PIVOTING INTO THE NEW

Finding a New, Better Way

CIPS Birmingham Chapter Industry X.0 Presentation
22 June 2017
ABOUT ACCENTURE

Accenture is a leading global professional services company, providing a wide range of services and solutions in strategy, consulting, digital, technology and operations. We have a broad global footprint, with offices and operations in 55+ countries.

We help organizations maximize their performance and achieve their vision.

We develop and implement technology solutions to improve our clients’ productivity and efficiency – and may run parts of their business.

Ultimately, we enable our clients to become high-performance businesses and governments.

More than 50 delivery centers across five continents, offering services in 39+ languages.

300,000+ deeply skilled professionals with focus on industry, technology and business.

Largest and most diversified group of strategy, digital, technology and operations professionals in the world.
MEET THE TEAM

Jose Gonzalez
Supply Chain & Operations

Jose has spent the last 13+ years leading and supporting a number of large-scale, global Supply Chain transformations across a variety of industries. More recently, Jose is the UKI Supply Chain & Operations lead for Industrial & Travel industry group focusing on Digital Supply Chain strategies, transformations, technologies and supporting analytics. jose.a.gonzalez@accenture.com

Ben Casey
Post Modern ERP

Ben has worked in ERP delivery and advisory work for over 15 years. He is currently the UKI Technology Lead for Consumer Goods and Services industry group and is part of the High Velocity ERP leadership team. Ben’s current focus is helping clients transition to a post-modern ERP estate to enable them to be more agile and benefit from a new digital technology. ben.casey@accenture.com

Matt Booth
Industry X.0

Matt has 30+ years experience supporting global companies define and execute product, technology and process innovation strategies and transformations. Currently, Matt leads the Digital UKI’s Industry X.0 organisation helping to address the challenges and opportunities that globalisation, digitisation, IoT, personalisation and servitisation bring our various clients. matthew.b.booth@accenture.com

Purshotam Rai
Intelligent Automation

Porsche has over 17 years experience implementing complex systems integration projects and transformational programmes across multiple industries and technologies. More recently, Porsche has focused the majority of his time delivering Robotic Process Automation (RPA) solutions as part of back-office transformations, and is now leading up our Intelligent Automation discussions at a number of our key client groups. purshotam.rai@accenture.com
MEET THE TEAM

Ami Lakhani
Digital Sourcing & Procurement

Ami has 10+ years’ consulting & industry experience in supply chain and procurement, focused on the Retail and Consumer Goods industries. She is passionate about helping consumer-facing businesses to respond to political and technological challenges and to leverage disruptive technologies and trends, including AI and RPA.
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Dhiraj Ramaprasad
Cyber-Security

Dhiraj has over 14 years experience in Information Security with specialisation in Risk Management, Compliance, Assurance and Information Security Strategy. He brings with him proven capability to lead, strategise and deploy cross functional, cyber-security enterprise change programmes. Dhiraj also leads Accenture’s Managed Security practice in the UK and is currently leading a security programme on smart meters for one of Big 6 energy suppliers in the UK.
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Simon Jackson
RPA Business Change

As a Business Change practitioner, Simon has 20+ years experience in Operations and Programme Management. Most recently, he’s focused his time on the deployment of Robotics Process Automation (RPA) technologies across 50+ processes in the Utilities, Banking / Finance and Retail industries. He takes great pride in helping organisations understand the benefits of process automation and their strategies.
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AGENDA

Industry X.0 Overview

Post-Modern ERP

Intelligent Automation Spectrum

Cyber Security

Q&A
INDUSTRY X.0 IS DIFFERENT FROM INDUSTRY 4.0

INDUSTRY X.0

- Represents an open, inclusive approach to managing technology driven disruption
- Is a way for organizations to embrace constant technological change—and profit from it
- is not an end state, nor is it specific to a technological era
- incorporates Industry 4.0’s core operational efficiencies, and leverages combinations of digital technologies to create new value in new places
GLOBAL MEGATRENDS ARE CHANGING THE LIVES OF TODAY’S COMPANIES AND INDIVIDUALS

Industrial companies are being directly impacted by these three trends: Digitalization, Mobility and “Everything as a Service”

- A significant increase of new products launched
- An emerging and booming trend for personally customized products
- A globally-distributed manufacturing
- Globally-distributed & interconnected customers & partners
- IT solutions covering a wider scope at each release
BUSINESS CONTEXT: COMPLEX STAKES FOR INDUSTRY COMPANIES

Strategic Imperatives

• Reduce invested capital
• Reduce costs
• Increase customer satisfaction
• Address workforce dynamics
• Fulfil increasing regulatory, energy, and environmental requirements
• Keeping up with the pace of change
• Adapt to changing market dynamics (pressure from customer)
• Make Faster time-to-market
• Work with distributed manufacturing

In most cases, Manufacturing . . .

... employs the most capital
... is responsible for the largest costs
... can have the greatest impact on serving the customer
...employs the greatest share of human capital
...requires the longest lead time for significant change
BUSINESSES NOW PREFER AN ‘AND’ RELATIONSHIP OVER ‘OR’

99% of companies in our survey say ‘leading in the new’—transforming core businesses while growing new ones—is critical for them.
HOW CAN BUSINESSES DIGITALLY REINVENT INDUSTRIES AND LEAD IN THE NEW?
CAPABILITY I: TRANSFORM THE CORE

Organizations must lay a groundwork of digitized and integrated engineering and production systems to drive new levels of efficiency.

HOW CAN IT BE ACHIEVED?

**STRATEGIC DIGITAL ALIGNMENT**: Ensuring consistent understanding and deployment of digital strategy across the company and ecosystem with enhanced focus on digital trust and security.

**INTEGRATED HARDWARE & SOFTWARE**: Integrating hardware and software synchronously across the value chain and product lifecycle.

**AUTOMATION AT SCALE**: Automating at scale to optimize production runs and improve overall equipment effectiveness (OEE).
Companies must look to reinvent business models with the goal of creating new sources of value and new revenue streams.

**HOW CAN IT BE ACHIEVED?**

**REINVENTION OF THE PRODUCT:** Building intelligent and connected products from scratch, that are capable of adaptive interactions

**M2M SYNERGIES:** Leveraging IIoT to extract sharper insights and find new sources of synergistic value, at the level of the workforce and/or customers

**AS-A-SERVICE BUSINESS MODEL:** Transforming into a as-a-service business, by leveraging software-based-services and pay-per-use revenue models
CAPABILITY III: FOCUS ON EXPERIENCE & OUTCOMES

Delivering hyper-personalized customer experience and outcomes is critical to building and maintaining market leadership.

HOW CAN IT BE ACHIEVED?

**HYPER-PERSONALIZATION:** Designing and deploying products/services/platforms that constantly adapt to meet changing customer needs

**INTELLIGENCE:** Using big data as the foundation for real-time insight generation and decision support

**SMART TOUCHPOINTS:** Enhancing customer experience through the use of digital interfaces that allow for smart touchpoints throughout the product lifecycle.
CAPABILITY IV: BUILD THE WORKFORCE

Sourcing, training and retaining talent possessing digital-ready skills, is key to maintaining competitive advantage.

HOW CAN IT BE ACHIEVED?

DIGITAL ROLES: Developing digital components – either partial or complete - in multiple roles being performed by the workforce

MAN-MACHINE COLLABORATION: Designing tasks that encourage active collaboration between humans and autonomous robots/machines, to accomplish day-to-day tasks

RE-SKILLING FOR DIGITAL: Equipping the workforce to leverage digital tools and machine capabilities to improve productivity and enhance culture of experimentation
CAPABILITY V: RE-ARCHITECT THE NEW ECOSYSTEM

Nurturing the right partnerships in a newly architected ecosystem can help drive new innovation and capabilities.

HOW CAN IT BE ACHIEVED?

**ECOSYSTEM ORCHESTRATION**: Orchestrate the ecosystem by combining the efforts of different business partners (suppliers, peers, distribution) to create a digital value chain.

**OPEN AND CO-INNOVATION**: Obtaining and developing ideas for new products or services from a wide variety of sources, both internal and external to the firm.

**TECH INCUBATION CENTERS & COEs**: Nurturing innovation clusters that design and prototype early-stage technology use cases.
Companies must manage the wise pivot by continually balancing investment and resource allocation between the core and the new.

**HOW CAN IT BE ACHIEVED?**

**DIGITAL PERFORMANCE MANAGEMENT:** Pivoting shared performance metrics not only to traditional performance outcomes but also to levers that can disrupt such outcomes.

**MAINSTREAMING DIGITAL:** Moving advanced digital technologies such as artificial intelligence, machine learning, quantum computing, digital twins, from pilot/trail experiments into mainstream operations/enterprise.

**WISE GROWTH STRATEGY:** Embedding digital technology cadence principles into the overall growth strategy.
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ERP – BACKGROUND & CONTEXT

Business operating models and supporting processes and technologies have driven compounding waves of economic advantage.

WHERE WE HAVE COME FROM
- Improve Margins Through Cost Reduction
- Double Size of Business
- Increase Profitability

WHERE WE ARE GOING
- Scale
- Reach
- Digital
- Market of One

Processes and Technology
- Data Centric
- Interactive
- Archetypes
- Consolidated
- Fragmented

Business Operating Model
- Local
- Regional
- Global
- Super Global/Super Local
- Digital Disintermediation
- Liquid Enterprise
ERP systems have been the fundamental core technology that has evolved to support business model improvements.
IMPLICATIONS

Implications for companies that decide to move towards a more modular, platform-centric approach, the extent of which is the value case and roadmap

<table>
<thead>
<tr>
<th>FROM</th>
<th>TO</th>
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<tbody>
<tr>
<td><strong>Monolithic</strong></td>
<td><strong>Modular</strong></td>
</tr>
<tr>
<td>Single integrated ERP application</td>
<td>Best of breed with compact core ERP</td>
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<tr>
<td><strong>Process</strong></td>
<td><strong>Capability</strong></td>
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<tr>
<td>Standardise ‘How’ work is done</td>
<td>Focus on ‘What’ needs to be done</td>
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<tr>
<td><strong>Applications</strong></td>
<td><strong>Platforms</strong></td>
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<tr>
<td>Point systems</td>
<td>Ever-green, future-ready ecosystem</td>
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<tr>
<td><strong>On Premise</strong></td>
<td><strong>Cloud</strong></td>
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<tr>
<td>Self-sufficient, sized for peak</td>
<td>Variable, asset-lite, pay for use</td>
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<td><strong>Data Management</strong></td>
<td><strong>Decision Management</strong></td>
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<td>Enabling accurate transactions</td>
<td>Harnessing data as a corporate asset</td>
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<tr>
<td><strong>Back Office and Supply</strong></td>
<td><strong>Front Office</strong></td>
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<tr>
<td>Transaction intensive</td>
<td>Consumer &amp; Customer insight-driven</td>
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- Shrink ERP to a compact core that protects Financial accounting and critical business data
- The ‘Journey to the Cloud’ will accelerate driven by business adoption of secure, compliant and modern platforms with infrastructure savings.
- Increased usage of business services, on subscription, with evergreen software agnostic platforms. These will support capability innovation and further process automation on a mandated sub-set of common platforms.
- Governance of data and integration standards will supersede the pre-eminence of process, driving insights and action from an explosion of data from the digital ecosystem.
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INTELLIGENT AUTOMATION
THE FUTURE OF BUSINESS
BUSINESS AUTOMATION COMPARISON

What is it?

RPA
Also know as robotic automation & autonics, rapid automation emulates human interactions with software programs like ERP systems, databases, and Microsoft documents. Ability to follow rules based decisions, and copy, paste, or exchange data between systems.

Bots
Short for chat robot, a computer program that simulates human conversation, or chat, through artificial intelligence. Typically, a chat bot will communicate with a real person, but applications are being developed in which two chat bots can communicate with each other.

AI
Algorithms which process large datasets and carry out tasks more efficiently than humans. AI has self learning capabilities.

Business Applications

RPA
Requires Minimal IT Support
- Backhaul Scheduling
- Accounts Payable
- Report Generation and Emailing of Results
- Repetitive application access requests

Bots
- PTO Request
- Payroll Notification
- Training Notification
- Candidate Application Status
- Separation to Hire
- User access requests

AI
Require IT Support to be Coded & Managed
- Customer Service/Call Centers (Virtual Service)
- Automated Business Analytics
- Virtual Personal Assistants

Vendor/ Solutions

RPA
- Blueprism
- IBM
- NICE
- Kofax

Bots
- SAP
- Google
- Microsoft
- Azure
- IBM Watson

AI
- Microsoft
- IBM Watson
TECHNOLOGY WAVES

1. Mainframe
2. Client-Server and PCs
3. Web 1.0 eCommerce
4. Web 2.0, Cloud, Mobile
5. Big Data, Analytics, Visualization
6. IoT and Smart Machines
7. Artificial Intelligence
8. Quantum Computing

Time

1950 Turing Test
1961 System/360
1968: APT/HAK
1972: SAP
1977 PC
1989: Internet
1990: Amazon
1991: Big Data
1999: XML
2007: IBM Deep Blue
2010: Sales of PCs Pass
2013: Bitcoin
2014: Self-driving car
2019: 5G
2020: AI
2025: AI in Taxis
2030: Quantum

Quantum
ROBOTIC PROCESS AUTOMATION (RPA) OVERVIEW

https://www.youtube.com/watch?v=flw7BwIoGus
DIGITIZING THE SOURCE TO PAY PROCESS WILL UNDERPIN THE OPERATING MODEL OF THE FUTURE

Technology has progressed significantly in the last 2 years. eProcurement has improved. Robotic process automation (RPA) and Intelligent Automation can be deployed today.
QUESTIONS
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CYBER SECURITY: STRATEGY & RISK

CYBER SECURITY AS AN ENABLER OF GROWTH – NOT A COST OF DOING BUSINESS

GROW CONFIDENTLY
Increased breach reporting leads to better visibility in what is happening and shows that all industries are affected.

**SONY DATA BREACHES**
Multiple attacks caused breach of 77m customer records, unpublished movies and internal confidential information.

**OPERATION PAYBACK**
Paypal was hit by Anonymous activists in a DDOS attack, leading to 3.5m$ damages for the company. Attackers were jailed after pleading guilty.

**SHAMOON’ VIRUS ATTACK**
Destructive malware that rendered 30,000 workstations of an oil major unusable, disrupting business for weeks.

**DATABASE ATTACK**
76 million households and 7 million Small business accounts compromised in JP Morgan Chase hack.

**CARBANAK APT**
Stole $1bn through backdoors in email attachments that then aimed at finding administrator PC’s to harvest intelligence.

**‘STUXNET’**
Targeted permanent disruption of the Industrial Control Systems at the nuclear facilities in Natanz in Iran using 4 zero-day exploits.

**HACKABLE CARS**
Chrysler ‘recalls’ 1.4m Jeeps after researches demonstrated a flaw that could take over car controls.

**DATABASE ATTACK**
Large media exposure around alleged 4m customer records accessed, later turns out to be 157k. Reported 35m$ in damages for the UK Telco.
As companies seek to harness the promise of the digital revolution, they inadvertently introduce a multitude of vulnerabilities.

In a digital world, winning and retaining customers hinges on creating value for them that enhances the convenience and quality of their everyday lives beyond mere transactions.

- Mobile
- Social
- Online
- Phone
- POS / ATM
- Internet of Things

Mature, understood & siloed
Emerging, agile, & highly connected

Full omni-channel experience
The “xxx” everywhere experience
EXTENDED ECOSYSTEMS IN THE 4TH INDUSTRIAL REVOLUTION: INCREASINGLY COMPLEX, INHERENTLY VULNERABLE

The extended ecosystem is more complex than ever due to multi-channel, multi-product and cross-border approaches in highly competitive markets.
IT’S NOT A MATTER OF IF… IT’S WHEN

Boardroom priority:

“Are we investing enough in security…and in the right things?”

Business leaders know it’s not enough to focus purely on prevention of security breaches. To truly defend and empower your organisation, you need to prepare for known threats…and the unknown.

Cyber-security is still largely viewed as a cost of doing business
LEADING ORGANISATIONS ARE TURNING CYBER SECURITY COMPLEXITIES INTO OPPORTUNITIES TO UNLOCK VALUE FROM CUSTOMER DATA, AS WELL AS TO REDUCE COST AND RISK.

For those organisation’s that invest and innovate in Cyber Security there are significant opportunities for it to support, enable, and realise growth strategies through increased predictability, transparency and customer & capability trust.
HOW TO GET STARTED?

Organisations are increasingly looking to develop and augment their Cyber-Security position but knowing where to start and invest is key.

Investment Efficiency
How do I ensure that I’m investing correctly and proportionately?

Leadership & Governance
How do I structure my organisation to that I have coverage from “the shop-floor to the board room”?

Extended Ecosystem
How can I increase confidence in security practices of our partners, third parties, service providers and JVs?

Cyber Response & Resilience
Business focused effectiveness review of resilience & response processes

Business Alignment
Effectiveness of business functions / objective and its alignment with information / cyber security

Data Security
This is becoming an increasingly important asset that I need to use flexibly – how can I strike an appropriate balance between use & security?

Strategic Threat Context
How can I fully understand and identify what threats we face and how serious they are?

7 Domains

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TO HELP FIRMS OVERCOME THE COMPLEXITY OF CYBER, THE CYBER & THE CITY REPORT OUTLINED A PRACTICAL CYBER CHECK-LIST FOR FIRMS

01 KNOW THREATS
02 HAVE A PLAN
03 DATA MAPPED
04 RISKS MANAGED
05 INDEPENDENT TEST

06 RISK APPETITE
07 INSURANCE
08 RESPONSE
09 SHARING w/ PEERS
10 BOARD REVIEW

The main cyber threats for the firm have been identified and sized.

There is an action plan to improve defence and response to these threats.

Data assets are mapped and actions to secure them are clear.

Smaller systems, employees and infrastructure are being mitigated.

The planning and independent stress test are against a recognised framework.

The risk appetite statement provides control of cyber security for the risk.

Insurance has been tested for its cyber coverage and出具 a policy.

Preparations have been made to respond to a successful attack.

Cyber insights are being shared and gained from peers.

Regular Board reviews material is provided to confirm status of the above.

Source: https://www.thecityuk.com/research/cyber-and-the-city/
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