

# THOMAS J. IRELAND

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Bridging Disciplines | Budget Development & Forecasting | Project Navigation  
Strategic Direction | Identifying Acquisition Opportunities | Long-Term Vision | 1,000+ Industry Contacts  
Program Management | Presentations & Public Speaking | Consensus-Building | Team Building, Motivation & Training

## From Science to Profits

### LEADING-EDGE TECHNOLOGY, PRODUCT & BUSINESS DEVELOPMENT PROFESSIONAL

**Focus: Defense / Aerospace / High-Tech Startups**

Forward-looking with a passion for innovation and development of exciting new products with cost-effective, proprietary solutions—fuse science and business to deliver real results in international markets, strengthening company's position.

Fifteen+ years of combining engineering, product and program development, strategic vision, and collaboration with customers including DoD and NASA.

Awarded 2 U.S. patents (and 1 pending) for design of advanced engineered material materials. Record of 20+ publications (promotional articles in trade journals and scientific papers and book chapter) – full listing available.

**Turn (nano) technology into products, markets, and profits while positioning company for sustained profits.**

Contributions include:

- Doubled revenues to \$5,000,000- during industry downturn, eliminating competing company.
- Engineered key subsystems for use on NASA Deep Space and Mars probes.
- Recognized as a “diplomat”: Streamlining interactions between technical (lab) and business (marketing) disciplines, skillfully navigating different business and decision cycles across cultures, the commercial business world, defense/aerospace world, and management's focus on quarterly results versus reality's long-term cycles.

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**TAIYO NIPPON SANSCO CORPORATION** – Epsom, NH

1990 to 2007

*Promoted through increasingly responsible positions at U.S. holding company of Japanese organization, producer of industrial gases, gas-handling equipment, and advanced engineering material for defense and aerospace applications with \$3.3B in 2006 revenues and 7,000+ employees worldwide.*

**Provided company with strategic perspective, technologies, and foundational products to thrive in the 21<sup>st</sup> century.**

#### **VP Business & Product Development role (selected for additional responsibilities, 2000 to 2007)**

Supervised U.S. and Japanese-based teams of up to 6 technicians and engineers. Selected for product and business development role based on proven record turning innovation into products and identifying and liaising with market. Oversaw management-level analyst and market analyst. Focused on product and business development with regard to advanced engineered materials, based on in-depth analysis of technical and market factors. Managed complex coordination between customers, Taiyo Nippon Sanso subsidiaries worldwide, and company headquarters. Project teams comprised engineers,

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technicians, marketing, and administrative staff. Trained personnel and customers on new products and created/presentation platforms if none existed.

**Company Revitalization / Revenue Generation / Presentation Skills**

- Facilitated stabilization of company and revenue base by pioneering and developing advanced engineering technology for pyrotechnic device (infrared counter-measure flares for aircraft):
  - Captured \$3.5-\$4M in annual sales with first contract, progressing to \$100M/year contracts within decade.
- Doubled division revenues from \$7-\$8M to \$16M between 1997 and 2004/5 despite declining market of TV tubes (while serving as Team Leader). Succeeded with proprietary products, in-depth needs assessment, and customer relationship management.
- Perfected delivery of persuasive presentations by modeling approach after “presentation guru” Guy Kawasaki’s style and by using state-of-the-art equipment, complementing ability to convey complex concepts to all audiences.

**Innovation & New Product Development / Market Introduction & Expansion**

- Identified market expansion opportunities with military and medical companies, delivering advanced engineered materials:
    - Invented product and manufacturing method and delivered successful market introduction with annual revenues of \$3M+ from U.K.-based defense contractor and projected, long-term revenues of hundreds of millions of dollars.
  - Led technological strategy to strengthen company’s core competencies and meet customers’ needs by building planar technology products (thick/thin film coating); convinced management to adopt.
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**Applications Development Manager (1997 to 2007); promoted from Senior Applications Engineer (1990 to 1997)**

Hired during company lawsuit against former employee-turned competitor, adversely impacting business. Managed DoD-related programs; representing company to customers, preparing pricing and bids, reviewing and negotiating contracts, preparing market studies, and handling budgeting/forecasting. Managed entire program, encompassing both sales and technical sides. Troubleshoot product failures and delivered problem resolutions. Introduced and modified existing technologies from other industries to manufacturing advanced engineering materials, resulting in new products.

**Strategic Company Positioning / Revenue Generation / Opportunity Identification**

- Realized \$10-\$15M in forecasted revenues from company division in 4-5 years:
    - Identified medical device industry’s area with high-margin, high-volume, and long-term market stability.
    - Spearheaded Medical Devices Materials Task Force, built network, and established industry reputation.
  - Doubled sales volume from \$2M to \$4.5M per year and improved margins from 10-20% to 100% for porous engineering materials for defense applications in shrinking market (early 90s) while driving “lawsuit competitor” out of business:
    - Restored customer relations by identifying real needs and developing proprietary, custom parts (sole source specific components), ensuring long-term customer commitment.
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**Early Career Development:**

**Senior Research Engineer**, SIEMENS AG, St. Louis, MO

**Plant Engineer**, EMERSON ELECTRIC, St. Louis, MO

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**BA degree in Energy Technology and Policy**

UNIVERSITY OF MICHIGAN, Ann Arbor, MI

**Member/Involvement:**

SPIE and SAE, 10+ years

Armed Forces Communications & Electronics Association, 2 years

Science Fair judge and mentor