Being a Part of the R&D Revolution: How a Young ASME Member can Prepare Themselves for Future Technology Employment

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Prevalent Collaboration Models

- **Joint Ventures** – Parties (often 2 – 3) go into a project together to bring unique capabilities to an overall goal.

- **Mergers/Acquisitions** – Parties (often 2 – 3) are combined down to one organization and operate forward as that one entity.

- **Consortiums** – More than 3 parties commit to a longstanding organization which may have terminal goals.

- **Open Innovation** – One party utilizes the entire world or a specified eligibility crowd for a terminal goal.
Most US companies have partnered or acquired Asian cell manufacturers:

- No company outside of China can own a Chinese company.
- Market has seen long courtships with customer disappointments.
- Bankruptcies/Chapter 11 Filings dissolve partnerships:
Consortium Examples

- Often built for research or for industry roadmaps/policy making, especially for economic crises
- Involve multiple sectors, partners, or industries
- Require large amount of funding, normally supported by federal or state agencies and usually non-profit
- Common examples:
  - SEMATECH – industry research consortium for semiconductors
  - FL Energy Systems Consortium – all FL universities research in energy and environment
  - Employ Florida Banner Centers – statewide workforce education and training consortium by sectors
  - RFID in Healthcare Consortium – International RFID Business Association’s subsidiary as non-profit trade org
Types of OI Initiatives

- Corporate Initiatives
- Competitions
- Grants (Federal and elsewise)
- Public Relations Campaigns or Consumer Engagements
- Organized, fee-driven websites
Open Innovation Examples

• Opens the whole world to you as your workforce, and for cheap!

• Predominantly used by federal government and companies for research, branding, or strategy ideas

• Powerful way of getting consumer feedback

• Hosted in a number of ways including:
  - Grants
  - Corporate Initiatives
  - Prize competitions
  - Organized, fee-driven websites
  - Public relations campaigns
The OI Vanguard: Proctor & Gamble

P&G and The Brandery Partner to Ignite Startups
P&G will be sponsoring up to two high-potential startups who can demonstrate innovative technology and/or business model ideas to dramatically accelerate quality and speed of critical business opportunities for P&G brands across the globe.

Could your innovation be the next game changer?

https://www.youtube.com/watch?v=BoTyQ39fGdQ
Corporate OI Initiatives: BASF

• One of the most robust corporate programs with innovation across entire corporate chain

• 10K+ R&D employees and nearly $2B investments

• Easy to use Open Innovation Portal – inno/360

• Grand Challenges: What will life be like???

• Virtual Innovation Center
Corporate OI Initiatives: Shell

- Shell Gamechanger – competition-like program for early stage ideas
- Shell Technology Ventures – more mature companies
- Shell TechWorks – pivot tech for other markets
- Shell Small Business Innovation Initiative
Corporate OI Initiatives: Hershey

• Created “Winning Together” campaign

• Hosted Global Partner Summit to showcase talent of company and network with suppliers

• Asia Innovation Center – working on new markets and new flavors

• Hershey’s IdeaWorks connects with consumers
Simplest of OI Models

- X-Prize
- Sikorsky Tech Challenge
- Google’s 10^100
- DARPA Grand Challenge
- Siemens Technology to Business Forum
- Netflix Recommendation Algorithm
- NYC BigApps for big “NYC” problems
- Apps for the Army Challenge

[Images of logos: DARPA Grand Challenge, X-Prize Foundation, Apps for the Army]
Nationwide OI: Grants

• US Govt. and Small Business Innovative Research grants

• Other US Department of Defense, USDA and NASA grants

• Gates Grand Challenges in Global Health
OI With the Masses: PR Campaigns

- Frito-Lays next chip flavor
- Acrobat’s BrightIdea’s page to post ideas
- Dell’s IdeaStorm

[Image: Frito-Lays chip flavors]

[Image: Dell IdeaStorm]

IdeaStorm can help take your idea and turn it into reality.

OI For You & Industry

- Organized, fee-driven websites
  - Crowdspring, 99Designs, Freelancer for logos/graphics
  - Woot! Shirts
  - CureTogether gets ratings for treatments by patients
  - Skild, Hunchbuzz, and other “online contest” providers

ENDANGERED SPECIES

RAMENS

CHEATER

FAKE BAND TEES
Types of OI Jobs

- R&D Engineer/Scientist
- New Product Development Engineer
- Technical Sales and Marketing
- Technology Scout
- Corporate Venture Vetter/Deal Maker
- Special Programs Manager
- Community Liaison/Outreach
Important Open Innovation Skills

• Be a sponge
• Be a networker
• Be resourceful
• Be a multitasker
• Be a strategic thinker
Questions?

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