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Applying CMMI Principles to the Military Certification Process of Legacy Aircraft

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Introduction

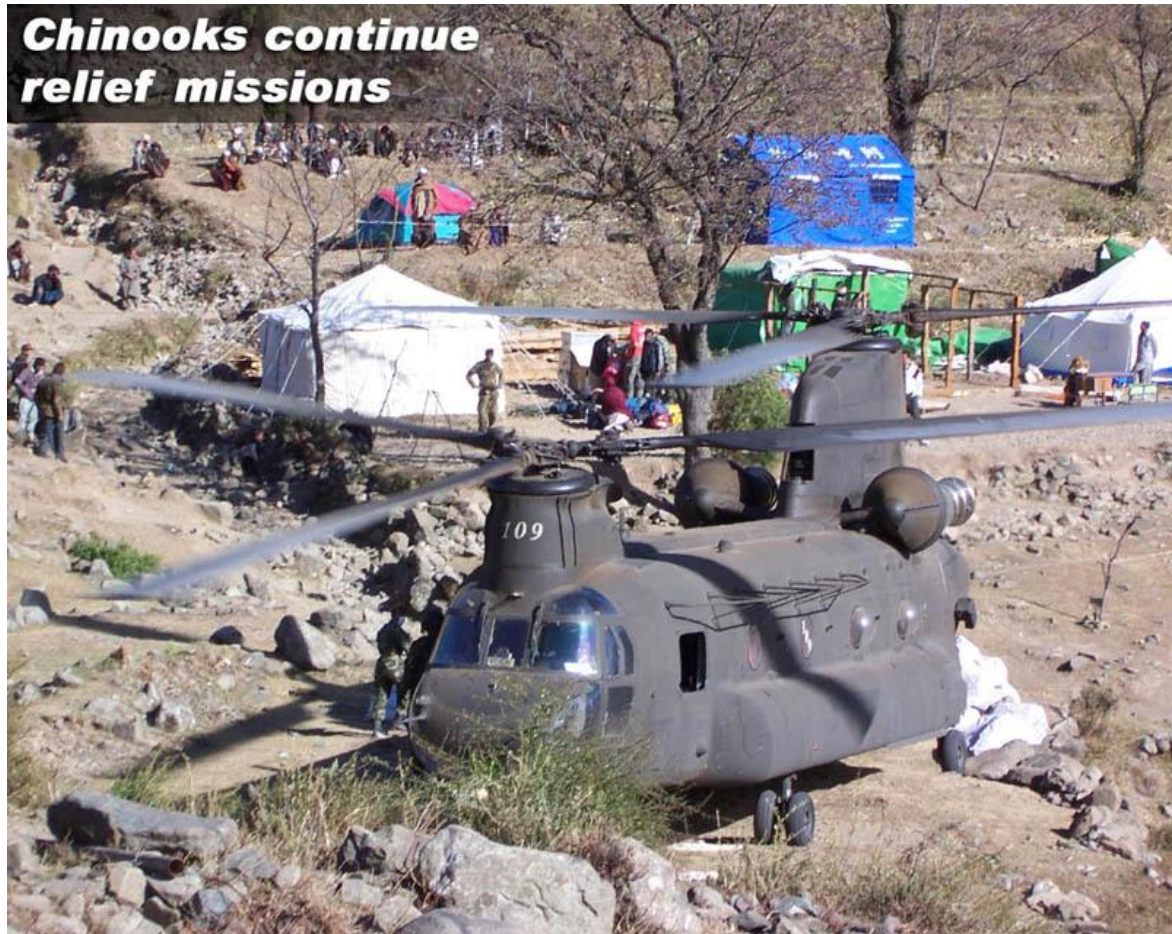


- First introduced in 1962
 - Deployed in Vietnam
- Multi-mission, heavy-lift transport
- 1,179 Chinooks Worldwide
- Service life projected beyond 2030
- Strong International Demand
 - Civil and military applications

Operations



- Ability to land on unprepared ground



Operations



- Heavy Lift Capability
- Lifting capacity of 21,500-pounds

n Introduction



- A demonstrated capability of an aircraft to function satisfactorily within established limits
- Military Certification vs. Civil Certification
 - Militarily qualification requires demonstration of airworthiness to protect crew and passengers
 - Civilian certification concentrates on safety of everyone else

ication?



- Public Concerns for Safety
 - England grounded aircraft for 9 years
 - Spain grounded aircraft until sufficient evidence to release
 - Singapore request data 6 years after delivery

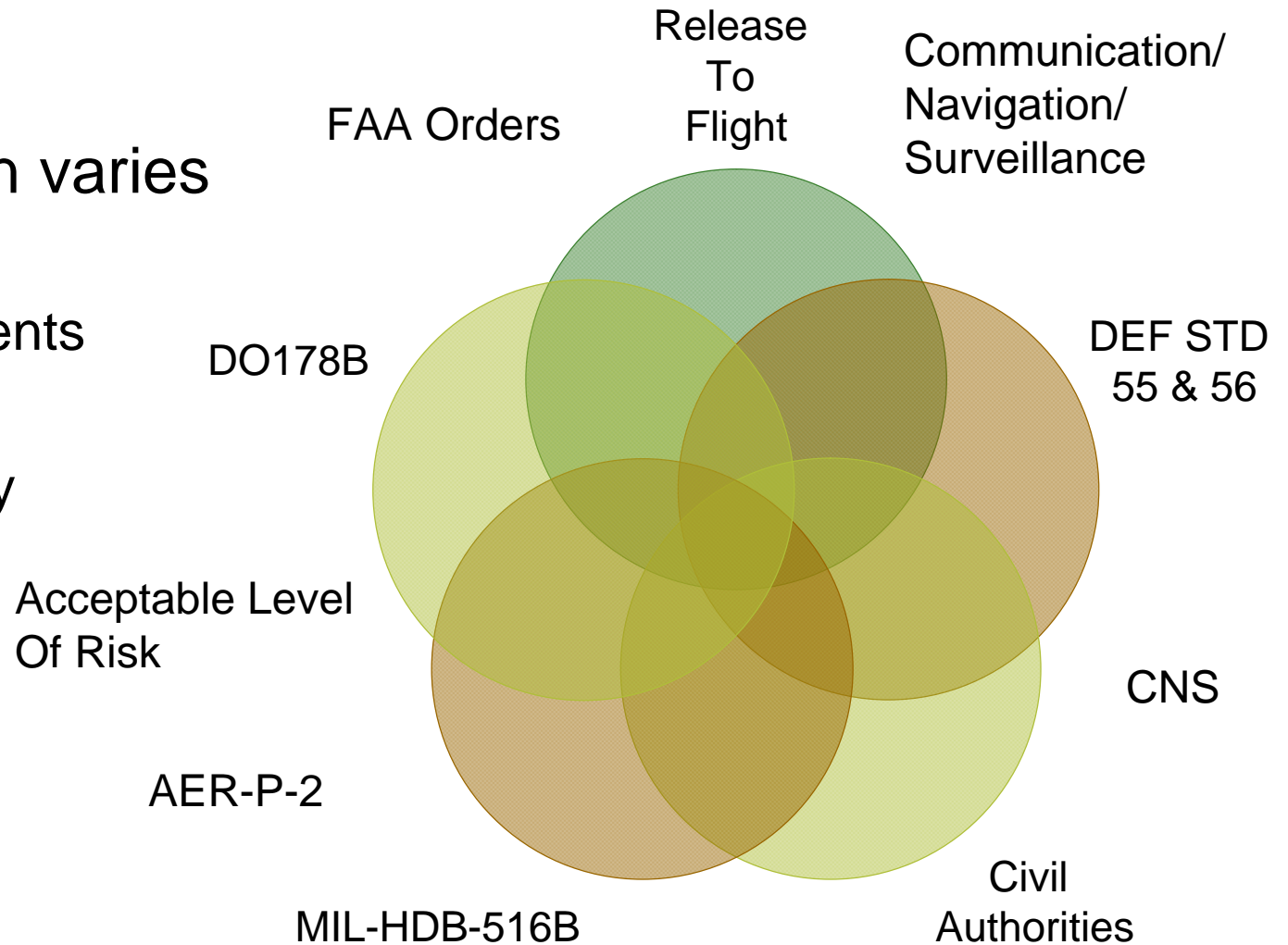
- Foreign Military Concerns

ing Certification

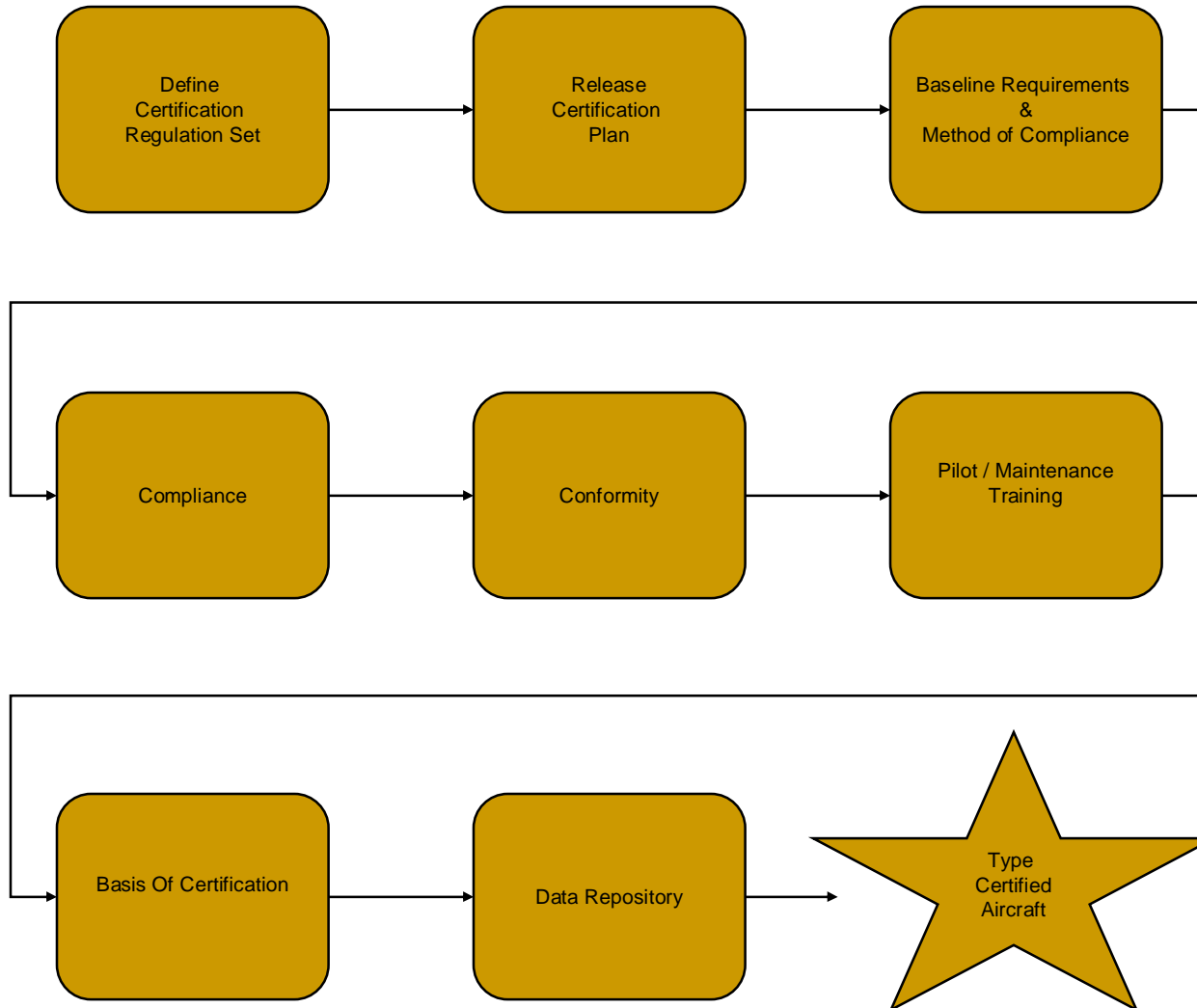


- **Methods of Certification varies widely**

- Requirements
- Process
- Reciprocity



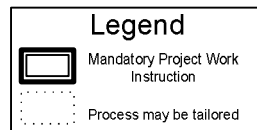
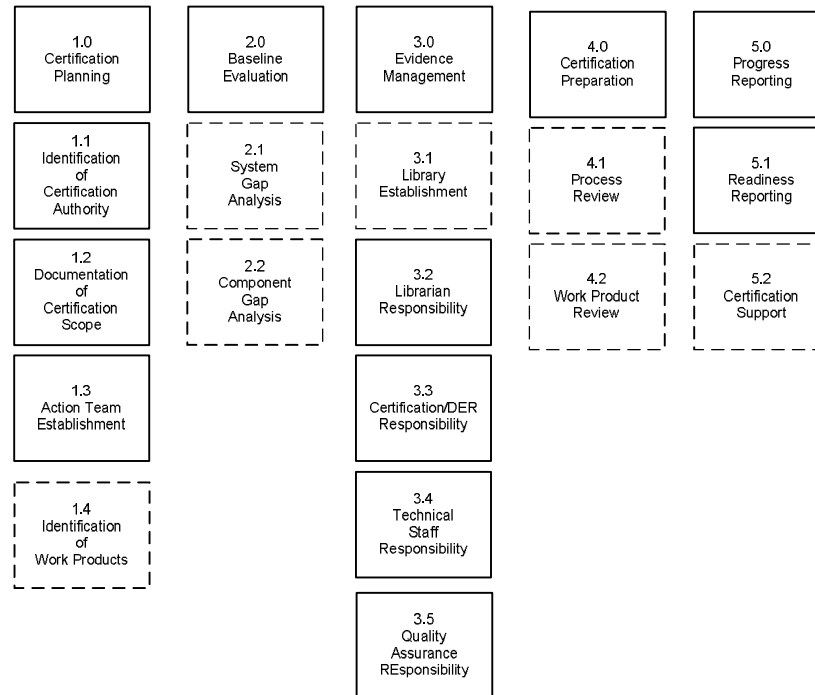
Certification



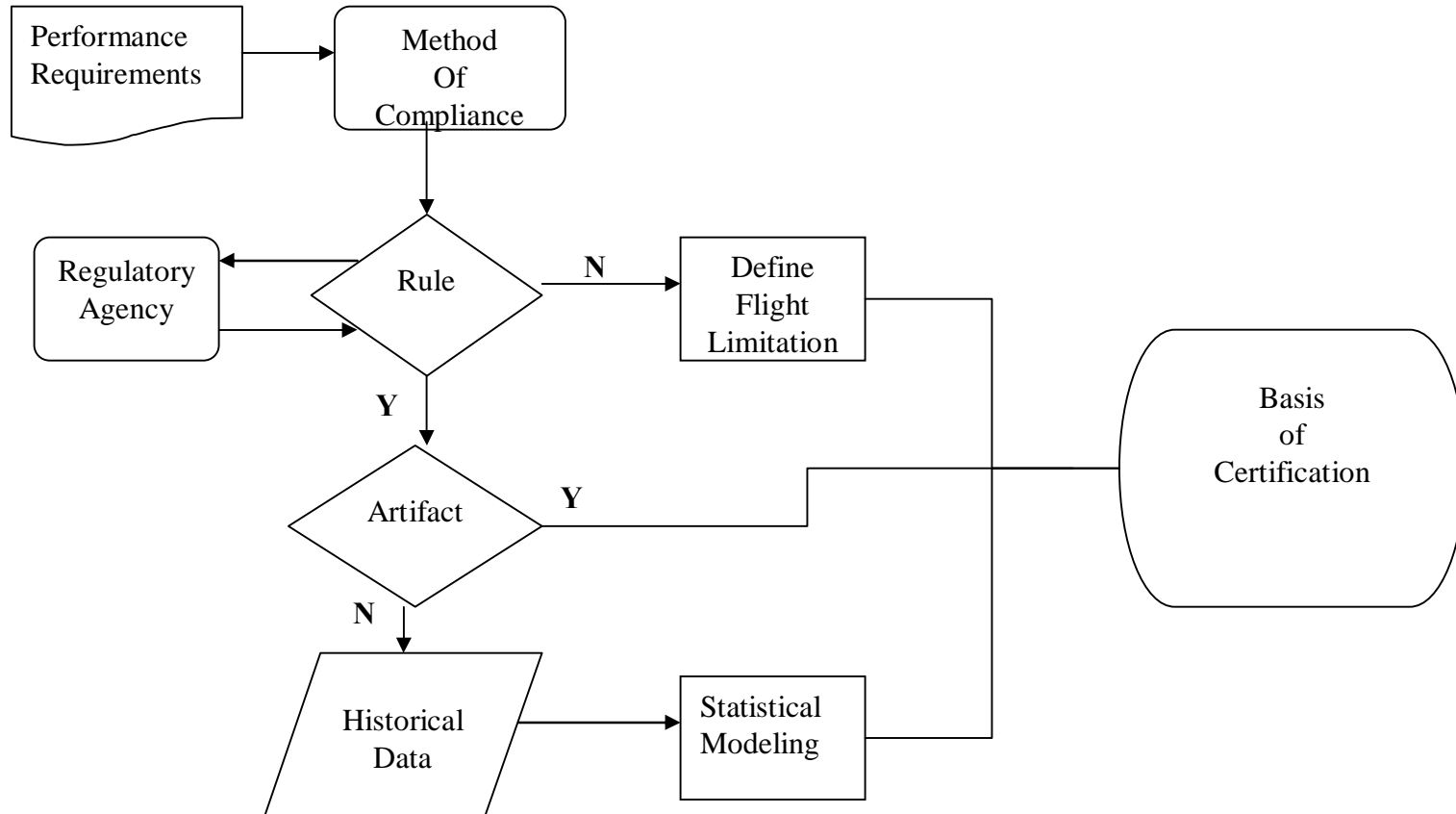
Certificate



Project Certification Process

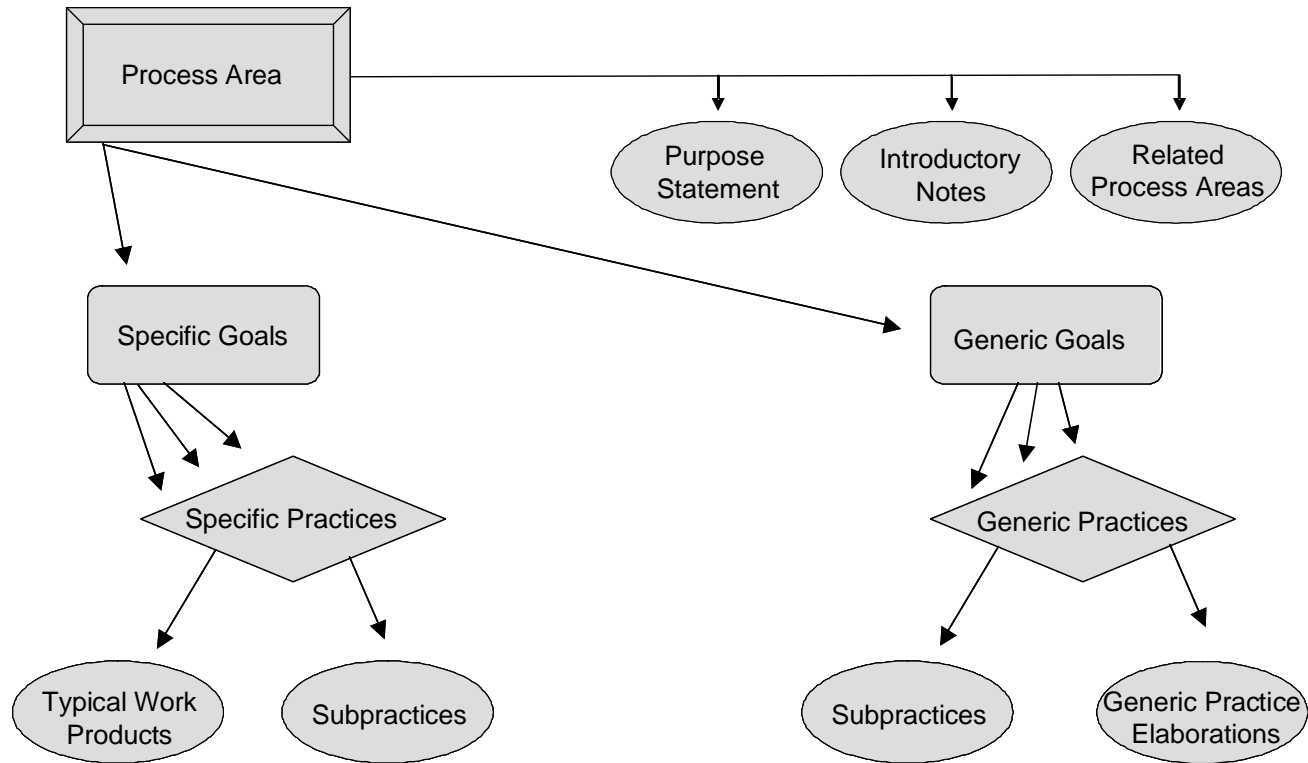


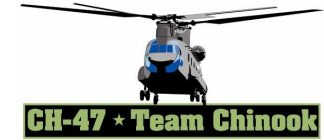
Aircraft Certification



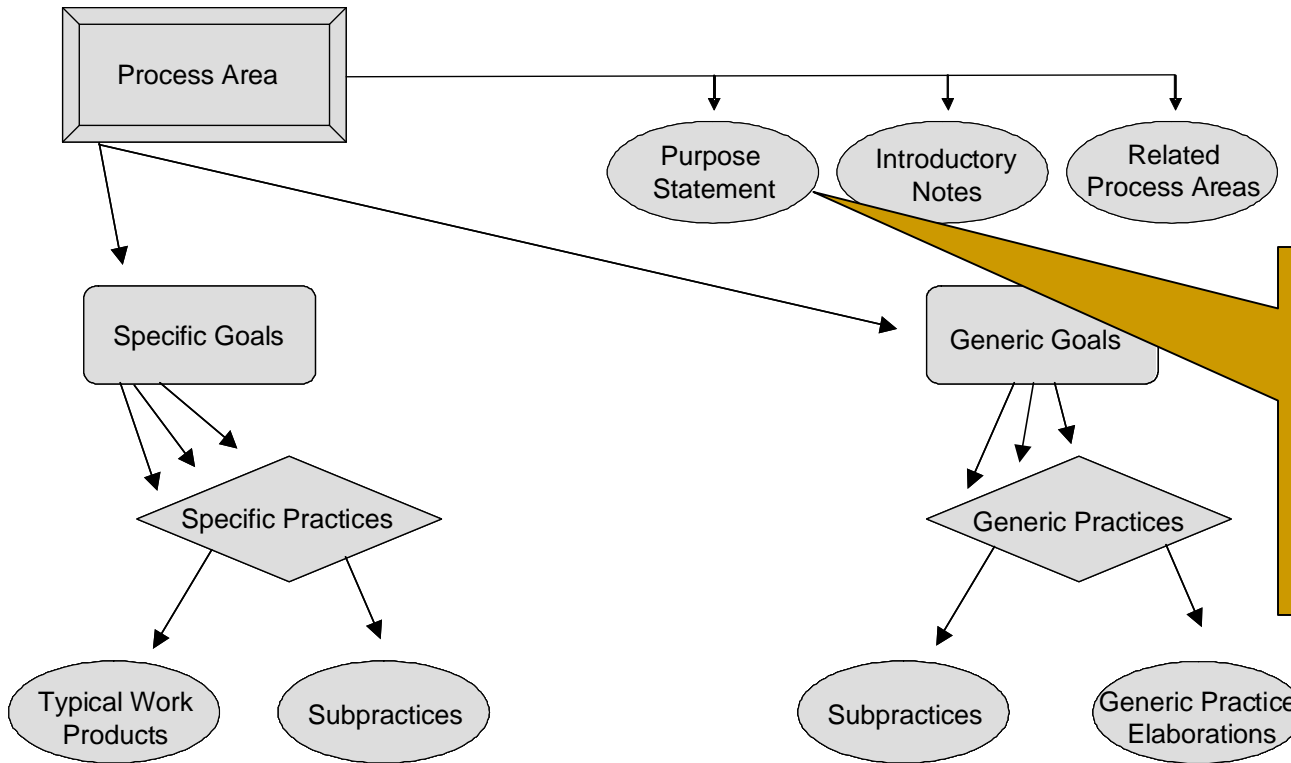
Iterative / Negotiated Process

Model Fundamentals





MMI Model to the Certification Process

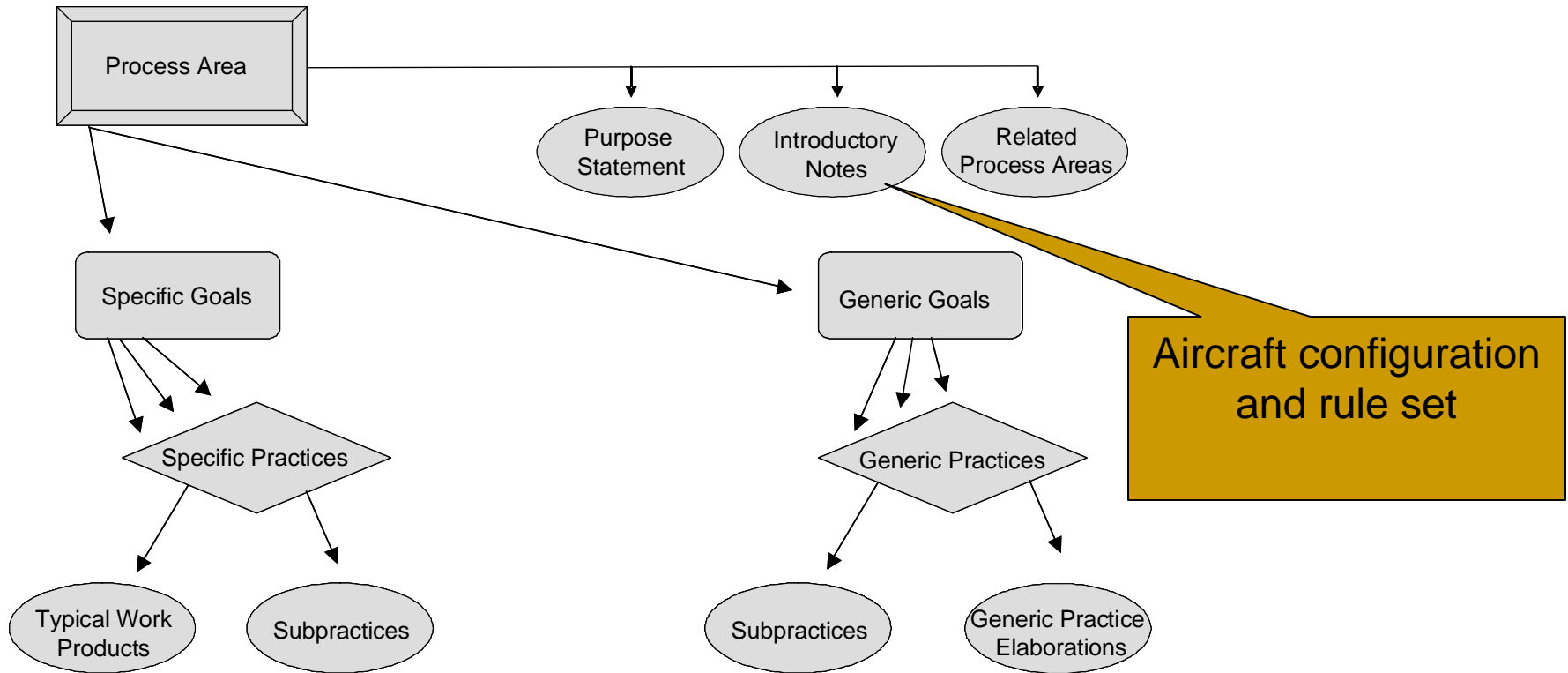


The purpose of this process is to establish a certification baseline for the H-47 aircraft

KEY:  Required  Expected  Informative



MMI Model to the Certification Process



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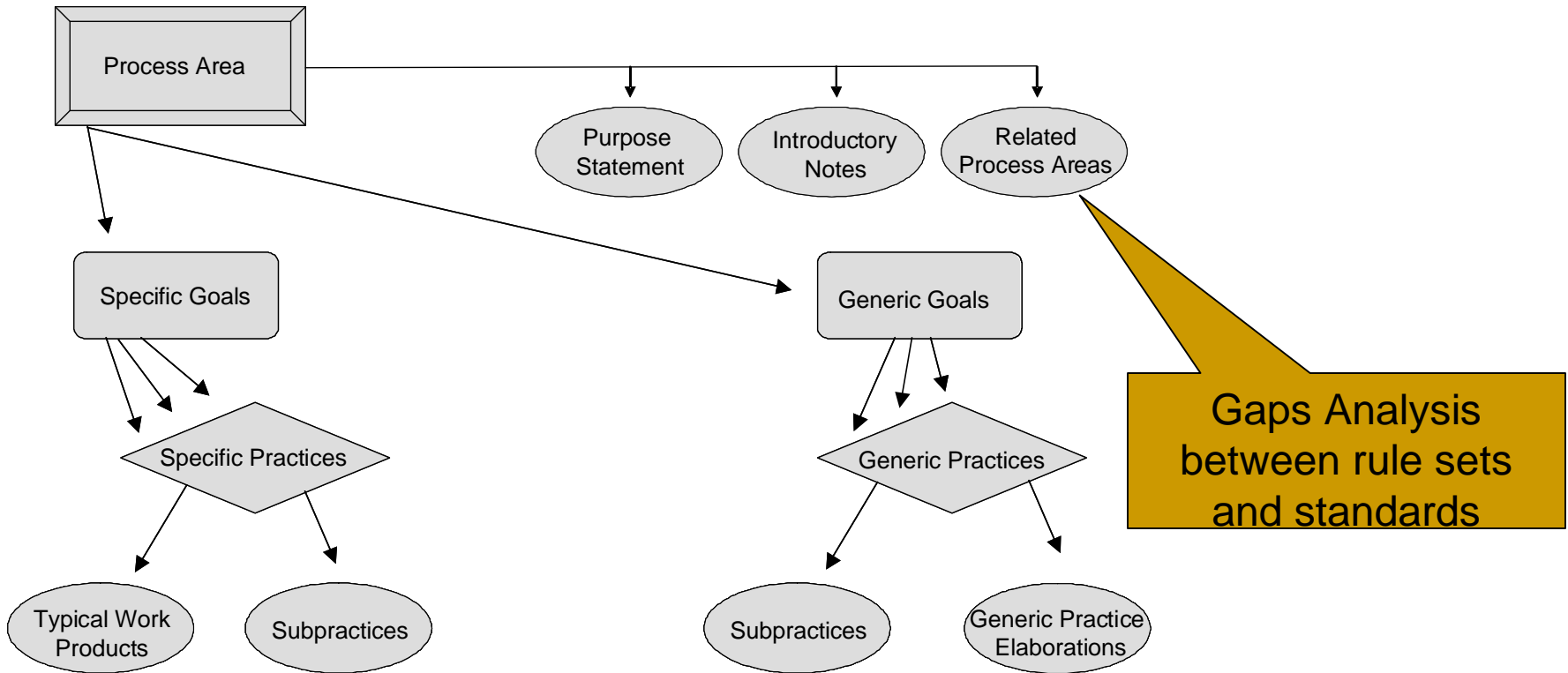
Required

Expected

Informative



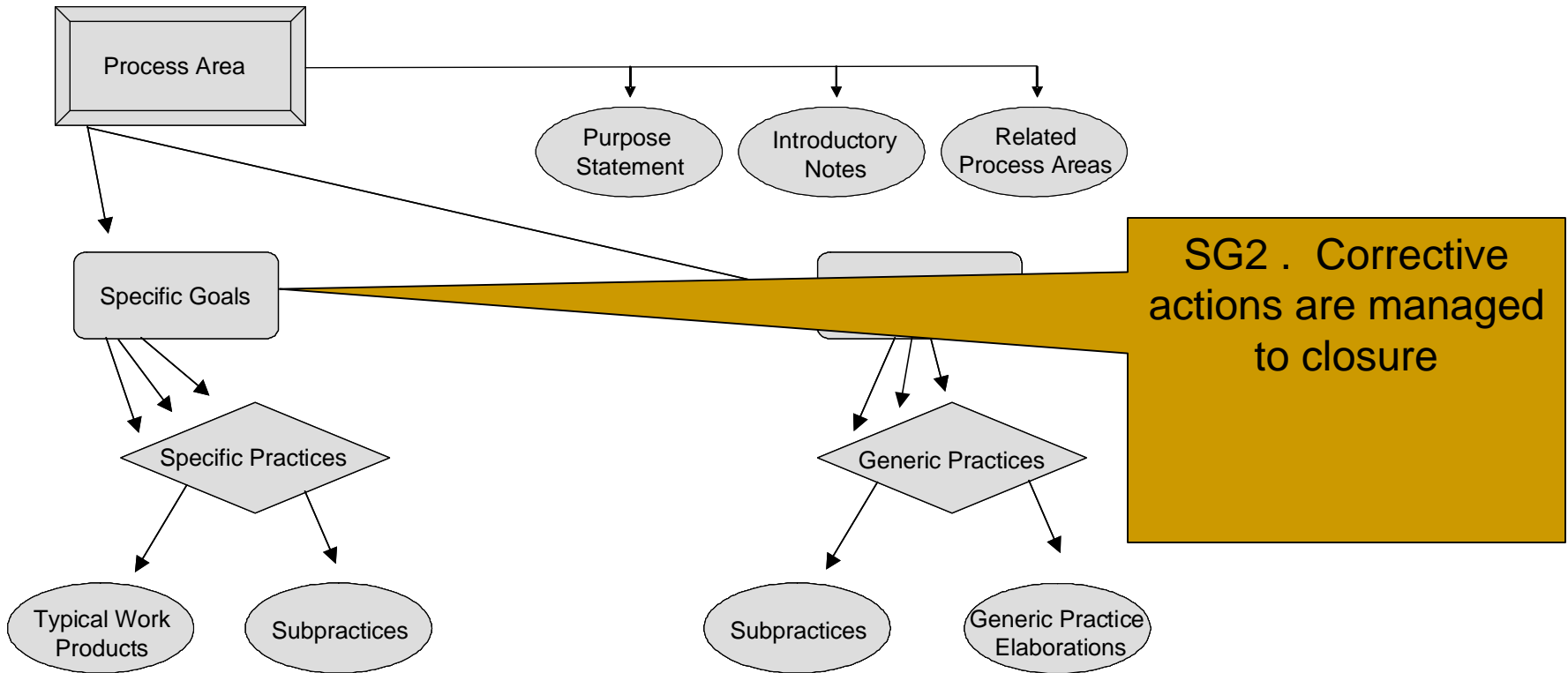
MMI Model to the Certification Process



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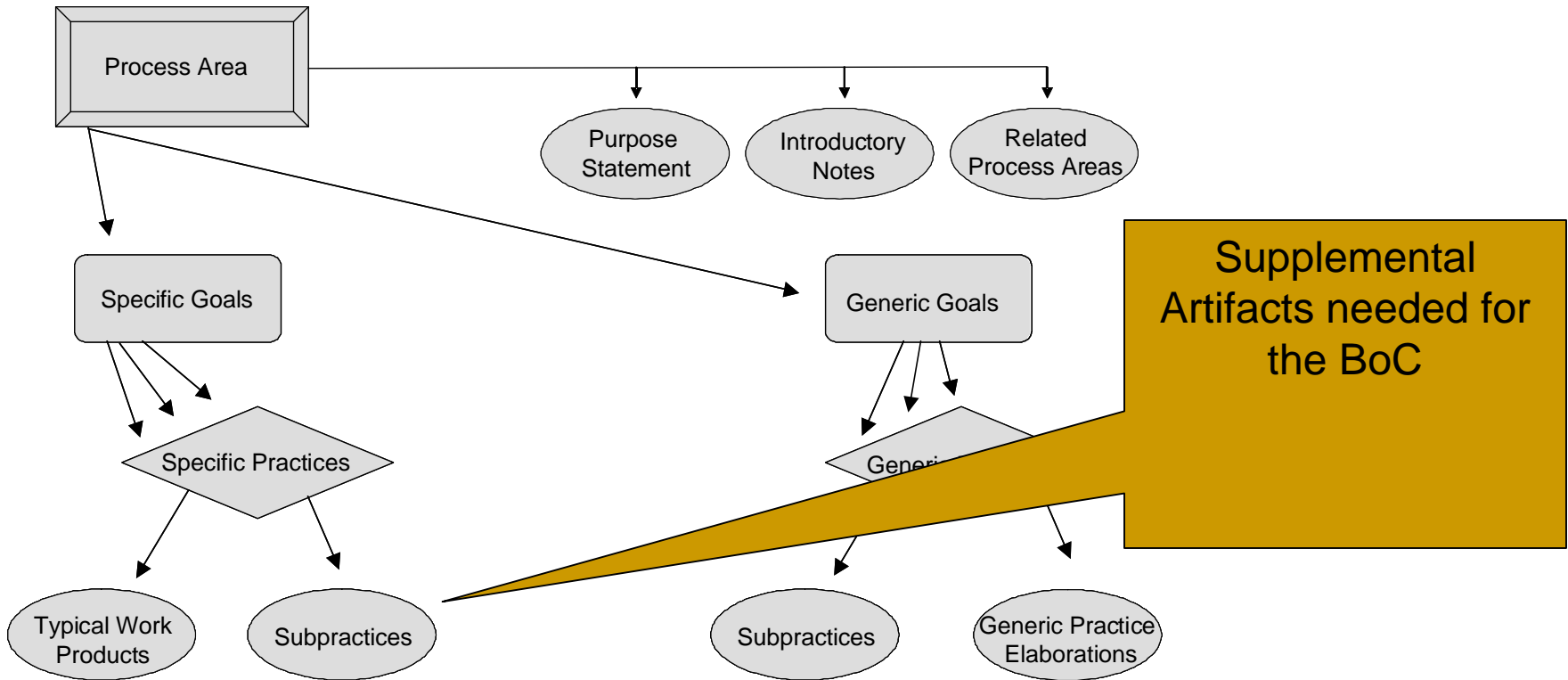
MMI Model to the Certification Process



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MMI Model to the Certification Process



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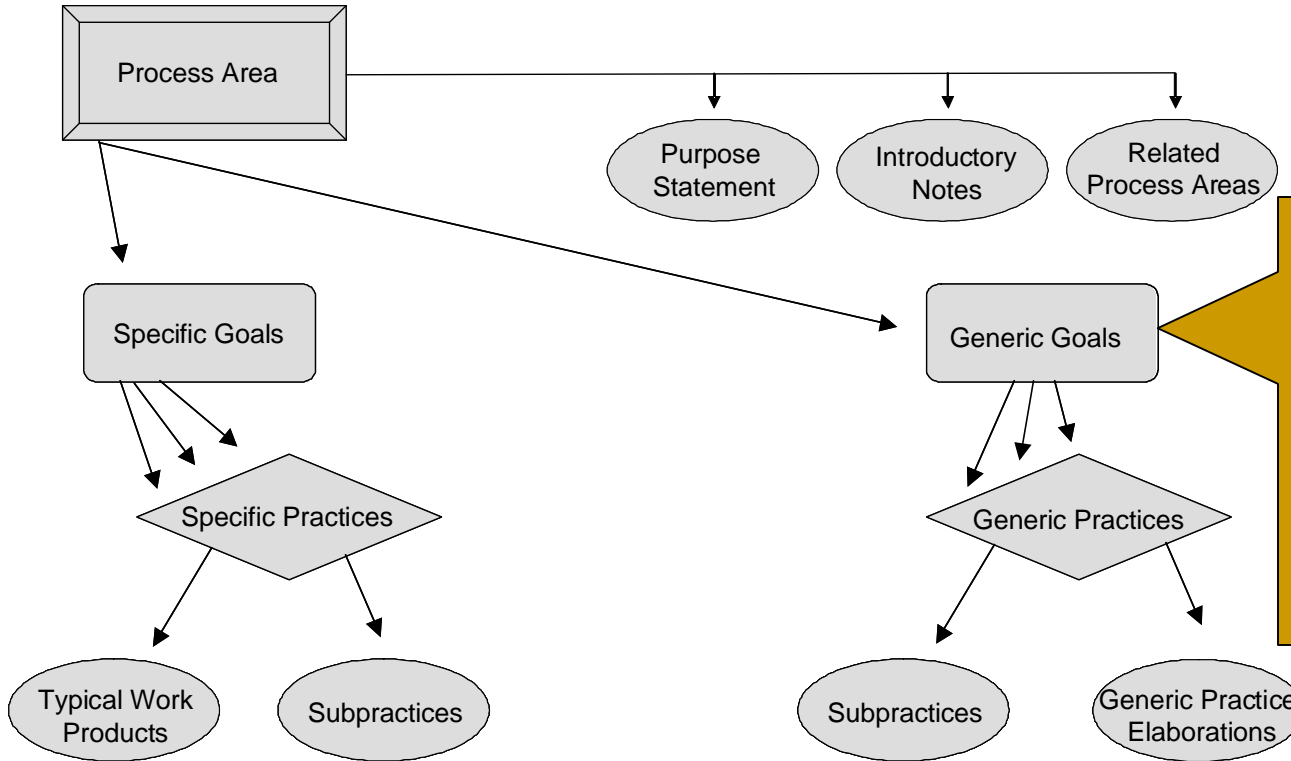
Required

Expected

Informative



MMI Model to the Certification Process



GG2 . The process is institutionalized as a managed process

KEY:

Required

Expected

Informative