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To: nnmi\_comments <nnmi\_comments@nist.gov>  
Cc:  
Date: Mon, 14 May 2012 14:59:48 -0400  
Subject: NNMI Comments

Dear Madam/Sir,

As a professor of engineering, I know that the U.S. manufacturing infrastructure is in need for modernization and its international competitiveness has been steadily decreasing at an increasing rate. While the US still has a dominant position in various areas, the long-term projections at the current rates of changes are problematic for the continued prosperity here.

I have attended the first meeting at RPI, Troy, New York. I welcome this initiative with great enthusiasm.

Following are my recommendations for this initiative:

- (1) Manufacturing cannot be stimulated in vacuum for the stated outcome – more competitive U.S. economy. The full product-cycle of engineering must be supported for a broad impact while keeping a special focus on manufacturing of high-technology goods.
- (2) Critical areas of manufacturing needs to be identified, and focused on. Some low-technology low-margin operations should not be considered. Also, areas with great momentum from the industry should not be considered – they will be replaced without government support anyhow.
- (3) Critical areas such as pharmaceutical manufacturing and manufacturing related to personalized medicine should be considered in this network. Compared to various industries, in these areas, the US is losing grounds at higher rates. Considering the health care cost growth in the US, these areas are not only economically important (medicine is the largest business in the world), but also they are critical for the sustainability of the current life standards in the U.S. It should be noted, that people will demand the best medicine no matter what, while they can live with smaller vehicles and houses.

Please feel free to contact me directly, if there are additional questions,

Best regards,

**Çetin Çetinkaya, Professor**

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Spring 2012 Office Hours: Tue. 10:00am-12:00pm, Wed. 10:00am-12:00pm, and Thur. 11:00am-12:00am