RICHARD J. FORSELIUS, Sc.D.

1105 Race Brook Road	203-387-4443
Woodbridge, CT 06525-1836	forselius@snet.net

CORE COMPETENCIES:

An effective leader, educator and communicator with significant industry committee contributions, particularly in the American National Standards Institute (ANSI) and the Aerospace Industries Association (AIA) in board level and executive engineering management positions. Extensive network of contacts in aerospace, organizations. academia, industry associations and relevant US government entities. Particular focus on business relations, strategy, standards policy, use of standards in regulations, standards and innovation, and relating standards and standardization to industry competitiveness. 30 years of aerospace industry experience.

Expert in engineering management, management systems, change management, ethics, organizational development, standards, standardization, conformity assessment, regulations and process improvement. Managed engineering policies, procedures, design and drafting standards, records and data management, systems engineering, integrated product development and passport policies and procedures.

Skilled with business strategic planning and business plan development, business management, program management, process design, benchmarking, design control, product and flight safety, standard work, part marking, patents and intellectual property and standard parts and components.

Developed Environmental, Health and Safety (EH&S) materials of concern, sustainability & green program policies, implemented European Union REACH regulation policies, related regulations & chemicals/substance alternatives. Supported environmental management systems (ISO 14001), job hazard analysis and voluntary protection program assessments.

Experience with lean/6 sigma and leading internal assessments and managing external assessments implementing quality management systems (QMS) (EG: ISO 9001 & AS 9100) design and document control. Successfully implemented Achieving Competitive Excellence (ACE) business process reengineering & lean program. Expert with value stream mapping & associated tools. Tracking implementation of ISO 26000 social responsibility and its potential impact on aerospace.

Earned doctorate is in Management Systems with advanced degrees in business (computer & information science) and industrial engineering. Undergraduate degree in electrical engineering, experienced with alternative energy (wind energy) and electric utility industry, background in power and energy. A licensed Professional Engineer in the state of Connecticut.

An ethical, respected, personable and empowering change agent responsible for a customer-focused strategy.

BUSINESS EXPERIENCE:

Sikorsky Aircraft/United Technologies Corporation, Stratford Locks, CT

Environmental, Health & Safety/Sustainability/Environmental Engineering Design for Environment & Safety (DfES) Program Leader

Primary responsibility is for EH&S for Test Engineering on the CH53K, CH148, S76 & S92 helicopter programs. Responsible for OSHA compliance, safety & environmental audits and preparing safety & environmental policies, procedures & standard work for the ground test labs. Focal point, leader and trainer in safety and environmental regulations, compliance, procedures and standards. Presently implementing a large machine guarding and fall prevention program including ongoing training sessions. Supporting sustainability and EH&S compliance with emerging regulations.

Hamilton Sundstrand/United Technologies Corporation, Windsor Locks, CT

Engineering & Technology

Senior Manager, Records and Standards

Lead the \$4 million, 40+ associate combined Records and Standards Department within the Engineering and Technology (E&T) organization.

Leader of Engineering Standards & Procedures and Information Research Departments (Windsor Locks, CT) and the Engineering Data Management Department (Rockford, IL). Successfully reorganized Records and

1999 to 2009

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2010 to present

Standards department along functional lines to simplify, make lean and improve commonality and integrate groups.

- Responsible for global sourcing and management of all related tools and systems.
- Performed internal technical audits and managed external technical audit visits including ISO 9001 Quality Management System design/data requirements and many others.
- Implemented smart approach for engineering procedures with hot links to relevant internal documents and engineering standard work tool. Created centralized engineering and operations records approach, eliminating redundancies.
- Established vision and mission and a comprehensive business plan approach with an "initiative tracker" to monitor progress of initiatives with focus on milestones and results.
- Streamlined on-line systems (e.g. Documentum, TeamCenter) which contain engineering technical documents including drawings, specifications, engineering policies, procedures and standards, software (media and design), engineering and internal reports, bills of material/parts lists, product attribute data, deviations, waivers, engineering change publication, printed circuit board masters, operations sheets, tooling drawings, approved supplier lists, customer service documents, etc.
- Formulated product attribute data accuracy for the engineering information system (product data management system) and validity of technical information in J.D. Edwards manufacturing and procurement system.
- Performed internal technical audits and coordinated external audit visits including ISO 9001 Quality Management System design/data requirements.
- Created process improvements and value stream approach, introduced numerous process changes and efficiency improvements to reduce cycle time and increase document quality and accessibility.
- Implemented a new post 9/11 disaster recovery approach, which provides assurances of documentation availability, at a more reasonable price, should a major event occur.
- Created and accelerated a methodology for common and coordinated specifications and procedures in all design sites. Led the Common Specification Initiative Steering Team, creating common company materials and non-destructive test specifications to simplify supplier qualification assessments and manufacturing.
- Strongly advocated EH&S initiatives, quality, design for environment, health and occupational safety and diversity. Responsible for managing ethics program for engineering including required annual business practices training.
- Led the Technical Intellectual Property (TIP) Team; close coordination with IP attorneys reducing global competitive acquisition of company technologies. Solely responsible for global access to key design documents. Implemented practical patent-product identification, technical data marking and 3-D CAD model marking standard work approaches, part marking and universal identification (UID).
- Created new Design for Environment, Health and Safety (DfES) policy and procedures.
- Exceeded all metrics including cycle time, quality and financial with no errors to customers; consistent outstanding customer feedback: 6.7 Market Feedback Analysis (MFA) on a scale of 0 to 7.

Interim Environmental Program Manager (Green Products)

2007 to 2008

- Led and developed strategies and plans for a company-wide green products program. Objective: to develop company policy for sustainability; provide products that minimize the environmental impact and the ergonomic impact to employees, from manufacturing and assembly through service.
- Led the company's global REACH Strategy Implementation Team and Product Goals Reporting Team and sub-teams, and represented the corporation in industry committees such as AIA and ANSI, proactively creating industry REACH solutions.
- Led subordinate cross-functional teams and business enterprises in developing policies, metrics, standard work and life-cycle risk management tools.
- Oversaw development and implementation of a comprehensive program for global implementation of corporation's 2010 Environment, Health and Safety product goals.
- Ensured that product development and procurement processes assess the product life cycle for impact on the environment and employee, customer, and end user health and safety.
- Advised executives on compliance with applicable new and emerging regulations world-wide, including REACH and RoHS and support for due diligence assessments.
- Communicated with industry, associations, customers and suppliers in support of company programs as necessary.

Manager, Engineering Standards & Procedures

- Created and/or revised virtually all engineering procedures and policies, design and drafting standards, and company generic specifications.
- Responsible for generic customer technical documentation compliance, including government and Standards Development Organization (SDO) standards and specifications.
- Attained expertise in standardization, strategic planning, business strategy, business management, program management, business process reengineering, process design, benchmarking, design control, flight safety,

1987 to 1999

integrated product development, standard work, part marking, patents and intellectual property and standard parts and components.

Assistant Program Manager / Senior Experimental Engineer

- Managed, control and identify changes to contracted and internally funded multi-megawatt Wyoming based wind turbine project activities to ensure compliance.
- Proposal preparation, operation and maintenance contract, site coordination, technical design/development, and overall responsibility for electronic, electrical and computer systems on a 4 megawatt wind turbine project manufactured in Karlskrona, Sweden and East Granby, Connecticut, and installed in Medicine Bow, Wyoming.

US Electrical Motors/Emerson Electric, Milford, CT

Project Engineer

Responsible for testing controlled speed products, creating product manuals, and applications of electric motors as induction generators for alternative/wind energy applications.

United Illuminating Company, New Haven, CT

Electric Power Distribution and Planning Engineer Designed high voltage electric distribution circuits for new customers, assessed underground and overhead distribution systems, authored electric power distribution and transmission planning studies, and taught basic electricity.

SUCCESSES:

Achieving Competitive Excellence (ACE) Lean/6 Sigma Process Improvement Program

- ACE Coordinator for many years; ACE trainer, continuous improvement methodology leader/consultant.
- Many process reengineering and standardization improvements.
- Expert and instructor in: Business Process Improvements and Value Stream Mapping, Lean, Process Management, Standard Work, Total Productive Maintenance, Project Management and Passport, 5S (Sort, Straighten, Shine, Standardize, Sustain), QCPC (Quality Clinic Process Charts), Mistake Proofing, MFA (Market Feedback Analysis), JHA (Job Hazard Analysis) and RRCA (Relentless Root Cause Analysis).
- Twice graduated from the corporation's constantly updated Ito University program, with pre-eminent focus on quality, process improvement and lean.
- Company Engineering representative to the corporate Enterprise Productivity Kaizen Design Team; coauthored the book "Enterprise Productivity: Process Management Guide and Tools." This was instrumental in developing a prescribed methodology for significant improvement in response to business process assessment gaps.

Awards

- Fellow Standards Engineering Society.
- Significant number of additional company and corporate awards over many years.

eDocuments

• Standardized and made available electronically all engineering and operations documents; improving contract data submittal, supplier and remote site access through search methodologies and portal implementation.

Environment, Health & Safety

- EH&S coordinator for Engineering.
- Corporate Climate Change Working Group which established corporate greenhouse gas emissions strategy policies.
- Engineering Safety Culture Team.
- Chair, Engineering & Technology Ergonomics Team.
- Pandemic Emergency Preparedness Team with responsibility for maintaining the business in the event of a bird flu epidemic.
- Advocate for occupational health and safety initiatives, JHA (job hazard analysis), OSHA VPP (voluntary protection program), and Design for Environment validator.

Supply Management

- Responsible for a number of outsource contracts in support of records and standards work. Significant supplier negotiation experience.
- Experienced with low cost outsourcing strategies such as contracting with InfoTech Aerospace Services in both Puerto Rico and India.

UTC Standardization

- Chair of corporate-wide Ad Hoc Codes & Standards Team, chartered by corporate Senior VP of Science and Technology and corporate Technical Council. Mission: Develop strategies and tactical implementation plans for promoting corporate standardization interests and coordinating corporate representation in external standardization committee activities and industry associations world-wide.
- Chair, corporate Strategic Standardization Management Council.

Training and Education

1982 to 1987

1977 - 1979

1979 - 1981

- Corporate Coordinator and company representative to the corporate Training and Education Advisory Council for many years, instrumental in bringing distance learning short courses and degree programs into corporation and in establishing the corporate Learning Institute and the corporate Learning Portal.
- Corporate lead for the Boston University Master of Science-Manufacturing Engineering program, for many years.

United Technologies Engineering Coordination Activities (UTECA)

 Chair of the UTECA Conference Planning Team, through which over 2000 corporate-wide associates attended the 7th annual corporate Engineering Conference and Technology Exposition. Many years of involvement with UTECA conference planning and the Mechanical Design/Design Standards subcommittee.

Webmaster

- Webmaster for several company Intranet pages including all Engineering & Technology internal web sites, portal communities, and the Engineering Fellows home pages.
- Engineering & Technology Portal Team lead, which designed intranet portal communities.

ACADEMIC EXPERIENCE:

Albertus Magnus College New Dimensions Program New Haven and East Hartford. CT

Adjunct Professor, Accelerated MBA, MS and BS Management programs designed for mid-career professional ethics based learning. Course taught include:

- BE 240 Business Case Studies
- BE 319 Leadership in Quality Improvement
- BE 332M Strategic Management
- BE 329 International Business
- MGT 503 Executive Management: Strategies and Leadership
- MGT 603 Change Strategy & Leadership
- MGT 605 Management within a Global Environment
- MGT 630 Entrepreneurship & Business Plan Development
- MGT 637 Business Policy: Strategy and Organizations
- MBA 620 Entrepreneurial Thinking: Innovation and Creativity in Creating Value
- MBA 622 Organizational Renewal & Development
- MBA 624 Operations Management and Value Creation
- MBA 630 Strategic Thinking for Sustainable Business Performance including Business Plan Development

For further information, see <u>http://www.albertus.edu/adult-accelerated-degrees/</u>

National Graduate School of Quality Management

Falmouth, MA and Farmington, CT

Adjunct Professor, MS Quality Systems Management program. Course taught include:

- QSM 743: Learning to See, Improving Throughput
- USM 642: Root Cause and Mistake Proofing Solutions

For further information, see: http://www.ngs.edu/.

Eastern Connecticut State University

Willimantic, CT

BUS 260: Operations Management

EDUCATION: University of New Haven, West Haven, CT

Doctor of Science in Management Systems (ScD)

- Focus: Evolving management systems and standards; business process effectiveness; business decision support; competitive analysis and surveillance; business, strategic, program and technical planning and management; leadership, marketing, standardization and quantification of value of strategic standardization management; organizational global competitiveness, ethics, social responsibility, mergers/acquisitions, business relations, and the economy.
- Sigma Beta Delta honor society (business, management and administration).
- Master of Business Administration (MBA)
- Concentration in Computer and Information Science.

Master of Science in Industrial Engineering (MSIE)

Union College, Schenectady, New York

Bachelor of Science, Electrical Engineering (BSEE)

• Concentration: Electric power systems and control systems.

2010 to present

2010

2002 to present

PROFESSIONALACTIVITIES:

AHS International (American Helicopter Society)

Member and former Primary Company Contact.

AIA (Aerospace Industries Association); preeminent association for US aerospace industry.

- Engineering Management Committee (EMC): Sole corporate representative (18 years) and Chair Emeritus (1998). Responsible for coordinating, formulating, and revising aerospace industry positions on technical program and management requirements, such as acquisition reform, program management, standardization management, systems engineering, electronic product definition, data delivery, interoperability, configuration management, critical safety items, identification marking, reliability, maintainability, technical data requirements, drafting practices, and other contract requirements for which engineering has primary responsibility. EMC Administrative Practices Ad Hoc Group Chair. Recent work includes Unique Identification (UID), Radio Frequency Identification (RFID), systems engineering, hazardous materials and materials of concern including lead-free solder implementation, flight safety critical safety items (CSI) and Product Data Open Interchange Standards. Numerous certificates of recognition for work with AIA.
- Strategic Standardization Forum for Aerospace (SSFA): Implementing recommendations contained in "The Future of Aerospace Standardization," developed by US aerospace. Collaboration between Standards Development Organizations (SDOs), Defense Standardization Program Office and aerospace industry companies with managing standards of importance to aerospace, common nomenclature, drafting practices, materials & fasteners, etc.
- Environmental, Safety & Health Committee and its REACH and Materials Reporting Ad Hoc Groups. Co-Chair and creator of aerospace industry EU REACH Forum (2007), formed to foster excellence through cross-functional collaboration on chemical issues with focus on US aerospace cooperation with European aerospace to comply with the EU REACH Legislation throughout the supply chain.
- Technical Operations Council Workforce Strategy Team, surveying member companies about present and future aerospace engineering human resource needs and concerns regarding the availability of scientists and engineers in future years.

ANSI (American National Standards Institute); pre-eminent non government, nonprofit federation that develops U.S. national policies on standardization and pursues standards development and conformity assessment issues of importance to US industry.

- Board of Directors (seven years), creating ANSI policy and direction.
- Board Executive Committee (two years).
- National Policy Committee.
- International Policy Committee.
- Sole corporate voting representative in the ANSI federation for many years.
- ANSI Committee on Education (CoE) (Past Chair). See <u>www.standardslearn.org</u>. Developed comprehensive CoE business plan. Implement recommendations in the US National Standards Strategy and engage the educational community in business standardization management and practices through e-learning approaches, and assist higher education in creating programs of value to US business, in support of the US National Standards Strategy. Current work includes creation of case studies, university outreach, support for higher education accreditation criteria in standardization, and coordination with domestic and international standards and conformity assessment education initiatives.
- Company Member Forum (CMF) (Vice Chair) (20 years). Work closely with industry representatives with a
 particular interest in emerging issues, evolving management systems standards, conformity assessment
 schema and homeland security standards. The CMF pursues and analyzes strategic standards management
 initiatives and develops industry positions and communicate new worldwide standardization issues and
 recently engaged in improving the efficiency of emerging issues workflow. Past chair of the Resolutions,
 Procedures and Nominating Committees. Member of CMF Management Team, chair of CMF Ad Hoc
 subcommittee on Education & Training.
- ANSI-NAM Network on Chemical Regulation; co-moderator, formerly co-chair of Work Group 3: Standards and Conformity Assessment Templates/Materials Declaration and leader of the ANSI effort to reduce the proliferation and duplication of chemical standards.
- Homeland Security Standards Panel.
- Certificate Information Advisory Panel.
- Center for Strategic Standardization Management Board.
- Received ANSI's 1997 Meritorious Service Award for service to the U.S. standardization community.
- Co-creator and instructor in the ANSI short course "Participate Effectively: Strategies for Success in Standards."

ASTM International

- Member of ASTM.
- Committee E34 on Occupational Health and Safety

- Committee E60 on Sustainability
- Committee F07 on Aerospace and Aircraft
- Committee F40 on Declarable Substances in Materials.

Tech America (formerly GEIA and ITAA)

 Corresponding member of the GEIA (Electronic Industry) G33 (Configuration and Data Management) and G47 (Systems Engineering) Committees.

IEEE (Institute of Electrical and Electronics Engineers)

- Member of IEEE for thirty six years.
- Opinion Survey Committee

ISO/TC20 Aircraft & Space Vehicles US Technical Advisory Group (TAG).

• Member & US representative.

Northwestern University

• Served as a member of standards management advanced technology insertion education project, advocating why standards management is important, working with industry and schools such as George Washington University and Catholic University.

Registered Professional Engineer, state of Connecticut (#13279).

SAE (Society of Automotive Engineers) International

- Technical Standards Board
- Member

SES (Standards Engineering Society) - The Society for Standards Professionals

- Officer, Secretary; Board of Directors, Search Committee, Nominations Committee Chair, former Education Council Director.
- Fellow (FSES).
- CStd A standards professional certification that demonstrates a thorough, more sophisticated knowledge of the principles, techniques and effects of standardization and recognizes a person's experience, expertise and contributions in the discipline of standards.

U.S. Green Building Council (USGBC[®])

• Member and LEED[®] Green Associate #10603700.

PUBLICATIONS:

- SES Standards Engineering (March/April 2010): "Engage the Academic/Educational Community in Standardization."
- SES Standards Engineering (May/June 2009): "Business Leader Evolution Process, a logical approach to creating emerging workforce leaders" (joint author with Ramon Rodriguez-Santana)
- American Society of Engineering Education (ASEE) Mid-Atlantic Conference in New York City Proceedings (May, 2006): "Standards Education: An Industry, Government, University Partnership." (joint author with Dr. William Kelly and Dr. Theodore Bickart)
- Defense Standardization Program Journal (October/December, 2003): "Voluntary Standards Why Engage? Standards Encourage Interoperability, Create Markets, and Facilitate Change."
- ASTM Standardization News (April, 2003): "The Need for Effective Standardization Management." (reprinted several times)
- ASTM Standardization News (October, 2002): "A Holistic Approach to Management Systems Standards."
- SAE International (stand-alone publication) (October, 2000): "How to Involve Younger Associates and Non-North Americans in Standards Development - an Imperative for U.S. Business."
- SAE International Navigator (1st Quarter 1999): "Smart Standards The Future of Our Business."
- ANSI Reporter (August, 1998): "The Need for Strategic Standardization Management."
- University of New Haven Doctoral Dissertation (May 1, 1998): "Strategic Standardization Management and Competitive Advantage." Publication 9828471 <u>http://gateway.proquest.com/openurl?url_ver=Z39.88-</u> 2004&res_dat=xri:pqdiss&rft_val_fmt=info:ofi/fmt:kev:mtx:dissertation&rft_dat=xri:pqdiss:9828471
- ASTM Standardization News (December, 1997): "A Return on Investment Model: Measuring ROI in Standards Development Organization Committee Participation."
- Standards Engineering (September/October 1997): "The Value of the Vital Few."
- ASTM Standardization News (December, 1996): "UTC's Approach to Strategic Standardization Management (SSM)."

SIGNIFICANT PERSONAL ACCOMPLISHMENTS:

 Board of Directors, Past President and Chair of the Nominating Committee of the nonprofit Woodbridge Park Association (<u>www.woodbridgeparks.org</u>), an active land trust with a 21 member Board of Directors. Proactive work with town Board of Selectmen, the Trust for Public Land, and others on open space acquisition and accessibility.

- Boy Scouts: Assistant Scoutmaster, Chartered Organization Representative, Financial Manager, and other positions.
- Woodbridge Clean Energy Initiative member.

Married with adult children. Varied interests include music, sports, sailing, water sports, hiking, outdoor activities, history and travel. Flexible; willing to relocate, telecommute and travel.