MANUFACTURING OUTLOOK

AUTONOMOUS VEHICLE TECHNOLOGIES

A tectonic shift for the supply chain

THURSDAY OCTOBER 20 2016
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SCHEDULE OF EVENTS

8:00AM—8:10AM  Opening commentary
Tom Alongi, national manufacturing and global automotive practice partner, UHY LLP

8:10AM—8:35AM  Michigan legislative update
Brianna Mills, strategic partnerships manager-government affairs and Delaney McKinley, director of HR policy and membership development; Michigan Manufacturers Association

8:35AM—9:00AM  Autonomous vehicle legal update: New frontiers; possible roadblocks
William Kohler, senior counsel, Dykema Gossett PLLC

9:00AM—9:25AM  Economic outlook
David Sowerby, CFA; Loomis, Sayles & Company

9:25AM—9:50AM  The new R&D tax credit: A game changer for manufacturers
Scott Earls, partner, UHY LLP

9:50AM—10:05AM  Refreshment break

10:05AM—10:35AM  The inevitable driverless car revolution
Dave Bernard, co-founder and CEO, The Intellection Group

10:35AM—11:05AM  Out in front: The valuation implications of emerging technologies
Panel discussion with Steve McCarty, managing director and Robert Kendall, senior vice president; UHY Corporate Finance and James Staargaard, president and CEO, Plasan Carbon Composites

11:05AM—11:35AM  The future of mobility: A venture capital perspective
Chris Thomas, founder and partner, Fontinalis

11:35AM—11:50AM  UHY Cares gives back: Read to a Child
Chris Thomas, chairman, Read to a Child
ATTENDEE CHECKLIST

✓ CPE materials

✓ Feedback
  • Tear out form in back of attendee booklet

✓ Questions

✓ Keep a look out for a post-event email
  • Download a copy of the presentation
  • Link to view the video

✓ Pre-register for 2017

✓ Get on our Manufacturing Insider mailing list
ABOUT OUR FIRM

LOCAL
• Nearly 50 years of experience
• Ranked 5th largest accounting firm in Southeast Michigan by Crain’s Detroit Business
• Over 330 employees in Detroit, Farmington Hills and Sterling Heights
• Largest accounting firm presence in Macomb County

NATIONAL
• 13 offices across the US
• PCAOB registered
• Most recent peer review resulted in a Pass opinion, the highest possible result

INTERNATIONAL
• Member firms in 320 business centers across 92 countries
• Over 7,600 professionals
• 16th largest international accounting and consultancy network
• Member of the Forum of Firms

OUR MANUFACTURING PRACTICE

• Our firm’s National Manufacturing Practice is led out of Michigan
• We pride ourselves on being a learning organization and strive to keep our clients and staff abreast of the evolving relevant industry topics through newsletters, news alerts and quarterly reports
• Aside from the annual Manufacturing Outlook, we host several other manufacturing-related training sessions for staff and technical seminars for clients throughout the year
• As acknowledged leaders in our field, we are regularly called upon to speak at conferences, generate articles, and advise on key issues surrounding the manufacturing industry
OUR MANUFACTURING PRACTICE

We combine the strength of business and financial expertise with a hands-on, “shop floor” approach to solving complex business decisions in key industry segments including:

- Aerospace and defense
- Automotive suppliers
- Consumer products
- Distribution
- Industrials

Nationally, we have more than 500 manufacturing client relationships.

MANUFACTURING SERVICE OFFERINGS

AUDIT & ASSURANCE
- Audits, reviews and compilations of financial statements
- Financial reporting assistance
- Attestation services including agreed-upon procedures reports and service auditor reports (SSAE16)
- Audits of financial statements of employee benefit plans
- Financial forecasts

MANAGEMENT & TECHNOLOGY CONSULTING
- Strategic business planning and implementation
- Business intelligence
- Performance management and continuous improvement
- Operations and supply chain optimization
- ERP implementation support
- Technology infrastructure

TAX PLANNING & COMPLIANCE
- Federal tax planning and compliance
- State and local taxation and incentives
- International tax strategy
- Business formation and entity structuring
- Transfer pricing
- Research and development credits
- Cost segregation
- LIFO analysis and computation
- IRS and state controversy representation
- Estate and succession planning

INTERNAL AUDIT, RISK & COMPLIANCE
- Cybersecurity
- Internal controls review and design
- Sarbanes-Oxley compliance
- Enterprise risk management

CORPORATE FINANCE
- Sell side and buy side advisory
- Financial and operational due diligence
- Business valuation
- Quality of earnings assessments
- Introduction to sources of capital
- Post-merger integration
- Financial modeling

OTHER ADVISORY
- Financial fraud examinations and investigations
- Commercial litigation and financial damage analysis
- Cash flow forecasting
- Resource solutions
- Emerging market and foreign partnerships
- Strategic supplier partnerships

TURNAROUND & RESTRUCTURING
- Crisis management
- Budget reviews
- Debt restructuring
## US LOCATIONS

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## GLOBAL NETWORK

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PRESENTATIONS
MANUFACTURING OUTLOOK

AUTONOMOUS VEHICLE TECHNOLOGIES
*A tectonic shift for the supply chain*

THURSDAY OCTOBER 20 2016

OPENING COMMENTARY

Thomas Alongi
National manufacturing and global automotive practice partner
UHY LLP

talongi@uhy-us.com
586 843 2581
WHO IS MMA?

The Michigan Manufacturers Association is:

- Nearly 2,000 member companies
- Michigan’s only statewide advocate dedicated to manufacturers
- Advocacy:
  - Protecting and improving through legislative representation
  - Reducing unnecessary regulations and bureaucracy
  - Speaking on the industry’s behalf in the court system
- Educational opportunities – events, information and networking
- Strategic partnerships across Michigan
ELECTION 2016

Ballot Proposals in 2016

• None gained the 252,523 signatures necessary
• But 12 approved by Board of Canvassers
• Issues of concern:
  - Mandatory paid leave
  - Ban on fracking
  - Double CIT
  - Legalize marijuana

ELECTION 2016

Michigan – House Election

• Currently large Republican majority 62 – 45 – 3
• Majority unless a Clinton landslide
• Incumbents – 66
• Open seats – 44
• Competitive seats – 15
ELECTION 2016

Michigan Supreme Court
Important for rule of law majority
• 2 open seats
• Republicans hold a 5 – 2 majority on the court
• If Republicans Justice David Viviano & Justice Joan Larsen, are defeated the balance will shift to a 4 – 3 Democratic majority
MICHIGAN LEGISLATIVE UPDATE

Michigan’s Economic Resurgence

• 450,000+ new private sector jobs since 2010
• #1 in job creation in Midwest
• Per capital personal income is up 4.1%,
• Nationally, #6 in job creation and #4 in personal income growth
• Unemployment has dropped to 4.5%, a 15 – year low
• Michigan’s economic health #2 in the nation

MICHIGAN LEGISLATIVE UPDATE

Michigan Manufacturing Drives the State

• 21.4% of Michigan’s gross state product
• Total manufacturing output nearly $83 billion
• Employs 602,500 people
  - Average MFG annual compensation 2014: $75,539
  - Average non farm business compensation: $47,290
• High economic multiplier effect
• Billions in investment
• 149,300 new jobs since January 2010
How did we get here?

- A fundamental shift in Michigan’s business climate
- Historic change in its regulatory environment
- Eliminating barriers to competitiveness on all fronts that impact manufacturers

MMA – Driven Legislative and Regulatory Change

- Elimination of industrial PPT: $576 million annual savings
- “Cost of service” energy rates: $100 million annual savings
- Millions in state funding dedicated to manufacturing training
MICHIGAN LEGISLATIVE UPDATE

MMA – Driven Legislative and Regulatory Change

• Workers’ Comp Reform: $390 million saved since 2011
• Unemployment Reform
• Self – Insurers’ Security Fund Stabilization
• Preempt Local Government Employment Mandates
• HICA Tax reduction: $82 Million Annual Savings
• Defense of Certificate of Need Process
• Blocking Health Care Mandates

MICHIGAN LEGISLATIVE UPDATE

MMA – Driven Legislative and Regulatory Change

• 2,015 Administrative Rules Eliminated
• Elimination of Michigan – only Mercury Rule
• Comprehensive Beneficial Reuse
• Electrician Apprentice Ratio
Looking Forward

- General Election November 8
- “Lame Duck” session
- New House for 2017 – 2018 Legislative session

Looking Forward

- Energy policy
  - Ensure reliability and affordability
  - Preserve 10% choice
  - Eliminating mandate programs
  - Letting resources stand on their own merits
Looking Forward

- Tax policy
  - Block “Dark Stores” legislation
    - Preserve your right to appeal your taxes
  - Competitive economic development incentives

- Environmental Policy
  - Part 201 Remediation Regulations
  - Proliferation of local requirements
Looking Forward

• Health Care Policy
  - Health Insurance Claims Assessment (HICA) tax
  - Specific Benefit Mandates
  - Pharmaceutical issues

• Talent
  - Funding for manufacturing training
  - Make existing programs work for manufacturers
Looking Forward

• Employer issues
  - Continued reform of unemployment
  - Paid leave
  - Medical marijuana/legalized marijuana
  - “Guns in the Trunk”

CONTACT INFORMATION

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New frontiers; possible roadblocks

William J. Kohler

Presentation Outline

• Credentials
• U.S. Department of Transportation/NHTSA
  – New Federal Automated Vehicles Policy
• Michigan Proposed Legislation
  – House Substitutes for Senate Bills 995, 996 and 997 and Senate Bill 998
  – MDOT Automated Vehicle-Related Technologies Partnership
• Questions and Answers
William J. Kohler is a senior counsel in Dykema’s Corporate Finance Practice Group. His practice is focused on the automotive industry where he served many years as general counsel at several automotive related companies covering domestic and international matters. Mr. Kohler is an authority on legal issues relating to autonomous and connected vehicles. His work in that area has involved investment transactions, technology development and licensing arrangements, and legislative and regulatory issues. He is the author of "Current Law and Potential Legal Issues Pertaining to Automated, Autonomous and Connected Vehicles," published in 2015 in the Santa Clara High Technology Law Journal.

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Publications

Santa Clara High Technology Law Journal

ARTICLES
- Funding Infrastructure: Making Smart Infrastructure
  Financeable
- A Framework for Deploying Co-Registration
  Programs and Models to Promote Technology
  Adoption
- Current Law and Potential  Legal Issues
  Pertaining to Autonomous, Autonomous
  and Connected Vehicles

2014 COMMENT CONTEST WINNER

Evolving Business and Legal Issues in Artificial Intelligence, Big Data and the Internet of Things

Texas CEO Magazine

Evolving Business and Legal Issues in Artificial Intelligence, Big Data and the Internet of Things
Autonomous and Connected Vehicle Practice

Dykema’s nationally recognized Autonomous and Connected Vehicle Team understands the complexities of advanced automotive technologies. Our lawyers are at the forefront of these emerging technologies, and are already helping clients navigate the difficult legal challenges and opportunities that automated vehicles present. The following is a summary of our capabilities and recent experiences involving the transformation of transportation.

• **Investments in Technology Providers**
  Dykema’s clients include investment firms and automotive companies making investments in, and acquiring, technology providers and mobility start-ups. In addition, the firm has advised technology providers on acquisition opportunities and strategies and automotive companies in making investments in mobility investment companies.

• **Technology Development Arrangements**
  As the pace of collaborations has accelerated, Dykema has assisted technology providers and up-stream incorporators on technology development arrangements involving joint development efforts, testing and integration. With clients in both the automotive and technology industries, our lawyers have a broad perspective and deep understanding of their businesses, which enhances their ability to complete transactional matters.
Autonomous and Connected Vehicle Practice

- **Product Liability**
  - Dykema has long been a leader in automotive product liability litigation defense, representing almost every major automotive manufacturer in individual cases and related class action litigation. Our lawyers also have deep experience in product liability prevention advice. From the very beginning of connected vehicle development, it was a team of Dykema lawyers who advised a major automotive industry consortium on product liability. Our lawyers not only represent industry members, but are also leaders of major legal associations, chairing national and international programs on automated and connected vehicle technologies. Dykema is the only national law firm to recently sponsor a major university symposium focused on liability risk reduction.

- **Legislative and Regulatory Development and Compliance**
  - Dykema’s regulatory experience with automated and connected vehicles extends back well over a decade and is a logical outgrowth of the firm’s long-standing regulatory experience with motor vehicle safety issues. Dykema has been closely involved, on behalf of clients, in the development of state-level autonomous vehicle legislation and the National Highway Traffic Safety Administration’s (NHTSA) rulemaking with respect to vehicle-to-vehicle (V2V) communications technology. The firm closely tracks and advises on the development of state and federal legislation and regulations pertaining to vehicle automation and connectivity. With respect to various types of emerging advanced driver assistance systems (ADAS) and automated vehicle systems, ranging from electronic stability control (ESC) to more recent innovations such as forward collision avoidance systems, we have assisted clients on all aspects of federal regulatory involvement, including rulemakings, compliance with any applicable Federal Motor Vehicle Safety Standards and NHTSA policy guidance. Our continuing regulatory work involving automated and connected vehicles includes representation of manufacturers of vehicles and equipment for both the passenger and commercial vehicle sectors.
Autonomous and Connected Vehicle Practice

• **Supply Chain Risk Management**
  As supply chains involving technology providers and sub-component suppliers have begun to develop, Dykema has advised clients with respect to supply chain risks that could impede continuity of supply when proprietary technology relating to autonomous and connected vehicles becomes inaccessible due to business failure. Though supply chain risk is not new, the degree of risk pertaining to proprietary technologies is growing with potentially disastrous results if not addressed strategically in applicable contracts.

• **Cybersecurity**
  Cybersecurity is a paramount challenge essential to the acceptance of advanced vehicle technologies that presents particularly significant legal risk. The firm’s lawyers have counseled vehicle manufacturers on measures to enhance cybersecurity and mitigate risks. Our lawyers are familiar with the planning and development of such systems, including identifying and allocating risk and liability based on interface and other physical or logical boundaries within vehicle systems.

• **Data Privacy**
  Dykema lawyers frequently advise clients on privacy obligations, including regarding cross-border data transfer. Involvement has included all stages from privacy impact assessments (PIA programs) to planning, executing and monitoring privacy programs like in-app consent, US-EU Privacy Shield, Standard Contractual Clauses and other measures. Several Dykema lawyers hold IAPP certifications for both the United States private sector (CIPP/US) and are certified in European privacy (CIPP/E).
  Also, starting in the mid-1990’s, Dykema began representing a consortium of major global automakers engaged with the U.S. Department of Transportation to perform various preliminary assessments of the feasibility of development and deployment of connected vehicle systems, both vehicle-to-vehicle (V2V) and vehicle to infrastructure (V2I).
Autonomous and Connected Vehicle Practice

• Insurance
  • Dykema is assisting insurance providers to understand and plan for the implications, issues and opportunities that will arise as automated vehicle are deployed.

• Artificial Intelligence
  • Dykema lawyers are thought leaders in the area of AI liability and current and potential regulatory schemes.

U.S. Department of Transportation/NHTSA

• The U.S. Department of Transportation (DOT) oversees NHTSA and hosts the Intelligent Transportation Systems Joint Program Office (ITS JPO).
• NHTSA was established and given limited powers by the Highway Safety Act of 1970.
• NHTSA’s essential function is to maximize highway safety.
• Mission: “to save lives, prevent injuries, and reduce economic costs due to road traffic crashes,” and as to “achiev[e] the highest standards of excellence in motor vehicle and highway safety.”
U.S. Department of Transportation/NHTSA

- **Powers:**
  - Establish vehicle safety standards for new motor vehicles and motor vehicle equipment.
  - Require the recall and remedy of vehicles and equipment that do not comply with standards.
  - Conduct investigations into safety defects.
  - Require the recall and remedy of motor vehicles and motor vehicle equipment determined to have a safety defect.

- NHTSA has announced its interest in regulating autonomous vehicles, as well as its willingness to advance and support the wide adoption of related technology.

- Possesses broad authority to regulate the design and use of future autonomous motor vehicles, including the power to preempt contrary state regulation.

---

U.S. Department of Transportation/NHTSA

- Generally, NHTSA/FMCSA safety regulations preempt any conflicting state regulation
  - States may issue supplemental regulations if not in conflict with federal standards
  - State regulations mainly focused on vehicle use (e.g., operator licensing and restrictions, safety inspections, vehicle registration)
U.S. Department of Transportation/NHTSA

- Federal Motor Carrier Safety Association (FMCSA)
  - Incorporation of NHTSA safety regulations plus specialized equipment regulations for commercial vehicles and operator requirements
  - Unlike NHTSA and passenger vehicles, FMCSA may regulate operation of vehicles through commercial driver regulations (e.g., hours of operation; substance abuse; cell phone restriction rule; video display prohibition)

NHTSA Enforcement – Emerging Technologies

- Fiat Chrysler voluntary recall 7/2015 – software adjustment to prevent remote manipulation
  - Traditional enforcement analysis will apply
  - Software in motor vehicles is “motor vehicle equipment”
  - Could include software outside vehicle that connects to and operates vehicle systems (further guidance to follow)
  - Cybersecurity (hacking) vulnerability – NHTSA defers assessment to future date
Preliminary Automation Policy Statement

http://www.nhtsa.gov/About+NHTSA/Press+Releases/U.S.+Department+of+Transportation+Releases+Policy+on+Automated+Vehicle+Development

Automated Vehicles Policy announced

Sept. 20: Industry leaders, experts in the field, state governments, the public, and safety advocates were consulted in developing the policy.

Read More

www.nhtsa.gov
New Federal Automated Vehicles Policy

• The U.S. Department of Transportation issued its Federal automated Vehicles Policy on September 20, 2016, pertaining to both highly automated vehicles and lesser-automated vehicles

• The policy was issued as agency guidance rather than rules, but it is likely going to be influential in shaping new state laws, acting as best practices for automated vehicle testing and development

• The policy also advises that NHTSA will investigate any safety concern associated with highly automated vehicles and exercise its enforcement authority to the fullest extent

• The policy is still in the 60-day period when stakeholders can comment on the policy

New Federal Automated Vehicles Policy
Safety Assessment Requirement

The policy states that the NHTSA will request voluntary Safety Assessments regarding the compliance of highly automated vehicles with each of the following 15 elements of guidance:

1. Data recording and sharing
2. Privacy
3. System safety
4. Vehicle cybersecurity
5. Human machine interference
6. Crashworthiness
7. Consumer education and training
8. Registration and certification
9. Post-crash behavior
10. Federal, state and local laws*
11. Ethical considerations
12. Operational design domain*
13. Object and event detection and response*
14. Fall back to minimal risk condition*
15. Validation methods

* These same elements of guidance will also apply to vehicles at the SAE Level 2, with the exception of those marked with an asterisk, and might be mandatory in the future.
New Federal Automated Vehicles Policy

New Automation Levels

- At SAE Level 0, the human driver does everything;
- At SAE Level 1, an automated system on the vehicle can *sometimes assist* the human driver conduct *some parts of* the driving task;
- At SAE Level 2, an automated system on the vehicle can *actually conduct* some parts of the driving task, while the human continues to monitor the driving environment and performs the rest of the driving task;
- At SAE Level 3, an automated system can both *actually conduct* some parts of the driving task and *monitor the driving environment in some instances*, but the human driver must be ready to take back control when the automated system requests;
- At SAE Level 4, an automated system can *conduct the driving task and monitor the driving environment*, and the human need not take back control, but the automated system can *operate only in certain environments and under certain conditions*; and
- At SAE Level 5, the automated system can *perform all driving tasks, under all conditions that a human driver could perform them*.

New Federal Automated Vehicles Policy

Safety Assessment Requirement

- For those highly automated vehicles already tested and deployed, Safety Assessments would be due within four months after the completion of the Paperwork Reduction Act process
- Those introduced during or after that process would be due four months before public testing begins
- New safety assessments would be required whenever significant updates are made to a vehicle
New Federal Automated Vehicles Policy
New and Existing NHTSA Powers

• The Agency identified four potential additional powers, each of which would require an amendment of the National Traffic and Motor Vehicle Safety Act:
  1. Pre-deployment approval process
  2. Cease and desist power in case of imminent hazard
  3. Expanded exemption authority
  4. Post-sale regulation of software changes

• The policy potentially deviates from its current self-certification regulatory structure by requiring pre-market approval

New Federal Automated Vehicles Policy
State Policy Recommendations

• The policy acknowledges respective federal and state regulatory responsibilities for motor vehicles and their operation

• The agency recommends a model regulatory framework (the “Model State Policy”) for states that wish to regulate procedures and conditions for testing, deployment and operations of highly automated vehicles
New Federal Automated Vehicles Policy
State Policy Recommendations

• The Model State Policy includes a requirement that manufacturers – broadly defined as OEM’s, alterers and modifiers – submit to a designated state agency an application for testing stating that the highly automated vehicle follows the policy’s 15 elements of guidance and complies with the Federal Motor Vehicle Safety Standards

• The policy recommends certain other requirements, such as testing only by trained persons designated by the manufacturer and reporting all crashes to the state

The Model State Policy contemplates a “jurisdictional automated safety technology committee” staffed with:

• Representatives of the governor’s office
• The motor vehicle administration
• The state’s department of transportation
• Law enforcement agency
• Highway safety office
• Office of information technology
• Insurance regulator
• The state’s offices representing the aging and disabled, toll authorities and transit authorities
Federal Policy

• The policy can be found in full at:

http://www.dykema.com/assets/htmldocuments/Federal_Automated_Vehicles_Policy.pdf

Michigan Proposed Legislation

• Michigan Senate approved historic autonomous vehicle legislation on September 7, 2016
• The legislation package is comprised of four bills: House Substitute for Senate bills 995, 996 and 997 and Senate bill 998
• The bills permit driverless vehicles on Michigan roads
• The bills are currently in the Michigan House of Representatives awaiting a floor vote
Michigan Proposed Legislation: House Substitute for Senate Bill 995

• Permits:
  – the operation of individual automated motor vehicles (“AMV’s”)
  – platoons of electronically coordinated vehicles
  – “on-demand automated motor vehicle networks” on Michigan roads

• Immunizes a “manufacturer of automated technology” or an “automated driving system” against civil liability for damages arising from modifications without the manufacturer’s consent

• Specifies that an AMV’s automated driving system would be considered the driver or operator of a driverless vehicle for purposes of determining compliance with traffic and motor vehicle laws
Michigan Proposed Legislation:
House Substitute for Senate Bills 996 and 997 and Senate Bill 998

- **996**
  - Permits self-certifying vehicle manufacturers to deploy “SAVE projects,” which are on-demand automated motor vehicle networks within certain types of geographical areas (e.g. municipal and regional authority areas, university campuses, senior citizen developments)

- **997**
  - Excludes roads within a mobility research center from Michigan Vehicle Code provisions applicable to private roads open to the general public (e.g. the planned American Center for Mobility in Ypsilanti, Michigan)

- **998**
  - Limits the civil liability of motor vehicle mechanics or motor vehicle repair facilities that repair an AMV

Michigan Proposed Legislation:
Insurance and Liability Provisions in 995 and 997

- **Insurance Requirements**
  - A motor vehicle manufacturer has to have insurance, surety bond or self-insurance in the amount of at least $10,000,000.00

- **Liability**
  - The automated driving system, when engaged and allowing for operation without a human operator, is considered the driver or operator of the vehicle for purposes of determining conformance to any applicable traffic or motor vehicle laws
  - “A manufacturer of automated driving technology, an automated driving system, or a motor vehicle is immune from liability that arises out of any modification made to a motor vehicle, an automated motor vehicle, an automated driving system, or automated driving technology by another person without the manufacturer’s consent, as provided in section 2949B of the Revised Judicature Act of 1961 . . . ."

- Insurance Requirements
  - A motor vehicle manufacturer must insure each vehicle in a participating fleet
- Liability
  - “For each SAVE project in which it participates, during the time that an automated driving system is in control of a vehicle in the participating fleet, a motor vehicle manufacturer shall assume liability for each incident in which the automated driving system is at fault, subject to Chapter 31 of the Insurance Code of 1965...”


- Liability
  - “A motor vehicle mechanic or a motor vehicle repair facility that repairs an automated motor vehicle according to specifications from the manufacturer of the automated motor vehicle is not liable in a product liability action for damages resulting from the repairs.”
MDOT Automated Vehicle-Related Technologies Partnership

• In August of 2016, the Michigan Department of Transportation ("MDOT") released a Request for Partnership seeking potential partners interested in working with the MDOT and 3M to test connected and automated vehicle technology
• MDOT and 3M intend to use the I-75 construction project to offer a real-life opportunity, on local and freeway networks, to test the communications and the interactions between two or more vehicles and between a vehicle and the surrounding infrastructure

MDOT Automated Vehicle-Related Technologies Partnership

• MDOT specifically expressed interest in technologies related to the roadways, construction or traffic signs and traffic barrels or barriers that would communicate and interact directly with the vehicle
• The project seeks to improve the mobility of motorists and reduce the number of traffic fatalities through the implementation of automated and connected vehicle technologies
Conclusion

• NHTSA is increasing its authority in the area of AMV’s by publishing new guidelines, and it welcomes comments from stakeholders to be submitted by November 22, 2016
• The State of Michigan is embracing AMV’s by proposing legislation that would permit the operation of AMV’s on Michigan roadways and by initiating partnership projects between private entities and MDOT

http://www.dykema.com/services-industries-autonomous-and-connected-vehicle-team.html
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THE “NEW” R&D TAX CREDIT: A GAME-CHANGER FOR MANUFACTURERS

Scott Earls
Partner
UHY LLP

WHAT ARE THE BIG CHANGES AHEAD FOR THE R&D TAX CREDIT?

• It’s Finally Permanent!
• The PATH Act Retroactively Restored 2015 and Permanently Extended The R&D Credit
• Eligible Small Businesses Can Offset AMT Starting in 2016
• Start-Up Small Business Can Apply R&D Credit Against Payroll Tax in 2016
WHY HAVE AN R&D CREDIT?

- Enacted in 1981, the Research and Development (R&D) tax credit of IRC §41 was a temporary credit for 34 years. Extended 17 times
- Why have it?
  - Congress perceived that research spending declines had adversely affected the Country's economic growth, productivity gains, and competitiveness globally
  - American Automakers (worried about them)
  - Helps level the playing field between U.S. business and foreign competition
  - It wasn’t enough to just maintain annual R&D Spending levels - they needed to increase each year

WHAT’S THE R&D TAX CREDIT REALLY WORTH?

- Three types of expenses qualify
  - Wages
  - Supplies
  - Contract research
- These expenses are already taken on the front page of the tax return
- Think of it as putting these into a pool of expenses
- The R&D credit is around 7% of this pool
- It’s like a cash rebate for your R&D spend
CONSIDERATIONS...

• Are you making a profit?
• Is AMT an issue? If not, what is the spread?
• This will change for 2016 – more on this later
• Are there a lot of NOLs?
• Should you consider prior years?
• Audit concerns
• Number of shareholders impacted by amended returns
• Add Back on amended return if 280C election not taken
• Are the Shareholders Active or Passive?

IRS DEFINITION OF R&D

In the eyes of the Internal Revenue Service:

R&D begins at concept inception and ends at implementation or commercial production.
THE FOUR-PART TEST

Under IRC §174, to qualify for the R&D credit, activities must:

• Be technological in nature. Relies on physical science, biological science, engineering or computer science.

• Have a permitted purpose. Relates to a new or improved business component’s function, performance, reliability, quality or price.

• Include a process of experimentation. Involves evaluation of alternatives, confirmation through evaluation, testing, modeling or refining or discarding of hypotheses.

• Eliminate uncertainty. Involves identification of uncertainty at the onset of the project or activity. This may relate to production method, product capability, appropriate design or application of product.

NEW OR IMPROVED BUSINESS COMPONENT

• Business component is a:
  - Product or process
  - Computer software
  - Formula, technique, or invention

• Activity must relate to a new or improved aspect of the business component

• Improvements may be evolutionary in nature
WHAT DOES NOT QUALIFY FOR CREDIT?

Statutorily – Excluded Activities IRC Sec. 41(d)(4)
- Related to style, taste, cosmetic or seasonal factors
- Relies on social science, arts or humanities
- Research conducted after beginning of production
- Conducted outside the U.S.
- Reverse engineering
- Market research, management surveys, etc.
- Routine data collection and ordinary quality control

SO THE R&D CREDIT ISN’T ONLY FOR BIG BUSINESS?

There are two major misunderstandings about the R&D Credit.
1. It’s only for companies with labs doing scientific research
2. It’s only for large companies

Neither of these is true. Less than 1 in 20 small businesses takes the credit. In fact, 80 percent of the R&D tax credits go to companies with receipts of more than $250 million. About 7 percent of the credits go to companies with less than $5 million in receipts. This is due largely to lack of awareness.

Don’t leave money on the table.

The federal R&D tax credit benefits all businesses that qualify, large and small.
WHO TAKES THE R&D CREDIT?

Any business with qualifying activities

- Aerospace
- Agriculture
- Architecture
- Automotive
- Banking
- Chemical
- Commercial Contractors
- Computer Hardware
- Electronics
- Energy
- Engineering
- Fabrication
- Food & Drink
- Injection Molding
- Insurance
- Manufacturing
- Medical
- Oil & Gas
- Packaging
- Pharmaceuticals
- Plastics
- Robotics
- Software
- Telecommunications
- Tool & Die
- Any business with qualifying activities

WHAT ARE QUALIFYING R&D ACTIVITIES?

- Developing new or improved products, processes or formulas
- Developing prototypes or models
- Developing or applying for patents
- Developing new technology
- Developing or improving software technologies
- Developing, implementing or upgrading systems
- Designing tools, jigs, molds or dies
- Engineering
- Certification testing
- Environmental testing
- Trying new or different raw materials
- Preparation of RFP quote
- Equipment maintenance or modification
HOW MUCH OF MY TIME WILL THIS TAKE?

- Initial phone call is about an hour
- Site visit, team discussions, and fact finding vary depending on:
  - Size of organization
  - Number of locations
  - Scope of study
  - Number of years involved
- Smaller studies may require 1 – 4 hours
- Larger companies could be a full day or longer
- R&D questionnaires average an hour per project

HOW WILL START-UPS BENEFIT FROM NEW LAW?

- Many small businesses are S-Corps limited by AMT
- Start-ups are often the most innovative, but are not profitable yet
- No Profit = No Income Taxes
- The PATH Act will open the credit up to more small businesses for these reasons
OFFSETS PAYROLL TAXES FOR START-UPS BEGINNING WITH 2016 TAX YEAR

For a small business or individual to qualify as a start-up, one must:
• Have gross receipts of less than $5 million and
• Not have had gross receipts above $5 million for any tax year preceding the 5-tax-year period ending with the tax year
• Meet the requirements above, taking into account the aggregate gross receipts received by the individual in carrying on all trades or businesses

WHAT’S THIS WORTH?

Equal to the lesser of:
• Current Year Payroll Taxes (capped at $250,000)
• Current Year Research Credit
• Applied against employer’s OASDI (social security tax excluding Medicare)
• Annual election can be made for 5 years
The mechanics to it haven’t been published yet.
ELIGIBLE SMALL BUSINESSES QUALIFY FOR AMT OFFSET IN 2016

Eligible Small Businesses can offset AMT liability with R&D credits

Eligible Small Business (ESB) is:
1. A corporation the stock of which is not publicly traded
2. A partnership, or
3. A sole proprietorship
4. Three-year average annual gross receipts do not exceed $50 million

WHAT NEW INDUSTRIES TAKE THE CREDIT?

• We’re seeing lots of activity in software development.
• Software development’s been going on for years. But a lot has changed in the industry, and, therefore in the R&D credit world.
• Mobile apps, web-based software and programs, online gaming – let’s take a look at software.
INTERNAL USE SOFTWARE

To qualify for the R&D Credit, Development of Internal Use Software has a higher threshold than other activities. In addition to meeting the Four-Part Test, it must meet the Three-Part Test below:

• Be innovative in nature
• Involve significant economic risk
  - Substantial uncertainty as to what is required and how to do it
  - Devote substantial resources to the development
• Not be commercially available
  - Results in reduction in cost, improvement in speed or other measurable improvement if development is or would have been successful

SOFTWARE THAT MEETS R&D FOUR-PART TEST

• Developed for sale, lease or license
• Used in R&D
• Developed as part of hardware/software product
• Developed for mobile apps
• Enables third party interaction
  - Financial transactions
  - Tracking of delivery/shipments
  - Inventory search
  - Cloud computing
  - Purchase of goods and services
QUALIFIED RESEARCH EXPENDITURES

• Three components make up the R&D calculation. They are called QRES or Qualified Research Expenditures. Which expenses fall within the IRS definition of qualified research?

WAGES

• Box 1, W-2 Wages
  - This includes all the wages of personnel who are directly involved in, supervise or support research and development efforts.

• There is an 80% rule in effect
  - If 80% or more of an individual's time is spent working in R&D, then 100% of their wages are counted as qualifying.
  - If less than 80%, the actual percentage is multiplied by the salary and allocated.
SUPPLIES

• These are non-capitalized materials and supplies
• They include costs for tangible, personal property used in qualified research

Examples are:
• Prototypes
• Tools
• Dies and Molds
• Travel expenses don’t count

CONTRACT RESEARCH

• Research performed by a third party on behalf of the taxpayer.
• Qualified R&D contract research is multiplied by 65% or 75% if performed by a University or consortium.
CAN I CLAIM R&D CREDITS FOR PRIOR TAX YEARS?

• Yes!
  - If your tax year is still open, you can choose to go back up to three years to claim prior credits.
  - In addition, you will want to determine the AMT (Alternative Minimum Tax) limitations which may affect decisions about what prior credit years to pursue. No longer an issue for 2016 tax year forward.

• Can’t use all of your credits up?
  - You can carry back one year, and carry forward for twenty years.

FINAL NOTES

• The R&D tax credit represents a valuable tax savings opportunity
• Look beyond the obvious for potential qualified candidates
• Determine whether or not there’s a benefit in the current year
• Identify which calculation method provides greatest benefit
• Explore all possible qualified activities
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REFRESHMENT BREAK

We will reconvene in 15 minutes
THE INEVITABLE DRIVERLESS CAR REVOLUTION

Dave Bernard
Co-founder and CEO
The Intellection Group, Inc.

HELPFUL APHORISMS

Any sufficiently advanced technology is indistinguishable from magic.  -Arthur C. Clarke

Convenience trumps everything.  -Dave Bernard
WHAT IS AN AUTONOMOUS CAR?

Vehicle Automation
National Highway Traffic Safety Administration

- Level 0 – No Automation
- Level 1 – Function Specific Automation
- Level 2 – Combined Function
- Level 3 – Limited Self-Driving Automation
- Level 4 – Full Self-Driving Automation

We are seeing level 2 in production. However, it remains to be fully understood how “we” will use these systems.

Ann and Eddie’s Excellent Cross-Country Autosteer Electric Adventure

Objective: Attend wedding in Florida and Reunion in Ohio one week apart by car, rather than fly
Departed Yorba Linda, CA 25SEP15 in 2014 Tesla Model S, license plate: BLUE ZAP
Arrived Ponte Vedra Beach, FL 1OCT15 – 2,650 miles, believe this to be first cross-country trip on Autosteer
Returned Yorba Linda, CA 23OCT15 – Total 7,855 miles, over 95% Autosteer usage on entire trip.

235 mile diversion
leg to West Des Moines...and 120 VAC recharge

240 mile diversion leg to New Orleans for beignets
at Café Du Monde!
THE “BUG” IS IN THE SEAT

REDEFINING TRANSPORTATION
MACRO TRENDS

Brooklyn Monthly Taxi Pickups
trailing 28 days, based on NYC TLC trip data

Uber
Green Taxi
Lyft
Yellow Taxi
A REDEFINED AUTO INDUSTRY

*The auto industry will change more in the next 5 years than in the last 50.* -Mary Barra, CEO, GM

- Silicon Valley is forcing the issue.
- Automotive companies are going to become the handset makers.
- It will be a core competency to have the most intelligent car.

REQUIRES A NEW VOCABULARY

Human Augmentation
The Internet of Cars
A Smartphone-on-Wheels
A Drivable, Connected Computer
A Robot or Drone

It’s Software-Driven!
Wise men learn from the mistakes of others; only fools learn from their own.
Figure 1: The Internet of Things is connecting homes, cars, people, organizations and even entire cities.

- **Connected Home**
  - Safety & Security
  - Domotics & Entertainment
  - Energy Efficiency

- **Connected Car**
  - Safety & Security
  - Convenience
  - Live Navigation
  - Infotainment

- **Connected Government**
  - Connected Public Admin.
  - e-Government
  - Connected
  - Civil Protection

- **Connected Health**
  - Care-eHealth
  - Health Monitoring
  - and Prevention
  - Wellness

- **Connected City**
  - Smart Meters
  - Smart Traffic
  - Connected Community

- **Connected Enterprise**
  - Real-time Analytics
  - Connected Workforce
  - Smart Processes
  - Robotics
## SENSOR DISRUPTION

![Image of a house](image)

## TESLA ALREADY SUCCEEDING

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<th>2015 Sales</th>
<th>2014 Sales</th>
<th>% Change</th>
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<tbody>
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<td>8133</td>
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</tr>
<tr>
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<tr>
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<tr>
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<tr>
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<tr>
<td><strong>Total</strong></td>
<td><strong>100562</strong></td>
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<td><strong>-1.21%</strong></td>
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ELECTRIC CAR DOMINATION

ELECTRIC GRID DISRUPTION

TESLA GIGAFACTORY

50 GWh in annual battery production by 2020
Enough for 500,000 Tesla cars
Powered by renewable energy
Net zero energy factory
Predicting the Big Crash
The amount of oil displaced by electric cars depends on when vehicle sales take off. Here are three scenarios for rising EV sales.

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</table>

If growth continues at current rates, oil displacement would reach 2 million barrels per day—the size of the current glut—as early as 2023.

Source: Data compiled by Bloomberg

THEY ARE INEVITABLE

2005

2014
MARKET CAP (BILLIONS)

Auto
- Ferrari
- Porsche
- Volvo
- Audi
- Hyundai
- Nissan
- GM
- Ford
- Honda
- Mercedes
- Toyota
- Lyft
- Tesla
- Uber
- Baidu
- Samsung
- Facebook
- Google
- Apple

Tech

# Of Deals Into Auto Tech By Geography

- California
- International
- Washington
- New York
- Massachusetts
- South Carolina
- Virginia
- Nevada
- South Australia
- Georgia
- Tennessee

Source: CB Insights
TALENT WAR

Star Search
Electric- and autonomous-vehicle startups are siphoning workers with technology skills from established auto makers.

Established car makers
100,000 employed

Note: Employment figures include global white-collar workers or GM and Ford and excludes lending divisions; figures for Tesla and start-ups include all employees.
Source: the companies

THE WALL STREET JOURNAL.

OPEN SOURCE APPROACH
WHAT TO DO?

- Prepare for uncertainty
- Leverage partnerships, especially non-traditional ones
- Drive transformational change
- Reshape the value proposition

INDUSTRY DISRUPTION
MACRO TRENDS

Fantastic acceleration and maturation of

- Robotics
- Machine learning
- Artificial vision
- General sensor tech
- IoT
- Biometrics
- Intelligent agents
- Neural networks

MACRO TRENDS

- What will people do with their freed up time?
  - Buy stuff
  - Build companies
  - Entertain themselves
- Convenience trumps everything!
- People will easily trust (or come to trust) machines more than people.
MACRO TRENDS

• Cheap supply chain mobility
• Small businesses with relatively high vehicle ownership and maintenance costs will benefit
• For subcontractors, transportation costs will shift from individuals to companies (no more mileage reimbursement)
• This will feed the On-Demand Economy, and encourage the rise of a Contractor-Based Economy

EXAMPLES

• Vehicle types based on function, rather than style
  - “Soccer mom” solution
  - School buses
  - Specialized work trucks
  - Pizza delivery (who needs a person?)
  - 10 drones in a pickup idea
  - Moving pets around (specialized vehicle)
  - Specialized emergency response vehicles
  - Drivable offices: Doctor does telemedicine in the car while driving between house calls.
  - Military uses (but, terrorism use, too)
**EXAMPLES**

- Web retailers are increasingly competing on speed of delivery (Amazon, e.g.)
- Retail parking might disappear (more showrooming and drive-thru’s)
- Employee benefit: unlimited Uber
- Vacation/Travel
- Parking real estate and car dealerships may be repurposed as automated recharging and maintenance facilities
- Planes...

**WHEN?**
CONTACT INFORMATION

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Co-founder and CEO
The Intellection Group

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404 966 1099
www.LinkedIn.com/in/davebernard
OUT IN FRONT: THE VALUATION IMPLICATIONS OF EMERGING TECHNOLOGIES

Steve McCarty
Managing director, UHY Corporate Finance

Robert Kendall
Senior vice president, UHY Corporate Finance

James Staargaard
President and CEO, Plasan Carbon Composites

IN DETROIT???
KEY SAFETY SYSTEMS

February 3, 2016

China's Joyson to buy Key Safety Systems in $920 million deal

Dustin Walsh
Crain's Detroit Business

Automotive airbag and seat belt supplier Key Safety Systems Inc. has agreed to be acquired by Chinese auto conglomerate Ningbo Joyson Electronic Corp. in a $920 million deal. The agreement, announced Feb. 2, will create a combined supplier generating revenue of approximately $3 billion worldwide, Key Safety said in a news release.
The transaction closed on June 2, 2016.
Key Safety will operate as an independent subsidiary headquartered near Detroit in Sterling Heights, Mich., and its CEO Jason Luo will continue to lead the company under Joyson, the release said.
Joyson also owns injection molder Preh GmbH, a Bad Neustadt, Germany-based company that specializes in interior parts that integrate electronics.
Key Safety employs 12,000 worldwide. It uses plastics in components and housings for both seat belts and airbags.

THE PASLIN COMPANY

March 24, 2016

Warren-based Paslin Company acquired by China's Wanfeng

Warren-based Paslin Co. has been acquired by China robotics Technology manufacturer Zhejiang Wanfeng Development Co.
Terms of the deal, which closed Wednesday, were not disclosed.
Paslin management, including CEO Kirk Goins, will remain with the company.
The deal is expected to provide an influx of capital to Paslin, an assembly line robotics manufacturer, to expand
THERE GOES KUKA

May 18, 2016

China’s Midea Offers $5 Billion for German Robot Maker Kuka

Bid aims to help satisfy Beijing’s ambitions to become high-end manufacturing power

Chinese home-appliance maker Midea Group launched a $5-billion-plus bid for German robotics specialist Kuka AG, in the latest instance of global Chinese dealmaking and a move targeting technology crucial for the country’s ambitions to become a high-end manufacturing powerhouse.

Midea said Wednesday it wants to keep the company listed and doesn’t plan a complete takeover. But by saying Wednesday it was seeking a stake of more than 30%, it is required to make an offer for all outstanding shares. In terms of potential size, any deal would be a relatively modest foray amid a number of bigger deals globally by Chinese would-be buyers. In February, for example, China National Chemical Corp. agreed to buy Swiss seed and chemical company Syngenta AG for $43 billion.

AND NOW CSP...

September 19, 2016

Teijin Acquires Continental Structural Plastics for $825 Million

Teijin Limited has agreed to acquire Continental Structural Plastics Holdings Corporation (CSP), based in Auburn Hills, Mich., for $825 million. Under the terms of the agreement, CSP will become a wholly owned subsidiary of Teijin. The company said that it made the acquisition with the hope of establishing a foundation for an automotive composite products business in North America.

“Through this transaction, Teijin aims to become an automotive solution provider by expanding its offerings beyond carbon fiber and glass fiber materials, in collaboration with other materials manufacturers,” the company said in a September 13 press release. “Teijin intends to expand its product portfolio from materials to component design, implement a global supply chain and help achieve vehicle weight reductions in order to comply with tighter environmental regulations being introduced after 2020.”
WHAT WILL HAPPEN NEXT?

THE SUSPENSE IS KILLING ME

OR ARE YOU FEELING MORE LIKE...

WHY IS THIS

HAPPENING TO ME
A PARADIGM SHIFT TO TECHNOLOGY

Plasan Carbon Composites (PCC) is the leading provider of Automotive Carbon Fiber components in North America

- 80% owned subsidiary of Plasan SASA
- International leader in Ballistic Armor & Survivability

TORAY

- 20% owned subsidiary of Toray
- Global carbon fiber supplier and material manufacturer with operations in Japan, Europe and the United States
PCC NORTH AMERICAN OPERATIONS

Manufacturing
- 260,000 square foot manufacturing facility
- Higher-volume production through new manufacturing methods
- 30,000 to 50,000 vehicle production capacity
- Shipping 400+ assemblies per day

Customer Development Center
- 24,000 square foot facility
- 11,000 square feet of manufacturing space
- Scale-up facility for new technology
- Full scale pilot line

UHY REPRESENTATIVE TRANSACTIONS

- Garden Fresh Salsa Company has been sold to Campbell Soup Company
- Proper Group International has recapitalized with PineBridge Investments
- KS Holdings has acquired KS Center Line Holdings, LLC
- The Paslin Company has been sold to Tower Three Partners
- Sur-Flo Plastics & Engineering has been sold to Crowne Group
- Smith Bros. Tool has been sold to Peninsula Capital Partners
- General Hydroponics has been sold to Scotts Miracle-Gro
- Vermicrop Organics has been sold to Scotts Miracle-Gro
- Gentz Industries has been sold to MB Aerospace
- Novo Motor Acoustic Systems has been sold to 3P Equity Partners
- College Park Industries, Inc. has acquired Liberating Technologies, Inc.
- BillHighway has been sold to BluePay Holdings
- BluePay Holdings
OUR SESSION PANEL

Jim Staargaard
President and CEO
Plasan Carbon Composites

Bob Kendall
Senior Vice President
UHY Corporate Finance
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The Future of Mobility
A Venture Capital Perspective

Chris Thomas
Founder & Partner
The Opportunity

“When America began moving west, we didn’t add more wagons; we built railroads. When we needed to connect our country after World War II, we didn’t add more two-lane roads; we built the interstate highway system.

Today we need that same leap in thinking for us to create a viable future.”

Bill Ford
Fontinalis Founding Partner and Executive Chairman of Ford Motor Company
TED Conference

What is Next-Generation Mobility?

Next-Generation Mobility:

*The superior movement of goods, people, and services across all modes that is brought about by new technology solutions*

<table>
<thead>
<tr>
<th>Definition Conveys Four Key Themes</th>
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<tbody>
<tr>
<td>1) Efficiency</td>
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<tr>
<td>2) Movement of goods, people, and services</td>
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<tr>
<td>3) All modes of transportation / multi-modal</td>
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<td>4) Enabled by new technology</td>
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</tbody>
</table>
Technology is Enabling New Mobility Trends

Transition from Transportation to Mobility enabled by:

**New Technologies**

**Emerging Trends**

Transportation Challenges Are Immense

- Traffic
- Unpredictable Travel Times
- Limited Connectivity
- Supply Chain Inefficiencies
- Disconnected Systems
- Stressful and Frustrating Experience
- Legacy Infrastructure
... And Further Impacted by Demographic Trends

<table>
<thead>
<tr>
<th>Global Population (billions)</th>
<th>Urbanization Rate (%)</th>
<th>Global Vehicle Population (billions)</th>
<th>Annual Cost of Commuter Delays (billions, inflation-adjusted)</th>
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<tbody>
<tr>
<td>76</td>
<td>7.4%</td>
<td>2.3</td>
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<td>2016</td>
<td>76%</td>
<td>2017</td>
<td>2020</td>
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<td>2020</td>
<td>35%</td>
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<td>2050</td>
<td>52%</td>
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There is a 71% gap between capital available and capital needed in the U.S.

Capital to Improve System $75 billion
Capital to Maintain Current Conditions $119 billion
Constant Revenue $75 billion

Global Gridlock

From Transportation to Systemic Mobility

Transportation

- Siloed and disconnected modes
- Inefficient traffic flows
- Limited use of technology
- Focused on powering individual units

Systemic Mobility

- Constant connectivity
- Optimized movement
- Flexible based on payment, mode, and time preferences
- Fundamental awareness of how urban centers move
Building an Autonomous Ecosystem

From the first mile... ...to the last mile

And everything in between

What sectors will mobility affect next?

Mobility is at the Intersection of Mega-Markets

- Small changes in behavior translate to massive commercial opportunities
- Strategic partners can propel growth in hard-to-navigate industries
- Innovative mobility solutions have global relevance and potential
### Investing in the Future of Mobility

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<th>Efficiency</th>
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Contact Information

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Founder and partner  
Fontinalis Partners

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313 432 2185
UHY CARES GIVES BACK: READ TO A CHILD

Chris Thomas
Chairman
Read to a child

CONTACT INFORMATION

Chris Thomas
Chairman
Read to a child

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313 432 2185
ATTENDEE CHECKLIST

✓ CPE materials

✓ Feedback
  • Tear out form in back of attendee booklet

✓ Questions

✓ Keep a look out for a post-event email
  • Download a copy of the presentation
  • Link to view the video

✓ Pre-register for 2017

✓ Get on our Manufacturing Insider mailing list

CONCLUDING THOUGHTS

Thank you!
Read to a Child® is a national nonprofit that increases children's success in reading and in life by inspiring caring adults to read aloud to them regularly. The organization envisions a future in which all children are read to, improving their chances of becoming healthy, productive members of society.

LUNCHTIME READING PROGRAM

Read to a Child’s flagship lunchtime reading program matches a business professional with an elementary school student for a rewarding, read aloud experience during the child’s lunch break. The simple act of reading aloud to a child once a week can have a profound impact on his or her future and offers the adult a convenient and meaningful way to give back.

We partner with more than 100 socially-minded companies who fund our efforts and provide the vast majority of our more than 1400 volunteer readers nationwide. These caring adults provide structured one-on-one reading time for struggling children. Currently, Read to a Child’s lunchtime reading program reaches children in Boston, Detroit, Connecticut, Los Angeles, and South Florida with plans for further expansion.

THE NEED

Nationwide, 80% of 4th graders from low-income families are not proficient in reading, according to the 2013 Annie E. Casey Foundation report, *EARLY WARNING! Why Reading by the End of Third Grade Matters*.

Why is this reading situation an urgent matter? “Surveys of adolescents and young adults with criminal records indicate that at least half have reading difficulties, and in some states the size of prisons a decade in the future is predicted by fourth-grade reading failure rates,” according to Dr. G. Reid Lyon, Chief of Child Development and Behavior at the National Institute of Health.

THE SOLUTION

Read to a Child is committed to being part of the solution by expanding opportunities for underserved children who have limited access to reading role models. Read to a Child provides a straightforward mechanism for citizens to become engaged in educational outcomes for students, increasing children's prospects for becoming healthy, productive members of society.
Read to a Child invites you to participate in the
Lunchtime Reading Program

WHAT IS READ TO A CHILD? Read to a Child is a national nonprofit literacy and mentoring organization that inspires caring adults to read aloud regularly to at-risk children to create better opportunities for the child’s future. Research shows that reading aloud to children is the single most important activity for eventual success in reading, a key factor for success in school, work, and life. When an adult reads aloud to a child, both parties have a joyful, rewarding experience that instills a love of reading, improves literacy skills, and enhances a child’s self-confidence. Read to a Child’s Lunchtime Reading Program utilizes 1,500 volunteer mentors from more than 100 socially-minded organizations who read one-on-one to nearly 1,200 at-risk elementary school students in greater Boston, Connecticut, Detroit, Los Angeles, and Miami.

WHEN DOES THE PROGRAM TAKE PLACE? WHAT IS THE TIME COMMITMENT? Mentors attend reading sessions with their student once a week or every other week beginning in October until late May.

HOW ARE THE CHILDREN SELECTED FOR THE PROGRAM? Teachers select specific students to participate in the Lunchtime Reading Program because they are 1) behind their age group in reading proficiency; 2) would benefit from the attention of a caring adult; 3) and/or are not read to at home.

I’VE NEVER BEEN A READING MENTOR. WILL I RECEIVE ANY TRAINING? Yes. All volunteers will attend an information and training session prior to beginning the program.

I’M REALLY BUSY AND TRAVEL FOR MY JOB. HOW CAN I PARTICIPATE? The lunchtime reading program is a flexible and convenient program that allows busy professionals to volunteer as mentors and miss little or no time from work. You can pair up with a colleague to be matched with one student. You and your colleague can then alternate, with each of you attending reading sessions for 30 minutes every other week for a total of 12-15 weeks in a school year.

ONCE I JOIN THE PROGRAM, WHAT DO I DO IF I HAVE A QUESTION OR CAN’T MAKE IT TO MY SCHEDULED READING SESSION FOR THE WEEK? The Lunchtime Reading Program is well-managed by a School Coordinator staffed at each site who maintains a 24 hour voicemail line. If you have questions, or cannot make it to your reading session you can call the School Coordinator to notify them or reschedule your session for another day that week.

I’M INTERESTED, HOW CAN I LEARN MORE? For an application link, background check form, and training schedule, contact Ky Lindberg at Ky.Lindberg@readtoachild.org or 248.508.2770. Learn more at www.readtoachild.org/detroit.
THOMAS V. ALONGI

Tom is a leader of the Audit and Assurance Department, where he has been advising both public and private clients in regards to their finances and operations for nearly 20 years. His extensive background in costing separates him from the typical auditor. Tom is the leader of the firm’s National Manufacturing Practice. He is also a member of the National Transaction Services Group, where he performs financial and operational due diligence, and has led a significant number of transactions over the past several years.

PROFESSIONAL EXPERIENCE:

• Primary focus on companies looking to maximize shareholder value through acquisitions, profit enhancement, restructuring, and ultimately exiting their investment
• Lead partner overseeing audits of public and private companies
• Experience extending from deal negotiation to implementation of post transaction strategic planning
• Provides consultation, evaluation and implementation of part and product line costing models
• Developed and implemented computer costing models that enable companies to better understand their cost structure and price their products for profitability
• Responsibilities include all stages of the costing process starting with an in depth understanding of operational and financial issues followed by a recommendations report and business model for improving the bottom line
• Special interests include strategic cost management and special consulting engagements; product and part profitability, business profitability modeling, and cash flow forecasting

BACKGROUND:

• Licensed CPA in the state of Michigan
• Licensed CMA (Certified Management Accountant)
• Provisional Lead Assessor Certification from EXCEL Partnership
• Joined the firm in 1995
• B.S. in Accounting, Walsh College

THOUGHT LEADERSHIP:

• Host and Chairperson, UHY LLP Annual Manufacturing Outlook
• Co-Chairperson, UHY LLP Annual Accounting and Business Conference
• Executive Editor and Contributor, UHY LLP Manufacturing Insider Quarterly Newsletter
• “Advisory Boards and Corporate Governance” UHY LLP 2015 Accounting and Business Conference
• “Tax and Accounting Workshop”, ICLE First Annual Entrepreneurial Law Institute Conference, 2015
• “Racing To Gain A Competitive Edge”, UHY LLP Manufacturing Outlook 2014, November 2013
• “Succession Planning”, UHY LLP 2012 Accounting and Regulatory Update
• “What’s Driving American Manufacturing?”, UHY LLP Manufacturing Outlook 2013, November 2012
• “Accounting for Leases”, UHY LLP 2011 Accounting and Regulatory Update

PARTNER, UHY LLP
MANAGING DIRECTOR,
UHY ADVISORS MI, INC.

Email: talongi@uhy-us.com
Direct: 586 843 2581

INDUSTRY EXPERTISE:
• Automotive Suppliers
• Industrial Manufacturing
• Aerospace and Defense
• Transportation
• Alternative Energy

ACTIVE & PRIOR PROFESSIONAL MEMBERSHIPS:
• Board Member – Association for Corporate Growth, Detroit Chapter
• Member – Original Equipment Suppliers Association
• Member – Institute of Management Accountants
• Member – Michigan Association of Certified Public Accountants
• Member – American Institute of Certified Public Accountants

ACTIVE & PRIOR CIVIC MEMBERSHIPS:
• Committee Co-Chair – Barbara Ann Karmanos Cancer Institute, Partners Executive Committee

An independent member of UHY International
THOUGHT LEADERSHIP (CONTINUED):

- “Manufacturing Outlook: Opportunities Aboard”, National Tooling and Machining Association
- “Benchmarking”, UHY LLP Manufacturing Outlook 2012, November 2011
- “Proposal Stage Accounting and Reporting Matters”, UHY LLP 2010 Accounting and SEC Reporting Update
- “Automotive Update”, UHY LLP Manufacturing Outlook 2011, November 2010
- “Financial and Operational Restructuring”, UHY LLP 2009 Accounting and SEC Reporting Update
- “Increase your EBITDA”, Association for Corporate Growth
- “Automotive Aftermath”, UHY LLP Preparing for and Attracting Capital in Renewable Energy, 2009
- “Business Combinations: Legal and Accounting Aspects”, UHY LLP 2008 Accounting and SEC Reporting Update
- “Process Improvement and Cost Management”, Economic Development Corporation
Brianna Mills
Strategic Partnerships Manager – Government Affairs

Brianna is a member of the MMA government affairs team and is responsible for managing partnerships and relationships with industry leadership, core groups and friends of manufacturing across the state of Michigan. Her role includes providing strategic development for the association as well as implementing a grassroots and political action program along with elections management. She also manages the MMA PAC.

Brianna Mills is a former Finance Director for the House Republican Campaign Committee. Her team saw historic gains for House Republicans during the 2009-2010 election cycle. She was responsible for fundraising, caucus political event planning and for caucus campaign finance compliance.

With nearly 17 years of legislative experience, she has also worked in various roles for the Secretary of the Senate office, the late State Senator Glenn D. Steil, State Representative Howard Walker, and State Senator Howard Walker.

Delaney McKinley
Director of Human Resource Policy and Membership Development

As part of MMA’s Government Affairs team, Delaney McKinley is a results-oriented, high-energy lobbyist. She represents Michigan’s manufacturing community, working with the Legislature and state agencies on workers’ compensation, unemployment insurance, education and workforce development, workplace safety, health care benefits and labor relations.

McKinley also leads MMA’s Membership Department in developing and implementing member recruitment and retention programs. She works in close collaboration with the Communications, Finance and Information Technology departments to deliver outstanding member value.

McKinley previously worked in the Michigan Legislature and then served as Manager of Government & Public Relations for Jackson National Life where she lobbied on behalf of the company on state and federal efforts. More recently, McKinley was Senior Vice President of the Grant Consulting Group, an advocacy firm specializing in government and public relations consulting for clients at the international, federal, state and local levels.
William J. Kohler is a senior counsel in the Corporate Finance Practice Group of Dykema. His practice is focused on the automotive industry where he served many years as general counsel at several automotive related companies covering domestic and international matters.

As a general counsel and in private practice, Mr. Kohler has advised some of the world’s largest automakers and suppliers. He has led some of the automotive industry’s larger and more complicated acquisitions and divestitures, negotiated specialized supply agreements involving the sale and purchase of billions of dollars in critical components, created important joint ventures, and established international operations and distribution networks. He has also led development of significant intellectual property arrangements, including technology licensing and joint development agreements.

Mr. Kohler is an authority on legal issues relating to autonomous and connected vehicles. His work in that area has involved investment transactions, technology development and licensing arrangements, and legislative and regulatory issues. He is the author of “Current Law and Potential Legal Issues Pertaining to Automated, Autonomous and Connected Vehicles,” published in 2015 in the Santa Clara High Technology Law Journal.

Seminars & Speeches
Technology and the Law: Accelerating the Next Revolution in Roadway Safety
October 18, 2016

Publications
"Current Law and Potential Legal Issues Pertaining to Automated, Autonomous and Connected Vehicles"
2015
Santa Clara High Technology Law Journal

"Current Risks in Automotive Acquisition,* State Bar of Michigan, Business Law Section
2013
Business Law Journal

"Warranty Cost Sharing: The Framework for Negotiations"
November 2011
OESA Comparative Analysis of OEM Warranty Programs, Original Equipment Supplier Association

Language
French
German
Spanish
"Managing Acquisitions as a Corporate Process"
December 2010
Financial Worldwide Magazine

"Contingency Planning in an Era of Massive Industrial Failure*"
October 2006
Financier Worldwide Magazine

"International Distribution Relationships: Commercial and Legal Perspectives"
Spring 1998
Michigan International Lawyer, State Bar of Michigan, International Law Section

Memberships & Involvement
American Bar Association
State Bar of Michigan
Motor Equipment Manufacturers Association, Member, Government Affairs Committee and Regulatory Affairs Committee
International Law Section of the State Bar of Michigan, founding member and council member; chairperson of the Western European Law Committee

Community/Civic Activities
Michigan District Export Council, Council Member
MichAuto, the automotive economic development initiative of the Detroit Regional Chamber of Commerce, former Member, Steering Committee
Friends School in Detroit, former Board Chair and Trustee
ORT, Michigan Region, former Board Member

Awards & Recognition
Recognized by dbusiness as a Top Lawyer for Mergers & Acquisitions
David G. Sowerby, CFA

David Sowerby joined Loomis, Sayles & Company in 1998 and has 31 years of investment industry experience. During his tenure at Loomis Sayles, David has held a variety of senior positions, including his current role working directly with institutional clients and multi-product accounts. He draws upon his breadth of experience and intimate knowledge of Loomis Sayles product, process and discipline to widely communicate his current views on the capital markets and provide updates on the firm’s capabilities and specific portfolios. David works with clients on asset allocation strategies. David is also a member of the Natixis distribution/support group, assisting Natixis’ sales efforts by representing all Loomis Sayles products in the US.

Prior to Loomis Sayles, he was a senior portfolio manager for Beacon Investment Management Company in Ann Arbor, Michigan from 1993 to 1998. He began his investment industry career in 1986 as an economist, providing economic analysis and market strategy for Comerica Bank. David earned undergraduate and graduate degrees in economics from Wayne State University.

David served ten years as chairman on the investment advisory committee for the state of Michigan’s $50 billion pension fund. He was recently appointed by the Governor to serve as a director of the Michigan Economic Development Corporation. David also serves on the investment committee for Beaumont Hospitals. As a tribute to his work, he was the 2002 recipient of Wayne State University’s distinguished corporate citizen award. David is a regular contributor to the Blue Chip Financial Survey and a frequent guest on CNBC, Bloomberg television and other financial market programs.
Scott has nearly 30 years of experience providing tax planning and strategic business consulting services to a wide range of both public and privately held companies. He is a leader of the Tax Department a member of the firm’s National Tax Accounting Methods and Periods Committee.

PROFESSIONAL EXPERIENCE:

• Specializes in tax planning strategies and business consulting services
• Extensive experience in the identification and documentation of R&D tax credits
• Knowledgeable with various tax issues, including LIFO and the taxation of inventories, tax accounting methods issues, state and local tax issues and planning to minimize taxes for entrepreneurial businesses and its stakeholders

BACKGROUND:

• Licensed CPA in the states of Michigan and Ohio
• Joined the firm in 2005
• Before joining the firm, Scott was with Ernst & Young for 20 years
• B.A. in Accounting, University of Toledo

THOUGHT LEADERSHIP:

• Co-chairperson, UHY Advisors Annual Tax Forum
• “IC-DISCS”, UHY Advisors 2014 Tax Forum
• “Tax and Accounting Aspects of Real Estate”, CoreNet Globals Executive Development Event, 2014
• “Research and Development”, UHY Advisors 2013 Tax Forum
Dave Bernard

Co-founder and CEO, The Intellection Group

Dave is a serial entrepreneur, long-time technologist, inventor, and investor living in Atlanta, Georgia. An expert in new and emerging technologies, Dave has co-founded several companies, including The Intellection Group (TIG), an innovative technology consulting group that was recognized as one of Georgia’s top 40 most innovative companies in 2007. TIG specializes in building complex award-winning software-as-a-service (SaaS) systems for both commercial and government entities in North America, Europe, and Africa. Dave has also co-founded a company providing technology solutions to veteran services organizations.

Dave mentors and serves on the boards of several other early stage technology companies. He is Chairman of the SE Projects and Programs Committee for Business Executives for National Security (BENS). A captivating story-teller, Dave gives talks on how technology is disrupting various industries and impacting fundamental aspects of our personal lives. He has spoken at the U.S. Southern Command (SOUTHCOM), US Special Operations Command (SOCOM), the National Defense University, the Federal Reserve Bank of Atlanta, and the FBI/InfraGard Atlanta Members Alliance.

For over 30 years, Dave has held developer, managerial and executive positions in a variety of industries, including supply chain logistics, healthcare, automotive, property and casualty insurance, retail point of sale, construction, hospitality, real estate, church, sales, financial services, government and academia. He also led TIG’s development of a patented technology architecture that unifies web development capabilities with voice recognition, text-to-speech, natural language, RFID and GPS technologies, deliverable to wireless handheld and desktop devices.

James Staargaard

President and CEO, Plasan Carbon Composites

A thirty-three year entrepreneurial Executive veteran of Automotive Tier One and Materials Industries with proven Global growth track records. Extensive experience in all P&L aspects of Business Management. Multiple P&L experiences within publicly traded, private equity, venture capital and private ownership enterprises.

STEVEN P. MCCARTY

Steve is a member of the firm’s National Board of Directors and Michigan Executive Committee. He is the leader of firm’s Corporate Finance and PEO groups and an active member of the National Manufacturing Practice.

PROFESSIONAL EXPERIENCE:

• Consulted on numerous business transactions providing buy side and sell side advisory, due diligence, financial analysis, tax strategies, negotiations, valuations and financing
• Manages a group of professionals devoted to providing comprehensive audit, tax and business consulting services to middle market clients
• Advises clients on costing and estimating, corporate controls and operations
• Provides guidance to businesses on how to operate more efficiently and profitably
• Created the Business Assessment Tool (BAT), which is used to determine a company’s strengths and weaknesses
• Devises strategies that align businesses with profitability drivers to increase revenue and maintain a competitive advantage in the marketplace

BACKGROUND:

• Licensed CPA in the states of Michigan and Florida
• Licensed CMA (Certified Management Accountant)
• British Standards Institute ISO/QS 9000 Provisional Auditor
• Joined the firm in 1992
• B.A.A. in Accounting, Walsh College

THOUGHT LEADERSHIP:

• Winner for “Best Deal of the Year: Under 100 Million”, Crain’s Detroit Business’ Annual M&A Awards, 2015
• “Family-Owned Business Sustainability: M&A Case Study”, UHY LLP Annual Manufacturing Outlook, October 2015
• “Tax Diligence and Pre-Deal Strategy”, UHY Advisors 2014 Tax Forum
• “Manufacturing a Deal: M&A case study”, UHY LLP Annual Manufacturing Outlook, November 2014
• “Deal of the Year” Nominee, Crain’s Detroit Business, 2013
• “Dealmaker of the Year” Finalist, ACG Detroit, 2012
• Host and Chairperson, UHY LLP PEO Briefing Webinar Series, 2001-2013
• “PEO Accounting and Operational Best Practices”, NAPEO PEO Insider
• Quoted in “Recent Tax Changes Present Potential Benefits for Growing Businesses”, Crain’s Detroit Business
• “Low Interest Rates: Friend or Foe?”, NAPEO PEO Insider
• “President Obama Signs Small Business Job Act”, HFMA HealthCents
• “Tax Saving and Wealth Preservation Strategies”, Fox 2 News
• Featured Columnist, “The Pulse”, ACG Detroit M&A Dealmaker Journal
THOUGHT LEADERSHIP (CONTINUED):

• Quoted on M&A activity in “Detroit and Beyond”, Crain’s Detroit Business
• “Grants From Uncle Same on the Way”, HFMA HealthCents
• Past recipient of Crain’s Detroit Business “40 under 40” award
• Founder and chairperson of the D.M.G.C. (Golf Classic) which has raised in excess of $500,000 for multiple charities
• Regular speaker and author of cutting edge tax strategies, operational excellence, and best in class corporate controls
• Regular contributor on such topics such as corporate security, sell side transactions, state and local tax issues, NAPEO PEO Insider
ROBERT D. KENDALL

Bob is a leading member of the firm’s Corporate Finance practice.

PROFESSIONAL EXPERIENCE:

- Provides sell side advisory services that include developing valuation expectations, evaluating potential transaction structures, and assisting in the execution of a robust sale process
- Experienced in all aspects of the sale process, such as identifying financial and strategic buyers, calculating supportable earnings adjustments, facilitating buyer due diligence and negotiating transaction documents
- Conducts buy side due diligence investigations focused on evaluating quality of earnings, quality of net assets, customer concentration, working capital needs, and the reasonableness of proposed adjustments to reported EBITDA
- Prepared valuations of more than 50 operating business and holding companies to assist in M&A transactions, financial reporting, estate and gift tax planning, strategic initiatives, and litigation

BACKGROUND:

- Holds the Chartered Financial Analyst (CFA) designation
- FINRA Licensed Representative: Series 7, Series 79, Series 63
- B.B.A. in Finance, Central Michigan University

THOUGHT LEADERSHIP:

- Frequent panelist on M&A topics for the Detroit Chapter of ACG NextGen
- Winner for “Best deal of the year: under 100 million”, Crain’s Detroit Business’ Annual M&A Awards, 2015
- Quoted as expert in KeyBank’s “Business Insights: Keys to Understanding Valuation”, October 2012
- “Financial Statement Analysis for Better Management, Investment, and Credit Decisions”, MICPA Fall Accounting Conference, October 2010

SENIOR VICE PRESIDENT,
UHY ADVISORS CORPORATE FINANCE, LLC

Email: rkendall@uhy-us.com
Direct: 313 324 7147

INDUSTRY EXPERTISE:

- Automotive Suppliers
- Aerospace and Defense
- Industrial Manufacturing
- Contractors
- Dealerships
- Hospitality and Gaming

ACTIVE & PRIOR PROFESSIONAL MEMBERSHIPS:

- Member – CFA Institute
- Member – CFA Society of Detroit
- Member – Association for Corporate Growth (ACG)
- Member – Detroit Economic Club
- Member – Turnaround Management Association
CHRIS THOMAS
Founder & Partner, Fontinalis Partners

Chris is a Founder and Partner of Fontinalis, where he is responsible for a wide range of critical processes ranging from deal sourcing and execution to corporate operations and business strategy. Chris also acts as a business development executive on behalf of Fontinalis’ portfolio companies.

Prior to Fontinalis, he worked at Ford Motor Company in Sustainable Business Development and Treasury. Previously, Chris served in the U.S. Army as a Communications Officer in Iraq, where he was responsible for data communication systems and organizational change management. Before joining the military, Chris worked as an Investment Banker at UBS within its Technology and Energy groups.

Chris currently serves on the Board of Directors of two of Fontinalis’ portfolio companies, nuTonomy and Karamba Security. He also currently serves as a Board Observer of three of Fontinalis’ portfolio companies: Life360, SmartKargo, and SQLstream. Additionally, he is a member of the Global Cleantech 100 expert panel, and a former member of the World Economic Forum’s Global Agenda Council on Personal Transportation Systems. He is also a member of the Detroit Advisory Board of Read to a Child, a national children’s literacy and mentoring nonprofit.

Chris earned his Master’s degree in Business Administration from the Yale School of Management with a concentration in strategy. He holds a Bachelor of Arts degree in both Economics and International Relations from Michigan State University. Chris is a resident of the City of Detroit and a staunch advocate of smart cities, early childhood literacy, and the doctrine of the strenuous life.
PITFALLS FOR SMALL/MEDIUM Sized ENTITIES ON THE PATH TO SUSTAINABLE GROWTH

Like all business owners know, being an entrepreneur comes with lots of challenges but certainly with its share of rewards. Whether it is a small, mid-sized, or large entity, all stakeholders want to see continued profits and growth. However, in the case of small and medium-sized entities (SMEs), achieving those metrics is easier said than done. Although SME growth can’t be specifically broken down to a science, we can take a look at a few pitfalls that can be avoided.

DON’T GO FOR GROWTH WITHOUT THE RIGHT BUDGET
While all business owners will dream of accelerated revenue growth, it is important for SME owners to remember to start with the most basic rules of creating a budget at the onset of their journey. Avoid the incorrect assumption that one’s entity is too small to require a budget or that the owner “knows it all” and they are not required to put in the effort to budget for the next 6/12/24 months. Here are some reasons why a well thought out budget is important:

• A budget will help identify future trends that may require additional levels of working capital in a business to support the future growth. It will be a useful tool to identify increased cash needs and timing of distributions to owners.
• In certain situations, based on the underlying business, a budget will help identify situations where operational decisions such as additional hiring or headcount reductions may be necessary.
• A budget/forecast will also be useful in the company’s efforts to secure financing as it is a document that is frequently requested from financing sources.

Offsetting these benefits in almost all situations, administrative costs are a clear concern for SMEs.

Continued on Page 2...
Accordingly, an owner may try to keep a skeleton internal accounting group that is neither concentrating on budgeting nor has the skillset to properly put a budget/forecast together. Owners that are more sophisticated than their peers will sometimes hire external consultants or ask their accountants for help in this area. This is almost always a good idea for any business. Getting input from trusted advisors who have more experience with these concepts and have insight into the company will allow a business owner to do what he does best, concentrate on running their business and leave the budgeting and forecasting to those qualified to do so.

Here are some points to capture when putting together a proper budget:

- Budgets/forecasts need to be reasonable and realizable. They should be living documents that are updated for changes in the business activities and should be built on prior experience, expected customer behavior and should reflect the owner/operator’s future plans.
- As briefly mentioned, a SME owner should review the skillset of those preparing the budget and make sure to get input from their outside accountants.
- An increase in revenues comes with a corresponding increase in demands on the labor force. Adding full time employees comes with not only increased salaries but also with increased benefits and fringe costs. These costs should all be reflected in the formal budget.
- A successful budget process also involves a careful analysis of the SME’s cash flow needs. As the top line grows, what we typically see is that the company’s cash resources end up getting tied up in inventory and accounts receivable. Depending on how long it takes for the company to collect on their receivables and turn the inventory to cash in the bank, the SME may experience a cash crunch in times of rapid expansion.
• Price increases for the company’s products as well as price increases from the company’s suppliers should be considered in the budget. As the company’s results improve, it should be expected that the suppliers would participate in that growth to a certain degree.

**NOT ALL GROWTH IS GOOD GROWTH**
The ability for the SME to achieve increased revenues is dependent on some very important points:

• The ability to secure the continued supply of raw materials and resources.
• Building and nurturing productive relationships with the SME’s new and existing suppliers.
• Staying ahead of changes in consumer behaviors and demands.
• Ensuring the employees are properly compensated and rewarded for the upside in the business activities.

As mentioned above, in their budget, the SME should be sure to build in price increases from suppliers. Along those same lines, supplier incentives, co-op advertising requests, rebates and chargebacks are all tools that a supplier will use against a growing SME. In order to ensure that there is no disruption to the supply chain, these considerations should be reflected in the SME’s financial plans.

Here is an example of what can happen when the SME fails to consider the behavior from its suppliers:

The SME gets a large new contract that includes special pricing for a global retailer with thousands of locations across the world. The contract has special pricing provisions and gives customers the ability to send the product back for a full refund with an extended return period as well as providing the customer with 90 day payment terms instead of the SME’s usual 30 days. In this situation, the SME has achieved a significant amount of revenue growth…but at what cost? Once looked at beyond the surface, one will note that this growth has come at the expense of:

• thinner margins (special pricing),
• increased time to get paid on invoices resulting in increased working capital needs (increased payment terms)
• increased exposure to product returns,
• increased employee costs and decreased productivity due to increased workload.

In a case such as the above, it is important for the operators of an SME to get employee buy-in for the added workload. It is also important to level set employee expectations (especially in SMEs) and manage their perceptions. The added effort by employees should result in financial rewards to avoid the risk of having a resource crunch at a time of rapid expansion. So remember – not all revenue is good revenue.

**SPEND CASH FOR THE RIGHT REASONS**
The budget/financial plan we discussed above should be driving how much cash should be reinvested in the business. Also as discussed above, increased revenues and resulting earnings should equate to increased compensation for the company’s most productive workers. Bonuses for successful years will result in increased employee satisfaction and minimize turnover. This will result in further savings to the company in terms of reduced recruiting fees and legal costs.

In times of rapid expansion, SME owners also need to reevaluate their banking arrangements. It is crucial that the banking relationships that exist from prior years are able to support the growth of the business. If the banking arrangements have covenants that are too restrictive, there may be unnecessary costs (covenant waivers, payment of increased default rates, etc.) to the business. The SME should have conversations with its bankers to renegotiate increased lines and better terms in years of revenue expansion.

Lastly, the budget/financial plan should also be discussed with the SME’s tax advisor for the right tax planning advice.

Many times, SMEs fall into the trap of finishing off a tremendous year only to face a tremendous tax liability and possibly penalties with interest for missed estimated payments to taxing authorities. A projected increase in business should be followed by a visit from the outside accountant and a review of the projections to ensure that all tax implications are discussed earlier on in the process.

The engine of economic growth for our country is most certainly the millions of SMEs that range from startup entities with no revenues to entities with hundreds of employees and millions in annual revenues. It is important to keep these considerations in mind throughout the lifecycle of an SME and have the necessary discussions with your trusted advisors to avoid the pitfalls and achieve the growth targets.

Mehmet Sengulen, Managing Director
(New York, NY)

“A projected increase in business should be followed by a visit from the outside accountant and a review of the projections to ensure that all tax implications are discussed earlier on in the process.”
NORTH AMERICAN AUTOMOTIVE PRODUCTION FORECAST SUMMARY - Q3 2016

Summary includes economic outlook, light vehicle sales outlook, current production drivers, production capacity and long-term trend, model launches and investments.

NORTH AMERICA ECONOMIC OUTLOOK

• **US** – The near-term forecast for the US is largely unchanged. However, weak business investment is expected to constrain capital accumulation and productivity growth over the medium to long run.

• **Canada** – The outlook for GDP growth for Canada is stable this month with only very minor changes to 2017 (reduction of 0.1 ppt). On the heels of real wage growth and rising employment, near-term consumer spending is expected to be stronger, with increases to both in 2016 and 2017 by 0.5 ppts.

• **Mexico** – Revisions to Q1 and Q2 GDP data in Mexico have lowered expectations for growth in 2016 by 0.3 ppt from last month. Minor reductions (0.1-0.2 ppt) to GDP growth in 2017 and 2018.

![GDP Growth Chart]

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Source: Oxford Economics, LMC Automotive
NORTH AMERICA LIGHT VEHICLE SALES OUTLOOK

![Graph showing light vehicle sales outlook for USA, Canada, and Mexico from 2013 to 2019.](image)

**CURRENT NA PRODUCTION DRIVERS**

- **Capacity/Utilization**
  - US demand is slowing but continues to be key production driver.
  - Expansion and new capacity help drive growth, utilization remains in the 90% range.

- **Demand**
  - Move to local sourcing continues to take a foothold.

- **Economics**
  - Economic growth slow but steady but volatility putting pressure on consumer confidence.
• Demand driven growth adds stability layer
• Localization and exports drive production expansion - utilization remains 90%

**NORTH AMERICA PRODUCTION AND CAPACITY LONG-TERM TREND**

![Graph showing production and capacity trend over years]

**NORTH AMERICA PRODUCTION – MODEL LAUNCHES**

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<td>2019</td>
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</table>

Source: LMC Automotive
INVESTMENT POURS INTO NORTH AMERICA

Investment in Mexico:
- BMW – San Luis Potosi
- Daimler – Aguascalientes (COMPAS) w/ Renault-Nissan
- FCA – Toluca
- Ford – Cuautitlan, San Luis Potosi
- Hyundai – Monterrey
- Mazda – Salamanca
- Renault-Nissan – Aguascalientes 2 & COMPAS
- Toyota – Guanajuato, Baja
- Volkswagen – San Jose Chiapa

Investment in the US:
- BMW – Spartanburg
- Daimler – North Charleston (DG) 2
- Faraday Future – North Las Vegas
- FCA – Belvidere, Toledo North
- Fuji Heavy – Lafayette
- Geely – Ridgeville
- GM – GM Van, Hamtramck, Lansing Grand River, Spring Hill
- Honda – Greensburg
- Hyundai – Montgomery
- Tesla – Fremont (Tesla)
- Toyota – Georgetown 3, Tupelo
- Volkswagen – Chattanooga

Source: LMC Automotive
CYBERCRIME IS A SERIOUS ISSUE THAT THREATENS EVERYONE—NO MATTER WHAT TYPE OF BUSINESS YOU’RE IN.
COMMITTING TO CYBERSECURITY
PREPARING FOR THE INEVITABLE DATA BREACH

What if your credentials were used to commit an unauthorized wire transfer? What if your email account was used to share confidential corporate data that resulted in the loss of a business relationship or the initiation of an SEC investigation? Are your people, processes and technology pillars aligned so you have assurance that your business is reasonably protected against cyber criminals? Can you measure, view and continuously improve your cybersecurity posture? If your answer is no, what does this mean for your businesses?

Cybersecurity is high on the agendas of boards and audit committees because cybercrime is a serious issue that threatens everyone—no matter what type of business you’re in. Regardless of company size, security breaches result in reputational damage, material business disruption and increased regulatory scrutiny. If you think the manufacturing industry is not a target for cybercrime; think again.

MANUFACTURING UPDATE ON CYBERSECURITY

According to IBM’s 2016 Cyber Security Intelligence Index, manufacturing is the second most frequently hacked industry. As attackers have become more financially motivated, they appear to be less interested in hacking cars and more interested in monetizing their efforts through wire transfer fraud, corporate espionage and insider investment strategies. Cybersecurity incidents and data breaches are tightly linked as most cyber-related incidents also cause data breaches. Can you guarantee your company and customer data is secure? Will your customers want to continue to do business with you if their information is compromised?

THE COST

There have been several studies done to understand the cost of a data breach. The Ponemon Institute, in its 10th annual Cost of Data Breach Study: United States, surveyed 62 US companies in 16 industry sections after those companies experienced actual loss or theft of protected personal data. The Institute interviewed individuals at those companies over a ten-month period and estimated the average cost of each lost or stolen record had increased from $201 to $217. Considering the number of records compromised per breach are usually in the thousands, the total cost can be staggering. The total average cost paid by organizations increased from $5.9 million to $6.5 million. According to the report, the number of breached records per incident this year ranged from 5,655 to 96,550 records and the average number of breached records was 28,070 (excluding breaches of over 100,000 records). Another study, the 2015 Data Breach Investigations Report published by Verizon, is based on data provided by 70 contributing organizations and covers 79,790 security incidents worldwide across 61 countries. About two-thirds of the incidents reported were from the US. Would your company be able to recover from a breach with this type of negative financial impact?

MEETING THE CHALLENGE

‘Cybersecurity’ is the composite of people, processes and technology that are meant to protect corporate systems from attack, damage or unauthorized access. Today’s advanced persistent threats target people, not systems. Successful cybersecurity breaches are the result of human failure rather than

Continued on Page 10...
technology failure, yet 80 percent of security spending is on perimeter security (e.g. firewalls, antivirus) which is only effective for 30 percent of the risk. A strategic gap exists between security risks and security solutions. While we would all like to think that our employees, contractors, vendors and business partners can be trusted, a majority of cyber-attacks are attributed to “known-good” usernames and passwords of users that have been exploited. Your people are your greatest threat. One click is all it takes to compromise your company.

GOVERNANCE AND RISK ASSESSMENT
An effective cybersecurity program must start from the top, but must also flow down to each employee in the organization. It is important to have a strong “tone at the top”. Cybersecurity should be incorporated in the enterprise risk management process as it impacts multiple risk areas (e.g. operational, financial and reputational). Increasingly, boards are playing an active role in oversight of the cybersecurity effort. A recent Senate bill, “Cybersecurity Disclosure Act” is currently in draft and will require boards to publically disclose their breaches. This proposed bill further highlights boards’ oversight responsibilities over cybersecurity.

Boards need to engage outside cybersecurity expertise to independently assess their current risk approach and to develop a target for improvement. The National Institute of Standards and Technology (NIST) framework is perfectly suited for this task. UHY Advisors’ cybersecurity program assessment uses the NIST framework to evaluate current risks and provide meaningful insight on existing information security programs.

THIRD PARTY AND VENDOR MANAGEMENT
As manufacturing companies are inherently more interconnected with each other for sharing data or access to systems with vendors, conducting a cybersecurity risk assessment of third-parties is a critical component to managing risk. In addition, you should ensure an effective vendor management program is in place to address due diligence over new vendors, contractual agreements, ongoing monitoring and termination of vendors.

TRAINING & AWARENESS
The most important firewall in the organization is the human firewall. It is important for you to train your employees against cyber and social engineering attacks such as targeted phishing campaigns, wire transfer scams and spoofing attacks. You should assess the effectiveness of current training and awareness programs, develop a new program to support business needs, and provide specialized training to address the areas of greatest concern to your company. Training should occur annually and be event-driven for recurring processes such as onboarding, new software provisioning and implementing new policies and procedures related to information security. People are your greatest asset, but they can also be your greatest weakness if not properly trained on cybersecurity risks.

INCIDENT RESPONSE PROGRAM
Manufacturers should designate a central incident response team to evaluate the effectiveness of existing incident response capabilities, identify opportunities for improvement and develop a target incident response program that meets the requirements of your business. If you rely on third party service providers, you also need a program that measures the associated cybersecurity risks of your vendors. Overall, the goal is to develop a program that effectively manages cybersecurity risk, provides evidence of internal controls, ensures compliance with government or industry regulations, and achieves consistency between customers and vendors.

CONCLUSION
Since cybersecurity is all about risk management, it is essential that the risk strategy be managed throughout the organization and not only within IT.

The key to managing cybersecurity is to address the issue as a strategic business risk. Manufacturing organizations need to align their people, processes and technology so that employees and procedures are converted from the weakest link cyber risks to the strongest cybersecurity defense. Moving forward, you need to have the ability to measure, view and continuously improve your cybersecurity posture.

David Allen King II, Senior Manager and Chad Creasman, Staff Consultant (Atlanta, GA)

According to IBM’s 2016 Cyber Security Intelligence Index, manufacturing is the second most frequently hacked industry.
According to a new Standard & Poor’s report there are two key indicators that will tell you what kind of shape the manufacturing industry is in. The first is the Institute for Supply Management’s manufacturing purchasing manager’s index and the second is the Federal Reserve’s Capacity Utilization Index for motor vehicles and parts. A reading above 50 percent for the ISM index indicates that manufacturing is expanding in the US, and below 50 means that it is contracting. History shows that each time since 1983 that the index fell below 43 percent “speculative grade” automotive companies began to panic. Similarly any time the Fed’s utilization rate dropped below 72 percent during that period, it caused stress to automotive companies. Let’s take a look at where we stand as of August 2016.

**CURRENT STATE OF THE MANUFACTURING INDUSTRY**

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<th>ISM Purchasing Managers Index: 49.4%</th>
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<td>Fed. Capacity Utilization Rate: 74.8%</td>
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MANUFACTURING INDUSTRY INSIGHT

UHY LLP recognizes that manufacturing companies require their auditors, tax specialists and business advisors to add value to financial reporting activities. That is why we combine the strength of business and financial expertise with a hands-on, “shop floor” approach to solving complex business decisions in these key segments:

- Aerospace & Defense
- Distribution
- Automotive Suppliers
- Industrial Manufacturing
- Consumer Products

Our professionals are leaders in the industry and take the steps necessary to ensure our client’s future success by identifying and addressing new trends, accounting requirements and regulations.

OUR LOCATIONS
CA Orange County 949 556 8905
CT Norwalk 203 401 2101
GA Atlanta 678 602 4470
MD Columbia 410 423 4800
MD Frederick 301 695 1040
MI Detroit 313 964 1040
MI Farmington Hills 248 355 1040
MI Sterling Heights 586 254 1040

MO St. Louis 314 615 1301
NY Albany 518 449 3171
NY New York 212 381 4800
NY Rye Brook 914 697 4966

ADDITIONAL UHY ADVISORS LOCATIONS
IL Chicago 312 578 9600

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EVALUATION FORM (PLEASE TEAR OUT AND RETURN TO REGISTRATION DESK)

Was the course material and content timely and effective? □ Yes  □ No

Were the course objectives met? □ Yes  □ No

If materials were provided, were the materials satisfactory and effective? □ Yes  □ No

Were the instructors effective in their presentation? □ Yes  □ No

How was the speaker’s knowledge of the subject matter? □ Excellent  □ Good  □ Avg  □ Fair  □ Poor

How were the speaker’s presentation skills? □ Excellent  □ Good  □ Avg  □ Fair  □ Poor

How were the facilities? □ Excellent  □ Good  □ Avg  □ Fair  □ Poor

What you liked about the seminar:

What you would change about the seminar:

Other topics that would appeal to you:

Additional comments:
UPCOMING EVENTS

November 3  UHY LLP Annual Construction Outlook
November 10  UHY LLP Annual Not-For-Profit Accounting Update
December 8  UHY LLP Annual Accounting & Business Conference
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