



# Breakout Session #2

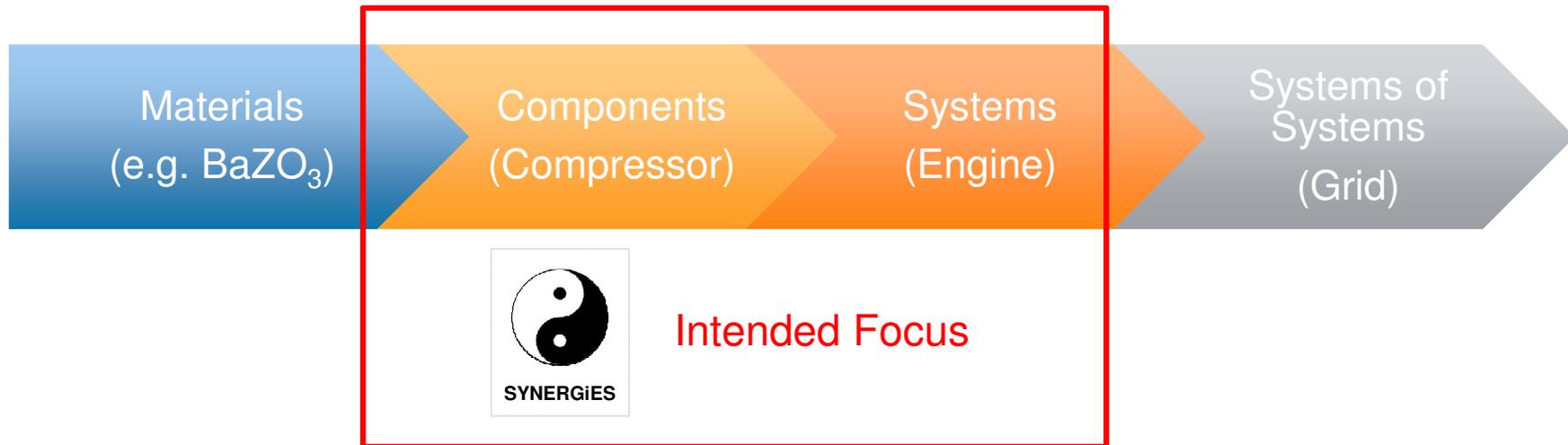
Program Scopes



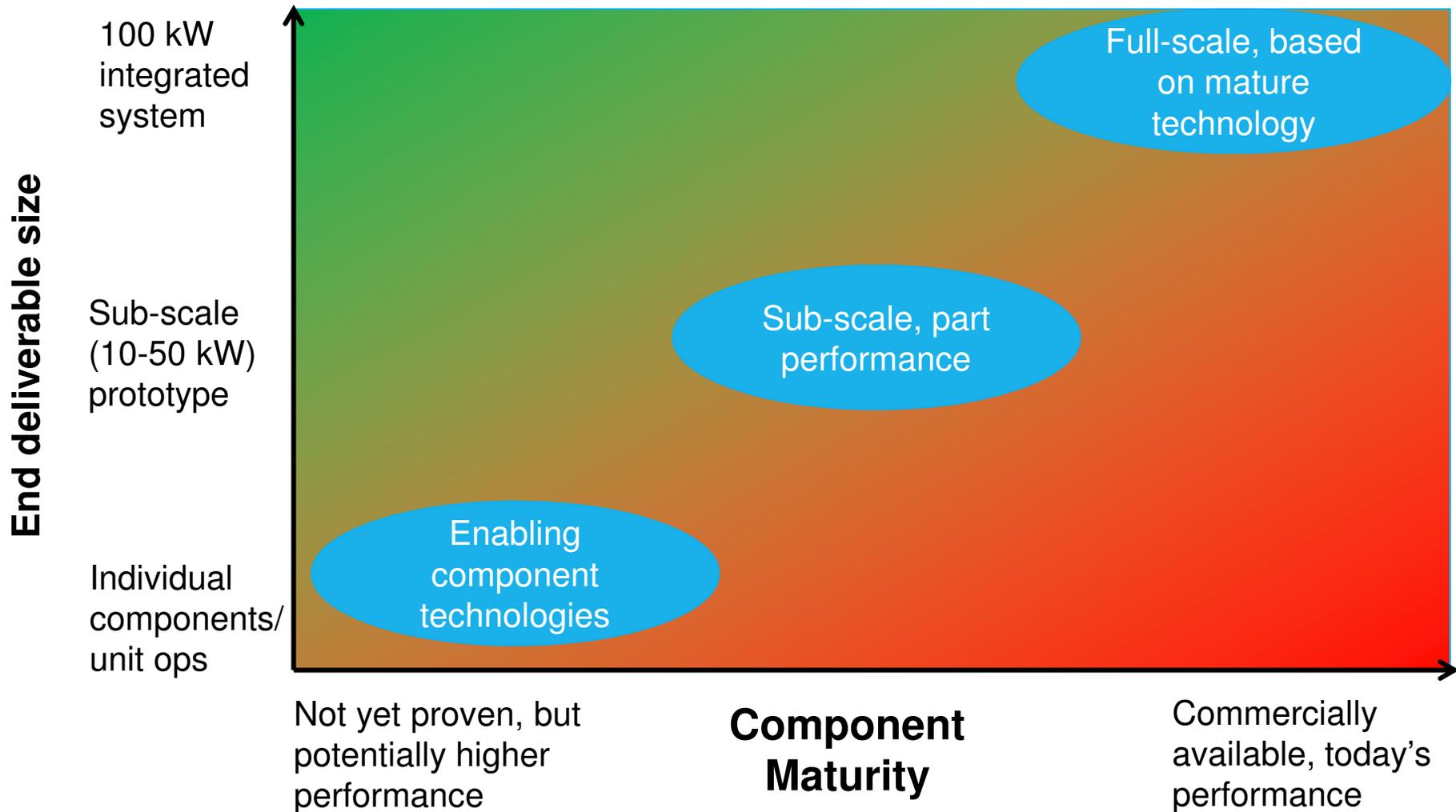
# Proposed Program Scope

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## Simplified Taxonomy of Engineering Development Efforts

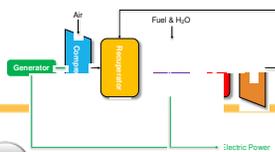
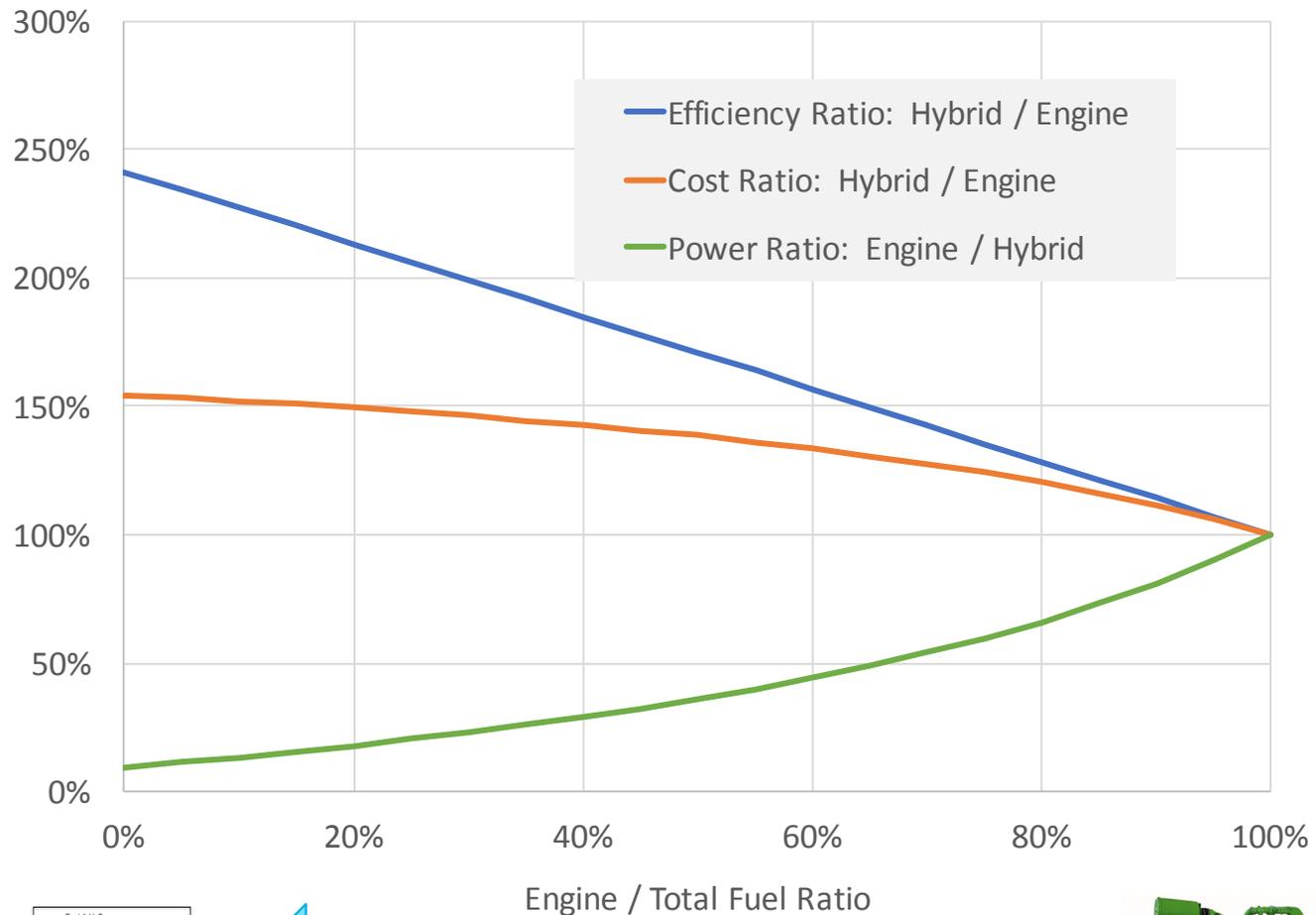


# Breakout Session #2: Program Scope



# Potential for Staged FC Introduction

*Potential strategy to manage FC cost & durability risk*



← Increasing Stack Power



# Breakout Session #2: Program Scopes

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## Potential Options

- A. Enabling component technologies\*
  - 1. Paper system studies to define component requirements
  - 2. Key component technology development culminating in sub/full scale TRL-5 demonstration
  
- B. Sub-scale/partial performance demonstration of system technology†
  - 1. System Design with “Existing” Component Technology
  - 2. System Fabrication & Assembly
  - 3. (Sub-Scale) System Testing
  
- C. Full-scale/full performance demonstration of system technology
  
- D. Combinations of A, B & C . . . or New Ideas?

\*I.e. focus on manufacturing costs & durability

†I.e. focus on system integration & control, potentially with a thermodynamically large engine & small fuel cell stack