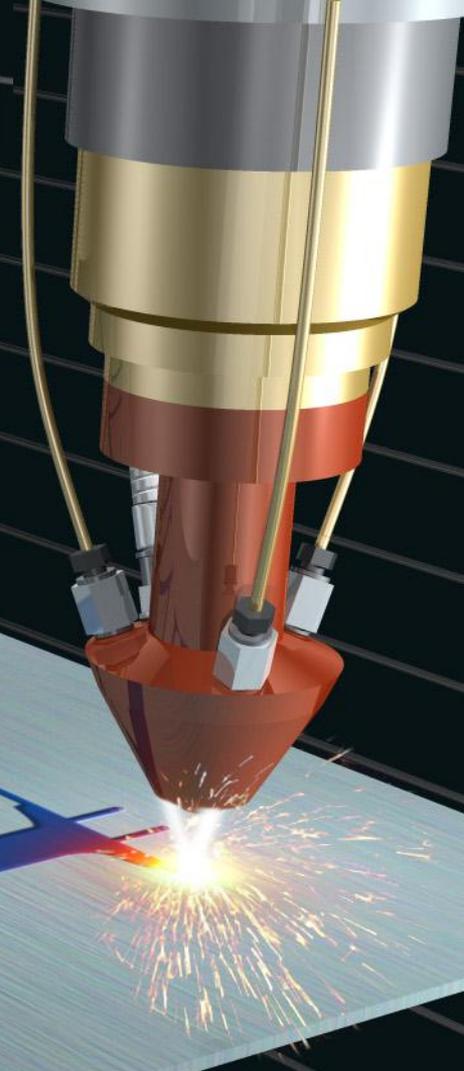


BLUEPRINT FOR ACTION

Workshop on the Design of the
National Network for Manufacturing Innovation

Strategies for Sustainable
Institute Operations
January 16, 2013



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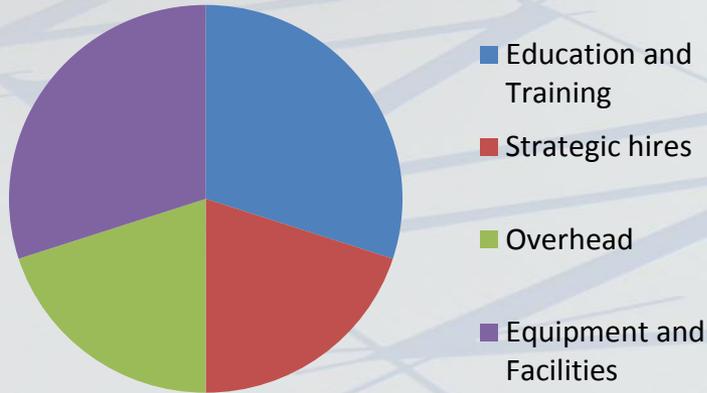
Blueprint for Action: Sustainable Operations Outline

- What we heard and read:
 - NNMI RFI Responses to sustainability questions
 - NNMI Workshops
- Design Review: Preliminary way forward as discussed in NNMI Concept Paper
- Questions for the Café Session

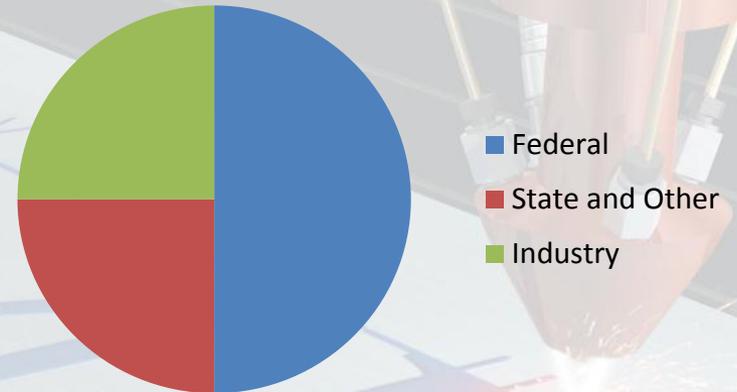


Q1: How should initial funding co-investments of the Federal government and others be organized?

Proportion



Types



Q2: What arrangements for co-investment proportions and types could help an Institute become self-sustaining?

- IMIs should actively engage external manufacturing and engineering professional societies and networks
- Institutes need strong links to sponsoring federal agencies
- Allocating a percentage of Intellectual Property (IP) revenue stream to investors will attract more companies to the institute -- thereby adding to institute sustainability
- IMIs should obtain some royalties associated with IP



Q3: What measures could assess progress of an Institute towards being self-sustaining?

- Sustainability plan must be articulated in the proposal.
- Annual Reviews must discuss funding profile 5 years out..
 - ..and demonstrate progress against that plan
- Potential Measures to inform Assessments:
 - Growth in number of industry members, particularly SME's
 - Number of early IMI members that reinvest
 - IP licensing revenue
 - Development of new products, patents and processes
 - Institute income

“A place where stakeholders can get work done more effectively than they would on their own.”



Q4: How could IMI operations support domestic manufacturing facilities -- while maintaining consistency with our international obligations?

- Limit institute IP to domestic companies
- Have an embargo period on deploying NNMI developed technologies off-shore
- Have IP policy place ownership with developer, yet protect the interests of members
- Prior to project acceptance, an IMI reviews each business plan to see where the company plans to manufacture
- Impact on domestic supply chain is a determining factor in project approval



Q5: How should Institutes engage other manufacturing related programs and networks?

- Key IMI members should also become members of other local and national manufacturing related programs and networks
- Link all IMIs together into a shared and overlapping innovation center, where basic research can be exploited for commercialization
- Technical qualified assignees from federal agencies can facilitate better relations between IMIs and IMIs - government
- In cross-cutting supply chain related issues -- helping companies overcome domestic supply chain shortfalls
- Identify partners to solve multi-disciplinary challenges which will benefit multiple IMIs
- Encourage cross-institute collaborative funding of projects



Q6: How should institutes interact with state and local Economic Development Authorities (EDAs)?

- Offer rebate or other tax incentives to promote state/local collaboration
- Partner at state/local level for clusters and incubators
- Have state/local organizations help attract new manufacturers who have similar IMI technology focus
- Establish a formal process for states and other EDAs to discuss needs with an Institute
- Searchable database at network level for readily available Institute identification and information



Q7: What measures to assess Institute contributions to long term national security and competitiveness?

- Measures to help institute sustainability:
 - IP licenses could be limited to domestic use
- Assessing institute contributions:
 - Technologies developed for federal programs (e.g. DOD, NASA)
 - Number of developed technologies manufactured in the U.S.
 - Impact on advanced manufacturing balance of trade
 - Institutes creation of new markets, processes and products
 - Institutes ability to address and overcome 'pain points' within their industry sector focus

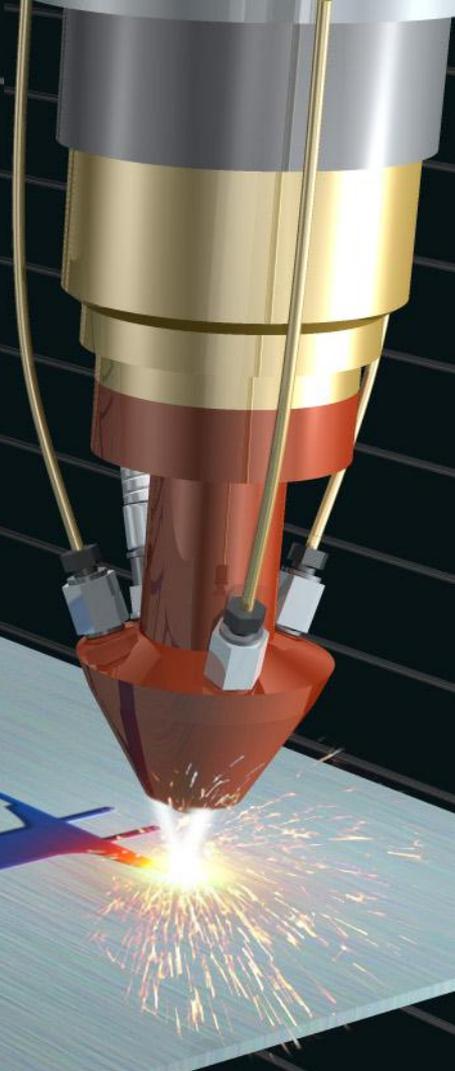


BLUEPRINT FOR ACTION

Workshop on the Design of the
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Concept Paper Design Elements

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Concept Paper Design Elements

NNMI Sustainability Tenets

- Tenet #1: That each institute build into its operations model the ability to develop and leverage diverse revenue streams throughout the life of the institute



Concept Paper Design Elements

NNMI Sustainability Tenets (cont'd)

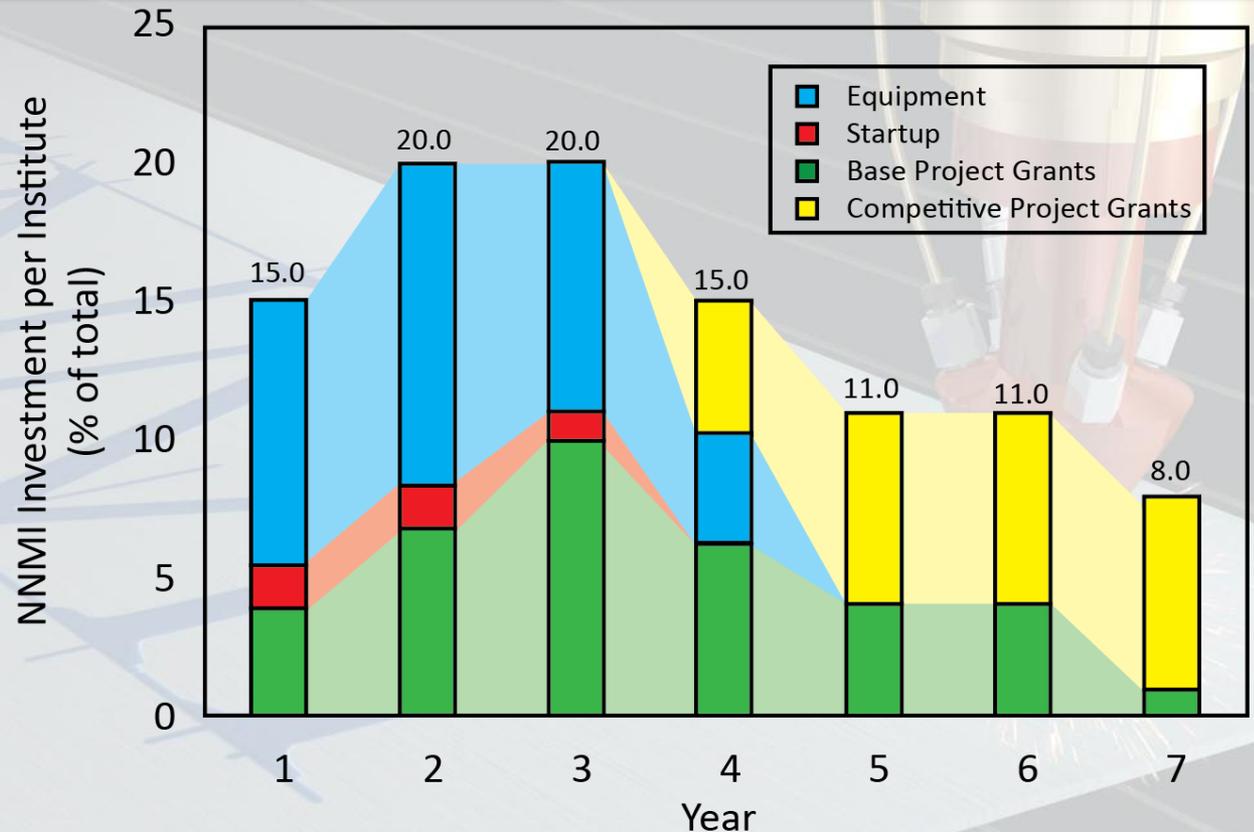
- Tenet #2: That most of an Institute's sources of funds are provided by private and other funding sources as time progresses, in order to prepare the institute for self-sufficiency



NNMI Concept Paper Example #1: Typical spend

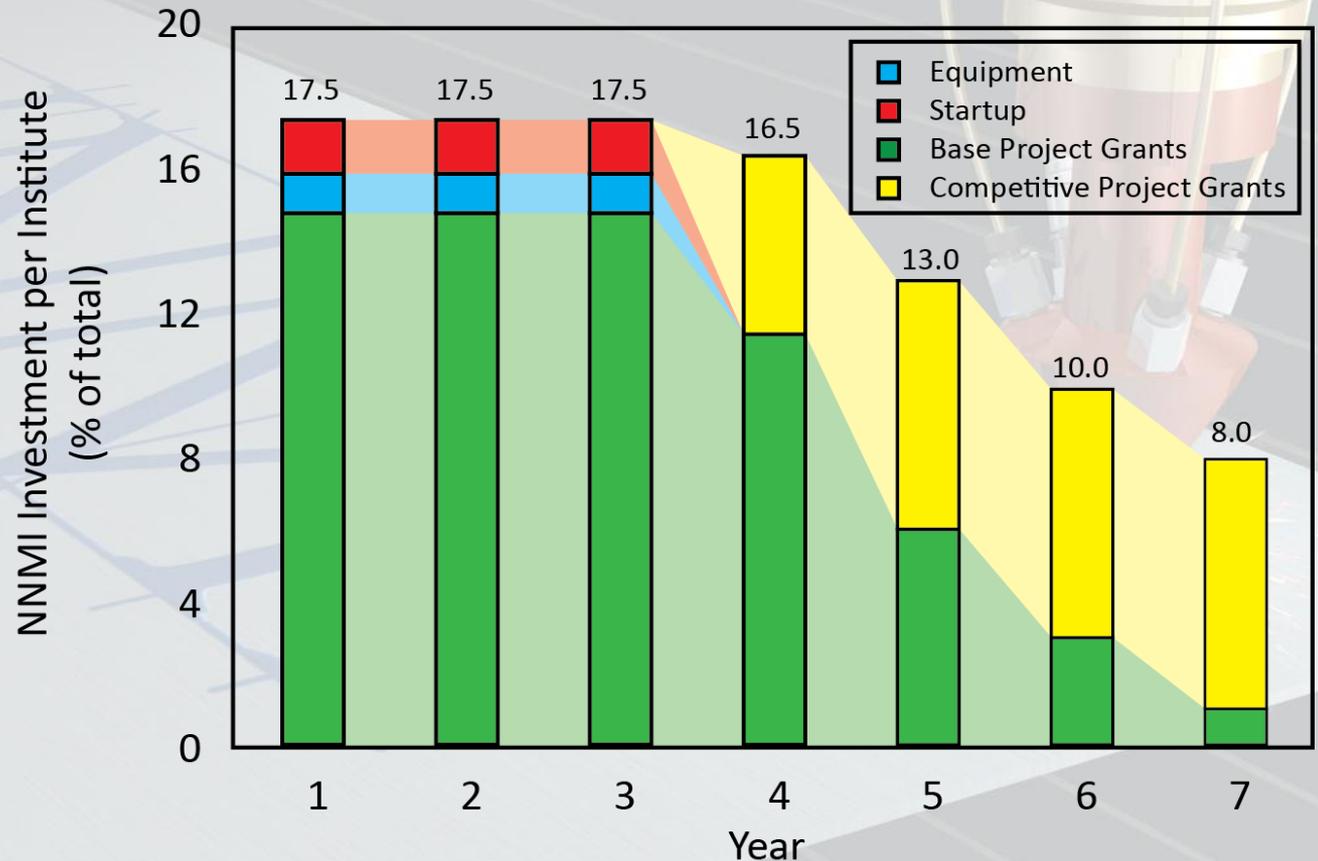
- Definitions

- Startup: Absorbing some of the Initial Operating Costs
 - Base Project Grants: Initial Applied Research Awards
 - Competitive Project Grants: Years 4-7 Competitive Grants



Example #2: Notional spend

- Definitions
 - Startup:
Absorbing some of the Initial Operating Costs
 - Base Project Grants: Initial Applied Research Awards
 - Competitive Project Grants: Years 4-7 Competitive Grants



Concept Paper Design Elements

NNMI Sustainability Tenets (cont'd)

- Tenet #3: Each Institute should have a plan to be self-sustaining based on these diverse funding sources.
 - Need to be self sufficient in 5-7 years



Concept Paper Design Elements

NNMI Sustainability Tenets (cont'd)

- Tenet #4: The Board of Directors for each Institute will develop -- within constraints specified by institute award – policies and procedures for its operation and for its revenue-generating mechanisms.



Concept Paper Design Elements

NNMI Sustainability Tenets (cont'd)

- Tenet #5: To encourage the transition to sustainability, a portion of the federal funds used for Institute projects will be subsequently awarded competitively among the institutes
 - Concept paper discusses 25% of federal funding
 - Awarded to IMIs in years 4-7
 - Not guaranteed for any institute – merit based



Concept Paper Design Elements - NNMI Sustainability Summary

- No hard and fast criteria:
 - Your institute plan should support your objectives
- Funds will migrate from federal focus in early years to privately sourced funds in outyears
 - Outyears will also have federal competitive project grants
- State EDAs will play a key role in NNMI success
 - Engage them early in development of proposals
- IP will be center point of concern and enabler for competitiveness
 - How to effectively manage IP while maintaining cutting edge applied research will be key



NNMI Sustainable Operations Café Sesion

Topics for Discussion

1. How can an Institute sustain its operations beyond the 5-year mark?
 - How can an Institute unlock private investment? What strategies could be followed to attract partners, with particular attention to infrastructure and shared-use facilities, training and education, and other Institute “products”?
 - What might a sustainable Institute budget look like? How would an Institute’s diverse funding sources evolve with time?
2. What might be some go/no-go criteria for uninterrupted flow of NNMI funds to an Institute?

