AGILE TRANSFORMATION? FOR COMPLEX SYSTEMS?
...NO WAY!

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Jeff Brehm – Managing Director, Products Industry X.0 Consulting

• Live in Chicago as an avid Milwaukee Brewers fan
• 15+ years of experience in product development – Mechanical, Electrical & Embedded Systems
• Cross-industry consulting experience in Automotive and Industrial Equipment, Hi-Tech and Medical Device industries with a core focus on engineering excellence, including engineering operating model optimization, product lifecycle management transformation and modular product architecture.
• Prior industry experience with GE Healthcare – roles in mechanical systems design engineer, service productivity project leader and Engineering and Methods & Tools Lead at GE Healthcare
• Avid water skier and share my passion for boats with my wife, 2 kids and water crazed golden retriever
449,000 Employees globally

$39.6B In revenues ending August 2018

120+ Countries where we serve our clients

50+ Delivery centers across five continents, offering services in 45 languages

Expertise in 40+ Industries

16 Consecutive years running on Fortune’s World’s Most Admired Companies list

6000+ Patents and patent pending applications globally

94 of the Global FORTUNE 100 are Accenture clients

75% of the Global FORTUNE 500 are Accenture Clients

98 of our top 100 have been our clients for at least 10 years
WHAT IS
ACCENTURE INDUSTRY X.0

NEW SERVICES & EXPERIENCES

ACCELERATION & EFFICIENCY

INNOVATION & GROWTH

TRANSFORMATION OF CORE

DESIGN | PRODUCE | SUPPORT

DIGITAL ENABLERS
INDUSTRY DISRUPTION

AUTOMOTIVE INDUSTRY IS EXPERIENCING A COMBINATION OF PRODUCT AND BUSINESS MODEL INNOVATION...

SUPER CHARGED

Electric powertrain is simpler/lowers the barriers to entry

Electric engines: 210 parts; Gas engines approx. 1400 parts

Large car fleet with over 20,000 electric vehicles by the end of 2017 (e.g. DHL)

DESIGNATED DRIVERLESS

Autonomous driving can save 3,000 lives daily

Today 94% of the accidents are due to human errors

4.5 years more lifetime due to autonomous driving

EYES OFF THE ROAD

By 2025 - all new cars will be connected to the Internet

37% of customers would change auto brand for better connectivity

Drivers want new in-car services: Entertainment (33%), working (29%)

ARE WE SHARE YET?

One shared robo-cab replaces 8 private vehicles

Car2Go with more than 2 million active users

Uber with more than 57 million active users
THREE IMPERATIVES

... AND OUR CLIENTS ARE REINVENTING THEMSELVES ALONG THREE DIMENSIONS TO THRIVE IN THE NEW...

**CHANGE LANES**

MORPH BUSINESS MODELS from one-off transactional product sale to selling services and outcomes

- Monetize Data from Cars and Customers
- Develop Mobility Services beyond Cars
- Move from Connected Car to Connected Life Services

**BE ENGAGING**

ENABLE TOP-LINE GROWTH AND CATER TO LIQUID CUSTOMER EXPECTATIONS with direct & personal customer relations

- Create seamless, omnichannel, personal customer relations
- Transform the retail experience – Dealer X.O
- Design Future Distribution Models

**BE AGILE**

UNLOCK VALUE AND FREE CAPACITY by realizing efficiencies in the current business

- Drive Efficiencies in core functions RD and manufacturing - Industry X.O
- Streamline support functions (HR, IT, Finance) with RPA and AI
- Accelerate Speed to Market with New IT
AGILITY ACROSS THE INDUSTRY

A HIGH DEGREE OF AGILITY FACILITATES COLLABORATING WITH INDUSTRY PARTNERS...
WHY AGILE PRODUCT DEVELOPMENT?

COMPLEXITY AND COMPLIANCE STANDARDS HAVE OUR CLIENTS SEARCHING FOR NEW APPROACHES TO UNIFY HW & SW DEVELOPMENT

More complex E2E Systems Architecture...

Cybersecurity becomes more safety critical (functional safety), highly integrated and connected.

Today, we are facing up to 100 processes and 100 MLOC.

80+% of new innovation is coming from SW enabled features.

Source: Ebert IEEE Computing

Automotive development can choose their development approach BUT MUST BE compliant to certain standards to win work.

...combined with increasing compliance standards

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THEY ARE SEARCHING FOR AN APPROACH THAT BALANCES AGILITY & MODERN ENGINEERING TECHNIQUES WITH COMPLIANCE

Companies are responding to these needs by utilizing a diverse set of different methods, tools & techniques...

Scaling Lean-Agile Methods to large, globally distributed product development teams

Embedding systems & software compliance standards into product development process & methods

Adopting modern engineering techniques to handle increased product complexity
WE HAVE DEVELOPED LEAN-AGILE SCALING FRAMEWORK TO BRING TOGETHER THESE ELEMENTS

Why AutoScrum?

The ad-hoc approach taken to date has led to point solutions, but an ineffective E2E process

1. AUTOMOTIVE SPECIFIC LEAN-AGILE APPROACH

2. MODERN MODEL-BASED LEAN-AGILE PRODUCT DEVELOPMENT REFERENCE ARCHITECTURE
AUTOSCRUM EMBEDS LESSONS LEARNED FROM APPLYING AGILE SCALING FRAMEWORKS TO INDUSTRY CONSTRAINTS

AUTOSCRUM IS A LEAN-AGILE SCALING FRAMEWORK THAT PROVIDES SCALING METHODS AND PRACTICES FOR PRODUCT DEVELOPMENT ORGANIZATIONS BASED ON LEAN AND SCRUM PRINCIPLES.

ITS OBJECTIVE IS TO SUPPORT AND HARMONIZE THE AGILE WAY OF WORKING TO THE AUTOMOTIVE INDUSTRY’S BUSINESS MODEL AND MARKET CYCLES AND ITS REGULATORY AND COMPLIANCE NEEDS. KEY ATTRIBUTES INCLUDE:

- Fixed Cadence
- Develop on Cadence...Release on Demand
- System Feature Driven Development
- Systems Engineering Discipline
- Model Based Engineering
- Large Scale Team Collaboration
- Synchronized Cross Discipline Work
- Supports Platform Based Engineering
- Team/Backlog Inversions
HOW DO WE BRING IT ALL TOGETHER?

IT REQUIRES A HOLISTIC APPROACH...

Business Strategy & Objectives

Collaboration Culture

Kanban Scrum

Real Time Feedback & Business Reveal of Features

Continuous Integration

Continuous Delivery Pipeline

Three Amigos Pairing

Test Driven Development

Clean Code

Value Driven Backlog Grooming & Digital Experience

Speed2Value High Performing Delivery
**HOW DO WE BRING IT ALL TOGETHER?**

...AND FREQUENTLY A NEW OPERATING MODEL EMERGES

How do we control, sponsor & enforce the right decisions to ensure we achieve the goals?

How should we functionally organise to deliver services?

How do we measure the effectiveness of the operations?

What are the processes necessary to execute the work?

Who is accountable for doing the work & where is the work being performed?

What tools are required to enable better effectiveness and efficiency in the operations?
OUR CLIENTS ARE ‘JUMP STARTING’ PD TRANSFORMATION ACTIVITIES THROUGH THE USE OF MODERN PROCESS MODELING & MANAGEMENT CAPABILITIES TO MANAGE INCREASING PROCESS COMPLEXITY

- Improved global visibility to process definition & process performance
- Improves management of increasing process complexity
- Facilitates process harmonization & tailoring
- Continuous feedback on process performance
- Increased speed to proficiency for new resources

HOW DO WE BRING IT ALL TOGETHER?
WE WOULD LOVE TO SHARE MORE ABOUT...

Accenture’s Industry X.0 Practice

AutoScrum as an Agile scaling framework for Complex Product Development

Process Modeling as a Transformation Vehicle

Paired Programming & Test Driven Development

The LOOP by Pillar
INDUSTRY X.0
EMBRACE THE RENEW
DIGITAL REINVENTION OF INDUSTRY