

**The changing face of
Engineering Sector and its
impact on Industrial
Automation**

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V.P.Raman : Divisional Director – Engg.

Mott MacDonald Pvt. Ltd.

Engineering Domain

❖ *What we are going to discuss & focus today will be methods to institutionalize and improve an organization's ability to address the needs, of the present day market trends.*

What is a Domain????

- ❖ Create ability to undertake projects/products at a:
 - Optimum cost, time and quality.
 - Develop Process and procedures for execution.
 - Strategy : Evolve domain capabilities as market changes...
- The knowledge (product family) and expertise (process) required to build a particular type of product..

➤ Business Area.

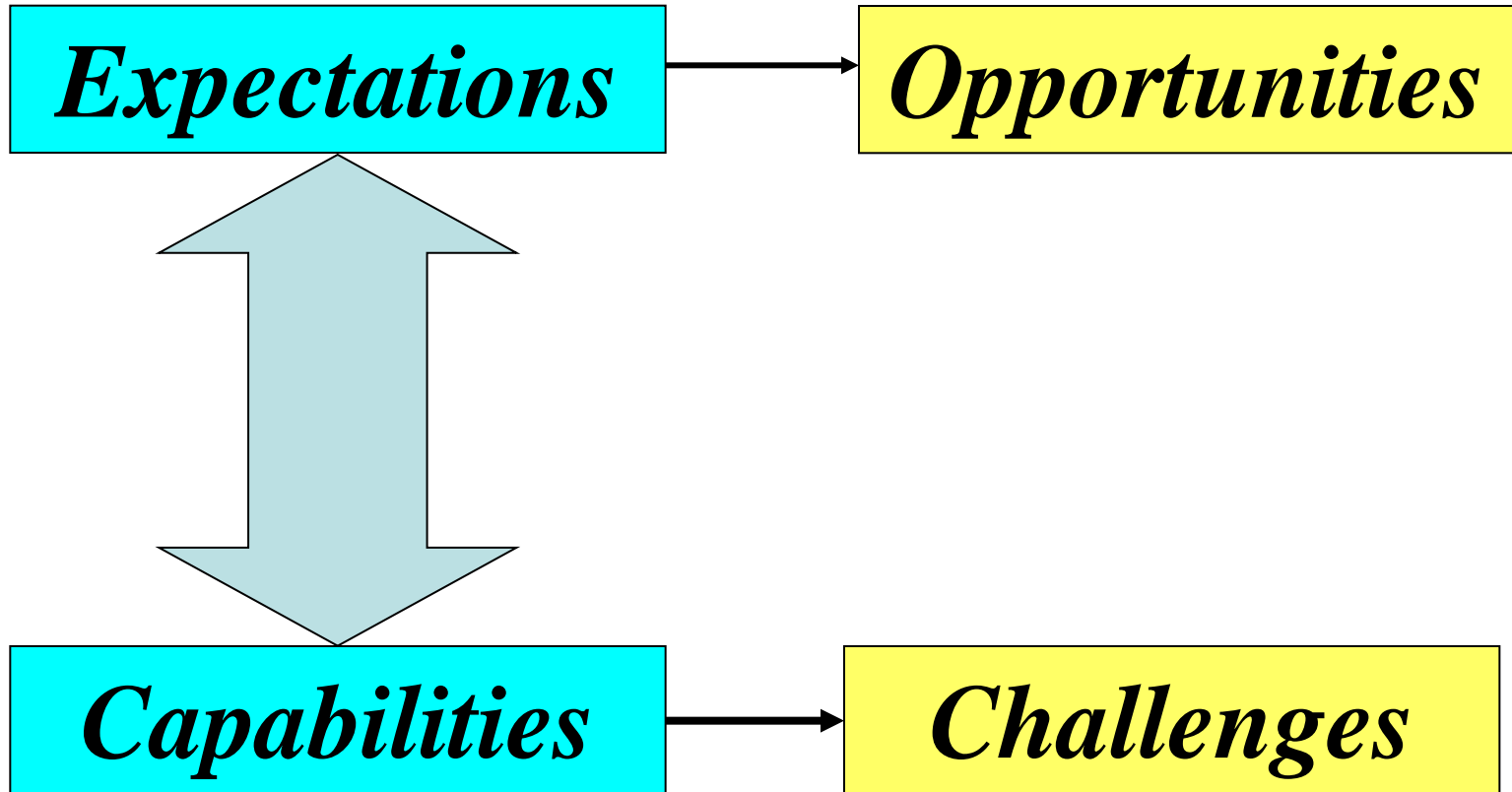
➤ Core Competency



➤ Market Demands.

➤ Customer Needs

Engineering Domain



**What are the expectations from client
and how are we meeting the same?**

Market Trends

- ❖ *Recent trends indicate a lateral shift in the field of engineering, from conventional to single point responsibility.*
- ❖ *How are we managing this transition?*
- ❖ *Is the engineering domain as a whole moving/shifting and what will be the scenario 5 years down the line?*
- ❖ *What are the changes the engineering field has undergone, specifically in the field of automation & controls and how are we managing the change?*

Engineering Challenges

- ❖ *Can the vendors recruit & maintain dedicated engineering professionals to meet client expectations?*
- ❖ *Are the vendors geared to take the engineering responsibility, apart from supply, which is their core competency.*
- ❖ *Can the vendors accept the present day requirements of warranties & guarantees, apart from training, when their package contains more than 40-50% of bought out items.*
- ❖ *What are the pitfalls to be accounted for and at what price...*

Engineering Challenges

- ❖ *How to decide the pricing strategy?*
- ❖ *Is the service matching the payment terms..*
- ❖ *How to win jobs under L1 category..*
 - ❖ *Great Saying: If TAJMAHAL were to be built with the present market trends, then it would never come up.*
- ❖ *Are the payments made on time?*
- ❖ *Is business ethics compromised?*

Engineering Challenges

- ❖ *Engineering Consultants role has also drastically changed from DE to PMC, EPCM, EPC etc.*
- ❖ *We have shifted from conventional engineering like design, procurement, installation & commissioning to total single point responsibility & accountability...*
- ❖ *What are the advantages & benefits for the clients with this approach.*
- ❖ *Are they putting all eggs in a single basket?*
- ❖ *What advantage do the clients get – in terms of cost & quality?*

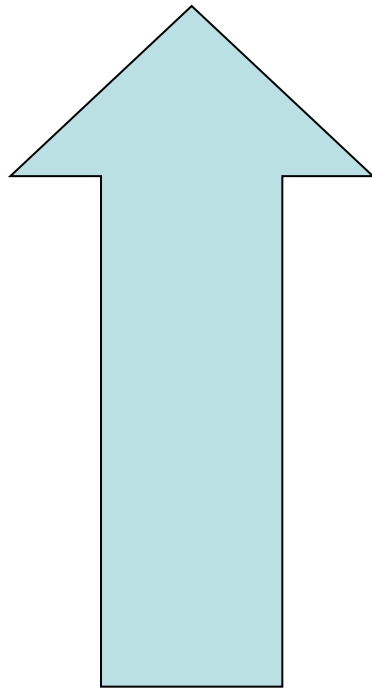
Engineering Challenges

- ❖ *Brown field project challenges & Integration of existing plant with new facilities.*
- ❖ *Unrealistic Schedule.*
- ❖ *Competition – Is it healthy?*
- ❖ *Getting clearances from various statutory bodies...*
- ❖ *BEC (Bid Evaluation Criteria)...*
- ❖ *Continuous changes during the project execution cycle.*
- ❖ *Project Variations ..*
- ❖ *Plant / Project Acceptance*

Engineering Challenges

- ❖ *Is the tender document good enough for submitting the proposals with reasonably good estimates, with regard to cost & schedule?*
- ❖ *Do we get sufficient time to quote?*
- ❖ *Is the quality of Basic Package (BEDP) and cost estimates good enough to start the project?*
- ❖ **Dangerous statements on Tenders**: *All items not specifically mentioned in the tender, yet required to be done for the successful completion / operation of the plant is covered under the present scope of the project, with no cost & time escalation...*

Survival of the Fittest



Thank You