Introduction to Breakout #1

Role of public-private-philanthropic partnerships in building the runway for fusion-energy development and commercialization

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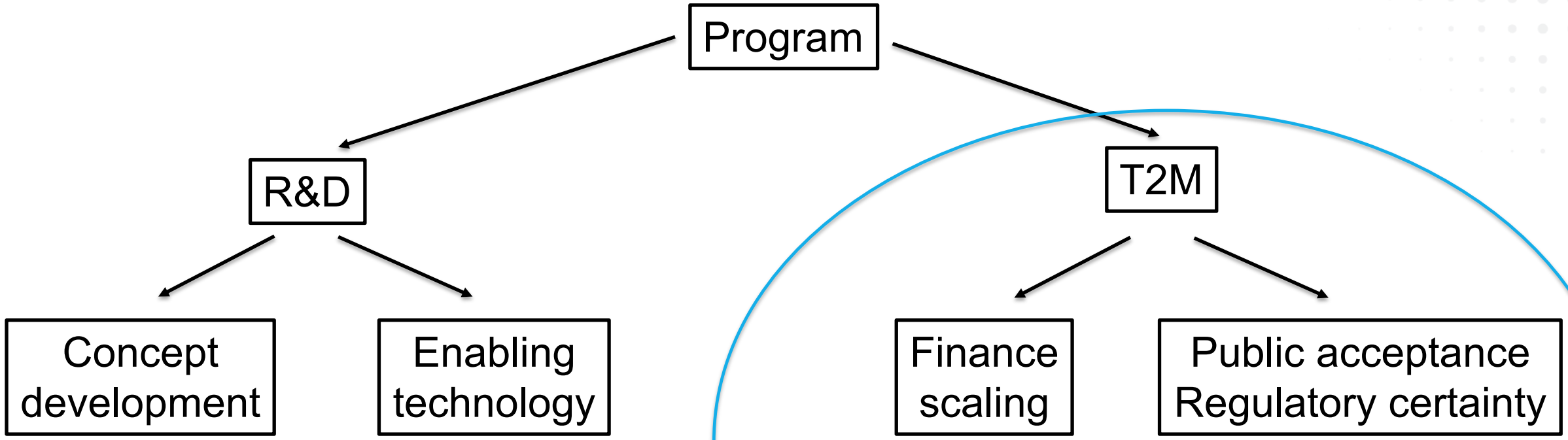
Objective: present our thoughts and solicit your feedback/input on the following *to inform and refine my program pitch*



- R&D opportunities
- Metrics (for entry and measuring progress)
- Funding mechanisms
- Incentivizing public/private partnering
- Leveraging federally funded expertise/assets

- Investor engagement
- Market and techno-economic analysis

- Philanthropic, public-advocacy engagement
- Providing technical data for fusion safety analyses and NRC engagement

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CHANGING WHAT'S POSSIBLE

Incentivizing public/private partnering (15 minutes)

- "Resource teams"
  - Are expert lab/university teams willing to be one?
  - Do concept teams want to use them?
  - What types should there be? e.g, diagnostics, theory/modeling/ML, advanced/additive manufacturing, engineering design/assembly, etc.?

- Prize and/or milestone-reimbursement model
  - What are good milestones for $1M–$10M prizes/reimbursements? (could be concept development or enabling technology)
  - Who will take advantage of this? Will it attract additional private funds to accelerate progress?

- Time permitting: Fusion innovation center at a national lab
  - What capabilities/services do you want to see (or provide)?
  - Would you use it?
  - Would it lower cost and accelerate development for a fusion company?
  - What are some risks?

Unlocking more private investments for fusion (15 minutes)

- What are the top 3 reasons investors who take a good look at a fusion pitch say “no”?

- What top 3 things should ARPA-E do at the program level? For example:
  - Fund market analyses and identification of likely first markets? Identify competitive cost ranges (CapEx, OpEx, development)?
  - Fund fusion safety analysis to help NRC establish regulatory/licensing framework?
  - Assemble “Fusion TEA 101” report/dossier for investors and other interested stakeholders?
  - Fund a “boot camp” for fusion entrepreneurs?

- How to achieve finance scaling for fusion?
  - Where should federal funds be focused? Where should private funds be focused?
  - What types of private funds are best matched to what stages of fusion development?
  - Where are the present and anticipated future bottlenecks?

Philanthropic engagement strategy (15 minutes)

- Who should engage philanthropic foundations and public-interest groups to build support and advocacy for fusion?
  - Can FIA membership divide and conquer?
  - How to best leverage convening power of ARPA-E?
  - What NGOs should be funded to do advocacy work once philanthropic funds are secured?
  - What should the advocacy work include? Education, market analysis, zero-carbon grid studies including fusion, etc.?
  - How to fund the initial engagements?

- How can we attract philanthropic sources to fund fusion R&D?
  - By what mechanism(s)? Gift (both tax- and non-tax deductible)? Cost-share for ARPA-E awardees, etc.?

Logistics

- Every attendee is assigned to a breakout group
- Each breakout group will include a representative mix of workshop participants and address the exact same topics/questions
- An ARPA-E PD will lead/moderate the discussion
- A BAH tech SETA will take summary notes (not verbatim)
- A workshop attendee from each group will summarize high-level findings afterward

Please be concise and give specific feedback that will help us identify priority T2M needs and the most impactful funding structures.

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