

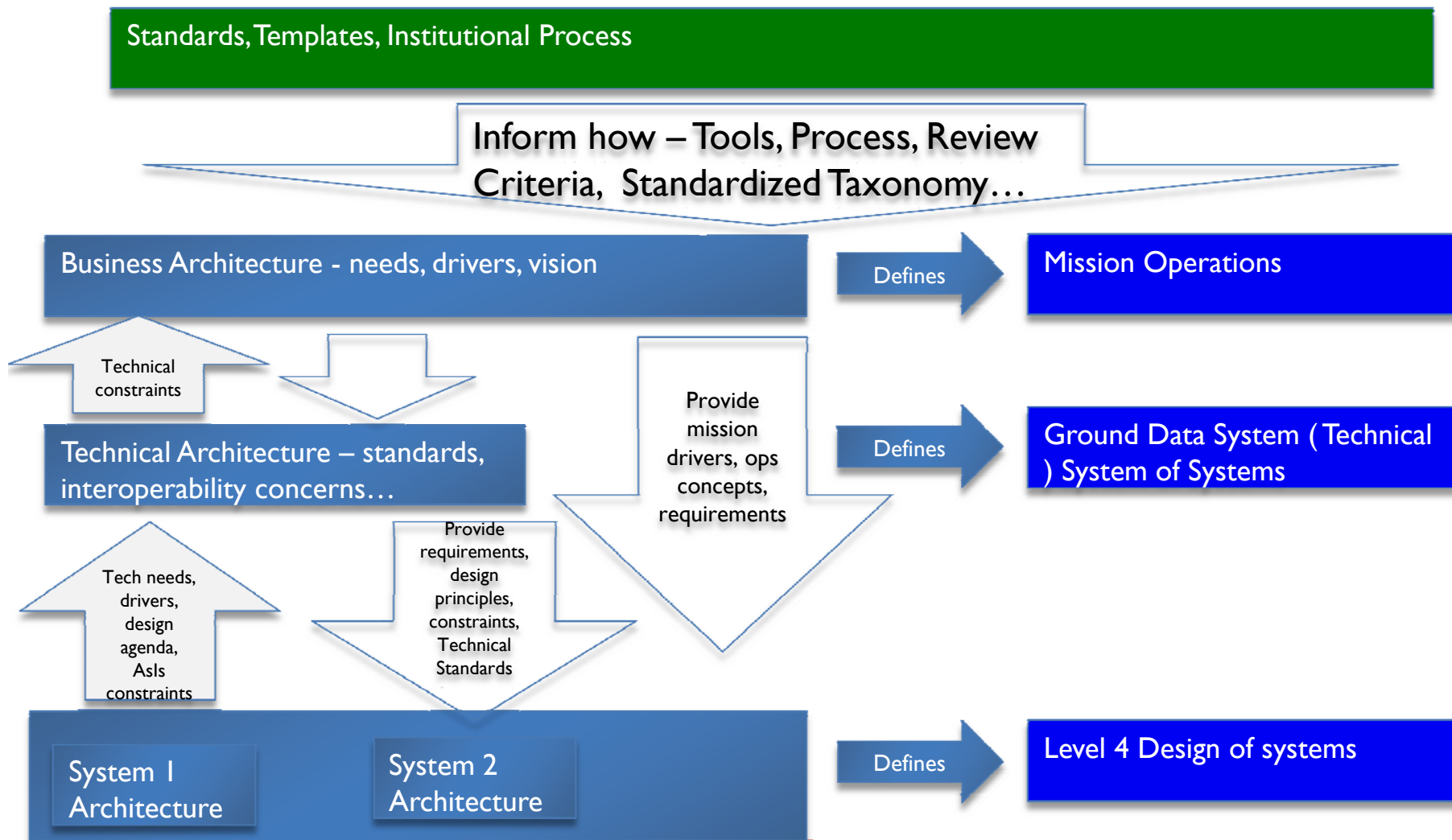


Jet Propulsion Laboratory
California Institute of Technology

Architecture: Controlling Chaos by Defining Complex Interdependencies

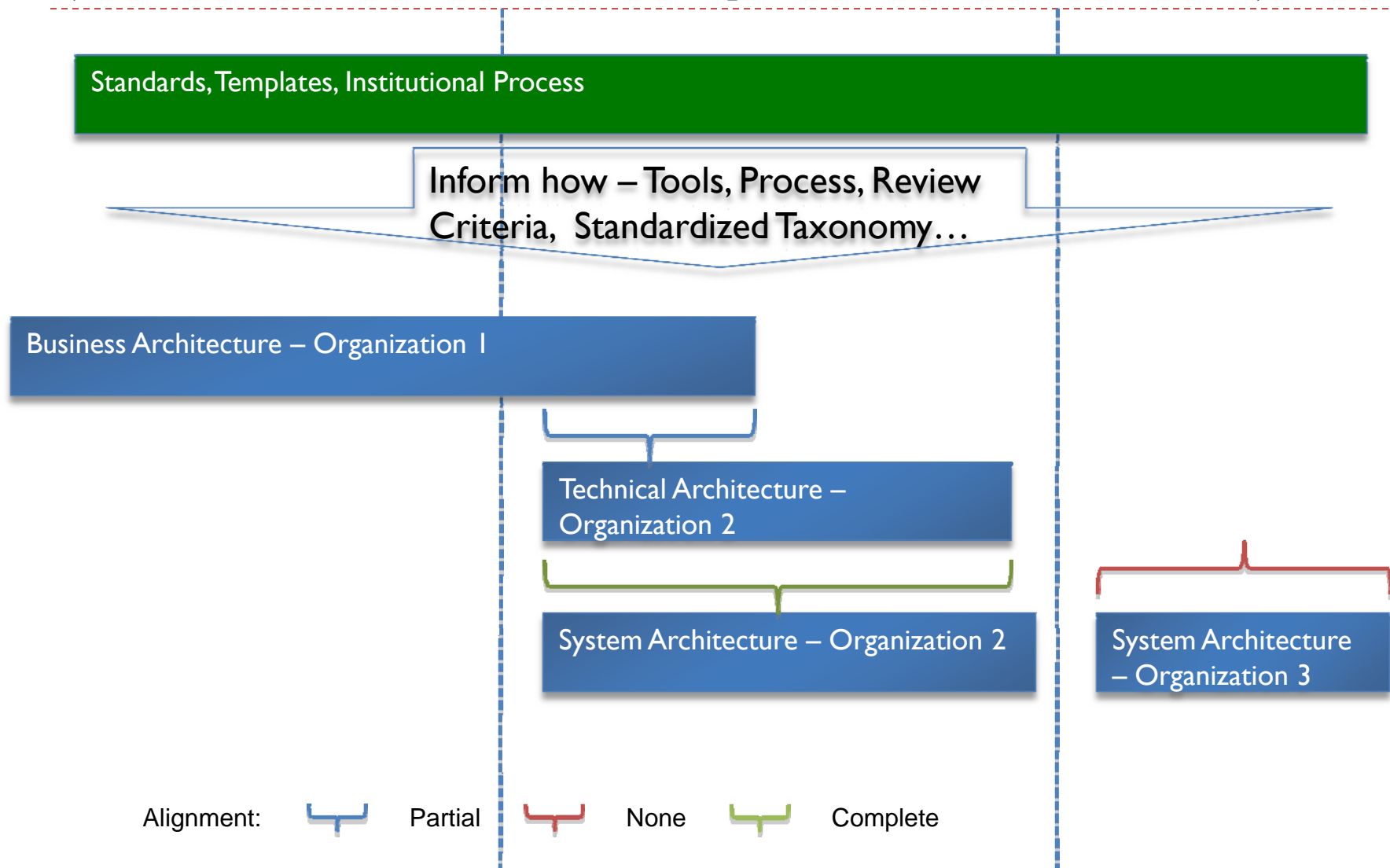
Brian Giovannoni - Technical Group Supervisor Ground Software
Architecture and Systems Engineering
March 2011

Architecture concerns at organizational levels (System-of-System Architecture)



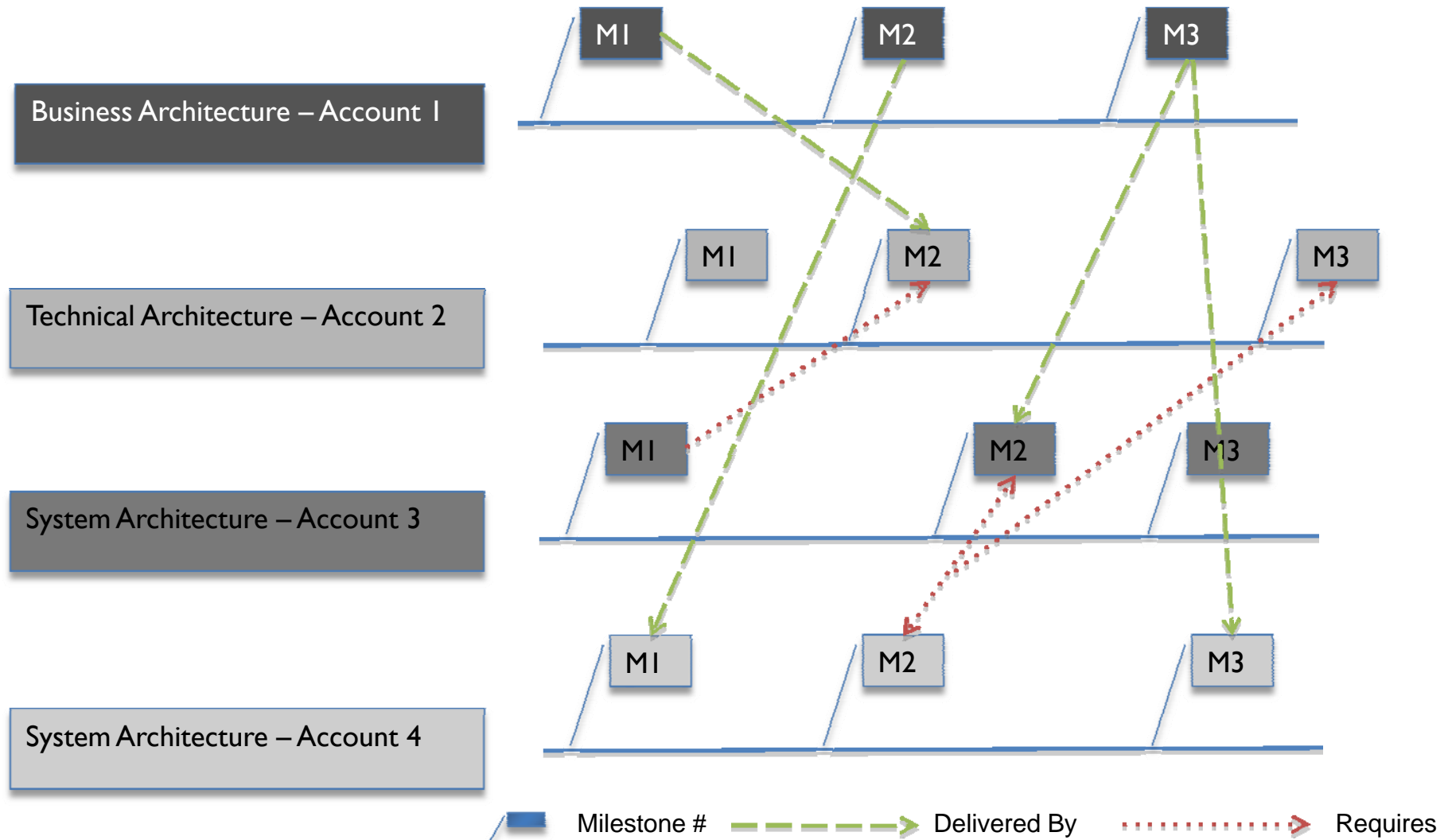
Architecture – Alignment on process

(Process and cultural differences impact a cohesive architecture)



Architecture – Control of the money

(Conflicting goals, schedules impact a cohesive architecture)



Obstacles to Architecture

- ▶ **Organizational Structure**
 - ▶ Organizational boundaries can create silos with different agenda's, processes, cultures and direction
- ▶ **Management Support**
 - ▶ Requires strong buy-in and support from management
- ▶ **Control of the money**
 - ▶ He who has the dollar makes the rules
- ▶ **Poorly defined roles**
 - ▶ People need to agree how they will work together