# IT auditorsdag 2019

Digital Transformation & Control

17 september  2019

DIGITAL TRANSFORMATION  & CONTROL

# Opening: intro Digital Transformation & Control

Digital Transformation :

► Transformatie van bedrijfsprocessen, organisatorische activiteiten, businessmodellen, rollen en/of competenties

► Met behulp van een mix van digitale technologieën

► Volgens een vastgestelde strategie

► (met kans op synergievoordelen

► en/of risico van mislukken)


► AI ? Machine Learning? Cloud ? Agile ?

► Definitie of clear digital objective?

# Sommige projecten mislukken:

## Minister Van Nieuwenhuizen trekt stekker uit mislukt ict-project

De kosten voor het project DigiInhuur zijn sinds 2017 opgelopen tot ruim zes miljoen euro. Van Nieuwenhuizen trekt er de stekker uit omdat Deloitte niet op tijd levert.

✏ Rik Wassens  ⊙ 6 augustus 2019  ⏱ Leestijd 1 minuut

➢ 6 miljoen
➢ ERP als basis
➢ Maatwerk
➢ workarounds

# Andere projecten verlopen boven verwachting

31 oktober 2018

## Digitale transformatie Schiphol beloond met Computable Award

Digital Airport Programma wint met 34,5% van de stemmen

Het Digital Airport Programma van Royal Schiphol Group heeft in de categorie ICT-project van het Jaar in het Grootbedrijf de Computable Award 2018 gewonnen. De resultaten die zijn neergezet in een korte tijdslijn hebben veel indruk gemaakt op de jury. Enerzijds door innovatieve technologieën te implementeren, anderzijds door de mensgerichte aanpak voor het implementeren door de eigen mensen in de organisatie, aldus de jury.

Henk Jan Gerzee, CDO Royal Schiphol Group: "Vol trots neem ik deze prijs in ontvangst. Met slimme digitale oplossingen willen we de reizigerservaring verbeteren, processen effectiever maken en onze gebouwen en assets slimmer maken om ze optimaal te gebruiken. Dat doen we samen met onze partners die vliegen van en naar Schiphol mogelijk maken, zodat zij hun rol in het proces ook kunnen optimaliseren. De award is een bevestiging dat we op de goede weg zijn."

- ➢ Transformeren moet je durven
- ➢ Digitale marketingstrategie als basis
- ➢ Digitaal in DNA brengen
- ➢ Chief Digital Officer
- ➢ Goede mensen
- ➢ Agile werken
- ➢ Mandaat van mensen
- ➢ Transparant
- ➢ Doorzetten

Christa Bakker.

# Transformations are hard, and digital ones are harder

► Years of research on transformations has shown that the success rate for these efforts is consistently low: less than 30 percent succeed. [2] 2. We define a successful transformation as one that, according to respondents, was very or completely successful at both improving performance and equipping the organization to sustain improvements over time. This year's results suggest that digital transformations are even more difficult. Only 16 percent of respondents say their organizations' digital transformations have successfully improved performance and also equipped them to sustain changes in the long term. An additional 7 percent say that performance improved but that those improvements were not sustained.

► Even digitally savvy industries, such as high tech, media, and telecom, are struggling. Among these industries, the success rate does not exceed 26 percent. But in more traditional industries, such as oil and gas, automotive, infrastructure, and pharmaceuticals, digital transformations are even more challenging: success rates fall between 4 and 11 percent.

► **Success rates also vary by company size. At organizations with fewer than 100 employees, respondents are 2.7 times more likely to report a successful digital transformation than are those from organizations with more than 50,000 employees.**

Source: https://www.mckinsey.com/business-functions/organization/our-insights/unlocking-success-in-digital-transformations

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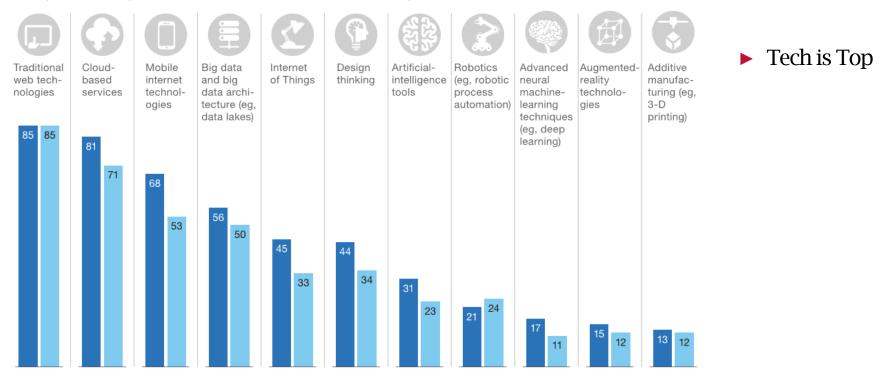DE BEROEPSORGANISATIE VAN IT-AUDITORS

Organizations with successful transformations deploy more technologies than others do.

Digital technologies, tools, and methods currently used by organizations, % of respondents[1]

■ Respondents at companies with successful transformations[2]   ■ All other respondents[3]

| Technology | Successful | All other |
|---|---|---|
| Traditional web technologies | 85 | 85 |
| Cloud-based services | 81 | 71 |
| Mobile internet technologies | 68 | 53 |
| Big data and big data architecture (eg, data lakes) | 56 | 50 |
| Internet of Things | 45 | 33 |
| Design thinking | 44 | 34 |
| Artificial-intelligence tools | 31 | 23 |
| Robotics (eg, robotic process automation) | 21 | 24 |
| Advanced neural machine-learning techniques (eg, deep learning) | 17 | 11 |
| Augmented-reality technologies | 15 | 12 |
| Additive manufacturing (eg, 3-D printing) | 13 | 12 |

[1]Respondents who answered "other" or "don't know" are not shown.
[2]Respondents who say their organizations' transformations were very or completely successful at both improving performance and equipping the organizations to sustain improvements over time, n = 263.
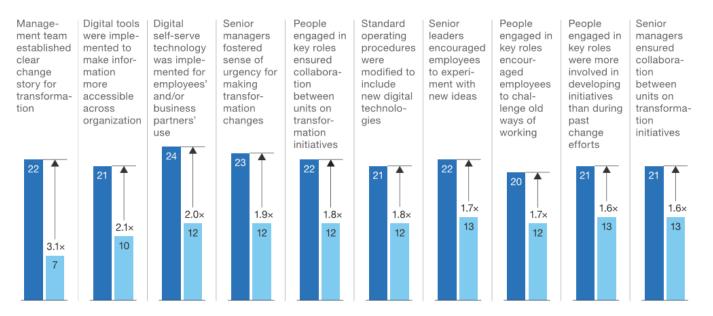[3]n = 1,258.

McKinsey&Company

► Tech is Top

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When key factors are in place, respondents are up to three times more likely to report successful digital transformations.

**Success rate of digital transformations,[1] by key factors,[2] % of respondents**

■ Statement describes transformation[3]   ■ Statement does not describe transformation[4]



| Management team established clear change story for transformation | Digital tools were implemented to make information more accessible across organization | Digital self-serve technology was implemented for employees' and/or business partners' use | Senior managers fostered sense of urgency for making transformation changes | People engaged in key roles ensured collaboration between units on transformation initiatives | Standard operating procedures were modified to include new digital technologies | Senior leaders encouraged employees to experiment with new ideas | People engaged in key roles encouraged employees to challenge old ways of working | People engaged in key roles were more involved in developing initiatives than during past change efforts | Senior managers ensured collaboration between units on transformation initiatives |
|---|---|---|---|---|---|---|---|---|---|
| 22 | 21 | 24 | 23 | 22 | 21 | 22 | 20 | 21 | 21 |
| 3.1× | 2.1× | 2.0× | 1.9× | 1.8× | 1.8× | 1.7× | 1.7× | 1.6× | 1.6× |
| 7 | 10 | 12 | 12 | 12 | 12 | 13 | 12 | 13 | 13 |

[1]Respondents who report success say their organizations' transformations were very or completely successful at both improving performance and equipping the organizations to sustain improvements over time; n = 263.

[2]Out of 21 key factors of success, determined by Total Unduplicated Reach and Frequency (TURF) and Shapley analyses. These analyses were used to make commensurate comparisons of best practices within a digital transformation, which were tested by using different types and structures of questions.

[3]Includes respondents who either agreed (somewhat or strongly) that a given statement describes the transformation or selected a given practice as true of the transformation.

[4]Includes respondents who either disagreed (somewhat or strongly) that a given statement describes the transformation or did not select a given practice as true of the transformation.

# If it goes wrong: blame CIO & vendors…

► CIO's / IT directeuren houden DTP tegen door wantrouwen voor cloud, migratie van legacy systemen, etc.

► Leveranciers  gebruiken DTP als marketingterm met 'oplossingen' om elke IT leiders Eisen te voldoen

► U kunt ze ook beiden de schuld geven…

► Of…was het toch de digitale transformatie van de organisatie?

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# DTP vergeleken met 'normale IT projecten'

## Resolution by Modern Measurement

| Resolution | All | DTP | Delta |
|---|---|---|---|
| Successful | 29% | 28% | -1% |
| Challenged | 52% | 51% | -1% |
| Failed | 19% | 21% | 2% |

The Modern resolution of all projects and DTPs from FY2007–2016 within CHAOS database. Modern resolution is OnTime, OnBudget, with a satisfactory result

## DTP Size by Resolution

| Resolution/Size | Successful | Challenged | Failed | Total |
|---|---|---|---|---|
| Grand | 5% | 52% | 43% | 100% |
| Large | 12% | 58% | 30% | 100% |
| Medium | 17% | 57% | 26% | 100% |
| Moderate | 58% | 35% | 7% | 100% |
| Small | 57% | 35% | 8% | 100% |

The resolution of DTPs by size from FY2007–2016 within the CHAOS database.

## DTP Resolution by Method

| Method | Successful | Challenged | Failed |
|---|---|---|---|
| Agile | 36% | 54% | 10% |
| Waterfall | 10% | 60% | 30% |
| Other | 33% | 48% | 19% |

The resolution of DTPs by agile versus waterfall from FY2007–2016 within the CHAOS database.

► Tot 3 miljoen is Small / moderate

► Project DigiInhuur → Large

► Success rate McKinsey → yes, small firms…

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# DTP, kopen is slimmer dan bouwen

| Project Type | Successful | Challenged | Failed |
|---|---|---|---|
| Developed from scratch using traditional languages and methods | 20% | 61% | 19% |
| Developed from scratch using modern methodologies | 23% | 54% | 23% |
| Developed some components & purchased others | 21% | 59% | 20% |
| Purchased components & assembled the application | 24% | 54% | 22% |
| Purchased application & extensively modified | 32% | 45% | 23% |
| Purchased application & modified | 53% | 27% | 20% |
| Purchased application & performed no modifications | 46% | 40% | 14% |
| Modernization | 55% | 35% | 10% |

DTP Winning tips:
- ► Small project
- ► Agile Process
- ► Three skilled areas (Sponsor, technical staff, emotionally mature organization)

The resolution of DTPs by type from FY2007–2016 within the CHAOS database.

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**Digital business transformation areas:**

► **Business activities/functions**: marketing, operations, human resources, administration, customer service, etc.

► **Business processes**: one or more connected operations, activities and sets to achieve a specific business goal, whereby business process management, business process optimization and business process automation come into the picture *(with new technologies such as robotic process automation)*. Business process optimization is essential in digital transformation strategies and in most industries and cases is a mix of customer-facing goals and internal goals today.

► **Business models**: how businesses function, from the go-to-market approach and value proposition to the ways it seeks to make money and effectively transforms its core business, tapping into novel revenue sources and approaches, sometimes even dropping the traditional core business after a while.

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► **Business ecosystems**: the networks of partners and stakeholders, as well as contextual factors affecting the business such as regulatory or economic priorities and evolutions. New ecosystems are built between companies with various background upon the fabric of digital transformation, information, whereby data and actionable intelligence become innovation assets.

► **Business asset management**: whereby the focus lies on traditional assets but, increasingly, on less 'tangible' assets such as information and customers *(enhancing customer experience is a leading goal of many digital transformaton "projects" and information is the lifeblood of business, technological evolutions and of any human relationship).* Both customers and information need to be treated as real assets in all perspectives.

► **Organizational culture**, whereby there must be a clear customer-centric, agile and hyper-aware goal which is achieved by acquiring core competencies across the board in areas such as digital maturity, leadership, knowledge worker silos and so forth. Culture also overlaps with processes, business activities, collaboration and the IT-side of digital transformation. In order to bring applications faster to market changes are required. That's the essence of DevOps: development and operations. In order to make IT and OT work together in businesses/processes/activities, change is required too *(it's not just the information and operational technologies, it's the processes, culture, collaboration).* Etc.