



# Digital Transformation Benchmark - 2012

*Emergence of the Digital Utility*



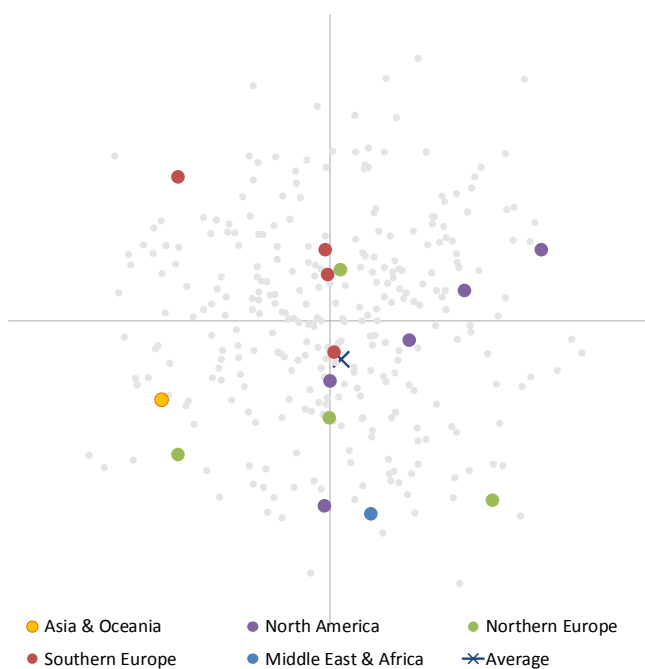
# Digital Transformation in the Utilities Industry

For the Utilities industry, operational efficiency is the name of the game in Digital Transformation. Given the constant pressure from regulators, shareholders and customers to reduce operational costs, a large majority of utility companies view digital technology as a lever to – first and foremost – improve internal efficiency. Many utility companies also view digital as a means to improve customer relationships, as evidenced by applications of social media and mobile to the customer experience.

Despite these opportunities, the results of our study reveal that most utilities are quite “Conservative” in their digital maturity. Most are just beginning their digital journeys. Overall, utilities show strong digital management practices, but appear to use digital technologies less than other industries in the customer experience or their own operations.

Increasing expectations of digital-savvy customers and the coming “data tsunami” generated by the deployment of “smart” technologies (e.g. smart city, smart grid, smart home, smart meters) will create new possibilities for Digital Transformation in the industry. Most utilities will need to increase the scale and breadth of their digital initiatives to take advantage of them.

Figure 1: firms’ positioning in the Digital Maturity Matrix



## Interpreting the Digital Maturity Matrix

- The vertical axis measures “Digital Intensity,” i.e. firms’ digital practices
- The horizontal axis measures “Transformation Management Intensity,” i.e. the management practices implemented by the firms around digital transformation

For more information, read the MIT Center for Digital Business and Capgemini Consulting Research Report “Digital Transformation: a Roadmap for Billion-Dollar Organizations” (2011)

### Learning 1: Utilities have only adopted digital technologies in specific areas of the customer experience

Although utilities do not report extensive use of mobile or social media, some companies have

leveraged them in providing customer service. More than half of the utilities we surveyed use mobile channels to provide customer service (such as consumption information or connection status in case of

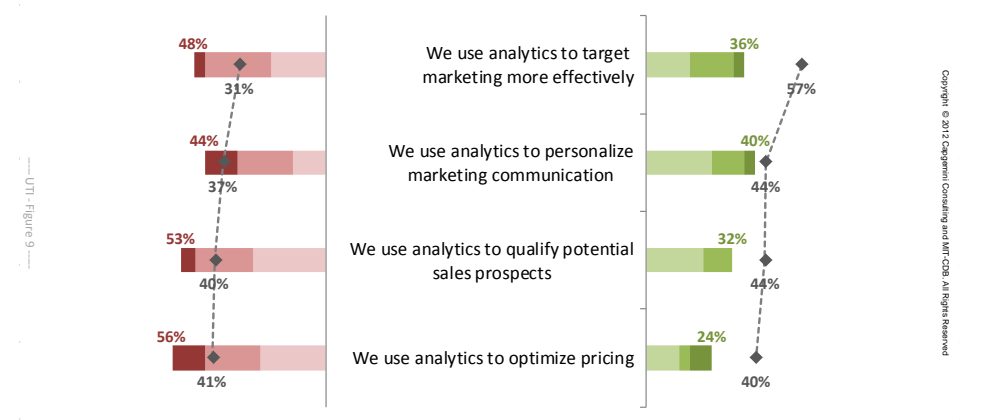
outage), compared to a cross-industry average of only 36%. Almost a third reported doing the same with social media, where figures were only slightly above average. Many responses to enabling self-service through digital were neutral, suggesting that current initiatives may still be in nascent stages.

**Learning 2: Analytics is not widely used to enhance either the customer experience or internal operations**

On both customer experience and operational fronts, utility companies report below-average use of analytics. Roughly half of

the firms we surveyed do not use analytics to target marketing to customers, qualify sales prospects or optimize pricing (see Figure 2). Also, only 46% reported using analytics to make better operational decisions. While this may reflect the data limitations imposed by legacy or incompatible systems, the advent of smart metering and smart grid – and the data that they will make available – may open up myriad new possibilities for utilities (provided that data privacy issues regarding smart metering are settled). Companies will need to invest in analytics and digital skills to leverage the amount of data that will come into the value chain.

**Figure 2: customer analytics**



**Legend:**

- Red bars represent the percentage of companies disagreeing with each statement (answers 1, 2 and 3 on a scale from 1 = strongly disagree to 7 = strongly agree) in the industry; green bars represent the percentage of companies agreeing with each statement (answers 5, 6, or 7).
- Grey marks represent disagreement (answers 1, 2 or 3) or agreement (answers 5, 6 or 7) across all companies in our study.

### **Learning 3: Untapped opportunities may exist in worker enablement and process digitization**

Mobile technologies play an important role in improving operational processes within most utilities; 76% of the utilities we surveyed responded accordingly. This may reflect the use of digital technologies in field force automation and field service management. Two-thirds of utilities reported that their employees can collaborate digitally; 63% stated that employees can work remotely or that digital technologies improve communication between executives and employees. Nevertheless, all scores in worker enablement are slightly below cross-industry averages, and may suggest opportunities for further improvement.

Utilities are considerably less mature than other firms in process digitization. Less than half monitor operations in real-time and only 21% stated that operational process can adapt quickly to external changes. Other measures of process digitization, such as process automation, were also below averages. The potential for digitizing operations through “smart” technologies combined with the priority of operational efficiency suggest that improvements in these areas could prove valuable investments.

### **Learning 4: Data and integration issues may present challenges in other areas**

Overall, IT-business relationships in the utilities we surveyed are strong. 75% reported that IT leaders and business executives have a shared understanding of the IT unit’s role in the organization. However, less than half of the utilities we surveyed have an integrated view of operational performance, product / service performance or customer data. Fewer still (29%) have an integrated view of supply chain status – an important component of the construction and maintenance functions of some utilities. These data and integration challenges may preclude applications of analytics (see Learning 2) and process digitization (see Learning 3). Also, with the arrival of smart meter and smart grid devices (sensors, etc.), Operational Technologies (OT) will play an increasingly important role in real-time monitoring and controlling of assets (network and plants). These will need to integrate further with Information Technologies (IT) to unleash greater levels of performance.

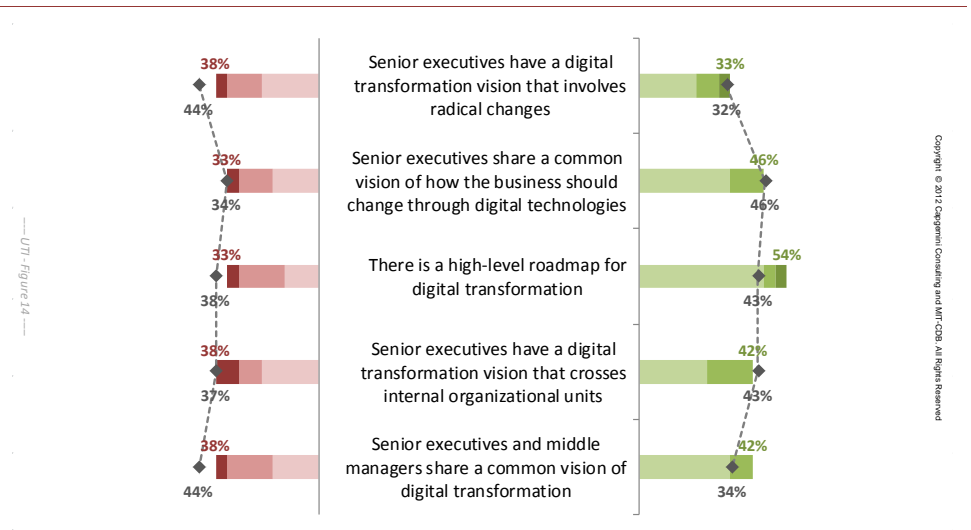


**Learning 5: Utilities’ digital transformation management practices are relatively more mature than their use of digital technologies**

In most measures of digital transformation management, utilities are more mature than firms in other industries. More than half of the utility companies we surveyed reported having a high-level roadmap for digital (see Figure 3) and two-thirds reported enterprise-wide participation in conversations around digital initiatives.

71% highlighted that business cases are required for digital initiatives, perhaps reflective of the degree of investment rigor required in regulated areas of the utilities value chain. In fact, the industry’s Digirati are even more advanced; they are almost uniformly more mature across all dimensions of digital management practices.

**Figure 3: digital vision**



Generally speaking, utilities have healthy digital management practices, but do less in leveraging digital technologies in their business. Though they do not appear to lack for opportunities to apply digital to either the customer experience or internal operations. Firms can better leverage strengths in digital management through initiatives that could include:

- **Continuing to invest in process digitization** – Utilities cite internal efficiency as a key priority for Digital Transformation, but are less mature than other industries in all measures of process digitization (see Learning 3). Opportunities such as process automation and analytics could support a leaner, smarter operations, especially if OT and IT become progressively integrated.
- **Making analytics a core capability** – Use of analytics could provide a foundation for a number of innovations in the customer experience and operational decision-making. “Smart” systems will certainly provide rich datasets in the future, but most utilities may not be ready to leverage them today. In the meantime, utilities may want to leverage their IT organizations to address data integration or data availability challenges where they exist.
- **Continuing to explore opportunities in the customer experience** – Responses to product / service promotion, selling or building customer communities via social media were relatively low, suggesting that social media may have limited relevancy for promoting or selling utilities’ core services. However, social media could be an interesting channel in other areas, such as promoting energy efficiency programs or in outage management.

## Acknowledgments

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We would like to extend our sincere thanks to executives who took the time to respond to our survey.

## Contacts

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For more information, please contact:

### Global

Philippe

DAVID

[philippe.david@capgemini.com](mailto:philippe.david@capgemini.com)

### Belgium

Pierre

LORQUET

[pierre.lorquet@capgemini.com](mailto:pierre.lorquet@capgemini.com)

### China

Nongfei

ZHU

[nongfei.zhu@capgemini.com](mailto:nongfei.zhu@capgemini.com)

### Finland

Anneli

SAMUELSSON

[anneli.samuelsson@capgemini.com](mailto:anneli.samuelsson@capgemini.com)

### France

Jean-Pierre

DUPÉ

[jean-pierre.dupe@capgemini.com](mailto:jean-pierre.dupe@capgemini.com)

### India

Romain

DELAVERNE

[romain.delavenne@capgemini.com](mailto:romain.delavenne@capgemini.com)

### Netherlands

Mark

HOFLAND

[mark.hofland@capgemini.com](mailto:mark.hofland@capgemini.com)

### Norway

Tallak

THORLEIFSSON

[tallak.thorleifsson@capgemini.com](mailto:tallak.thorleifsson@capgemini.com)

### Spain

Oscar

SOMARRIBA GUEMES

[oscar.somarriba@capgemini.com](mailto:oscar.somarriba@capgemini.com)

### Sweden

Anneli

SAMUELSSON

[anneli.samuelsson@capgemini.com](mailto:anneli.samuelsson@capgemini.com)

### USA

Barbara

SPITZER

[barbara.spitzer@capgemini.com](mailto:barbara.spitzer@capgemini.com)

### United Kingdom

Martin

WELLS

[martin.wells@capgemini.com](mailto:martin.wells@capgemini.com)

### Germany, Switzerland, Austria

Andreas

WEILER

[andreas.weiler@capgemini.com](mailto:andreas.weiler@capgemini.com)

### United Arab Emirates

Jawad

SHAIKH

[jawad.shaikh@capgemini.com](mailto:jawad.shaikh@capgemini.com)

## About the Research on Digital Transformation

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This analysis is based on data collected during the second year of our joint research program with the MIT Center for Digital Business.

For more information about the research, please contact:

- **Didier BONNET**

Managing Director and Global Head of Practices at Capgemini Consulting

[didier.bonnet@capgemini.com](mailto:didier.bonnet@capgemini.com)

- **Patrick FERRARIS**

Global Leader of the Technology Transformation Practice within Capgemini Consulting

[patrick.ferraris@capgemini.com](mailto:patrick.ferraris@capgemini.com)



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