



The Power of Talent

CIO Survey 2019

A changing perspective

Summary of Norwegian findings

kpmg.no



CIO Survey 2019

It is with great pleasure that we present you with a summary of the Norwegian findings from the global 2019 Harvey Nash / KPMG CIO Survey. This “zoom in” on Norway intends to give you unique insights into the priorities and challenges of Norwegian IT and technology leaders through highlighting key results that differ from the global results.

Norwegian IT leaders have every reason to smile. This year they reported an increase in their budgets compared to last year, a trend they expect will continue in the coming year. In addition, the willingness among organizations to invest in emerging technologies that will significantly change business models, products and services is increasing rapidly. This development indicates that the role of the CIO is becoming even more strategic and influential at board level.

Enjoy this summary!

Board priorities

The top three priorities that the executive board wants the IT leader to address are consistent across the world. Delivering stable and consistent IT performance to the business is the top priority globally, but Norwegian IT leaders place significantly more importance to this task than their global peers (88% vs. 64%).

Even more interesting is that cyber security is board priority number five globally, while only placed at number nine in Norway. This is quite surprising, given the fact that several large cyber security related incidents have occurred the last few years in Norway

– incidents that have attracted significant media coverage.

The survey’s results also confirm our perception that the CIOs have gained a more strategic role within their organizations, as two out of three Norwegian respondents answered favorable to this statement.

Our discussions with CIOs and IT Directors are more focused on how to adapt to new business models and emerging technologies – and how to drive innovation and cross-discipline collaboration – rather than addressing operational IT issues.



1 DELIVERING CONSISTENT AND STABLE IT PERFORMANCE TO THE BUSINESS



2 INCREASING OPERATIONAL EFFICIENCIES



3 SAVING COSTS / IMPROVING BUSINESS PROCESSES

What are the key business issues that your executive board is looking for IT to address? (Norway)



Technology spend

Investments in technology are growing and the majority of the Norwegian respondents indicate that their IT budgets have increased over the last year. They continue to stay positive, as more than 60 percent expect their budgets to increase in the coming year as well. This is somewhat higher than what their global peers report (52%).

Furthermore, the survey shows that top executives (CEOs) prefer technology projects that make money over the ones that

save money, with six out of ten of Norwegian IT leaders answering favorable to this statement. We also see a clear shift in technology spend from capex to opex due to increased use of as-a-Service (aaS) solutions where less spend can be capitalized.

	Norway	Globally
Increased IT budget over the last year	58%	55%
Expecting a budget increase over the next year	62%	52%
Expecting to grow their headcount	64%	51%

Technology spend, Norway vs. globally

People, skills and talent

This year's survey shows that skills shortages are at an all-time high, with a staggering 77 percent of Norwegian IT leaders reporting that they are struggling to keep up with the pace of change due to lack of skills, compared to 67 percent globally. Other KPMG research confirms that this challenge is becoming more and more precarious.

As a result, organizations turn to outsourcing to access skills that are not available in-house. Seven out of ten of the Norwegian respondents report that they either outsource or offshore. Furthermore, a shortage of skills is considered one of top two reasons for outsourcing among Norwegian IT leaders

(64%). Only 44 percent of the Norwegian respondents answered that their organizations are very or moderately effective in ensuring that non-IT staff have the right technology skills, which is significantly lower than the global average of 63 percent.

Gender and diversity

Female representation in the IT sector is low among Norwegian businesses, with an average of 23 percent females in technology teams (22% globally). Only 16 percent of Norwegian IT leaders respond that their organization is very successful at promoting diversity and inclusion, which is low compared to the global average of 26 percent.



Top 3 most scarce skills, in Norway vs. globally



Technology adoption

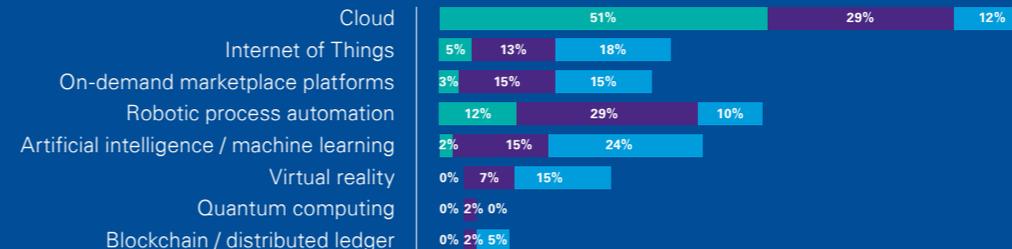
Almost all Norwegian IT leaders (93%) have adopted cloud technology to a certain extent, and the majority is implementing cloud technology on a large scale. This is interesting, given that organizations were sceptical to both the safety and value related to being in the cloud a few years ago. In fact, the global survey shows that organizations that have adopted cloud technology feel more protected against cyber attacks.

The latest wave of technology investments includes Internet of Things (IoT), on-demand platforms and artificial intelligence (AI) / machine learning (ML). It is interesting to note that at least one out of five of the Norwegian respondents have initiated at least one small-scale implementation of these technologies. The boards are increasingly asking the IT leaders to implement AI, and thus we expect the adaptation of these technologies to continue to grow significantly in the next few years and increasingly become driven by business-led investments. This will probably lead to large organizational changes across

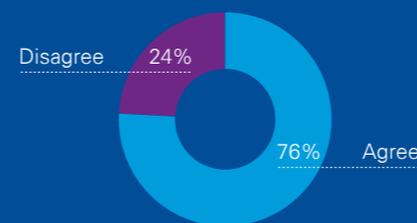
the businesses, including the need for new competencies.

Workforce and AI

While much has been made of how AI will replace humans, the majority of Norwegian CIO Survey respondents believe that new job roles will more than compensate for old jobs being replaced by AI. Typically, respondents believe that 10 percent of their workforce will be replaced by AI / automation within five years, but for a fifth of the respondents that figure goes up to 20 percent. It will require an organization to focus on how to shape and integrate a collaborative future workforce that combines human and digital labor.



■ Large-scale ■ Small-scale ■ Piloting
Extent of technology adaption in your organization (Norway)



Agree or disagree: New job roles will compensate for those lost through AI / automation (Norway)



Organizations that expect at least one-fifth of roles will be replaced by AI / automation within 5 years

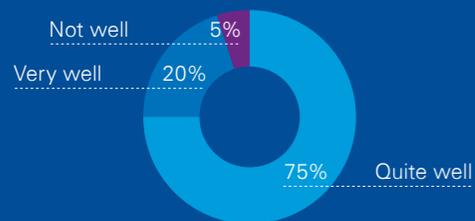


Security, data and privacy

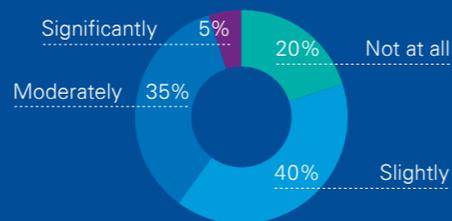
The prevalence of cyber crime remains high and 26 percent of the surveyed digital leaders report that their organization has been subject to cyber attacks in the last 2 years. However, 75 percent of the respondents feel confident that their organization is quite well positioned to identify and deal with current and near future cyber attacks, which is relatively better than the global average of 63 percent. Furthermore, one-fifth feel very well positioned and are confident that all reasonable risks are covered. The survey also shows that Norwegian IT leaders place less

emphasis on cyber security, with 42 percent reporting that cyber security is one of the board's key priorities compared to 56 percent on a global level.

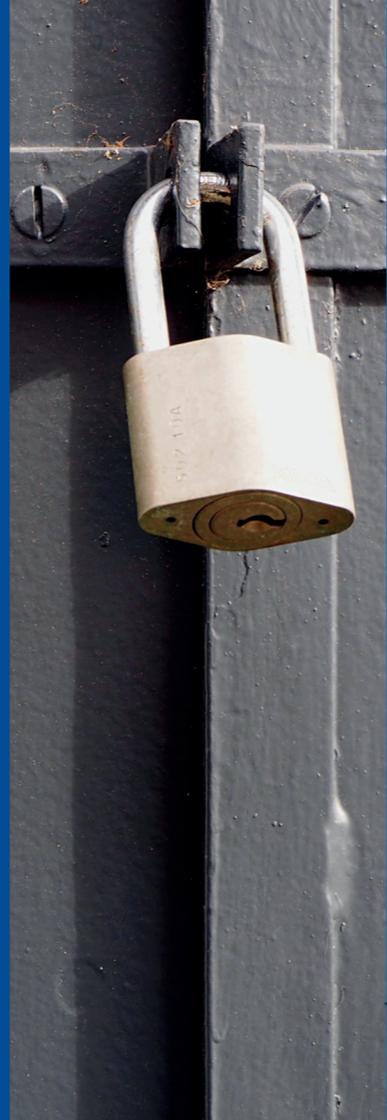
Almost all technology leaders (89%) agree that data privacy and trust will be as important as their product / service offering in customer attraction.



To what extent do you feel your organization is positioned to identify and deal with current and near future IT security / cyber attacks? (Norway)



To what extent does the need for data security and consumer trust limit your organization's ability to innovate? (Norway)



Organizational changes

The survey reveals that almost 90 percent of the Norwegian organizations are undergoing some kind of digital change that will fundamentally impact their organization, either through introducing new products and services that will be equal to or more dominant than existing ones (38%) or – more radically – fundamentally changing their business. These changes are spurred by the growth of digital disruption and new technology.

However, only 17 percent of Norwegian IT leaders report that they have been very effective in using digital technologies to advance their business strategy, which might be a result of Norwegian IT leaders' prioritization of stable and consistent IT performance. Although stability is important, taking full advantage of the possibilities that emerging technology and innovation provide is key to creating digital progress and unleashing the growth that follows disruption. Thus, Norwegian IT leaders must balance innovation, business development and IT more efficiently.



- Radical transformation: 2%
- Major changes: 49%
- Some changes: 39%
- Minor changes: 7%
- No change at all: 2%

Extent to which an organization's primary business activity will transform over the next 3 years (Norway)





Read the global results from CIO Survey 2019:
hnpkpmgciosurvey.com

Contact us

For more information on this year's CIO Survey, please contact one of our consultants.



Kristine Bolstad

Partner, Digital Enterprise

T: +47 406 39 626

E: kristine.bolstad@kpmg.no



Geir Alexander Talseth

Director, Digital Enterprise

T: +47 918 78 708

E: geir.alexander.talseth@kpmg.no



Waithira Dingmeijok

Associate, Digital Enterprise

T: +47 463 90 926

E: waithira.dingmeijok@kpmg.no



kpmg.no

© 2019 KPMG AS, a Norwegian limited liability company and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. All rights reserved. Printed in Norway.

The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavour to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.

The KPMG name and logo are registered trademarks or trademarks of KPMG International.