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To: nnmi_comments
Cc: Buthe Chris
Subject: NNMI Comments

To: NNMI
Re: Comments from the UC Irvine and JPL hosted meeting

Innovation and Investment Drivers

Let's look at the forces that shape the flow of innovation from concept to consumption,

Supply

When proposing innovation activity, it is natural for individuals and organizations to concentrate on their own interests, manufacturing process, enabling technology or industry sector. Existing investment of time and resources, and the predisposition of viewpoints focus on the “what” and the “how”, the solution and the method. As manufacturers, this supply side of the equation is extremely important.

Investment Risk

As noted in the Challenge, *“many technologies fail to move to commercialization or reach scale-up in the U.S. because the domestic private sector.....find s that the risks of such investments are too great...”*

If the demand can not be determined, which is the case with truly innovative technologies, then scale-up investment is constrained.

Demand

Infrastructure development in manufacturing capability involves both this Supply of “what” and “how”, and also an equal focus on Demand. To the customer, it is the “why” that triggers purchase and investment behavior.

Criteria to select technology focus area:

It is suggested to select the challenge before selecting the technology. For any technology to have a truly broad impact, it must address a fundamental challenge in customer or society sustainability.

In Southern California, major sustainability challenges are:

1) Water – flow and cost of supply and quality

2) Transportation flow and cost of people, goods and energy

3) Energy flow and cost

4) Nutrition flow and cost

By selecting one broad challenge, without sanctifying any one industry sector, each industry can bring their resources into the innovation effort.

Taking the first example, Water, as an absolutely critical and measurable social sustainability need, it would create the reason to invest in innovation.

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