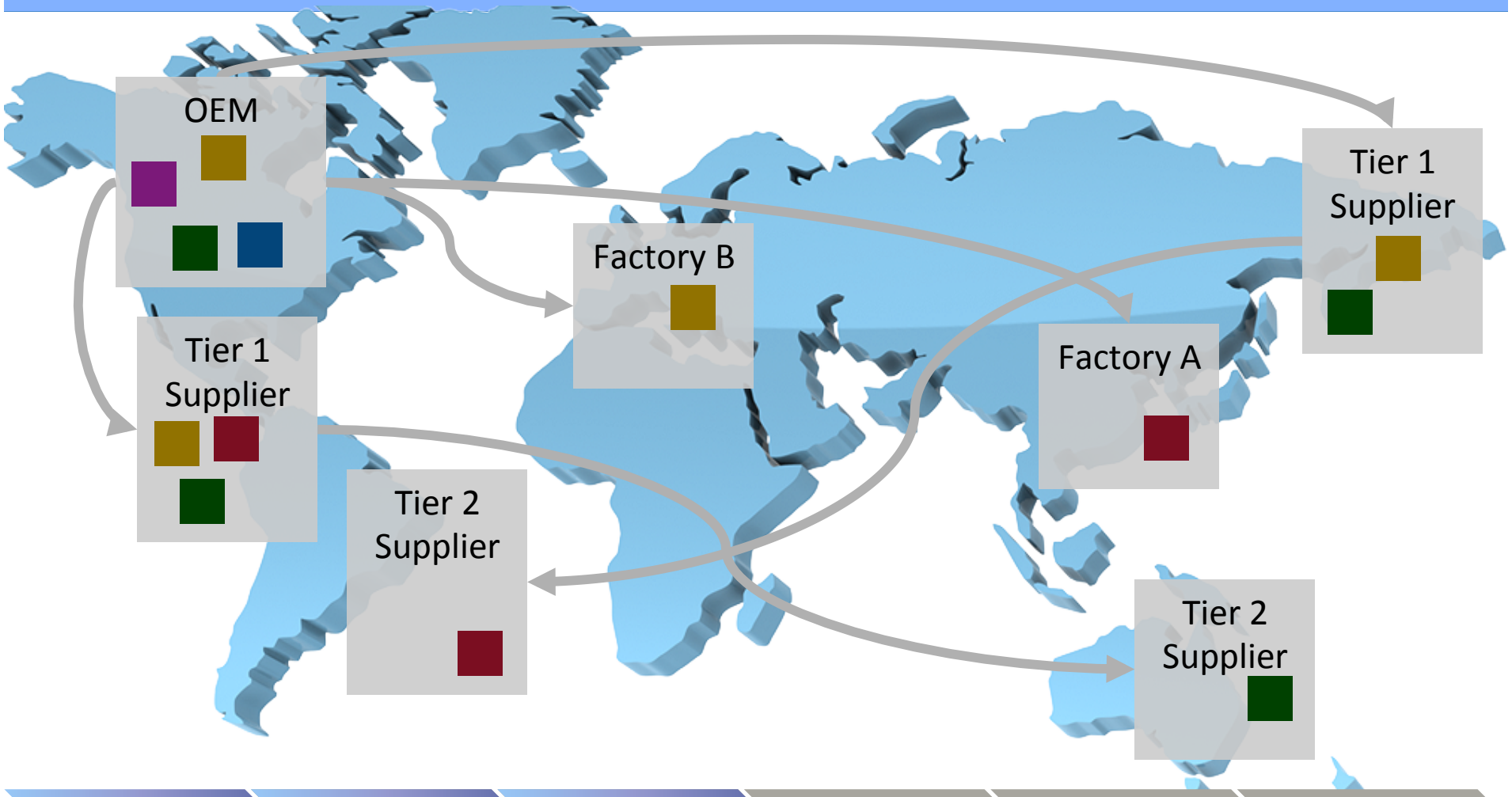


Massively Multidisciplinary



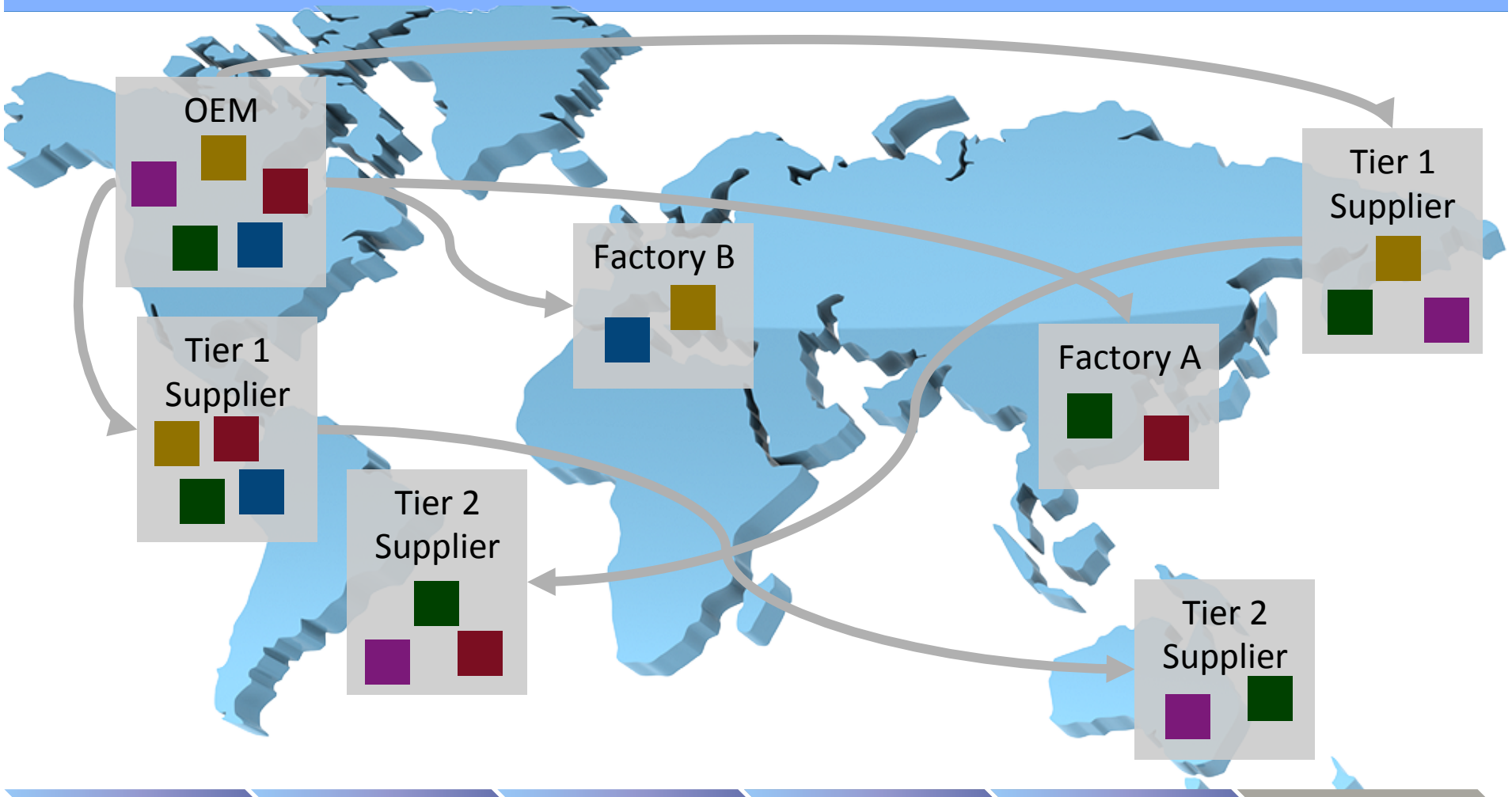
Concept | Design | Development | Launch | Manufacture | Support

Massively Multidisciplinary



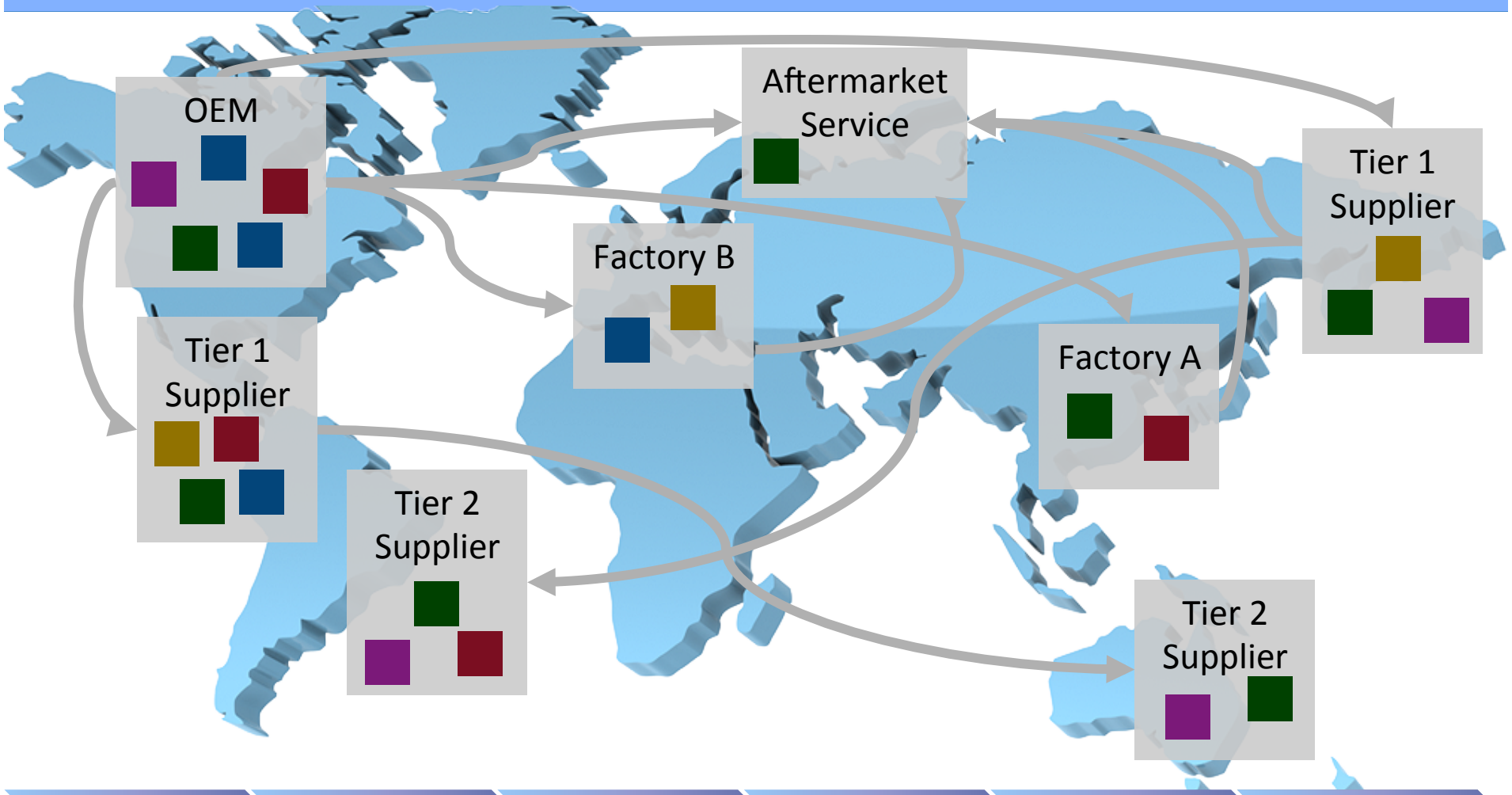
Concept | Design | Development | Launch | Manufacture | Support

Massively Multidisciplinary



Concept | Design | Development | Launch | Manufacture | Support

Massively Multidisciplinary



Concept | Design | Development | Launch | Manufacture | Support

Massively Multidisciplinary

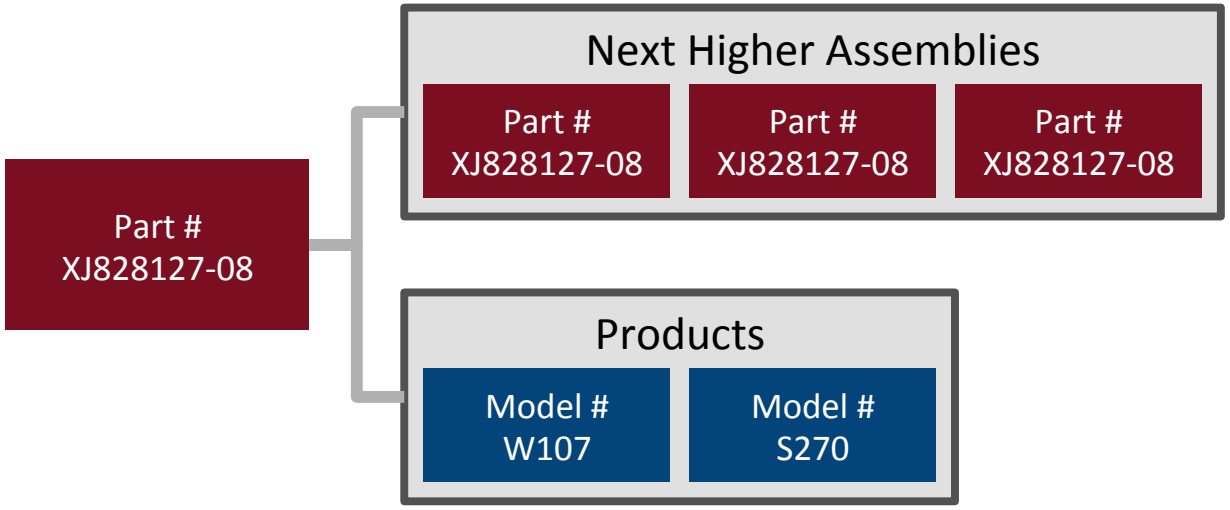
- Products are no longer predominately mechanical
  - Electronics & Electrical
  - Software & Firmware
  - Analysis & Simulation
  - Compliance
  - Technical Documentation
  - Many more ….
- Disciplines are no longer confined to one location
  - Larger and more tightly integrated supply chains
  - More opportunities to engage with third-party experts
- Nothing in the organization or supply chain stays static
  - Turnover and mergers/acquisitions are common in supply chains
  - Disciplines move around throughout the product life cycle

What does this mean for PLM?

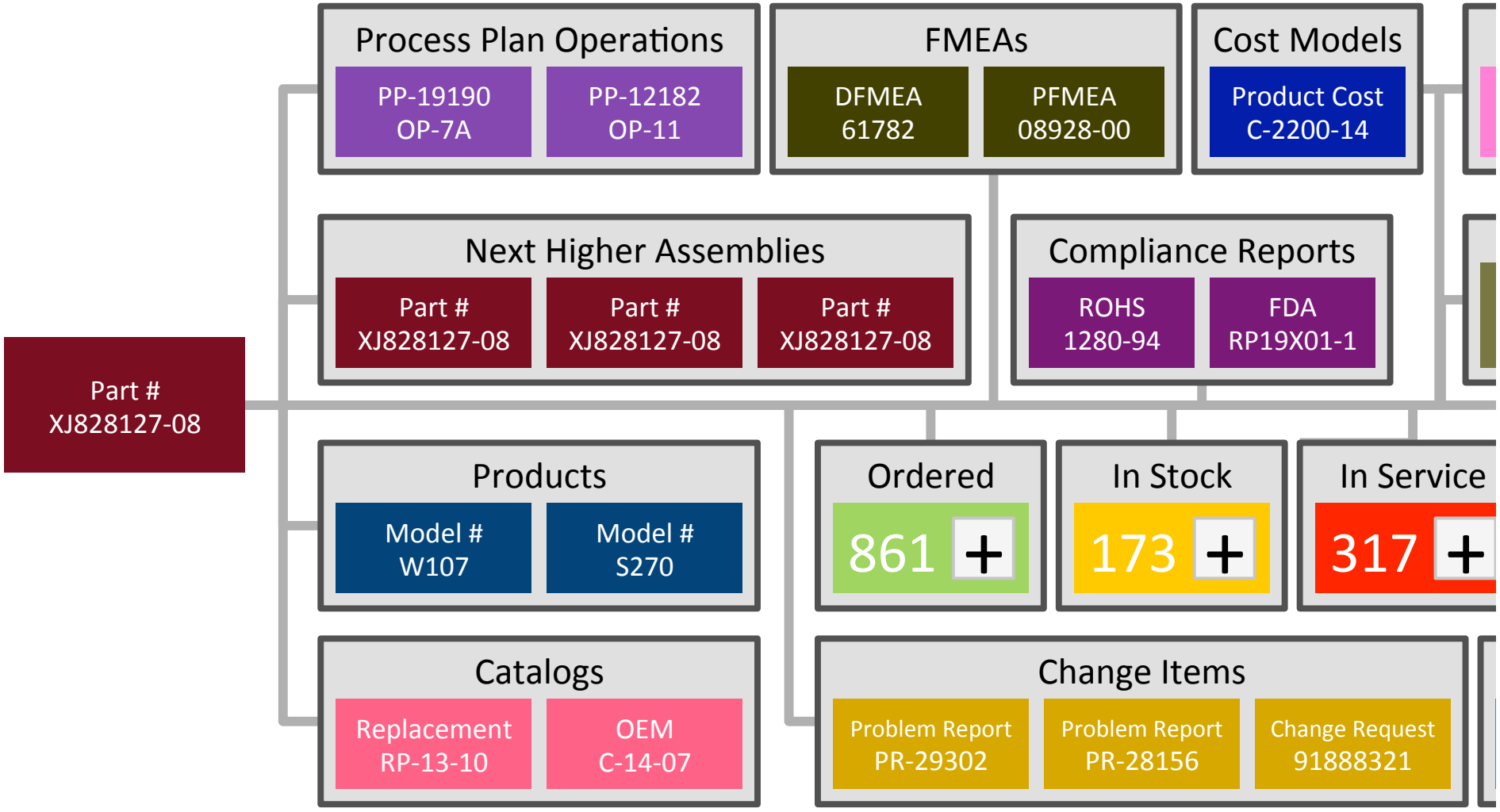
Let's take Impact Analysis as an example..

Impact Analysis Today

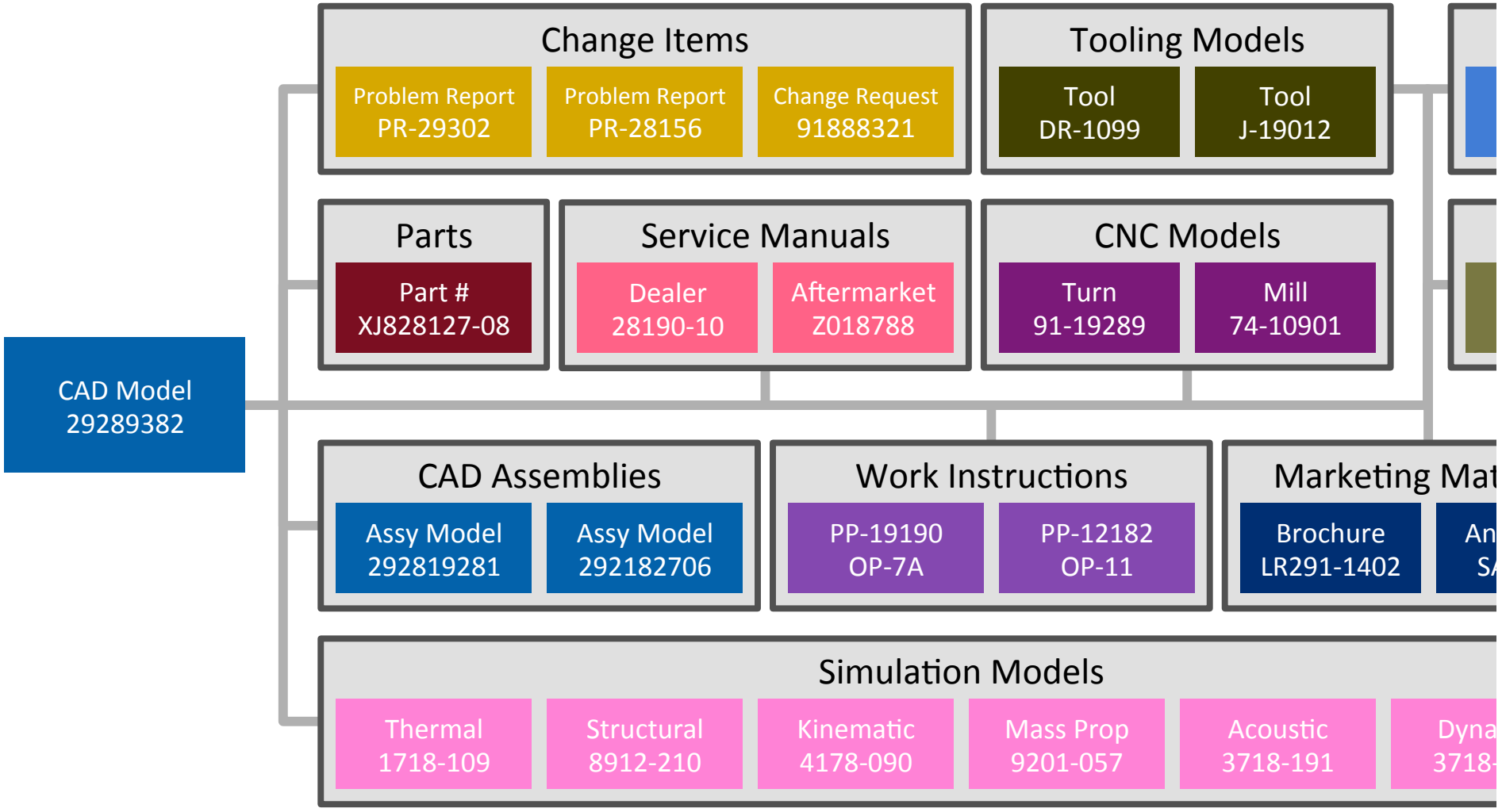
Global Product Data Interoperability Summit | **2014**



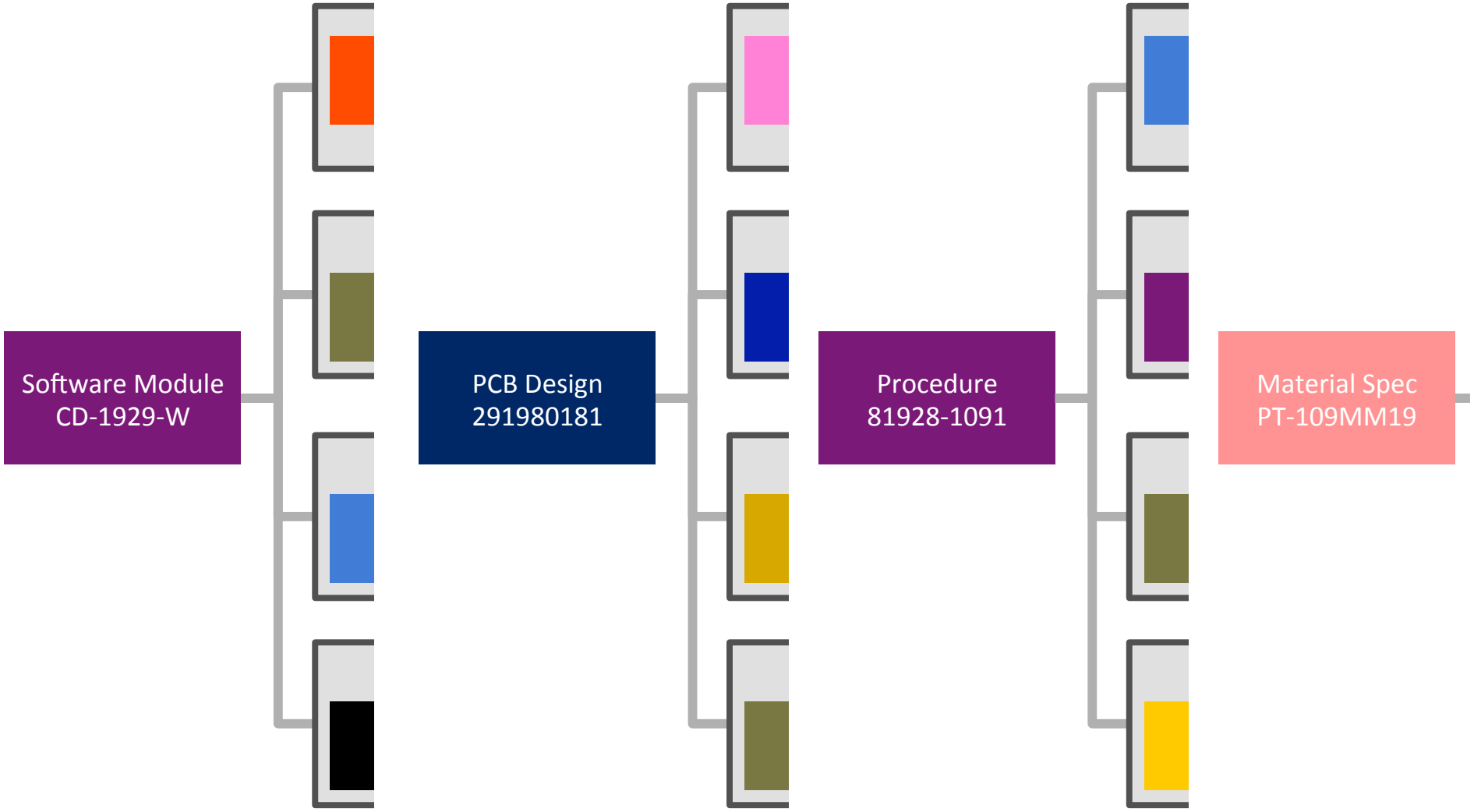
Impact Analysis - Multidisciplinary



Impact Analysis - Multidisciplinary



Impact Analysis - Multidisciplinary

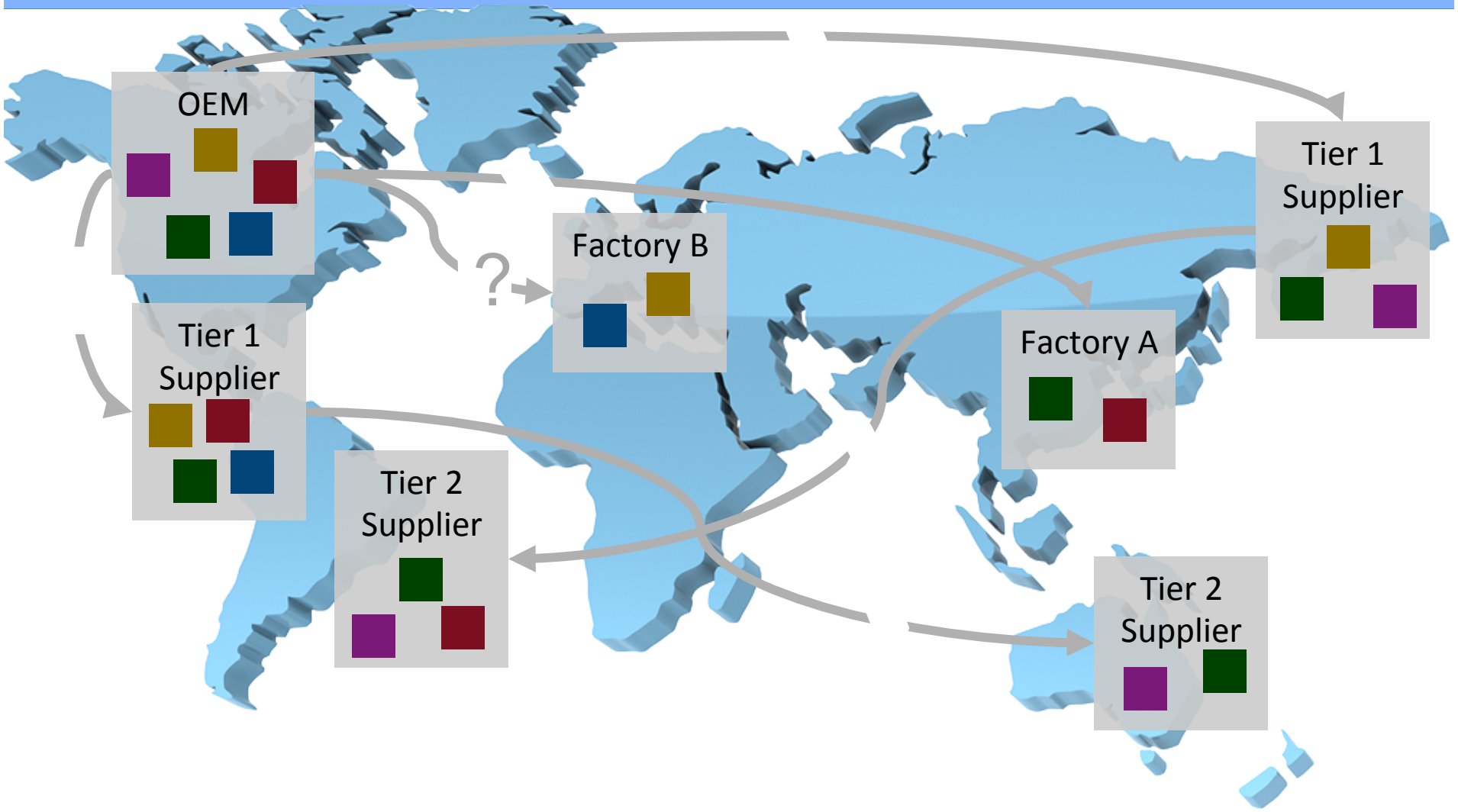


Configuration Complexity

- Impact Analysis shows some issues with today's PLM environment
  - Major disciplines are ignored or underserved
  - Little or no integration with the supply chain
  - Processes have trouble adapting to a fluid environment
- The same shortcomings extend to the rest of PLM
  - Change Workflows
  - Requirements Traceability
  - Compliance Reporting
  - Deliverable Tracking
  - Program / Project Scheduling
  - ….
- New strategies are needed to handle the ever-increasing complexity

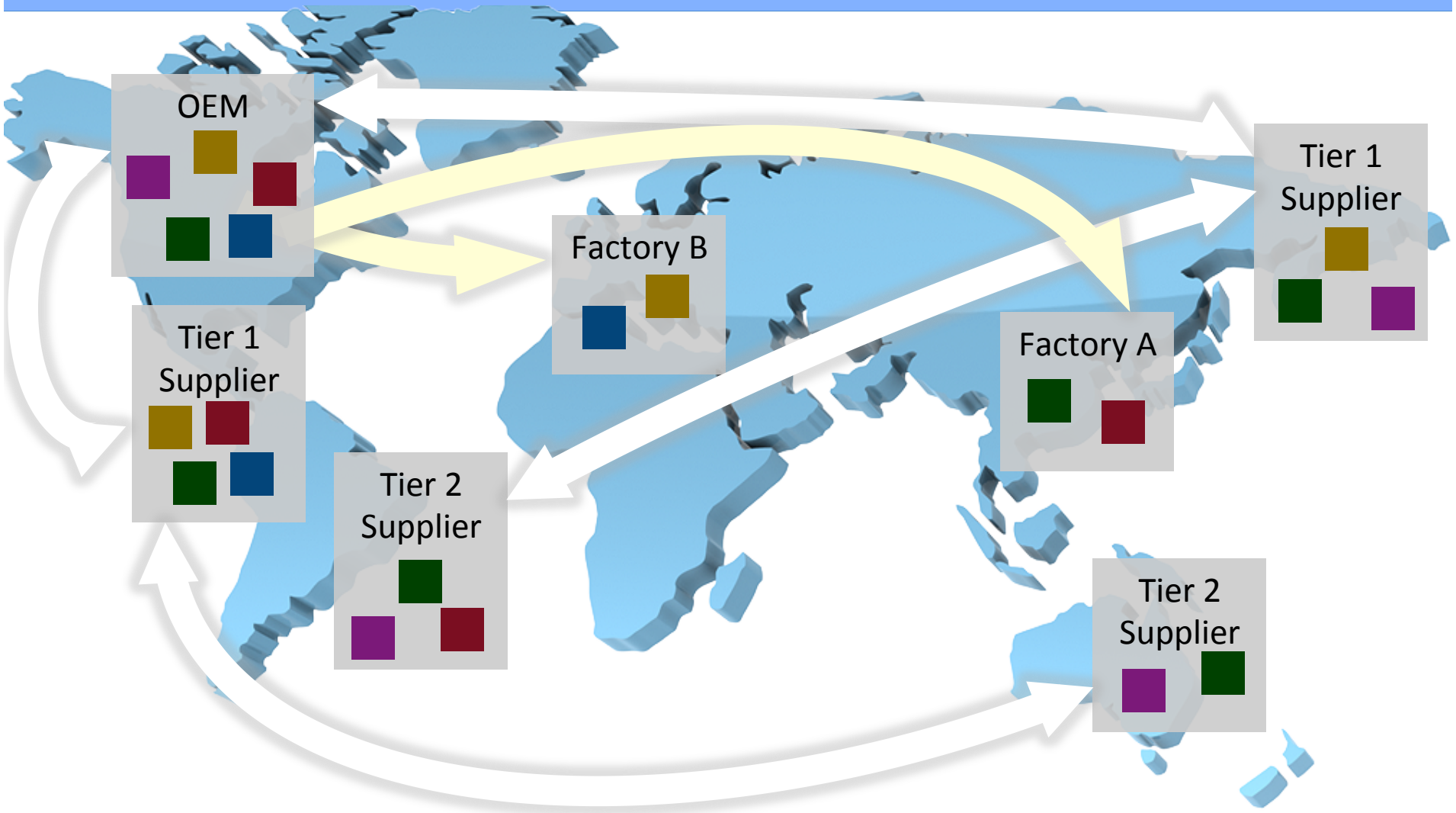
PLM in the Enterprise

Global Product Data Interoperability Summit | **2014**



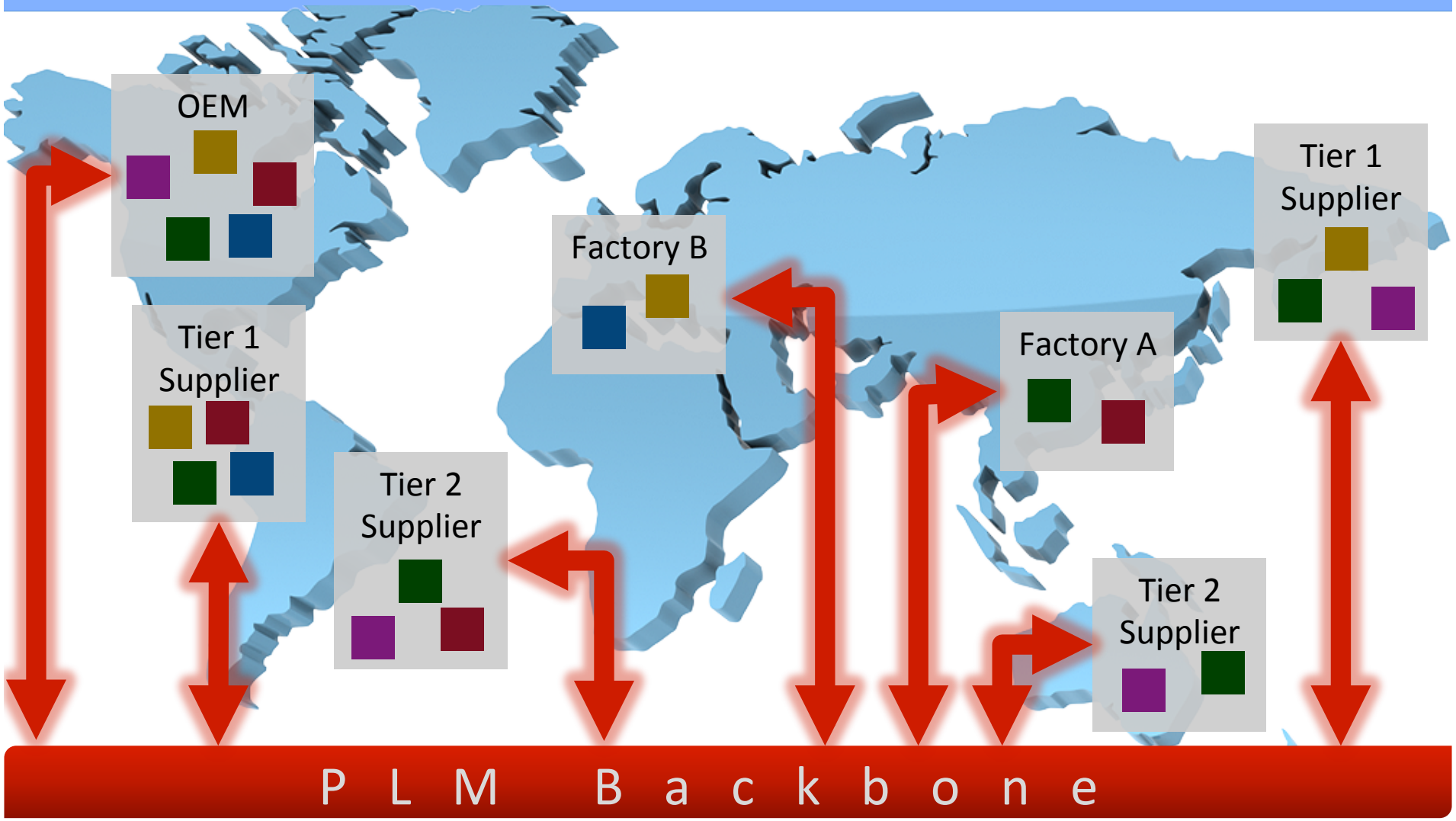
Point-to-Point PLM Integrations

Global Product Data Interoperability Summit | **2014**



The Backbone Approach to PLM

Global Product Data Interoperability Summit | **2014**



PLM Backbone Advantages

- Extends existing infrastructure
  - No need to “rip and replace” existing systems or processes
  - Capability can be built up gradually – no “big bang” necessary
- More timely and reliable information
  - Accurate data directly from supply chain partners
  - No waiting for changes to bubble up the chain
- Adapts quickly to changes
  - New disciplines and supply chain partners can be added without rebuilding
  - New reporting requirements can be addressed without a major effort

PLM Backbone with Aras Technology

- Open platform based on established standards
- Wide range of integration / federation capabilities
- Flexible, dynamic schema; easily customizable and upgradeable
- Modern roles-based UIs for ease of use -- Web, Mobile & Custom
- Proven scalability to tens / hundreds of thousands of users
- Deployment options: Data Center, Private/Public Cloud, Hybrid

Questions?

Rob McAveney

www.aras.com

rmcaveney@aras.com