ACCENTURE IS A LEADING PROFESSIONAL SERVICES COMPANY

WITH CAPABILITIES IN STRATEGY, CONSULTING, DIGITAL, TECHNOLOGY AND OPERATIONS
WE HAVE A BROAD GLOBAL FOOTPRINT

WITH OFFICES AND OPERATIONS IN 56 COUNTRIES
FACTS AND FIGURES

WE ARE ONE OF THE WORLD’S LEADING PROFESSIONAL SERVICES COMPANIES

442,000
People globally
FACTS AND FIGURES

WE ARE ONE OF THE WORLD'S LEADING PROFESSIONAL SERVICES COMPANIES

34.9

Net revenues 34.9 billion USD
Fiscal year ended August 31th, 2017
ACCENTURE IN THE NORDICS AND FINLAND

WE HAVE A STRONG LOCAL PRESENCE

1400 People in Finland
25+ Years in Finland
WE HELP ORGANIZATIONS ALLOVER THE WORLD MAXIMIZE THEIR PERFORMANCE AND ACHIEVE THEIR VISION
OUR WORLD IS UNDERGOING A FUNDAMENTAL SHIFT TO THE NEW…

OLD WORLD
Information scarce
Static hierarchies
Compete to win
Individual productivity
Focus on planning ahead
Efficiency of process

NEW WORLD
Information abundant
Dynamic networks
Collaborate to win
Collective value creation
Experiment, learn and respond
Effectiveness of outcomes
... AND DIGITAL IS ACCELERATING THIS SHIFT IN INDUSTRY EXPONENTIALLY

Mainframe
Client-server & PCs
Web 1.0 ecommerce
Web 2.0, cloud, mobile

Big data, analytics, visualization
IoT & smart machines
Artificial intelligence
Quantum computing

Today

1950: Turing Test
1954: System/360 Server/Host
1969: ARPANET 1972: SAP
1977: PC 1990: System/360
1991: Public Internet 1999: Saleforce.com
1994: Amazon 1999: IoT, M2M
1997: Big Data 2005: Web 2.0
1999: IoT, M2M 2006: AWS
2007: IBM Deep Blue
2010: Self Driving Cars 2014, IDC: 4.4 Zettabytes of Data
2016: Pokemon Go

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WE ARE ENTERING THE INDUSTRY X.0 ERA, CONVERGING INFORMATION AND OPERATIONAL TECHNOLOGY

18TH CENTURY
INDUSTRY 1.0
Mechanical production powered by water and steam

20TH CENTURY
INDUSTRY 2.0
Mass production based on the division of labor and powered by electrical energy

1970 – RECENT
INDUSTRY 3.0
Electronics and IT for automation of production and front/middle/back office

TODAY
INDUSTRY 4.0
Cyber physical production systems

TOMORROW
INDUSTRY X.0
WHAT IS INDUSTRY X.0?

NEW SERVICES & EXPERIENCES

ACCELERATION & EFFICIENCY

INNOVATION & GROWTH

TRANSFORMATION OF CORE

DESIGN | PRODUCE | SUPPORT

DIGITAL ENABLERS
WHAT IS INDUSTRY X.0?

WHAT WE DO

• Invent new Smart, Connected Products and Services
• Transform business models and operations from Product to Service
• Help businesses become Software and Experience Companies
• Enable companies to create and participate in New Ecosystems
• Automate core processes of R&D, Engineering, Production and Support through integrated systems
• Connect machines and sensors and Extract Data and Derive Intelligence to improve performance
• Connect and Enable Workers with new digital technologies
• Apply Next Generation Production techniques - 3DP, robotics etc.

WHAT CLIENTS GET

• New Revenue Streams from as-a-Service and Smart Connected Products
• Personalized Customer Experiences for both B2C and B2B
• Dramatically Reduced Cost and Faster Throughput
• Greater Agility and Responsiveness to demand
• Better Worker Experiences and Productivity
NORDIC INDUSTRIES IN DIFFERENT PHASES OF DISRUPTION – ACTIONS TO BE TAILORED ACCORDINGLY

- Media and Entertainment
- High Tech
- Communications
- Software & Platforms
- Industrial Equipment and Machinery
- Automotive
- Chemicals
- Life Sciences
- Capital Markets
- Retail
- Travel
- Banking
- Insurance
- Energy
- Infrastructure & Transportation Services
- Natural Resources
- CG&S
- Health
- Utilities
- Total Enterprise Value (EV)
ACCELERATING THE PATH TO VALUE
THE MORE INTELLIGENT THE INDIVIDUAL MACHINE, THE MORE EFFICIENTLY IT CAN OPERATE AND BE MAINTAINED

OPERATIONAL EFFICIENCY
- Asset utilization
- Operational cost reduction
- Improvement worker productivity, safety and working conditions

NEW PRODUCT & SERVICES
- New business models
- Pay per use
- Software based services
- Product / Service hybrids
- Data monetization

OUTCOME-BASED ECONOMY
- Pay per outcome
- New connected ecosystems
- Platform-enabled marketplace
- Industry blur

AUTONOMOUS PULL ECONOMY
- Continuous demand-sensing
- End to end automation
- Resource optimization and waste reduction

FROM PRODUCT TO SERVICE TO OUTCOME TO PULL

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AND REFINERS ARE BEGINNING TO RECOGNIZE THE VALUE OF DIGITAL TECHNOLOGIES

IT'S NOT “CAN REFINERS AFFORD TO” — IT’S “CAN THEY AFFORD NOT TO”?  

19% CURRENTLY RECOGNIZE DIGITAL AS ONE OF THEIR TOP 3 SPENDING PRIORITIES FOR PLANT EFFICIENCY AND PRODUCTIVITY — BUT THIS IS SET TO CHANGE

NEARLY TWO THIRDS PLAN TO INCREASE THEIR INVESTMENTS IN DIGITAL TECHNOLOGIES OVER THE NEXT THREE TO FIVE YEARS.

PRIMARIES OF DIGITAL TO REFINERS

- Reduction of operational costs
- Margin pressures / weak prices
- Growth and expansion enablement
- Reduction of capital costs
- Changes in regulations
- Ability to better meet customer demands
- Aging workforce / shortage of talent
- Concerns regarding efficiency of plant processes
- Product quality
- Cybersecurity risk
- Threats from competitors / market share loss
- Increasing focus on innovation and R&D

BARRIERS TO ADOPTION OF DIGITAL IN REFINING

- Cost
- Lack of clear strategy/business case
- Data security
- Realigning the organization to make the best use of digital
- Process barriers
- Lack of internal ownership
- Lack of digital skills to realize the value
- Managing the deployment of digital technologies
- No specific segment investment plans
- Digital technology not viewed as mature enough

Which business priorities influence the digital investments in your refining business? Please rank your top 3 with “1” as top priority.

Which barriers, if any, prevent successful adoption of digital technologies in your organization? Please select all that apply.


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WHAT IS DIGITAL PLANT?
FROM COLLECTION TO COGNITION

Facilitates proactive asset and operations management beyond localized optimization through applied analytics and artificial intelligence at scale.
CONVERGENT TECHNOLOGIES ACROSS IT/OT ENABLE DIGITAL PLANT
Marathon Petroleum Company

Challenge
- Reinforce safe work practices and support employee safety

Solution
- **Accenture Life Safety Solution** tracks employees' location in a plant, warns the individual and the plant operators of any potential nearby danger including abnormal gas levels. It can also detect employees' lack of motion ("man down") and trigger the appropriate safety protocol.
- Automatically record any safety incident to allow the plant to continuously improve their safety operational process, and in the case of evacuation, identify any missing individual in a timely manner.

Results
- 24/7 safety monitoring and timely responses to gas leaks
- Greater and more accurate safety incident reporting
- Improved compliance through personnel location monitoring

[www.iiconsortium.org/case-studies](http://www.iiconsortium.org/case-studies)
ACHIEVING A TRULY DIGITAL PLANT

- Digital requires senior executive leadership and vision, underpinned by proof of concepts that quickly lead to scaled programs focused on maximizing return on investment.

- Companies need to drive a culture of innovation and technology adoption – a parallel focus on OT & IT.

- Investment in human capital and development programs are needed to promote new, digital thinking and new ways of working.

- A methodical approach for developing and/or industrializing the digital foundation is needed, including managing the broader ecosystem of digital partners.

- A comprehensive digital enablement plan should be built into business strategy to lead to digital transformation.

- Incorporate agile design thinking into development and implementation for fast innovation, fast failure and quick success.
Why Participate in the Industrial Internet Consortium?

• **Collaborate and network** with like-minded leaders of the Industrial Internet: Small and large technology innovators, vertical market leaders, researchers, universities, and governments

• **Drive innovation and grow your business** by creating new industry use cases and testbeds for real-world applications

• **Join with industry innovators** in setting the technology and security direction and requirements for the Industrial Internet
  • Define and develop the reference architecture, frameworks, and security necessary for interoperability
  • Influence the global development standards process for internet and industrial systems

• **Participate in the sharing and exchange** of real-world ideas, practices, lessons, and insights
VILLE MICHELSSON,
DIRECTOR, ACCENTURE INDUSTRY X.0
CO-CHAIR, IIC ENERGY TASK GROUP

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