Managing the Technology-Intensive Enterprise: Technology, Our Inheritance, and Our Legacy

- Technology is the application of science, engineering, and industrial organization to create a human-built world. – Alfred P. Sloan Foundation

- We have been at it since the “beginning” (as we evolved from the “surviving-and-subsisting man” to the “extracting-and-making-and-doing-and-defending man” to the “building-and-civilizing-and-conquering man” to the “inquiring-and-creating-and-exploring-and-reshaping man” to the “complex modern man” of today) – and we will continue to be at it as long as we are around. As MTIE citizens we play a critical role in shaping this legacy!
Managing the Technology-Intensive Enterprise: The Landscape of Technology (1)

- Three great technological innovations – the magnetic compass, the printing press, and gunpowder – are the distinguishing achievements of [17th century] modern man.

  – Francis Bacon, 17th century natural philosopher

- Is this claim true?

- Three hundred years from now, what would be seen as the three distinguishing technological achievements of our time?
Managing the Technology-Intensive Enterprise: The Landscape of Technology (2)

- **Management & control**
  - Administration & governance

- **Tools**
  - Machines and manufacturing
  - Instrumentation

- **Machines and manufacturing**

- **Materials**
  - Power and energy

- **Food production & processing**

- **Building & construction**

- **Transport & communication**

- **Life sciences**

- **Military**

- **Machines and manufacturing**

- **Environmental engineering**

- **Exploration**

- **Information processing**
  - Information technology
  - Knowledge management
  - Media & entertainment

- **Optical, acoustic, and other sensory technologies**

- **Mining and extraction**

- **Services**
“What?”

- An MBA-electives bundle – the “MTIE” MBA track – focusing on broad range of technology-intensive settings
  
  - Computer hardware, software, consumer electronics, etc.
  - Telecommunications
  - Life sciences
  - Advanced and specialty materials
  - Energy
  - Transportation
  - “Content” businesses (publishing, media, financial services, etc.)

- Bundle consists of three courses students take as a cohort (“Managing Technological Innovations,” “Marketing High-Tech Products,” and “Seminar on Managing the Technology-Intensive Enterprise”).
Managing the Technology-Intensive Enterprise ("MTIE")
MBA Track: The “For Whom?”

• “For whom?”
  – One- and Two-Year Day, Evening, and Fast-Track MBA students.
  – Those in technology enterprises wishing to build on their experience.
  – Those in technology enterprises wishing to transition from specialization to general management.
  – Those wishing to transition from not-so-high-technology to technology-intensive enterprise settings.
“Why?”

- Consistent with
  - many students’ backgrounds, current employment, career aspirations;
  - distinctive program positioning;
  - “cohort” identity;
  - Babson’s strategic thrust and geographical location;
  - the time – and all times may come and go, but “technology-intensive” will not disappear).
### Managing the Technology-Intensive Enterprise (“MTIE”) MBA Track: Course Timetable

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Spring Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Required Courses (3 Full-course Equivalents)</strong></td>
<td><strong>MTIE Seminar</strong></td>
</tr>
</tbody>
</table>
| Marketing High-Tech Products  
MKT 7555-61  
Tuesday evenings, 6:30 PM – 9:00 PM  
Professor Anirudh Dhebar | MBA 7570-51  
Monday evenings, 6:30 PM – 9:00 PM  
Professors Anderson and Dhebar |
| Managing Technological Innovation  
OPS 7540-51  
Wednesday evenings, 6:30 PM – 9:00 PM  
Professor Marty Anderson |
Managing Technological Innovation

- Introduction to technological innovation
- Building competitive advantage through technology and product development
- Managing development networks
- Creating an ambidextrous organization
- Managing disruptive and radical innovation
Marketing High-Tech Products

- Introduction
- Commercializing technology and bringing high-technology products to market
- Managing technology and product maturity
- Transitioning from one technology and product generation to the next
- Wrapping up …
MTIE Seminar

- Introduction
- Plate tectonics in science and technology
- Technology and public policy
- Managing the technology-intensive enterprise
- Wrapping up …