



# *ADVANCED MANUFACTURING IN THE NEW CONTEXT*

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PROGRESS THROUGH KNOWLEDGE

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# KAP's VIEWS ON ADVANCED MANUFACTURING

- ✓ The present drive in advanced manufacturing originated in the needs of high cost economies, e.g. the USA, where the salaries are very high, and Germany, which has an acute shortage of high quality human capital.
- ✓ “One size fits all” may not work for all countries.
- ✓ Gandhi : India does not merely need mass production, but also production by the masses. Therefore, COUNTRY - SPECIFIC SOLUTIONS are recommended.
- ❖ Intensification of research on machine – human interactions
- ❖ Research on overriding human errors
- ❖ Advances in risk mitigation research
- ❖ “More tolerant” materials development (to compensate for human errors, if present)
- ❖ Superior designs; improved functionalities; no weight penalty; no increased factor of safety because of the new approach.

# **KAP's VIEWS**

- ❖ **Within a country, identify “ECONOMICALLY SUSTAINABLE ZONES” to manufacture specific products with minimal transport and related costs, each zone producing its own best set of goods and products.**
- ❖ **A country to have as many such zones as necessary (to be defined by the government after due consultations).**
- ❖ **Tuning of government policies to aid this process .**
- ❖ **An Analogy: Main frame computing vs. distributed networks; the concept of “economies of scale” vs. a more complete societal goal.**
- ❖ **In addition to profit and share holders interest, societal benefits, as defined by national consensus, could become the Goal of the Industry.**
- ❖ **These are initial thoughts.**
- ❖ **All are welcome to interact with me to take matters forward.**

# **THANK YOU**