Using the IntelliGrid$_{(sm)}$ Methodology and GWAC Stack in IT Smart Grid Project Management

John J. Simmins, Brian Green
Electric Power Research Institute

Michael Tao
Boreas Group

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- Introduction
- Framing the problem.
- Enter the GWAC Stack and IntelliGrid$_{(sm)}$ methodology.
- Some project management terminology.
- Application of the IntelliGrid methodology and GWAC stack to project management.

Applications for the IntelliGrid(sm) Methodology

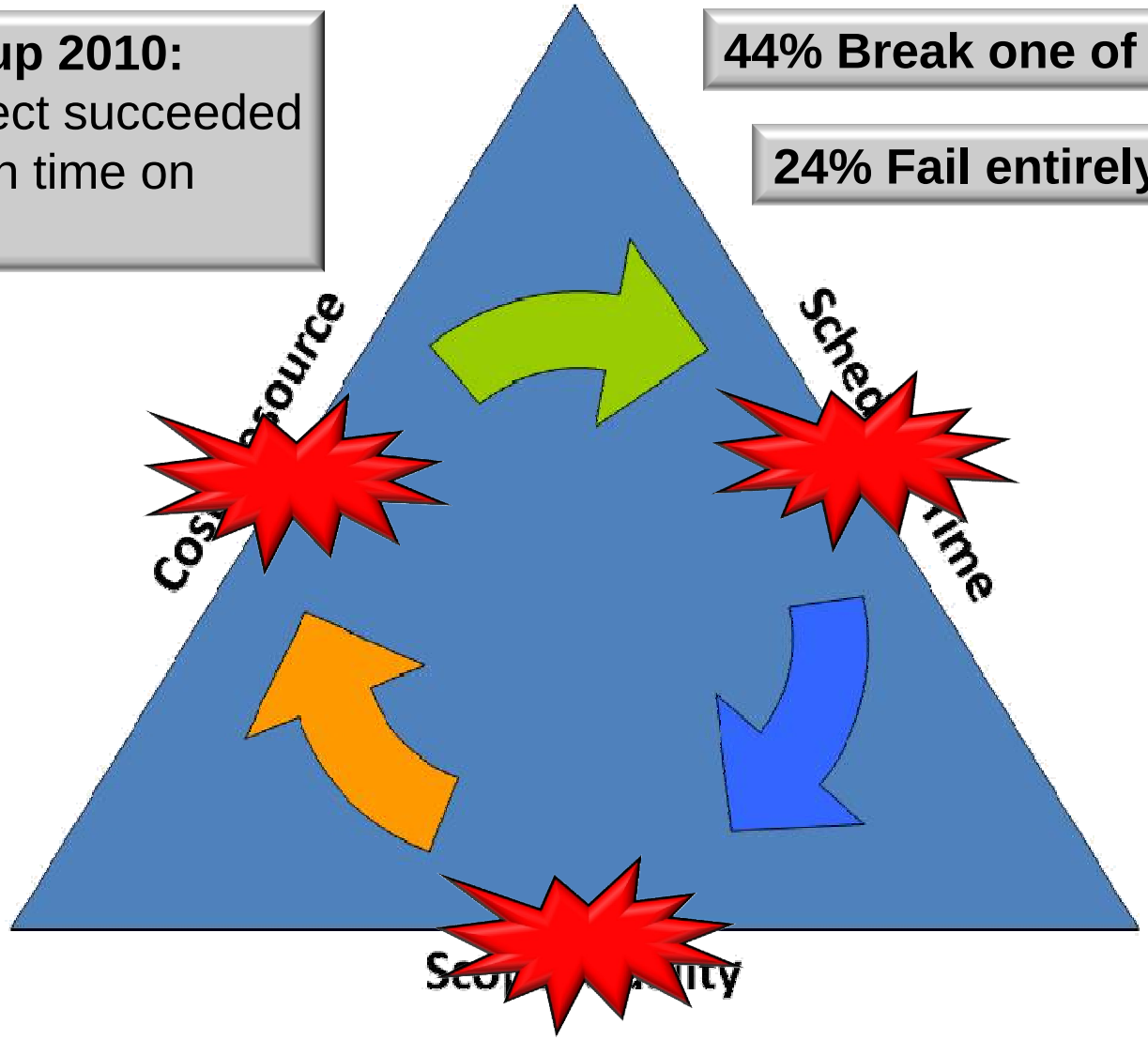
- Requirements Gathering
- Project Planning
- Testing (e.g. System Acceptance Testing)
- Training
- Security Risk Analysis
- Governance

The Problem with IT Project Management

Standish Group 2010:
Only 32% project succeeded by delivering on time on budget

44% Break one of the constraints

24% Fail entirely



Project Management Importance*

- Nearly all respondents said that project management was critical to successful project (47% say “critical” and 43% say “somewhat important”) .
- Less than one half (49%) said they follow a formal project management methodology.
- Around 20% said they have any project management tools.
- Results:
  - Less than one third (27%) said they do a very good job of managing projects.
  - Only 10% said they do an excellent job.

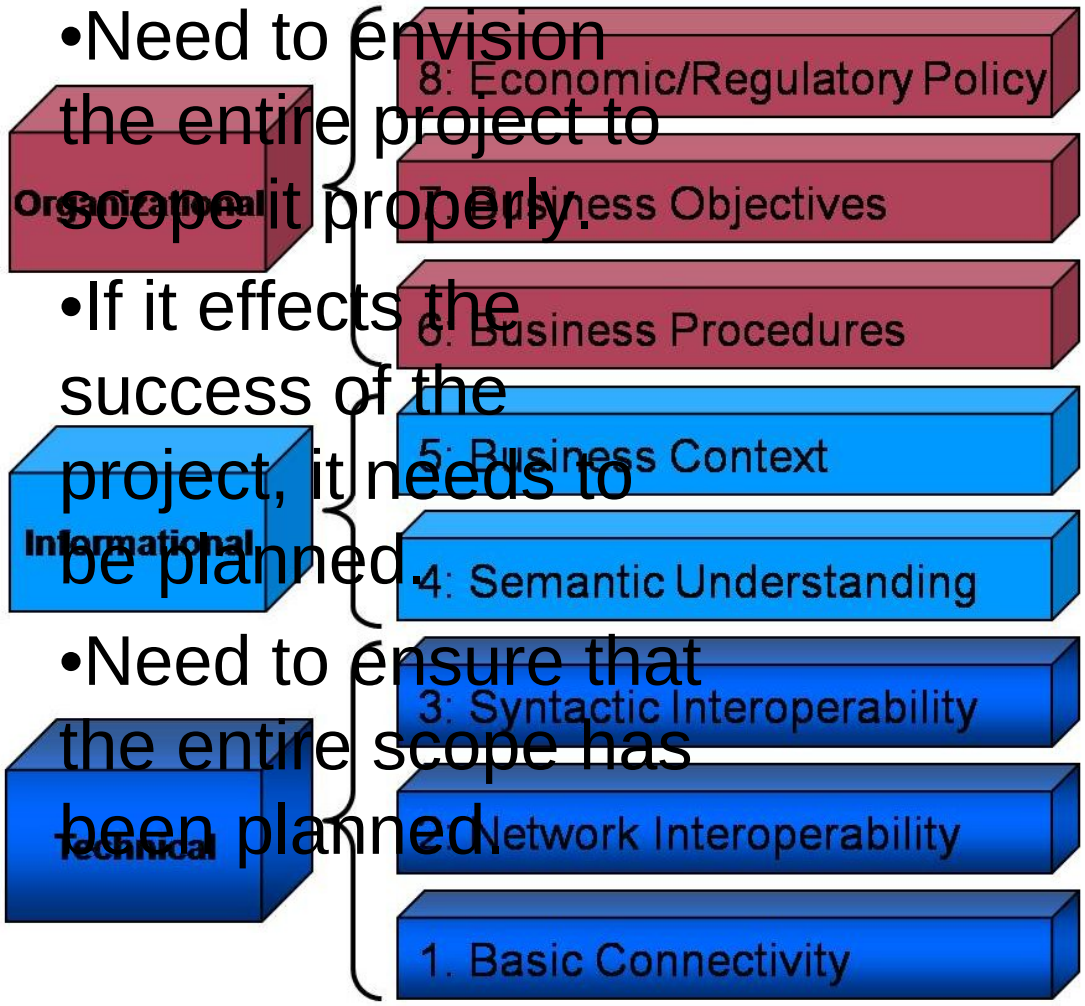
*Closing the Gap: The Link Between Project Management Excellence and Long-Term Success, Economist Intelligence Unit Limited, 2009.

The Smart Grid IT Project Management Gap

- Lack of a conceptual model of the Smart Grid IT Project.
- Lack of a methodology for scoping and managing the project.

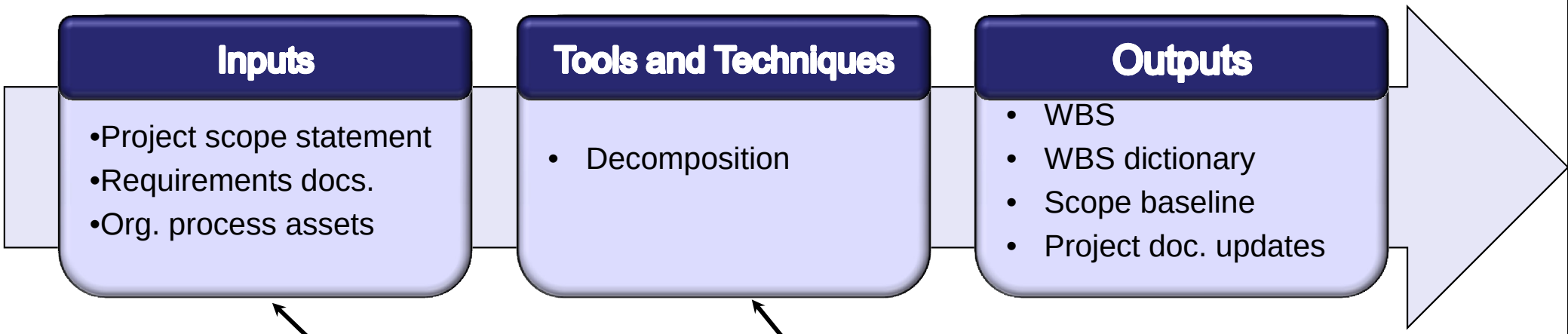
Enter: The GWAC Stack

- Need to envision the entire project to scope it properly.
- If it effects the success of the project, it needs to be planned.
- Need to ensure that the entire scope has been planned.



Project Process – Create WBS

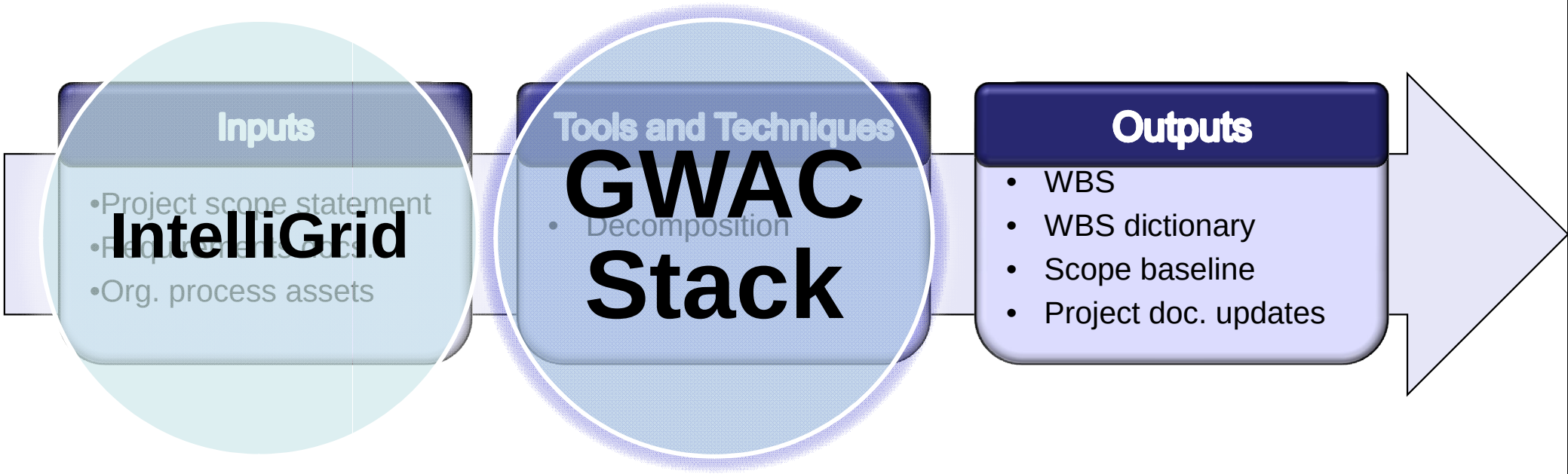
The Work Breakdown Structure (WBS) is a deliverable-oriented hierarchical decomposition of the work to be executed by the project team to accomplish the project goal.



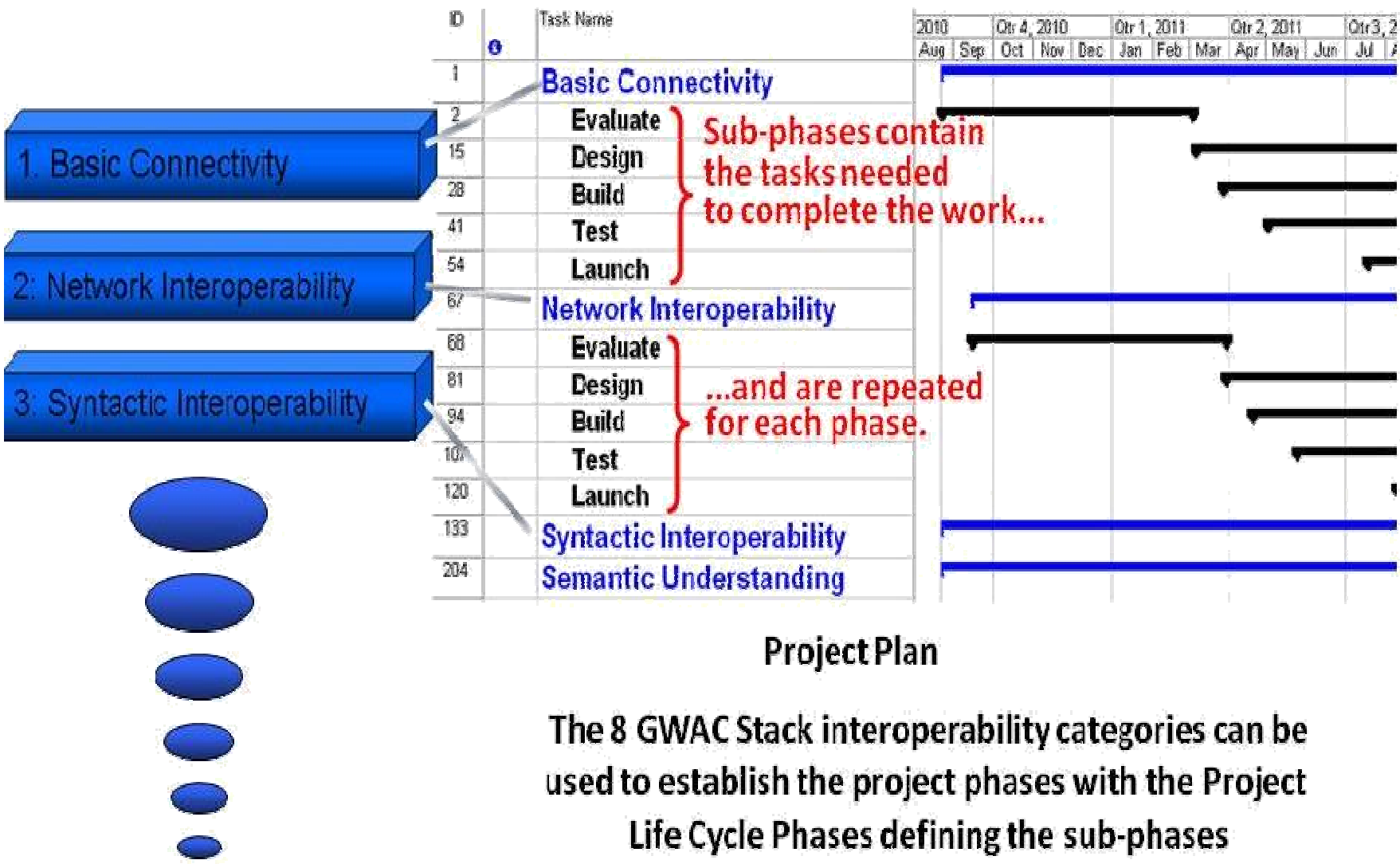
- Business need
- Functional requirements
- Non-functional requirements
- Quality requirements
- Acceptance criteria
- Training requirements

- Identifying and analyzing deliverables
- Structuring and organizing the WBS
- Decomposing the upper WBS levels into detailed components
- Verifying the degree of decomposition is adequate

Project Process – Create WBS



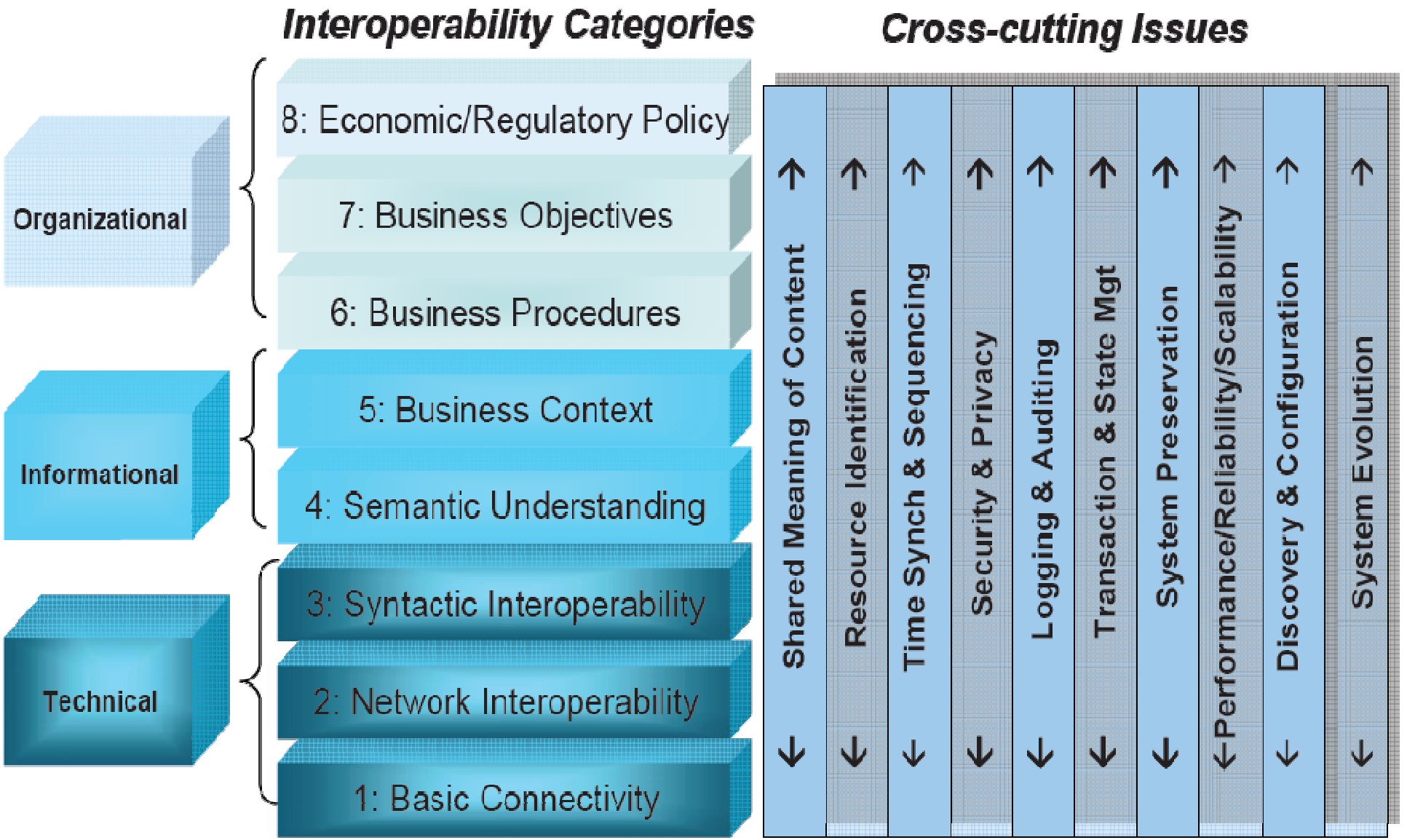
GWAC Stack Decomposition to a WBS



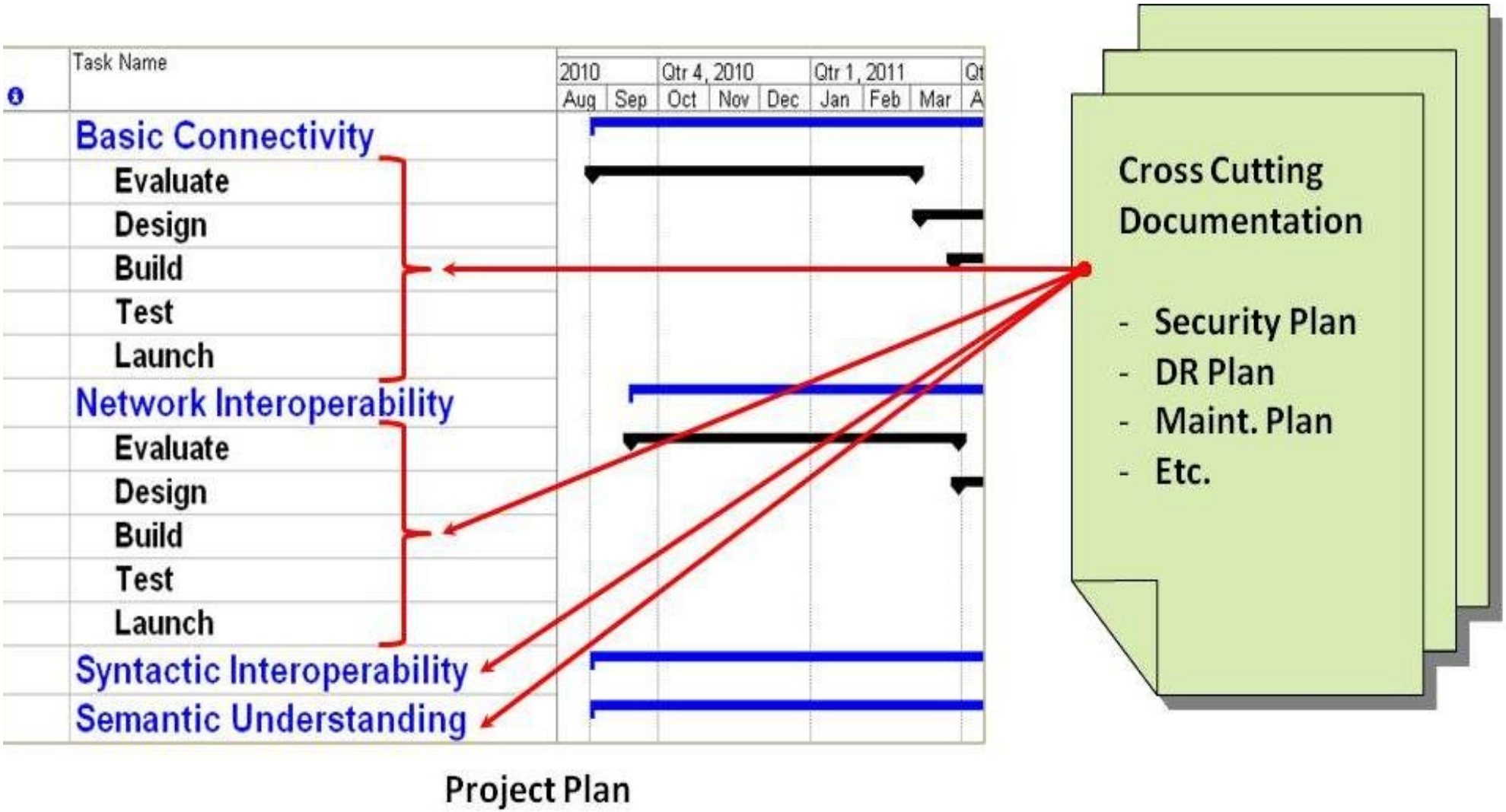
Project Plan

The 8 GWAC Stack interoperability categories can be used to establish the project phases with the Project Life Cycle Phases defining the sub-phases

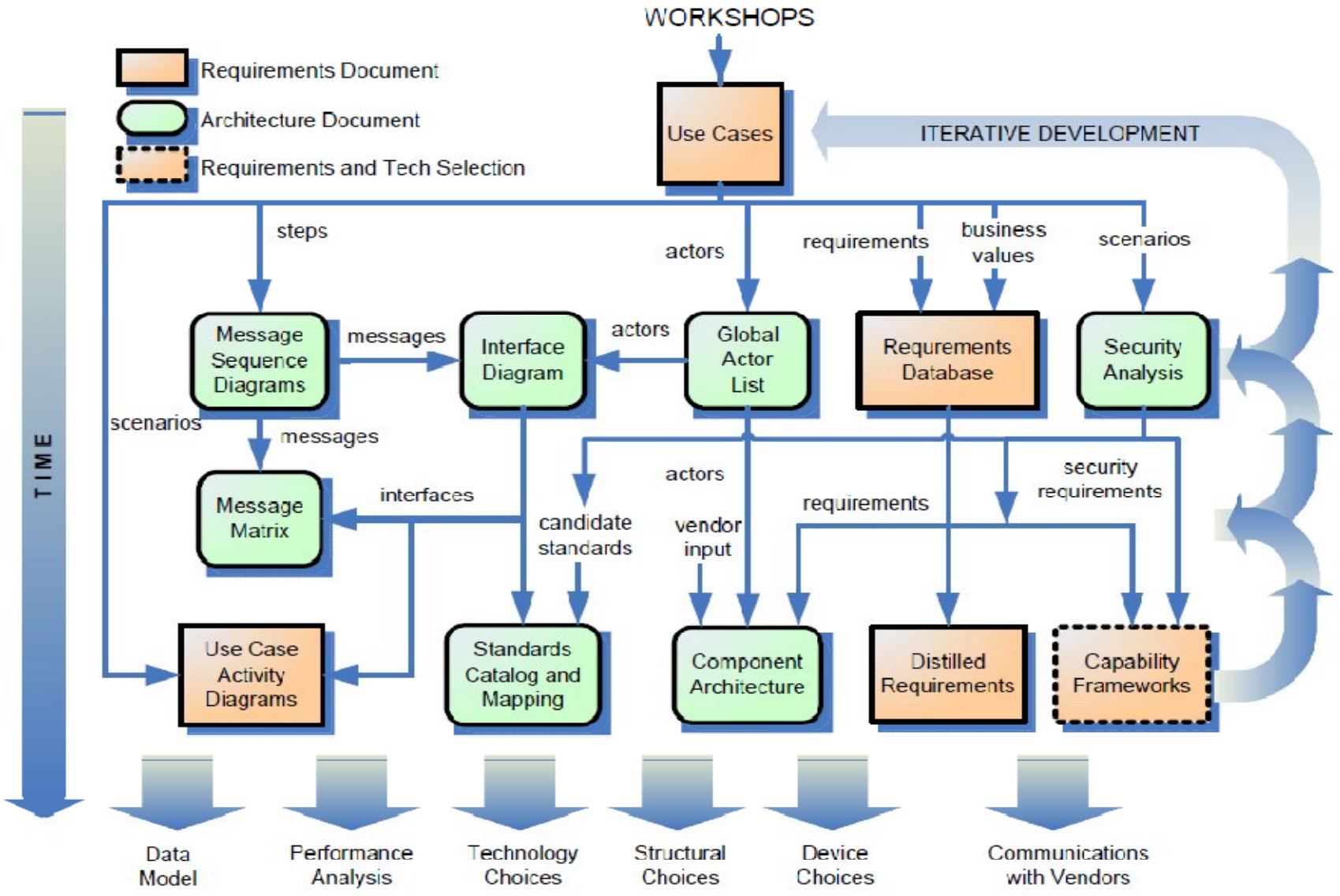
GWAC Cross Cutting Issues



Applying the Cross Cutting Issues to the Plan



Post Workshop Analysis



In Conclusion:

1. **Description of Project Management**
   - Failure to plan is planning to fail.
   - Bad project management is the single biggest cause of failed projects.
2. **GWAC Stack**
   - GWAC Stack is a model for defining project scope.
   - GWAC Stack is clearly seen and addressed in the project plan.
3. **Apply the Methodology to Smart Grid IT Projects**
   - Applying the IntelliGrid methodology can completely scope the project.
   - It isn't magic.

For More Information

John Simmins
EPRI
jsimmins@epri.com
865-218-8110

***A Utility Application Implementation Strategy Using the EPRI IntelliGrid Methodology And the GridWise* Architecture Council Stack as a Model*, 1024590**

*GridWise is a registered trade mark of the GridWise Architecture Council