

HERUG 2016

Continuous monitoring with advanced data

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Universiteit
Leiden

Deloitte.

Bij ons leer je de wereld kennen

Short introduction



Universiteit
Leiden

Oldest university in the Netherlands (1575)



Key figures (2014):

Employees: 4.496

Students: 24.500

PhD's: 411

Budget: 558 million €



Universiteit Leiden. Bij ons leer je de wereld kennen

Journey through our (digital) transformation

Financial Shared Service Centre (FSSC) Leiden University



Our strategy at Leiden University



**"WE HAVE A
'STRATEGIC PLAN.'
IT'S CALLED DOING
THINGS."**

— Herb Kelleher

Where do we come from?



How high can
the piles get?



Fast close principles

Fast close is the reward for a well structured and organized finance organization

The result of Fast close is a fast, accurate and reliable report process (with lower cost)

Describe processes

Segregation of duties
(systems and processes)

Create ownership

Reliable report process

Create work instructions

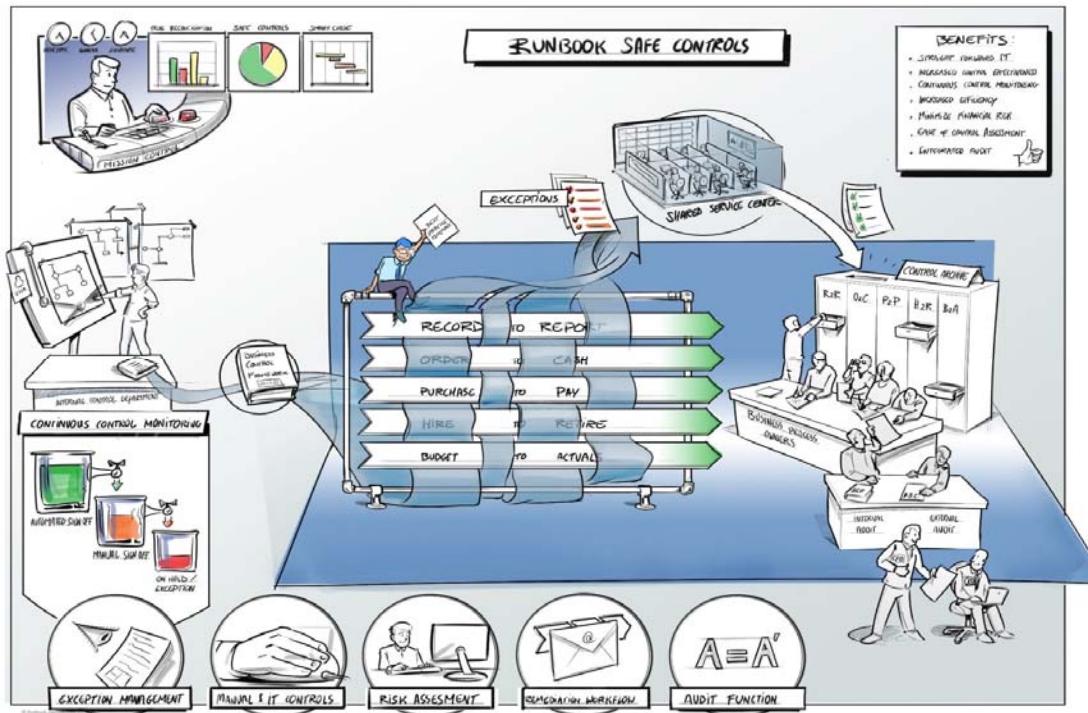
Well-structured meetings

Input for FSSC product catalog

Periodic evaluation with accountant of decentralised departments



Closing process: steps already taken



Focus on:

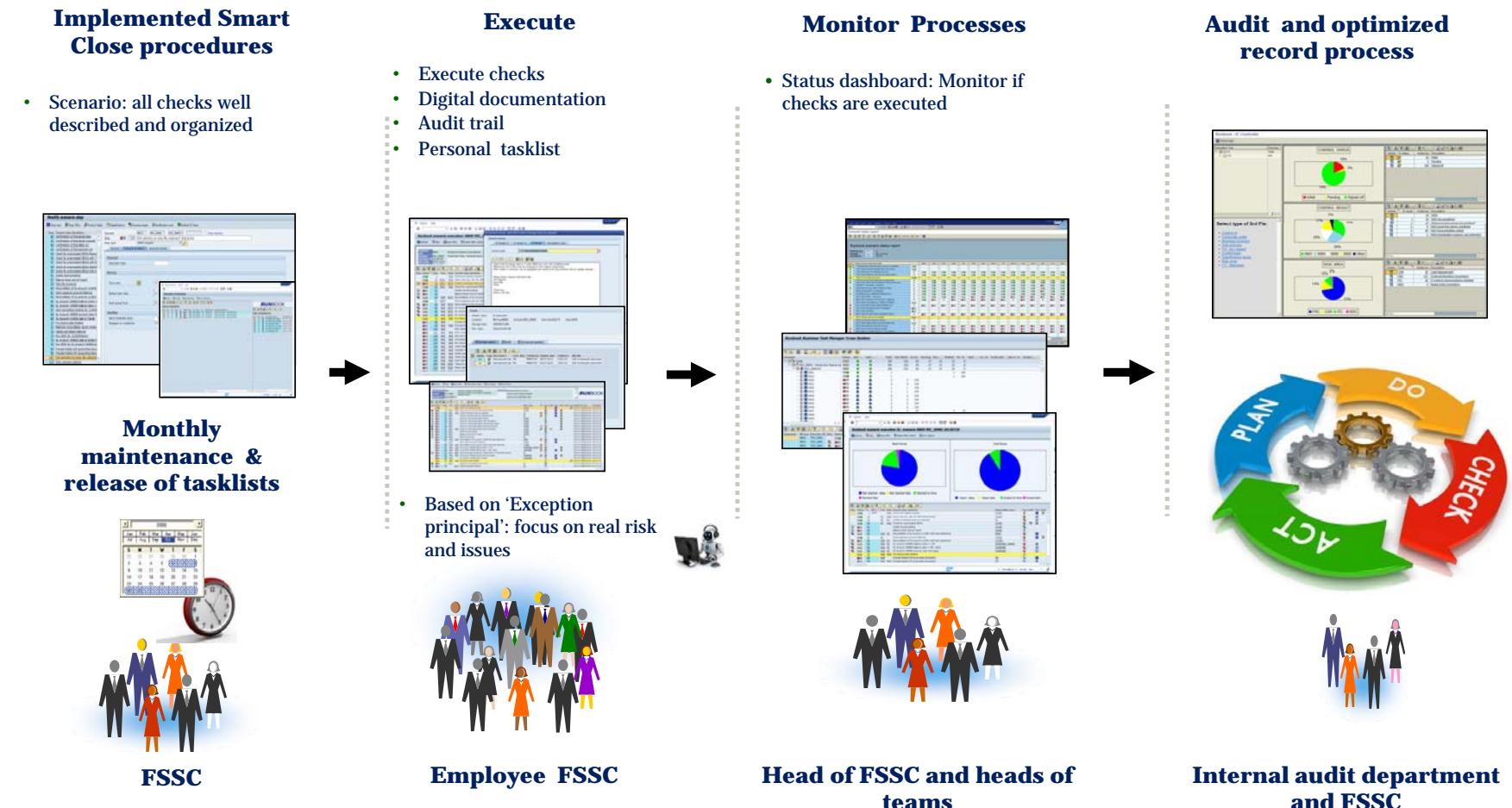
- Structure
- Harmonization
- Digitization



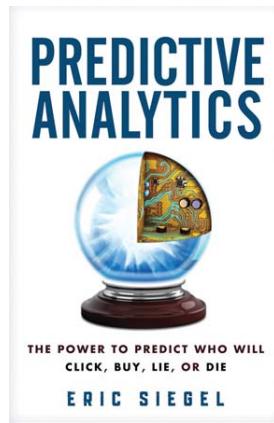
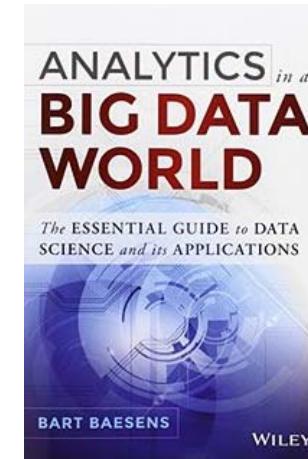
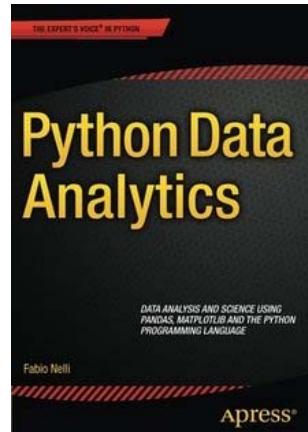
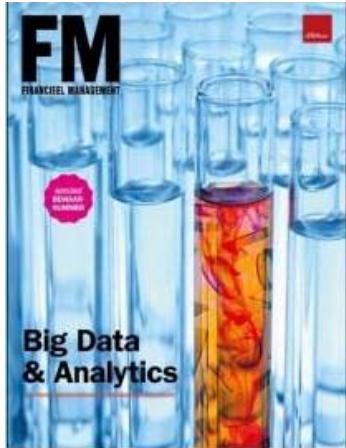
Implementation **RUNBOOK**

- Describe checks
- Design checks
- Assign responsibilities
- Automating
- Monitoring

Closing process: where are we now?



Big Data & Analytics: (even) more control



14 november 2015 © Het Financiële Dagblad

Omslagverhaal De super-cfo

Boekhouder of informatie-ninja?

De rol van de cfo verandert. De boekhouder die vroeger op de winkel paste, ontpopt zich steeds vaker tot strategisch innovator, zoals Jan Kees de Jager bij KPN. Maar waar is een bedrijf bij gebaat: de cfo als bakkenist naast de ceo, of juist als controleur van de baas?

Continuous Monitoring: how did it start?



FSSC: optimale dienstverlening waarbij de klant centraal staat!

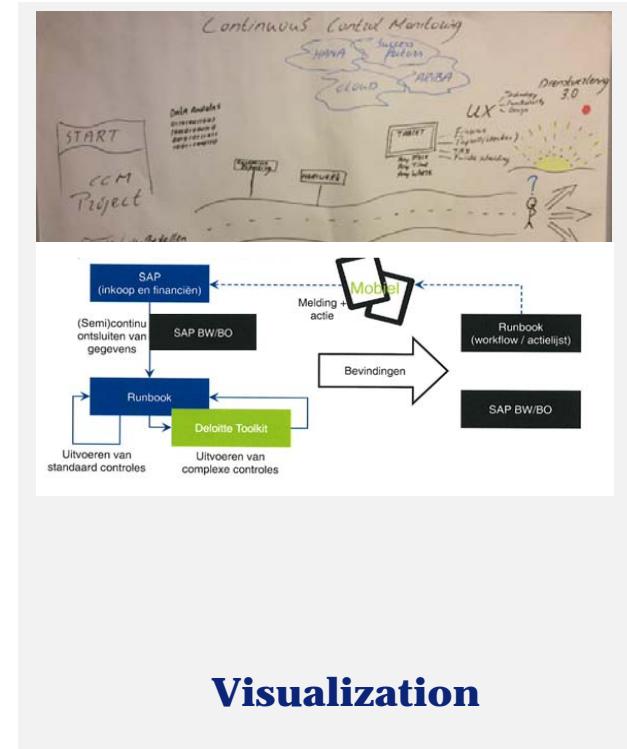
- Procesoptimalisaties
- Continuous monitoring en Runbook
- Declaratiesysteem en vigerende richtlijnen
- Kennisniveau medewerkers
- Scorecard
- ESS en Mobility
- Lean six sigma

Inspiration

The collage includes:

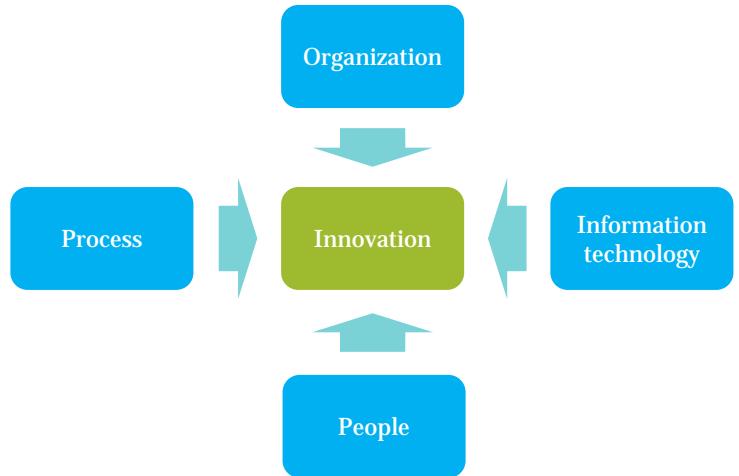
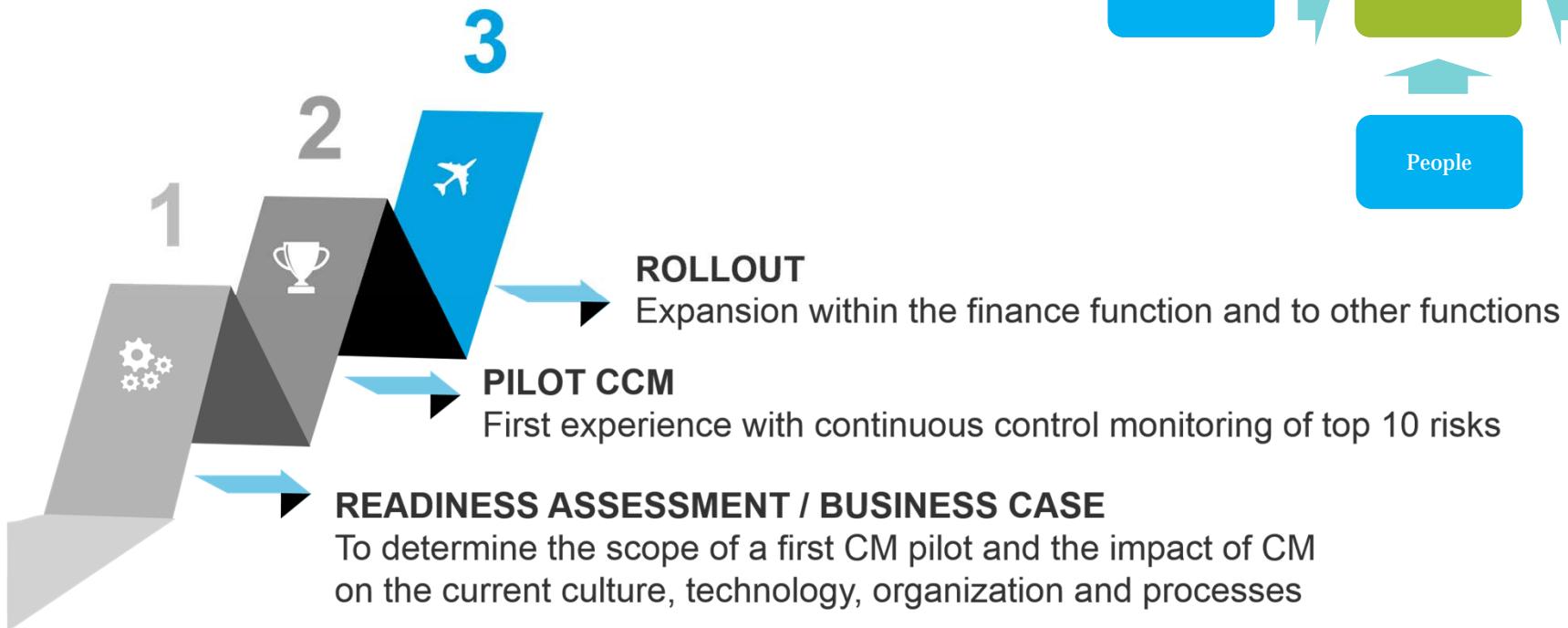
- A person holding a blue sign that says "Innovation". To the left of the sign is the text: "Think big", "Start small", and "Scale fast!".
- The Deloitte logo.
- The HuRis logo.
- A photograph of a person's feet resting on a desk next to a laptop.
- The RUNBOOK logo.
- The University of Leiden logo.

Co-innovation



Visualization

Testing ground framework



Continuous Monitoring: pilot

Scope:

Risks in the purchase-to-pay (p2p) process

Top 10 controls phase 1 (pilot):

- 1) Inconsistent use of VAT codes
- 2) Safeguard segregation of duties based on SAP transactions
- 3) Ensure there are no double master data entries
- 4) Compliance and public (EU) tenders
- 5) Monitor for double payments/invoices
- 6) Safeguard coding of hiring temporary staff
- 7) Ensure correct use of expense allowance scheme, general ledger account
- 8) Monitoring of authorization approvals (guidelines on substitution)
- 9) Monitoring of (unauthorized) orders (incl. 3 way match)
- 10) Ensure proper use of general ledger accounts



Implemented controls after pilot

1. Duplicate invoices
2. Duplicate ‘fuzzy’ invoices
3. Violation of segregation of duties in master data record
4. Expired outgoing invoices
5. Incoming invoices in workflow older than 10 days
6. VAT checks (inconsequent combinations of records)
7. Violation segregation of duties in workflow
8. Zero balance checks on General Ledger
9. Infringement on password use
10. Human Capital: conflicts of interest (ancillary activities)
11. Infringement segregation of duties in SAP-roles
12. Monitor thresholds public (EU) tender

Hard controls

Warning signals

Fuzzy matches

Tekst mining

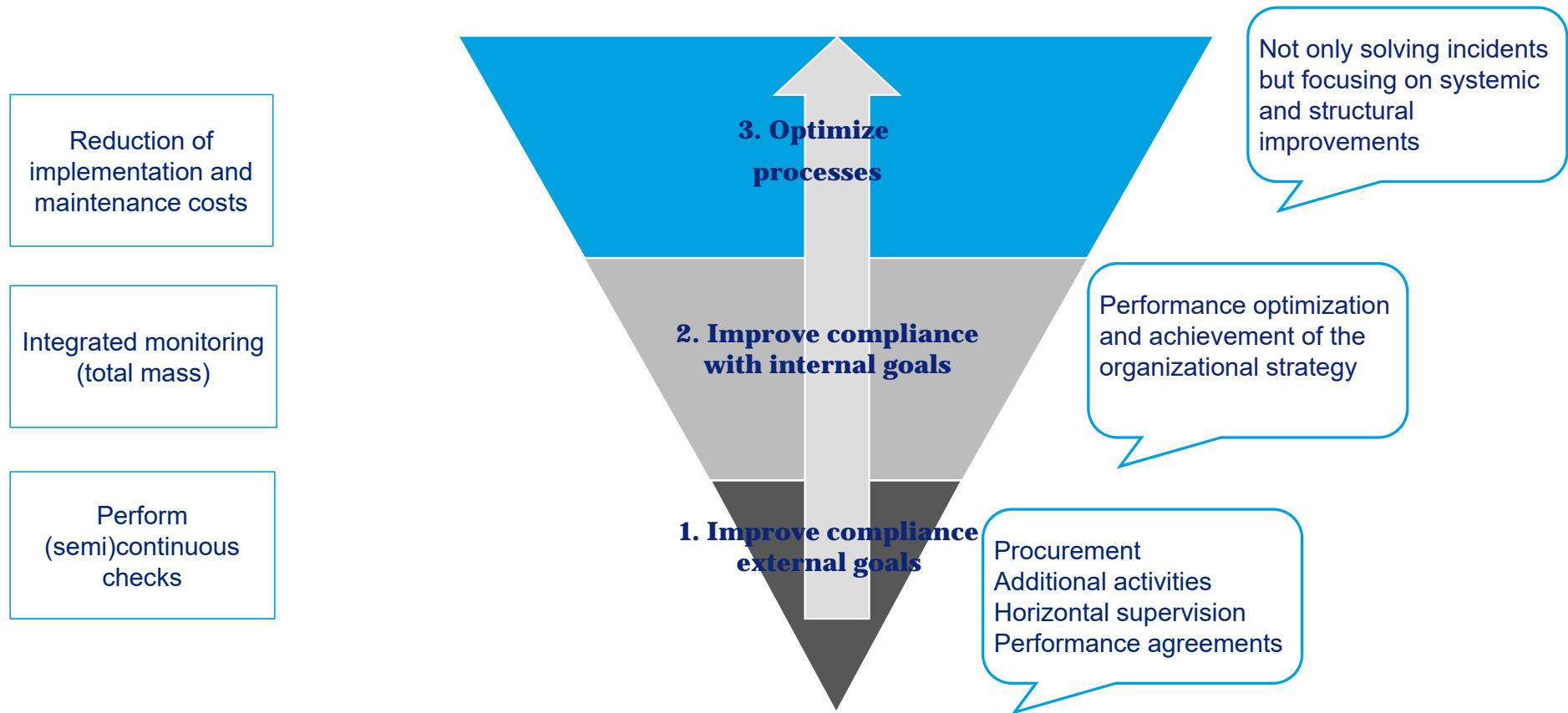
Aging analyses

Unexpected combinations



Continuous Monitoring

By checking all relevant data (semi) continuously, CM contributes to compliance of internal and external goals and structural improvement



CM platform



Data-analytics

- Duplicates
- completeness of data
- Process analytics

Textmining

- Check for certain key words

Anomaly detection

- Compare travel and expense transactions with other transpactions

User profiling

- Determine the behavior of end-users by measuring the quality of travel and expense transactions



Payroll Checker

Deloitte.



Business

Signal list

Exceptions



Correct errors

Analyze errors

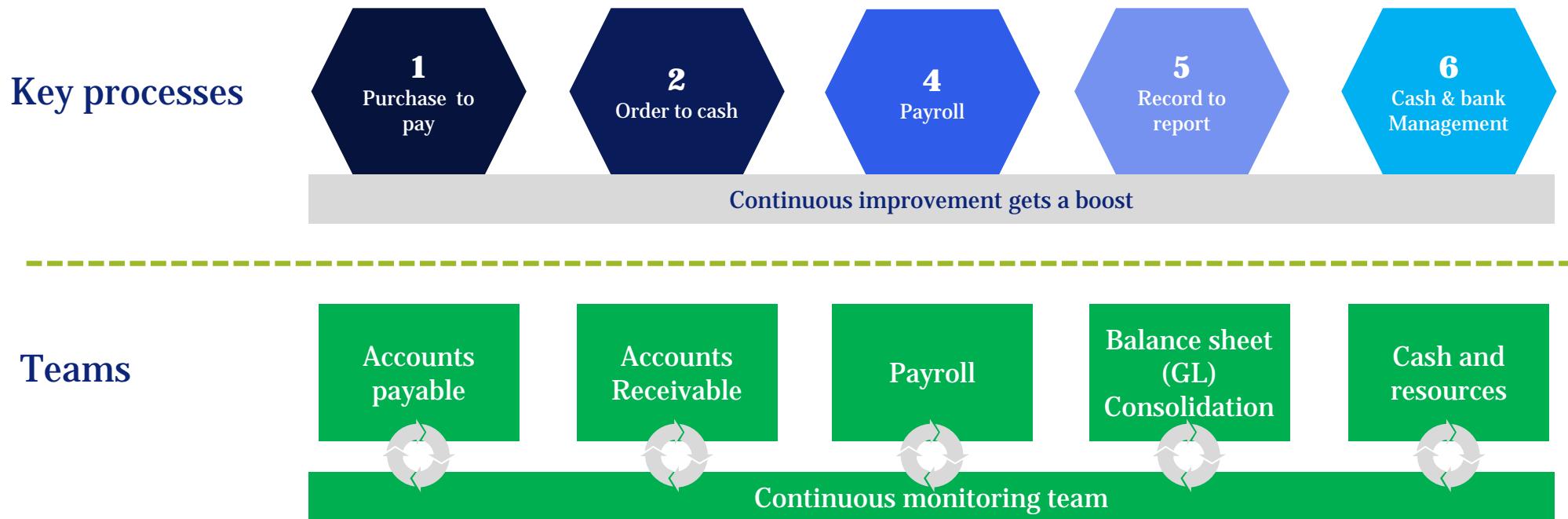
Optimize



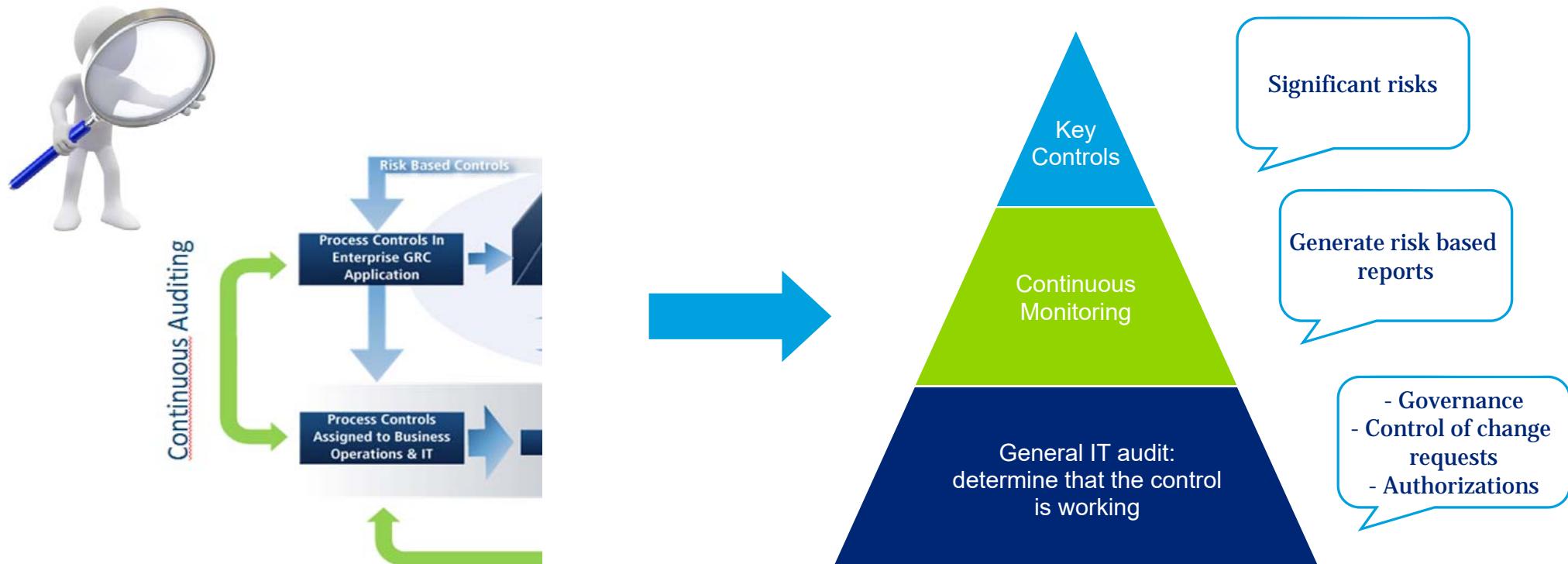
Reduction of errors / exceptions

FSSC organization

After CM implementation



Continuous Auditing: the next step



Key controls (examples)

Payroll

- Segregation of duties
- Four eyes principle

Revenues from private research contracts

- Authorisation contract
- Internal project budgeting
- Monitoring progress
- Internal control end of project reports

Real Estate projects

- Progress investment projects
- Authorisation changes
- Accounting policies

Procurement

- Segregation of duties
- Four eyes principle
- Payment procedure
- Internal control on accounting policies

Other revenues

- Contract registration
- Margin analyses
- Pricing (cost-based)

IT

- SAP Changes (from request to live)
 - User admissions
 - Back-up and recovery procedures

Tuition fees

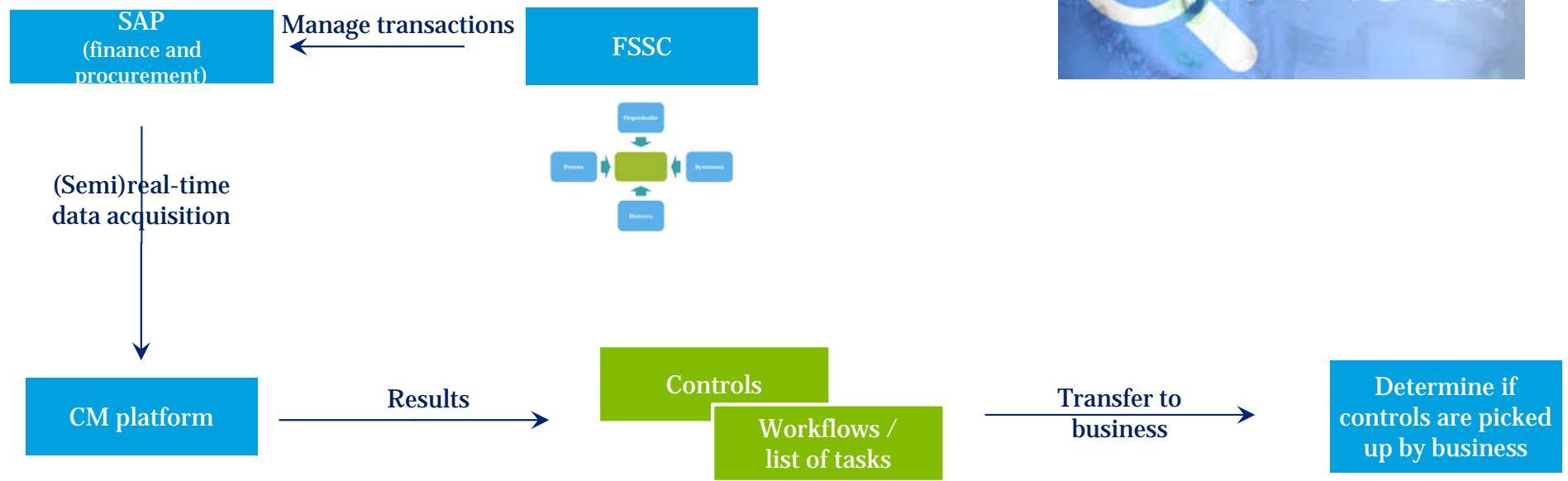
- Interface with student information system
- Refunds

Fiscal

- VAT
- Temporary employment

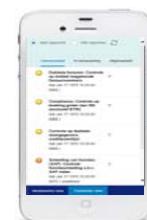
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CM: end-to-end process



The CM platform analyzes the data and audit the actions that follow

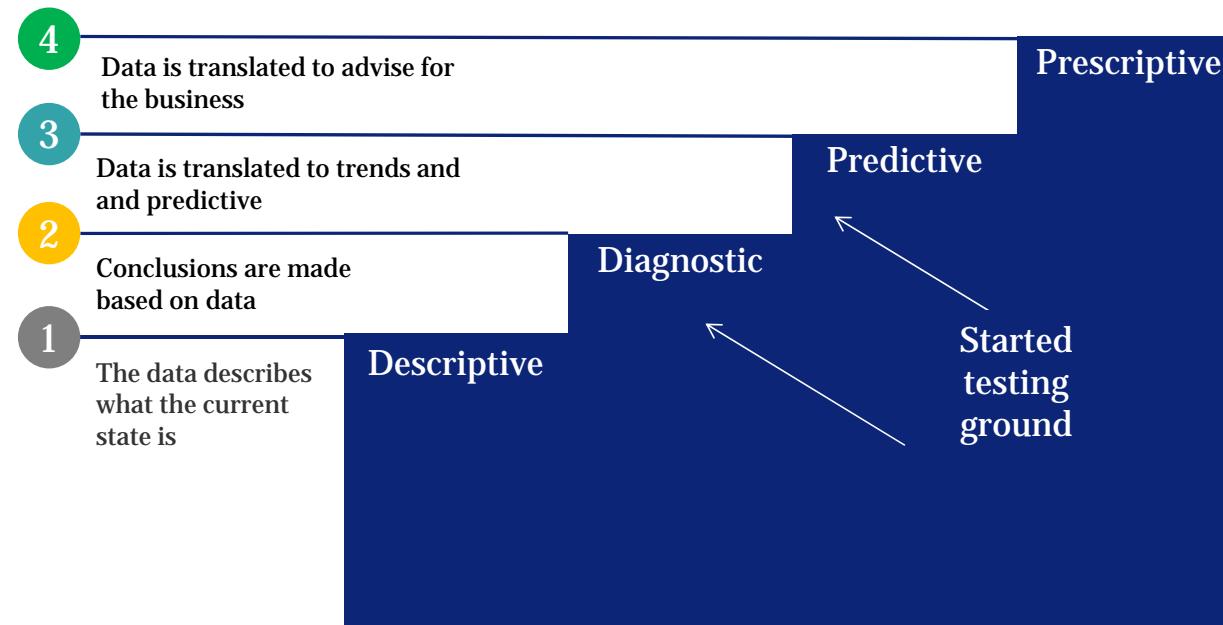
Transactional data form the basis of reports, Root causes and further steps



Mobiele access ensures follow up on exceptions



Maturity levels Big Data:



Source: Gartner

The flywheel effect

- Vision 2020
- Results
- Flywheel effect (FI / Human Capital / IT)
- Continuous improvement
- Improved services/ in control
- Concretization of vision



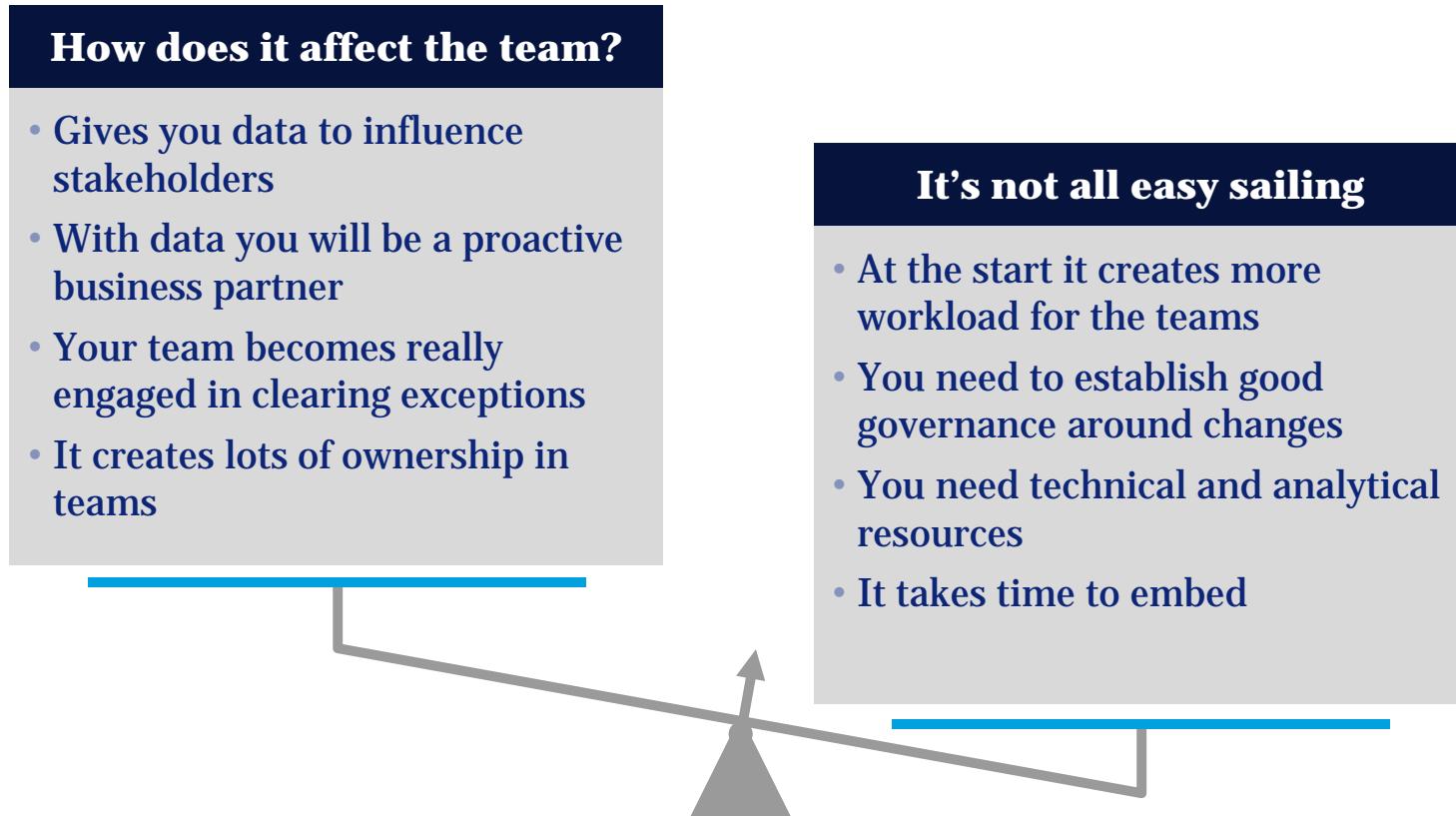
Lessons learned

How does it affect the team?

- Gives you data to influence stakeholders
- With data you will be a proactive business partner
- Your team becomes really engaged in clearing exceptions
- It creates lots of ownership in teams

It's not all easy sailing

- At the start it creates more workload for the teams
- You need to establish good governance around changes
- You need technical and analytical resources
- It takes time to embed



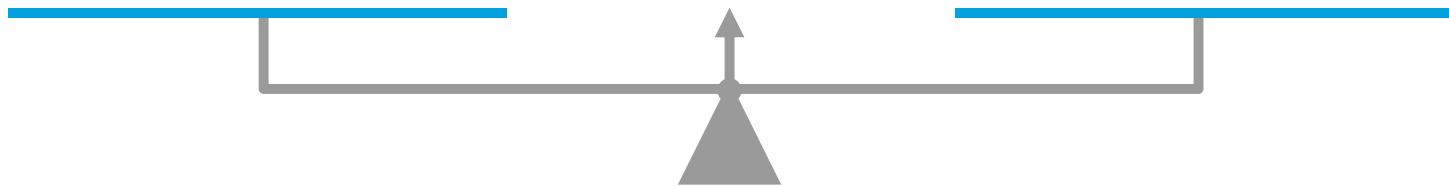
Lessons learned

The results make it worthwhile

- Zero duplicate payments since analytics introduces
- Extra drive for continuous process improvement
- Our thinking around controls have changed, we now build analytics into new projects
- More demonstrable ‘in control’ (also for external accountability)

Considerations for your business case

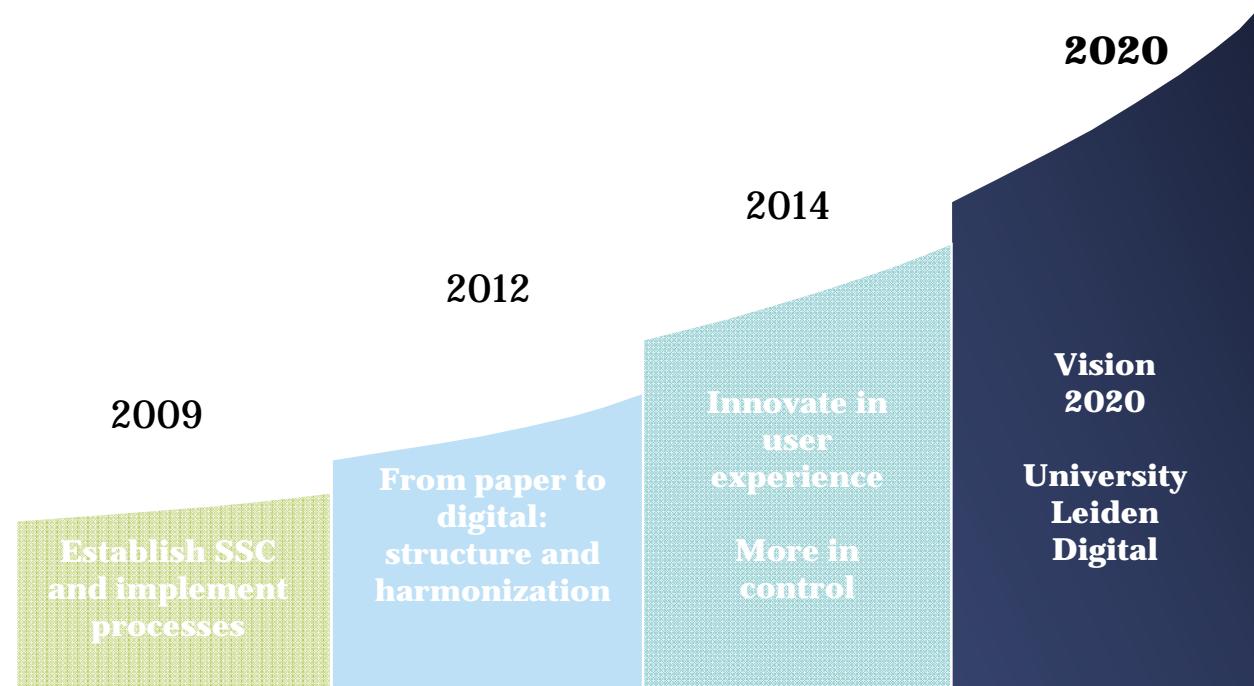
- Control is more effective and timely
- Reducing costs? At the start cost of control will rise
- Improved audit focus and efficiency
- Start small and grow with a lot of energy and perseverance



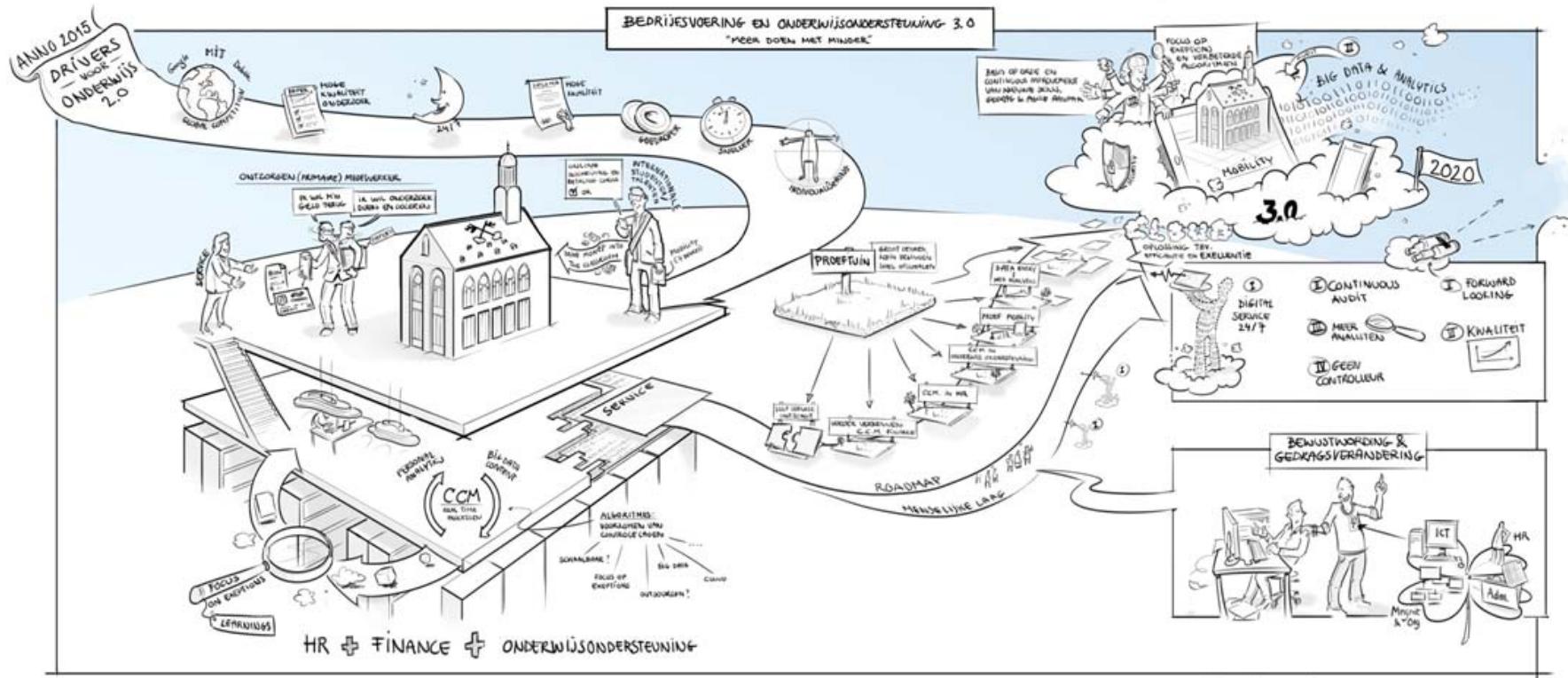
“Just do it!”



Timeline and ambition



Vision 2020





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