Self-Healing, Repairing Coatings

SHREC

SIM User Forum 21/10/2013  Dirk Bontinck - Allnex
SHREC Project

Self-healing 10-25 µm coatings through micro-encapsulation of SH compounds
Research and Innovation

• Research = turning Money into Knowledge

• Innovation = turning Knowledge into Money

• Cost of Research ≠

• Cost of Research =
What Kind of R&D Organization Are You?

**Process Maven**
- Terminate poorly progressing projects quickly
- Standardized product development process
- Monitor project returns carefully
- Define rigorous gate review criteria
- Select projects based on alignment with business strategy
- Ensure flexible ordering of the development process
- Rebalance portfolio in response to business environment changes

**Organizational Alignment**
- Create opportunities for staff to work in a variety of roles
- Promote staff along well-defined career paths
- Align workforce skills with business strategy
- Ensure cross-functional effectiveness
- Integrate R&D with Manufacturing
- Integrate R&D with Marketing
- Integrate R&D with Procurement
- Forecast long-time skills requirements

**Knowledge Integrator**
- Establish effective mechanisms for knowledge sharing
- Review technology portfolio for reuse and platform opportunities
- Manage a broad network of external partners
- Leverage academic partnerships
- Reward staff for external connection-making skills
- Train technical staff in voice-of-customer skills
- Leverage interactions with lead customers
- Apply learnings from past-project reviews
The Control Game

Network Controlling Strategies

- Dominating the Network
- Emphasis on IP Protection
- Emphasis on Partner Search
- Staff Time spent Controlling the Network

Idea Beacon Strategies

- Network Interaction Competencies
- Network Nurture Competencies
- Emphasis on Idea Search
- Staff Time Spent Engaging the Network

Competencies at most R&D organizations

Competencies at 10% of R&D organizations

- Up to 12% Decrease in High-Quality Ideas
- Up to 10% Increase in Sales

RTEC Research 2010
Knowledge Integrators and Idea Beacons

- Allow employees to explore networks
- Seek partnerships with universities and research institutes
- Create platforms for academic and industrial scientists
- Openly discuss needs and capabilities: open the kimonos!
- Eliminate barriers to information flow
- Avoid an expensive hunt for ideas
- Compose consortia with interested parties
- Explore adjacent networks
- One project might lead to another (bigger) opportunity
- Apply for public funding when internal funding is unlikely
- Be prepared to share IP
- Revisit the internship model