

## **Case Study Problem Solving Matchmaking Event**

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This case is about a global Aerospace development and manufacturing company having a turnover of more than 1\$ Billion.

The company expressed interest in learning how to integrate nanotechnology applications into their products and manufacturing processes in order to enhance their competitiveness in the global market.

In spite of the fact that the company had began to study the field of nanotechnology they admitted that they were unsure of how to get real benefit from nanotech and how to push it downstream into their process and end products.

The company's senior technical management requested from Jacob Bar to provide them with a review of relevant nanotechnology providers in the market.

As a suggestion to help them move forward more quickly and effectively, Jacob proposed to go one step further beforehand by having them define technological problem areas and actively seeking solutions from organizations having relevant technology and capabilities in the nano arena.

As such, it was proposed to hold an event using a method called "Problem Solving Matchmaking".

### The Pre-Event Process

As such, it was agreed that

- a. CLIENT would present 4 technology problem areas that they believe can be significantly enhanced using nanotechnologies.
- b. Jacob would seek relevant companies having suitable technologies and capabilities.

Furthermore, CLIENT committed to the following:

- a. They will finance the cost to the solution providers necessary for problem resolution
- b. To organize the event on their account and on their premises.
- c. They will be fully involved in the evaluation and screening of eligible technology providers.
- d. They will enter into a technological cooperation agreement with any or all nanotechnology providers presenting viable solutions.
- e. They will appoint CLIENT employees that will serve as effective points of contact between the "problem owners" and nanotechnology providers.

At the commencement of the process the following parameters were planned:

- a. The desired outcomes of the event
- b. A timetable demonstrating an iterative process of activities
- c. Success criteria – the signing of at least one cooperation agreement would be considered a success.

A unique, process specific search engine. (developed by Mr. Bar), was used for collecting data on relevant nanotechnology providers from industry and academia.

A total of 40 organizations were found to be relevant at first. The screening process included speaking with them in order to determine:

- a. The suitability of the company's or researcher's technology/ expertise to the defined problem areas.
- b. Their willingness to participate in the process.

Organizations that passed the first screening stage (a total of 30) were referred to CLIENT"Problem Owners" for a second stage of screening.

The Problem Owners chose 8 organizations (5 from industry and 3 from the academia) from the 30 that were presented to them.

### The Event

The event included approximately 50 attendees including representatives of 7 of the 8 chosen technology providers and the CLIENTProblem Owners.

Starting from 0830 the 4 Client's Problem Owners each made a 15 minute presentation which including the following problem areas:

- Electrical and Magnetic Properties of Nano PArticles
- Integration of nano-particles as fullerenes in paints, coatings and polymeric matrices
- Anti-corrosive coatings and materials' surface treatments
- Mechanical properties' enhancement of composite materials

During the second part of the event, the technology providers presented their technology, capabilities and their ability to address the problems relevant to their area.

The presentations included interactive Questions and Answers from the attendees.

During the third part of the event, one-on-one meetings were held between technology providers and relevant problem owners in which they reviewed the problems and their possible resolution in more detail. The meetings were pre-scheduled with slight changes made following the first part of the event.

At the end of each meeting, it was determined who would continue to the next stage – i.e. a technology cooperation agreement.

The results were much better than what was expected as all technology providers (100%) will be reaching such a cooperation agreement.

The event was determined to be successful as the success criteria was well exceeded.

The duration of the process was 2.5 months from the event's inception until it was held.

In reviewing the process and its results, it is believed that the following conditions must be met in order to achieve success for such an event:

- The Problem Owner must be a large company that is willing to expose unsolved its' problems
- The large company is willing to finance the cost of the problem resolution.
- The large company is willing to utilize external technology for problem resolution (e.g. a company dealing with conventional chemical material coatings is interested to explore new technology such as nanotech.)
- The large company is willing to cooperate with technology providers from industry and the academia.
- The technology problem solvers are small companies.

Comment: Once the focus was on the utilization of a new technology area – nanotechnology – the NIH (Not Invented Here) syndrome became irrelevant.