

KAREN I. MATTHEWS, PhD MBA

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VP GM - TECHNOLOGY, INNOVATION, STRATEGY & BUSINESS DEVELOPMENT

QUALIFICATION HIGHLIGHTS

High-tech business professional with expertise in the telecommunications and electronic components industries within technology sectors. Transforms complex business initiatives into executable strategies – solving complex problems while anticipating and driving requirements to exceed customer expectations. R&D and technology assessment expertise coupled with components and integrated systems design experience, including hardware and embedded software. Analytical problem solver and strong advocate for building cross-functional, corporate, government, third-party, partner and academic collaborations. Solution-oriented leader adept at working across functions and market segments to introduce strategic business initiatives, achieve profitable new business ventures and accomplish corporate revenue targets.

COMPETENCIES

Innovation + Technology | Business Development | Thought Leadership | Business Case Generation
Customer Relationship Management | Integrated Product Teams | Cost Modeling + Value Proposition
Creative + Collaborative | Finance | Agile Methodology + Tech Transfer | Roadmapping + Forecasting
Optical + Wireless Communications | Contract Negotiations | Strategic Planning + Competitive Analysis
R&D | Business Acumen | Entrepreneurship | Project Management | Market Research | Revenue Growth

PROFESSIONAL EXPERIENCE

HASLAM COLLEGE OF BUSINESS AT THE UNIVERSITY OF TENNESSEE, KNOXVILLE **JAN 2022 – PRESENT**

ASSOCIATE PROFESSOR OF SUPPLY CHAIN INNOVATION AND PRACTICE

Leading Digitalization Research in the Advanced Supply Chain Collaborative Think Tank and teaching Supply Chain Information Management courses in the executive, professional and graduate curriculums

CORNING INCORPORATED, NEW YORK, NY **1998 – SEPT 2021**

TECHNOLOGY & MARKET DEVELOPMENT MANAGER – OPTICAL COMMUNICATIONS (2014 – PRESENT)

Crafted & executed global strategic business initiatives in 5G, Internet of Things (IoT), Artificial Intelligence (AI), Digital Transformation, Networking and Communications utilizing disruptive technologies

- Initiated innovation strategy based on market trends, competitive analysis and business case
- Introduced new product design that led to 20% cost reduction and 25% coverage improvement
- Increased incremental product line revenue by 5% through market segment adjacencies
- Expanded system capabilities to capture \$100M+ revenue potential

TECHNOLOGY & MARKET DEVELOPMENT MANAGER – TELECOMMUNICATIONS (2009 - 2014)

Directed international R&D data center strategy, product development & prototyping programs

- Introduced new optical connector with \$125M+ revenue outlook via disruptive technologies
- Accelerated innovative fiber design with a \$50M revenue potential to meet industry trends
- Improved customer experience in data centers by reducing time to identify failures by 50%

TECHNOLOGY & MARKET DEVELOPMENT MANAGER – SPECIALTY MATERIALS (2007 - 2009)

Managed new global business creation in consumer electronics and renewable energy sectors

- Introduced new product in consumer electronics that resulted an incremental \$1B sales growth
- Awarded patent for novel solar heat collection element that reduced mechanical failures by 10%

- Streamlined the innovation process and built business strategy to expedite commercialization

SR RESEARCH PACKAGING SCIENTIST – LIFE SCIENCES (2005 - 2007)

Developed Intellectual Property (IP) landscape, competitive intelligence and strategy for new product line

- Increased revenue by 10% in Life Sciences business worldwide by addressing technology trends
- Introduced company into a new pharmaceutical market with a \$200M market potential

SR RESEARCH PACKAGING SCIENTIST – DISPLAY PRODUCTS (2003 - 2005)

Generated technology roadmap, competitive analysis, market research and feasibility study that became guiding strategy for a new business in display technologies

- Delivered business case for \$100M market opportunities in North America and EMEA regions

SR RESEARCH PACKAGING SCIENTIST – TELECOMMUNICATIONS (2002 - 2003)

Guided cross-functional team on fast paced, government funded project

- Doubled module speed by introducing state-of-the-art high-speed receiver modules

SR. RESEARCH PACKAGING SCIENTIST – SEMICONDUCTOR DEVICES (1999 - 2002)

Led design, development, build and installation of novel semi-automated equipment and fabrication of Silicon substrates for semiconductor lasers used in electro-optic systems

- Reduced packaging costs by 5% with state-of-the-art equipment and process configuration
- Reduced packaging complexity and assembly time by 20% using innovative substrate components and novel technology trends

PACKAGING ENGINEER – PHOTONICS TECHNOLOGIES (1998 - 1999)

Initiated new packaging options that expanded into five product lines within Photonics Division

- Generated a new strategy that increased sales by 20%
- Delivered a low-cost product line that reduced internal operational costs by 35%

AWARDS/RECOGNITIONS

- Executive Board Member, Thought Leadership Chairperson and Research Group Member of Georgia Tech's Center for the Development & Application of Internet of Things Technologies (CDAIT) (2015-2019) which resulted in globally renowned IoT white papers
- Executive Board Member of The UpSkill Foundation, upskilling underrepresented groups in data science
- Executive Advisory Board Member of the Transform Insights User Group, a community focused on connecting business leaders who have experience in spearheading digital transformation strategies, innovation through technology and enterprise change management
- 5 patents; 4 Distinguished Contributor Awards; Written and Oral Communications (100+ external publications/presentations (including Mobile World Congress, OFC, IEEE IoT World Forum, Internet of Business and Frontiers in Optics); 55 internal publications)
- Invited speaker in technology, digital transformation, communication skills & career development

EDUCATION

MBA, Innovation and Global Technical Leadership, Cornell University, Ithaca, NY

PhD, Electrical Engineering, Cornell University, Ithaca NY

MEng, Electrical Engineering, Cornell University, Ithaca, NY

BS, Electrical Engineering, Morgan State University, Baltimore, MD