From: Kem Robinson [mailto:kem.robinson@gmail.com]
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To: nnmi_comments
Subject: NNMI Comments

General Comments:

The key to complete success of the NNMI is interconnection. The Fraunhofer Institute has been held up as an example in several venues where the NNMI has been discussed and presented. Without attention, several key attributes of the Fraunhofer-Gesellschaft may be missed and weaken the impact of the NNMI. The Fraunhofer-Gesellschaft is a single coordinated entity with 60 institutes under one governing aegis. The NNMI should be organized to maximum interconnectedness between the individual IMIs. This is especially critical in that the goal, appropriately, is that the individual IMI be complementary in focus to others in the network. If those IMI foci are limited to the industry sector category then interconnections are not critical. However if the IMI foci include manufacturing processes, advanced materials, and enabling technologies as suggested in the request for information (RFI) then connections between the IMIs is essential.

Industry including small to medium enterprises (SME) often will be manufacturing a product that will require several processes, materials and technologies. Consequently, an IMI focused on a single aspect will likely be an incomplete part of the solution. SMEs in particular, simply will not be able to afford membership/usage fees in multiple IMIs. Reciprocal privileges and/or reduced access fees need to be considered and addressed to reduce barriers for SME in seeking new and competitive solutions to meeting their domestic manufacturing needs.

Commitment that the IMIs converge on a unified streamlined contracting system should be required. Building on tools developed by the National Academies University-Industry Demonstration Partnership (UIDP) [http://sites.nationalacademies.org/PGA/uidp/index.htm] should be a minimum requirement. The goal needs to be such that an SME can quickly – with a minimum of legal/contractual effort – obtain access to the know-how, prototyping, and development framework provided by multiple IMIs. If this is not imposed from the start the NNMI will devolve into a situation similar to the present issues surrounding engagement between industry and the national laboratories. Each national laboratory is completely different and the effort required to successfully team with or access know-how is so complex and cumbersome as to be generally prohibitive to all but the largest companies.

While the collaboration between agencies is laudable, it also poses a significant risk to the overall impact and success of the NNMI. Individual agency flow down requirements will have the tendency to increase barriers to interconnections and increase the difficulty of engagement by and with the IMI. The collaborating agencies should come to a joint operating agreement that provides a uniform streamlined set of Federal requirements so that those requirements that flow down to the IMIs and its constituents are uniform and predictable. This is not an imagined risk, as the previously cited UIDP has a complete working group on Federal flow-down

requirements management (see http://sites.nationalacademies.org/PGA/uidp/PGA_062192 and attached). If the solicitations for the NNMI are through multiple agencies (the first was with the DOD for example) then agreement to a streamlined set of requirements, criteria and assessments is necessary before the solicitations are issued.

Comments on some specific questions contained within the RFI

Technologies With Broad Impact

1. What criteria should be used to select technology focus areas?

A1: The criteria should be established based on addressing the regional need or industry requirements. The focus areas should not be dictated before the fact or limited in the solicitation to a specific area. Imposing a technology focus area before the fact, forces a solution that may not be the proper for a given region or industrial sector. The criteria are rather straightforward:

- What is the reach of the proposed technology focus area? Is it general enough to be a service to large industrial base, but yet specific enough to be able to address an individual company's manufacturing issues?
- Does the proposed technology focus area have enough of a development approach, both for full deployment and commercialization and for feeding advances into the IMI to make it a sustainable?

3. What measures could demonstrate that Institute technology activities assist U.S. manufacturing?

A3: Metrics that could be employed would include: number of companies assisted (both large and SME), Licensing agreements reached, invention disclosures/patents filed, etc.

4. What measures could assess the performance and impact of Institutes?

A4: In addition to the metrics listed in #3, number of people that are part of the workforce development aspect of the IMI and are placed in manufacturing jobs, increase in membership or use of the IMI, etc.

Institute Structure and Governance

5. What business models would be effective for the Institutes to manage business decisions?

A5: The IMI must be independent of any single one of its leading members. That is, in order to properly management the goals of the IMIs it must have a separation between itself and the special interests of any of its individual members organizations. For example, it would not be appropriate for an IMI to be contained wholly within a university or other academic or educational institution as mission and goals of such an organization are not equivalent to the goals and focus of the NNMI (nor should it be). Consequently, without a legal and effective

separation there will be an opportunity for institutional conflicts of interest where the best interest of the NNMI, the IMI, or its leading members may not be the same.

6. What governance models would be effective for the Institutes to manage governance decisions?

A6: A separate legal entity (such as a limited liability company or other specific configuration) with a board of directors selected from the leading member organizations would be a start. However, as is the case with many scientific and user development facilities, there should be one or more members of the board that are selected (generally by election) from the general IMI membership or user base. There could also be rotating representation reserved for SMEs to ensure that their interests are appropriately reflected in the IMI.

7. What membership and participation structure would be effective for the Institutes, such as financial and intellectual property obligations, access and licensing?

A7: There should be several tiers from leading members, participating and reciprocal membership. The ability to preserve intellectual property of the individual users is essential, but the development and ownership by the IMI of some fraction of the IP to ensure proper licensing and a means of sustainable operation is also essential. These should be evaluation criteria of proposals submitted to any solicitation.

8. How should a network of Institutes optimally operate?

A8: Again, to a large extent this should be a proposal evaluation criteria, but one would expect to see a suite of operating approaches from *fee-for-service*, facility access, direct contract and consulting, etc. The ability for an IMI to protect the trade secrets and intellectual property of its members/users will be essential if they are to have lasting and leveraged impact on manufacturing in the United States.

9. What measures could assess effectiveness of Network structure and governance?

A9: Some are listed above, but additionally, ease of engagement, protection of IP, tiered engagement, reciprocal engagement models, internal and external effectiveness models and review strategies, speed of agreement engagement with SMEs, etc.

Strategies for Sustainable Institute Operations

10. How should initial funding coinvestments of the Federal government and others be organized by types and proportions?

A10: The Federal government should not dictate beyond a top-level proportion (say 50%) the types and organization of coinvestment. Any proposal submitted in response to a solicitation

should be carefully evaluated as to the sustainability and transition from the initial investments to continued operations.

11. What arrangements for coinvestment proportions and types could help an Institute become self-sustaining?

A11: Again, as mentioned in #10, this must be a proposal evaluation criterion. The nature of sustaining funding will likely be a mixture of fee for service, memberships, State economic develop funding, licensing and royalties. Proposed IMIs that rely too heavily and quickly on licensing and royalties are likely not effective or realistic. The development of the necessary revenue stream from royalties and licensing fees will be long compared with the desired timeframe of self-sustaining operations (5-7 years).

12. What measures could assess progress of an Institute towards being self-sustaining?

A12: The proposers should provide a plan with measurable categories and aspects that can trace appropriately the path to self-sustaining operation. The proposals should be rated against the efficacy and thoroughness of their plans for self-sustaining operation and the reasonableness of the approach. There is no indication in the RFI in what increments an IMI would receive the initial Federal funding. If funding isn't provided in a single lump sum, then the proposers should provide measureable milestones against which progress is measured before the next fraction of the award is released. The measures should include fraction of user fees, ongoing state and local development support commitments, membership fees and licensing and intellectual property.

13. What actions or conditions could improve how Institute operations support domestic manufacturing facilities while maintaining consistency with our international obligations?

Time-duration geographically restricted use licenses, and end-use/implementation agreements for those accessing the NNMI facilities and expertise would be a normal and expected part of the operating structure of an IMI and a requirement for receiving the Federal funding. Such time-duration agreements (say for 5-10 years) would not limit the exportation of end products. As such they would not infringe upon international agreements as geographic limitations are used extensively in several industries (the most ubiquitous example is the geographic limitations on video and audio to ensure protection of international copyrights).

14. How should Institutes engage other manufacturing related programs and networks?

A14: The institutes should actively seek out complementary programs and networks that provide their members/users access to the expertise and facilities that the specific institute may not have. As mentioned elsewhere, reciprocal memberships and cross-use agreements should be strongly encouraged (if not required) by the Federal government and likewise,

streamlined generalized cross-program/network agreements developed to facilitate this (similar to the UIDP cited elsewhere).

I thank you for the opportunity to submit comments and strongly support the development of a linked national network fostering manufacturing in the United States. Should you desire any clarification, please feel free to contact me as indicated below.

Sincerely yours,

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US GOVERNMENT FLOW DOWNS FROM PRIME TO SUBCONTRACTOR

PROJECT CHAMPIONS: Academic: Susan Sedwick, University of Texas at Austin
Industry: Jinny Meade, Intel Corporation

OTHER PROJECT PARTNERS: David Mayo, Federal Demonstration Partnership (FDP)
Robert Hardy, Council on Governmental Relations (COGR)

SUMMARY:
Prime contractors often negotiate a US Government (USG) contract without considering the impact of flow downs for subcontractors that if understood upfront, would facilitate the subcontract process and result in subcontracts that are optimal for both the Prime and the sub. Most frequently universities are subcontractors to industry primes, although occasionally the roles may be reversed, and companies also may be subs on prime contracts from other companies. This project proposes to identify best practices around negotiating USG flow down clauses in a way that could improve subcontractor negotiations and results. Our approach is to focus initially on raising the level of awareness of USG clauses that are problematic, identify alternative approaches or clauses that have been successfully used, and develop a UDIP reference document that identifies the required clauses for the major USG agencies and provides guidance around their use. Because Federal Acquisition Regulations [FAR] clauses change over time, we propose a structure that would allow us to refresh the information yearly to keep it current and update the guidance as required. The Federal Demonstration Partnership (FDP) Contracts Subcommittee monitors "troublesome clauses" for universities and can inform the process around the need for updates. The Council of Governmental Relations (COGR) and Association of American Universities (AAU) used FDP data to update their *Report on Troublesome Clauses* and they maintain a continuing interest in this subject which also informs this project.

GOALS:

- Create a reference document that categorizes USG flow-down provisions including FAR, DFARS, etc. by major USG agency, identifies problematic clauses for subcontractors, and outlines strategies for resolving challenges when they arise
- Set up a process of updating the reference document on an annual basis and make it accessible on the UIDP website
- To discuss and inform the UIDP audience about the reference document via various avenues such as presentations at a UIDP meeting, a workshop, or a webinar on the topic

DELIVERABLES:

- A reference guide to USG flow-down clauses and guidance in using them optimally for both the Prime and subcontractor
- Other possible deliverables may include:
  - A workshop [similar to the UIDP Negotiation Workshops] where we more deeply explore the issues and how to tackle them
  - A webinar to reach a larger audience

AUDIENCE: Industries and universities who are or would like to be engaged in USG contracting

STATUS: Approved

LAST UPDATED: March 2012