

ESD.34 System Architecture

Opportunity Set #5 - Technology Search

Deliverables due: at the beginning of class Jan 30

Learning Objectives:

- Familiarize yourself with research activities at MIT that are relevant to your company (e.g. finding technology).
- Learn how to evaluate new technology (e.g. understanding, assessing, and forecasting).
- Identify technology that is new and useful to your company that you can bring back when you return at the end of the month (e.g. transferring).

Instructions:

- Form a group of 2-4 students of similar technical interests to carry out the assignment (groups of other sizes are not acceptable).
- Conduct a search for 3 technologies that are new to your group and that you judge would be useful to your companies.
- Each of you select one of these three for further comparison to technologies existing in your companies.
- Analyze the new technology relative to the technology you are currently using and make a case for why one (old or new) is more promising to your company than the other (you can use any analysis model you choose, for example life cycle cost, s-shape growth, trends of technology evolution, corporate strategy, etc.).

Some resources available for technology search (in random order):

- Current MIT research (you may find information in the UROP directory at <http://web.mit.edu/UROP/>, departmental on-line directories of current research, or by going around to the different departments and talking to professors, students and other researchers)
- The Internet
- MIT's library resources to do searches, including on-line databases and e-journals
- Scientific journals, publications, patents
- Your class mates

Deliverables: (3-5pp memo report, to your real boss!) Post as a Word document to the class server as OS5IAP2007_yourname.

One written report per person containing at least:

- Executive summary including the technology evaluated and your recommended course of action
- Description of your search strategy (include the analysis models considered)
- Description of the two technologies that were evaluated but not selected
- Description of the new technology that was selected
- Description of old technology that the new technology may substitute

- Conclusions of the analysis - should or shouldn't the new technology be introduced, motivate your recommendation based on your analysis.

Personal reports within a group can share common material and text, but have to be written to your real boss.