



Enabling Operationally Adaptive Forces

Ideas for Fundamental Change to Acquisition

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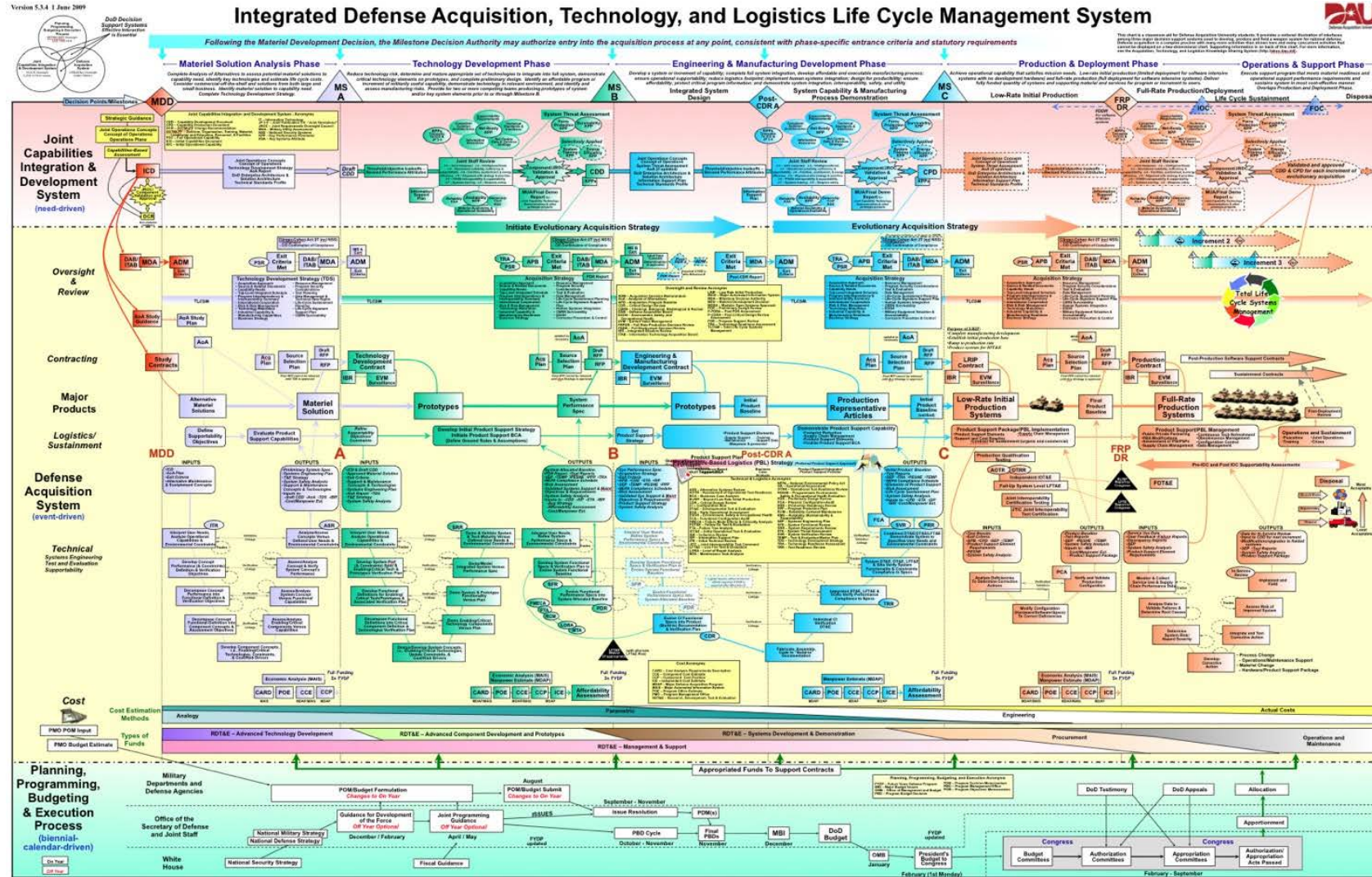
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Can we make Acquisitions operationally adaptive?





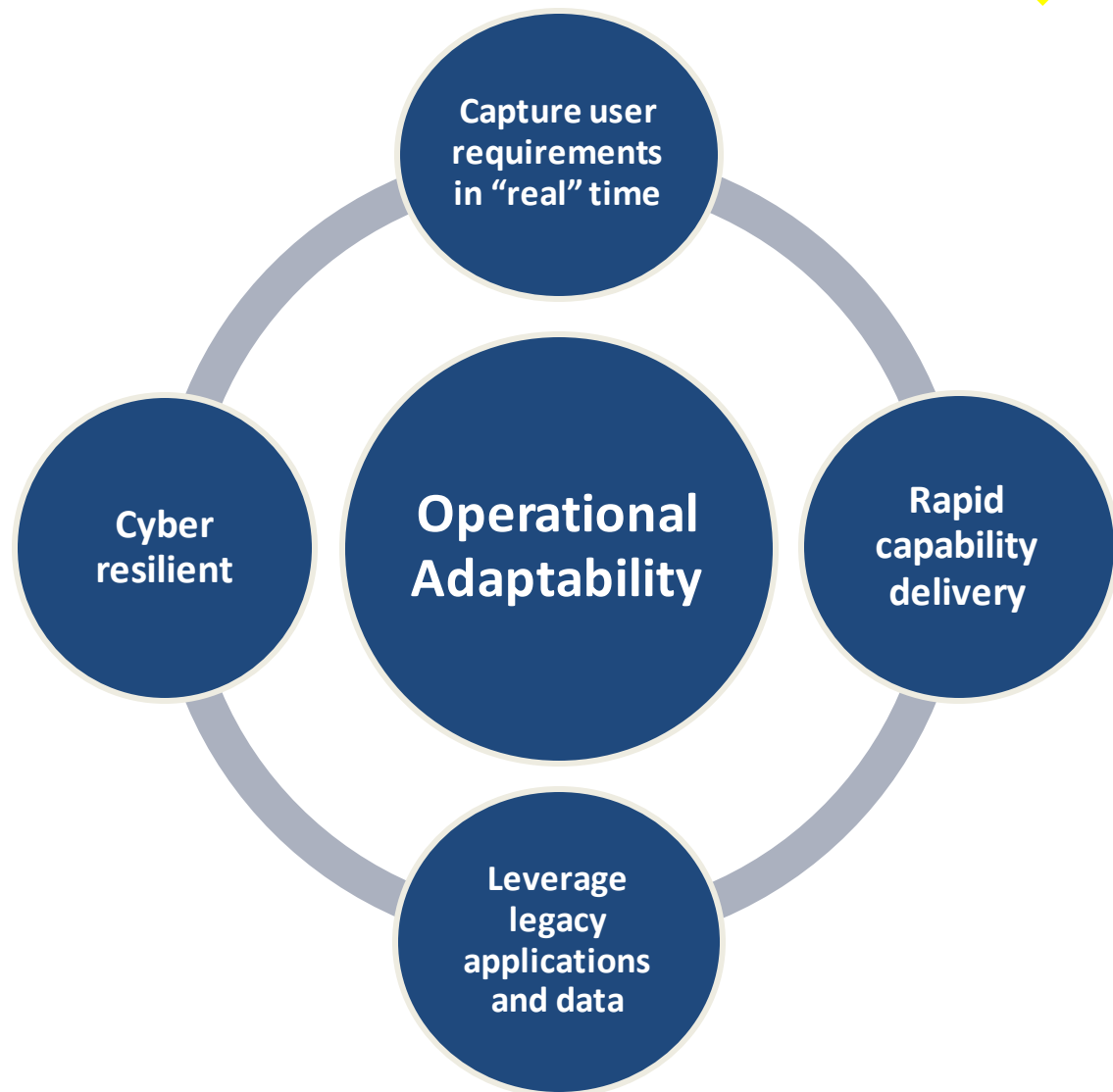
Operationally Adaptive Acquisitions?





How are we doing today?

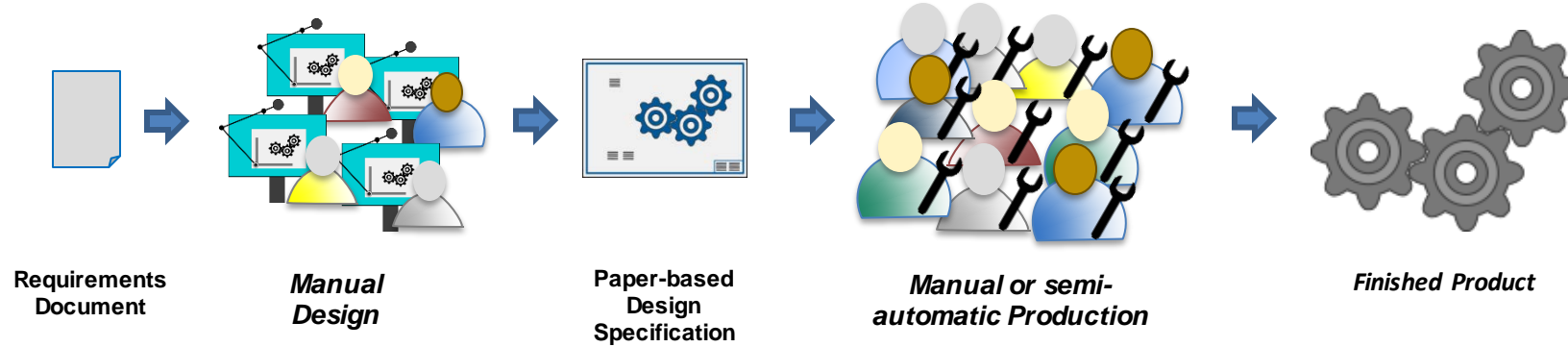
- User input is paper based, hierarchical, choices made inside the beltway
- Capability deliver times measured in months (best case), often years
- Integration of multiple systems: Extremely difficult, time-consuming, and expensive
- RMF is a good start for cyber, but how good is our code? How are we going to continuously monitor?
- Efforts to fix all these are independent



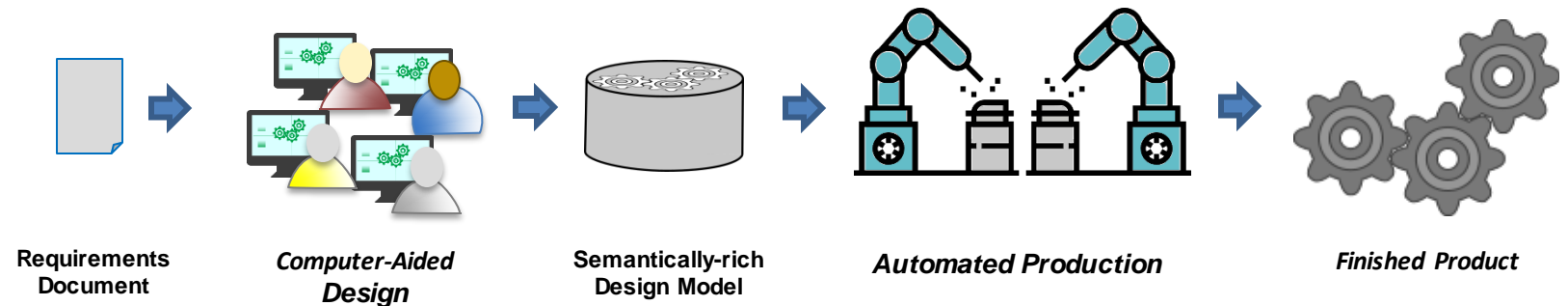
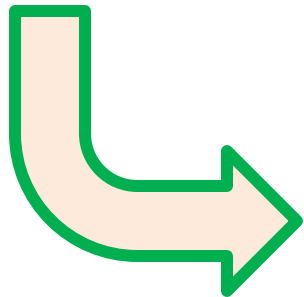


This happened 30 years ago in the Mechanical Industry

A traditional **human-intensive, paper-based** design and production process ...

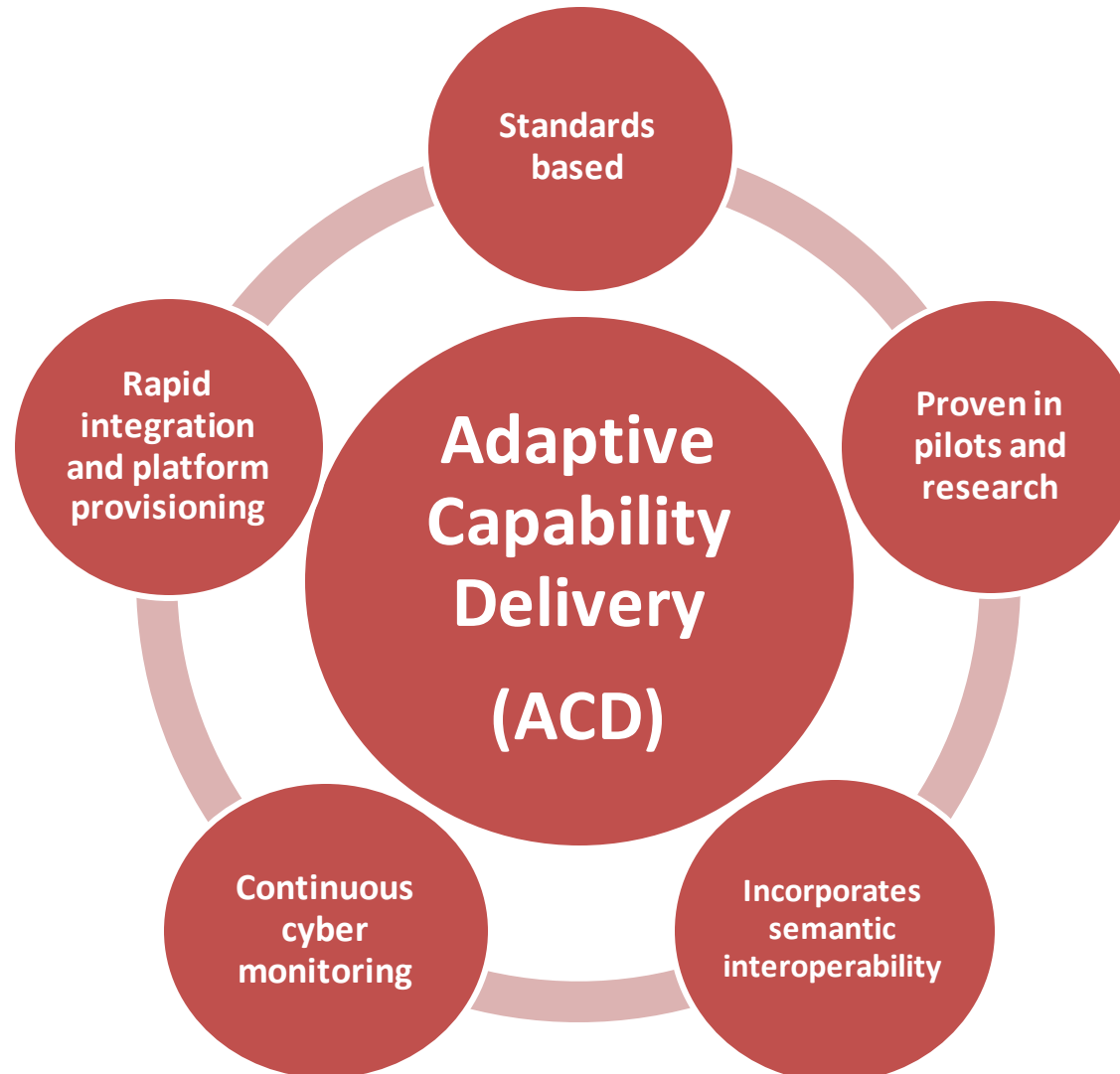


... transitioned into a **computer- and model-based** mostly **automated** process



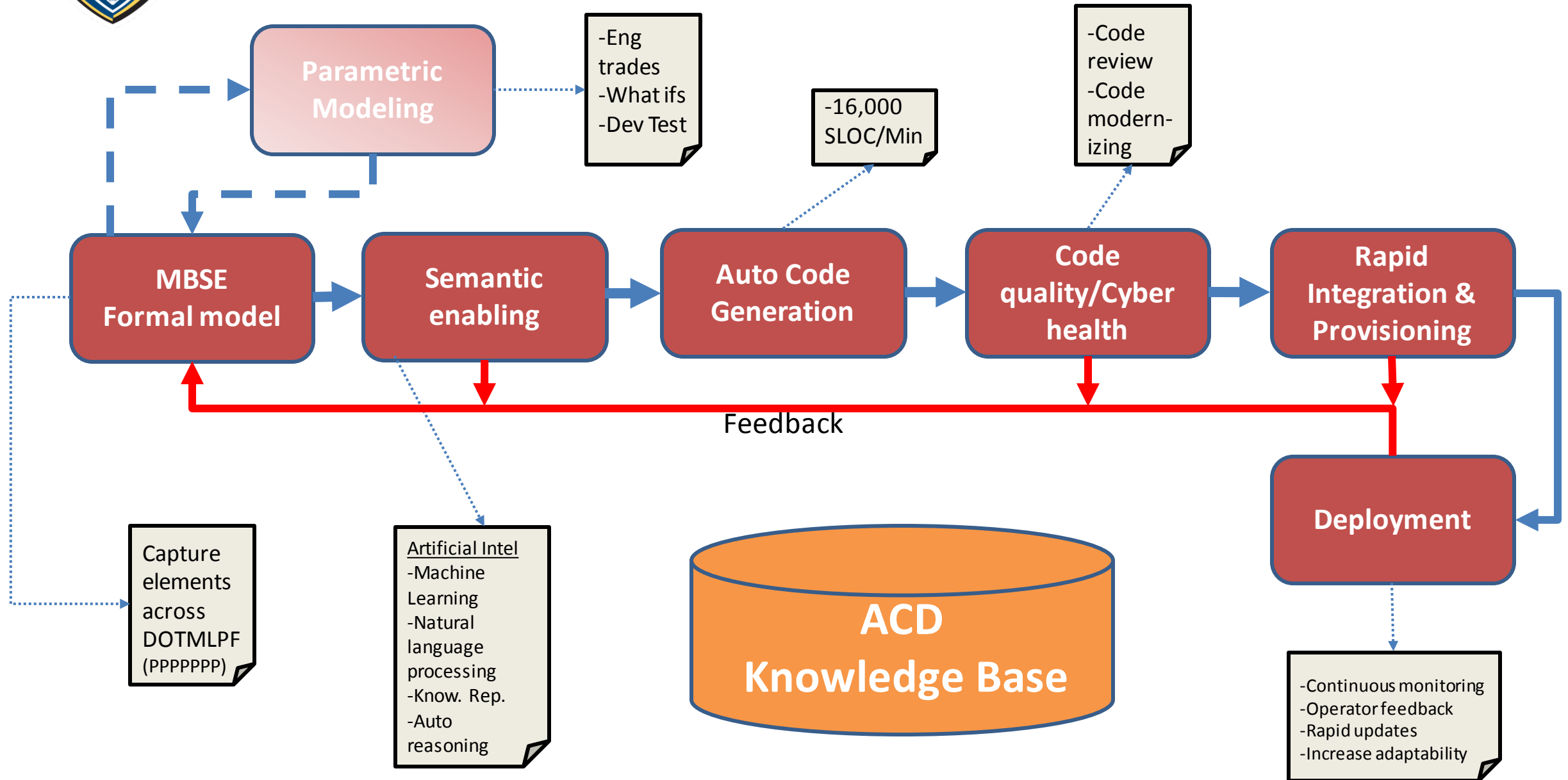


Solutions exist today for creating an RMA in information systems development, similar to today's mechanical engineering approach





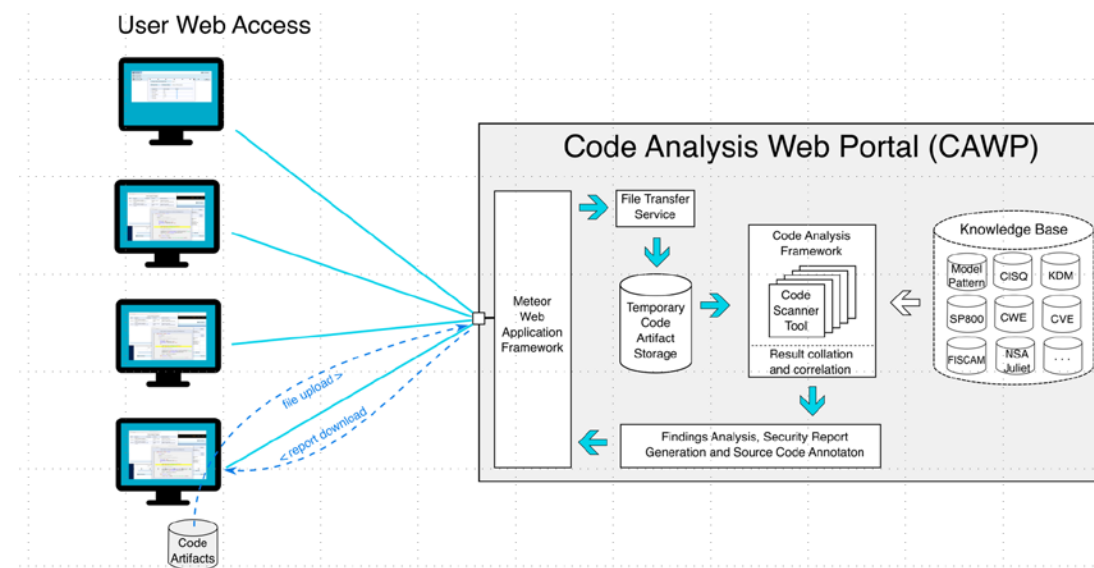
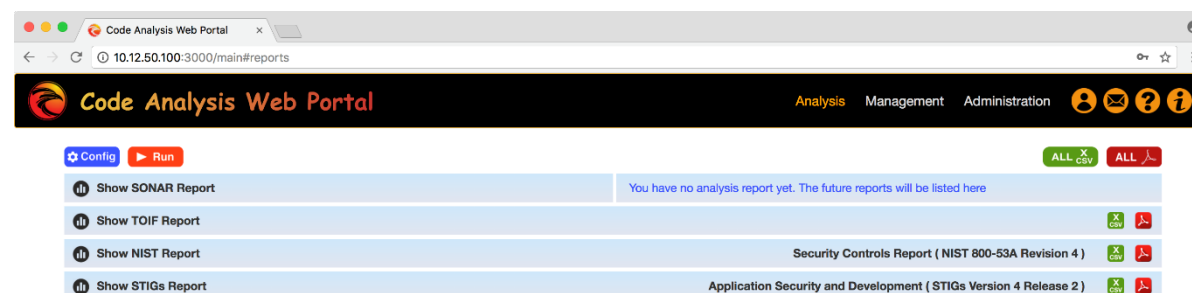
ADAPTIVE CAPABILITY DELIVERY OVERVIEW





Example: Code Analysis Web Portal

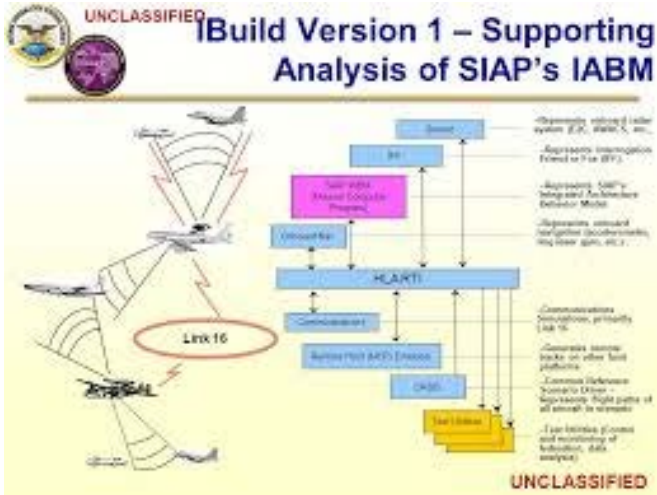
- Project completed < one man-year; integrated 24 separate applications and/or data sources; created semantic interoperability
- CAWP passed NSA Julia data base benchmark code assessment test (estimated at four man-years to review manually; CAWP completed in ten minutes)
- Capabilities:
 - Code Detector - determines type of language used
 - Code Analysis – Using code analyzers within the Tools Output Integration Framework
 - Report Generator – creates reports from TOIF output





Sounds good, but....

Previous MBSE Programs



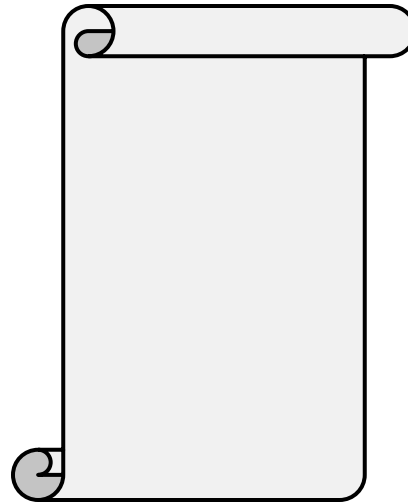
From 2003 SIAP Brief

Direct Operator Input



No clean slates/Legacy Systems!!

Who's in charge?





Continuing Research Areas

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- Formal modeling is hard; how to grow enough well trained formal modelers?
 - How do we incentivize service acquisition executives, PEOs, PMs, to try these solutions?
 - What is the interface/process that enables operators to directly impact requirements?
 - What is the concept of operations?