David A. McNamara, MTS LLC

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Objective

Lead the strategic planning, innovation and marketing of new customer-driven safety, mobility and infotainment products - formed consulting company McNamara Technology Solutions LLC, "*Advanced Planning – Strategy and Execution for Automotive Electronics*"

Professional Experience

January 31, 2006 - Present**, President, McNamara Technology Solutions (MTS) LLC**

Current projects, organizations and clients:

- Magna International, Technology Mining – identification of technologies & companies (www.Magna.com)
- Michigan Connected Vehicle Test bed promotion for Leidos administrator for USDOT (www.Leidos.com)
- Brand Motion New Business development (www.brandmotion.com)
- Freer Logic LLC automotive user interface business development (www.freerlogic.com)
- CETECOM (www.cetecom.com) automotive connected vehicle testing

Previous projects, organizations and clients:

- Air Force Auto CyberSecurity Project
- JD Communications, an automotive marketing company (www.jacksondawson.com)
- New business development for Cohda Wireless a V2X solution provider
- Telcordia new business development – scope is automotive Telematics applications
- IntellliDrive (SM) Tech Scan Advisory Board facilitated by ITS-America in support of the USDOT
- North American short-range radar market assessment and business proposal for Infineon.
- OmniAir Deployment Committee Co-chair, deployment of DSRC applications (www.Omniair.org)
- Creation of business intelligence reports for Telematics Update, FC Business Intelligence Ltd. (www.telematicsupdate.com): Automotive/HMI User Interface and Fleet/Insurance Telematics related
- Publically available business and technology reports covering CES (AutoTechinsider.com)

Other research reports:

- Electrical/Electronic architecture technology assessment and business strategy for JCI
- Telematics technology and business viability study for a major vehicle OEM
- Navigation patent assessment – a client considering entering the automotive navigation market
- User Interface technology study for Yazaki
- Wireless landscape and connectivity technology study for XM Satellite Radio
- NA Industry Opportunities and Challenges during the Global Financial Crisis for Panasonic.
- Expert Witness and related Intellectual related projects

IntelliDrive^{SM} (formerly VII) Applications Project Manager for Michigan Test Bed

(May 06 – Jan 08)

- Led diverse international team of Delphi, MarkIV Industries, Raytheon and Navteq in the development of new safety and mobility applications for this USDOT funded project. The applications project manager was selected by the consortium of vehicle manufacturers to develop the following applications: in-vehicle signage, off-board navigation with dynamic routing, traveler information, make payments (tolling and parking) and probe data collection. These applications employ the new Dedicated Short Range Communications (DSRC) protocol.
- New user interface for these safety and mobility applications – used to demonstrate functionality with 20-40 vehicles on the Detroit DSRC test bed (I96 and I275 area) under real-life driving.
- Responsible for all project management tasks: cost, timing and deliverables. The project is very complex and all deliverables were delivered with quality and on time by the team. On-board (vehicle) as well as network based software components were designed and delivered. An industry first demonstration on September 20, 2007 of probe data collection software and off-board navigation software running on vehicles connected to road-side DSRC wireless equipment was

Professional Experience Continued

Manager, Infotainment Systems, Research & Advanced Engineering

Research and Innovation Center (Dec. 02 – January 31, 2006 retired)

- MyConnected World Project leader of global team for Jaguar, Land Rover and Volvo brands – Consumer Electronic Device streaming of Music and Video to vehicles using USB, WiFi (802.11) and Bluetooth connectivity. Team conducted the market research and designed user interface, software and produced evaluation prototypes for 2006-2008 Model Year (MY) programs that integrate iPod, MP3 and video players.
- Led the integration of Wireless Fidelity (802.11) into a Lincoln Aviator radio as a Ford and industry first – vehicle used as part of Lincoln's national marketing campaign in 2004CY
- Identified new feature concepts to Ford, Lincoln, Jaguar, LandRover and Volvo Marketing for customer research by Ford Global Consumer Insights. New concepts included in-vehicle digital media and USB device connectivity. Led the In-Vehicle Team of the Microsoft/Ford Digital Life Style product planning council resulting in joint projects.
- Evaluated over ten supplier advanced project concepts for the Supplier Advanced Project ("Big Bang") Process resulting in new feature concepts.
- Member of Research and Advanced Diversity Action Team and organized "Focus on the Middle East Event" to promote cultural awareness.

Manager, Multimedia Systems, Elect./Elec. Systems Engrg. Office (Nov. 99 – Dec. 02)

- Developed the Lincoln audiophile strategy based on THX certification and launched the Lincoln cross-vehicle navigation system for 2002MY.
- First-to-market with the Mustang MP3 Radio in 2002MY.
- Cross-vehicle DVD rear video system launched with Delphi and new personalized video systems using IEEE1394 video network demonstrated on Navigator for 2000 Calendar Year (CY) Convergence Show.
- Led the process to separate Visteon Product development from Ford in 1999CY and the transfer of Multimedia responsibilities (Audio, Navigation, Family Entertainment systems) to Ford.
- Led the effort to create an "open" standard radio packaging and electrical specifications and the mentoring of several new suppliers to Ford: Delphi, Pioneer, Sanyo and Alpine - significant commodity cost reductions achieved.

Manager Adv. Elect./Elec. Systems, Elect./Elec. Systems Engrg. Office

(Aug. 95 – Nov. 99)

- Launched the Ford and industry first Adaptive Cruise Control with Delphi for the 2000MY Jaguar XKE. Team members received the Henry Ford Technology Award.
- Launched Ford's first navigation system with Bosch on 1997MY Mondeo for European application and 2000MY Navigator - mentored Siemens-VDO (then VDO) as a new supplier.
- Developed and launched the ultrasonic parking aid system as first-to-market in NA on the 2000MY Windstar and extended range radar back-up aid system resulting in Ford's leadership.
- Worked with Mazda for a closer relationship for advanced project creation, agreement on a Common Technology Plan and the co-location of Mazda planners with Ford Multimedia.
- Ford representative and co-founder of Automotive Multimedia Interface Collaboration (AMIC).
- Led the Intelligent Vehicle Highway Systems Technology Forum, responsible for global safety and infotainment advanced project planning and business plans. Ford moved within 18 months from limited capability to competiveness with offerings in navigation and warning systems.

Professional Experience Continued

Automotive Components Division (presently Visteon), Ford Motor Company Dearborn, Michigan (several positions held as follows from June 76 – August 95)

Manager, Advanced Integration, Driver Information Systems (Oct 94 – Aug 95)

- Developed breakthrough Elec./Elect. System concepts based on mechatronics and wiring reduction that were incorporated in the light truck program. Led supplier (wiring)/Ford teams with United Technologies (now part of Lear) and Electro-Wire (now part of AFL).

- Led the feature/technology demonstration vehicle process for the division resulting in new breakthrough technology demonstrations: modular instrument panel, thin-wiring door and window control systems, advanced center stack display and voice control systems.

Manager, Advanced Vehicle Electrical Architecture, Technology Development

(Oct 93 – Oct 94)

- Development and prove-out of advanced technology resulting in new breakthrough technologies for the manufacturing divisions:

  - New PowerPC based hardware platform to implement new voice technology which resulted in winning the Jaguar S-Type application

  - Identified Controller Area Network as a future replacement for J1850 (Ford's Standard Corporate Protocol)

  - Body module development using modular architecture (use of standard microcomputer design throughout the body system) resulting in winning future body module business

Program Manager, Electronic Concepts and Systems (May 90 – Oct 93)

- 1996MY Taurus Integrated center stack or Integrated Control Panel as styling and ergonomic control breakthrough. Developed Ford's first functional integrated body modules for the new 2000MY Windstar.

- Launched the new "torque-on-demand" system as a new functional integrated module for the 1994 Explorer 4X4.

Chief Product Analyst, Technology Planning & Office of Chief Engineer (Jun 87 – Apr 90)

- Launched new division-wide technology planning process and the identification of significant enabling technologies. Conducted the Strategic Business Unit reviews and created the Technology Forums ("Tech Clubs") for information sharing and resolution of implementation issues. Recognized by the Chief Engineer, Mr. Jim Paulsen, for organizing his office's planning processes and for improving Technical Specialist involvement early in projects.

- Key electrical representative to the development of the division's new Product Development Process. Developed the process chart format/template used to communicate process milestones and key supporting process of integrated circuit design strategy, simultaneous engrg. & technical specialist empowerment as part of the design review process.

- Developed a Patent Enhancement Process resulting in a significant increase in the quality and number of electrical/electronic patents.

Professional Experience Continued

Supervisor, Adv. Instrumentation Features/Vehicle Information Products

(April 85– Jun 87)

- Launched Ford's oil change monitor (patent awarded), developed new "smart-key anti-theft (patent awarded), "smart" wiper (rain sense) and steering wheel mounted controls using infrared technology.
- Conducted market research using demonstration prototypes of emerging navigation systems alternatives: moving map versus route guidance. This early work resulted in Ford considering investing in NAVTEQ.
- Demonstrated new Heads-up optical systems for human factors and vehicle packaging studies.

Supervisor, Instrumentation Features/Vehicle Information Products (Jan 82 – April 85)

- Responsible for the design and release of several high volume driver information electronics modules: lamp outage, anti-theft modules, interval windshield wiper control, graphic maintenance monitors and voice alert modules.
- Launched the industry first Electronic Compass in 1982MY on the Lincoln Continental integrated into the overhead compass. Mentored a new electronics supplier, Prince (presently JCI) and resolved significant launch readiness issues associated with the magnetic properties of the vehicle.

Product Design Engineer, Powertrain Sensors (June 76 – Jan 82)

- Testing and characterization of the silicon capacitance pressure sensor developed for sensing manifold and barometric absolute pressure as need to implement Powertrain controls. Directed the Case Western Reserve University modeling effort.
- Designed the circuit (two patents received) for a new pressure sensor electronics implemented as an Application Specific Integrated Circuit for high volume using RCA's new cell-based design for fast-to-market. Electronic design was used in all barometric sensors in Ford vehicles from 1983 until 1997.

Educational Leave of absence to attend the University of Florida (Sept 74 – June 76)

Plant Engineering and Manufacturing Engineer and Ford College Graduate Program, Ford Monroe Metal Stamping Plant, Monroe, MI (Sept 73 – Sep 74)

- Supervised skill trades for maintenance and cleaning
- Responsible for plant power distribution and manufacturing equipment

Education

1974 - 1976 **University of Florida, Gainesville, Florida**
Masters of Engineering in Solid State Physics,
Graduation Date of December 1976 with honors

1969 - 1973 **University of Michigan, Ann Arbor, Michigan**
Graduation Date of December 1973

Organizations

SAE Automated, Connected Vehicle and CyberSecurity Technical sessions organizer, AUVSI, Connected Vehicle Trade Association, IEEE, Consumer Electronics Association and Intelligent Transportation systems of America

Patents

- Method of Calibrating A Transducer for Converting a Pressure Variation to Frequency Variation, 4,377,851, March 22, 1983
- Circuit for Converting Pressure Variation to Frequency Variation, 4,446, 447, May 1, 1984
- Method and Apparatus for Determining Engine Oil Change Intervals According to Actual Engine Use, 5,060,156, October 22, 1991
- Programmable Key and Improved Lock Assembly, 5,003,801, April 1, 1991
- Vehicle Navigation Route Generation with User selectable Avoidable Risk, 6,175,803, January 16, 2001

Awards & Published Papers (with others)

- Southeast Michigan Connected Vehicle Test Bed 2014: The Next Step Toward Deploying ITS, 2013 IEEE ICCVE
- 2013 AUVSI Mission Critical Magazine, Michigan Test Bed V2V and V21 Key Technology Enabler
- 2010 Convergence Paper, IntelliDrive Business Viability – Alternative Models to Consider
- 2008 ITS International, "Before the Fact" - Automotive Diagnostics/Prognostics
- 2008 ITS International – OEM perspective, "Media Interest" – IntelliDrive related
- 2007 Wards Auto World, Auto Electronics Executive Viewpoint, "Telematics Resurgence"
- 2007 IEEE Proceedings, Invited Paper, "Control, Computing and Communications: Technologies for the Twenty-First Century Model T"
- 2004 Convergence "The New Wireless Frontier: Home and Vehicle Connectivity"
- 2003-2010 Telematics Update Conference speaker, panel member and organizer of panels to include Digital Rights Management, Navigation and Device Connectivity related subjects
- 2000 Customer Quality Award for Navigator Navigation System Launch
- 2002-2005 International Wireless Packaging Consortium workshop sponsor and speaker
- 1998 Convergence, "Automotive obstacle detection systems: A survey of design requirements & vehicle integration issues"
- 1985 SAE Oral presentation Award for paper, "An Automotive Application of Surface Mounted Device Technology"

Training

- Ford Supervisory & Project Management
- Meetings that Work, Creative Problem Solving and Theory of Constraints
- Hatley-Pirbhai Real-Time Systems Engrg. Process
- Team Oriented Problem Solving and Speaking Skills
- University of Michigan Ergonomics Training – Designing Products for People
- Inferential Statistics
- Created a new University of Michigan-Dearborn Optical Technology course for Ford employees
- Created an audio technology course as in-house training for new multimedia employees (based on the Dave Clark audio listening and evaluation methodologies)
- Completed all required Ford Educational Training Program courses to include: System Engineering and Quality (Quality Function Deployment, Design Verification, Failure Effects Mode Analysis, etc.)
- College Recruiting (recruited at Univ. of Michigan and Wayne State for several years)
- SAE Patent Law for Engineers, Professional Development Program

Other Interests

Reading, travel, hunting, consumer electronic device, investing, tennis, racquetball and golf.

Strengths from 360 Degree Feedback and Performance Appraisals

- Participative management style
- Project Management
- Systems Engineering
- Strong cross-functional relationships with Purchasing, Marketing, Product and Technology Planning and Ford Customer Service Division (Vehicle Personalization and Diagnostics activities)
- Promote diversity, team-building and mentoring
- Innovation and knowledge of robust engineering practices.

References

References available and provided upon request

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