Groeiproces Rijkswaterstaat

ISACA NL Round Table – 3 december 2018

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Rijkswaterstaat

THE JAZZ GROOVE

TU Delft Delft University of Technology

TH Rijswijk TECHNISCHE HOGESCHOOL RIJSWIJK

COBIT 5 AN ISACA® FRAMEWORK

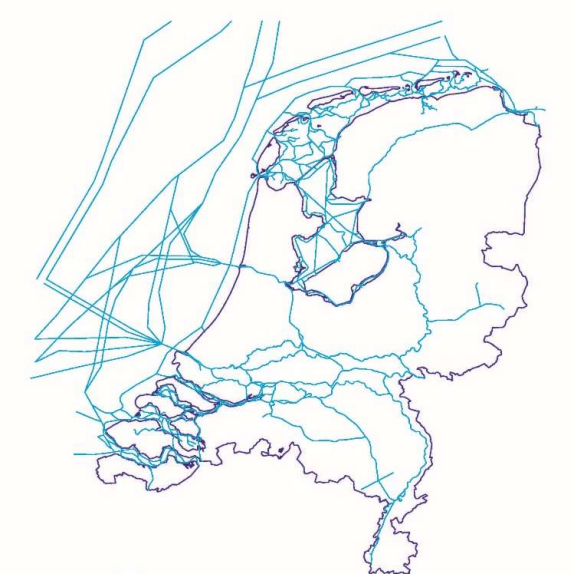
CGEIT

KPMG

Corporate video RWS

Rijkswaterstaat werkt aan:

- bescherming tegen overstromingen
- voldoende en schoon water
- vlot en veilig verkeer over weg en water
- betrouwbare en bruikbare informatie
- een duurzame leefomgeving



Hoofdwegennet

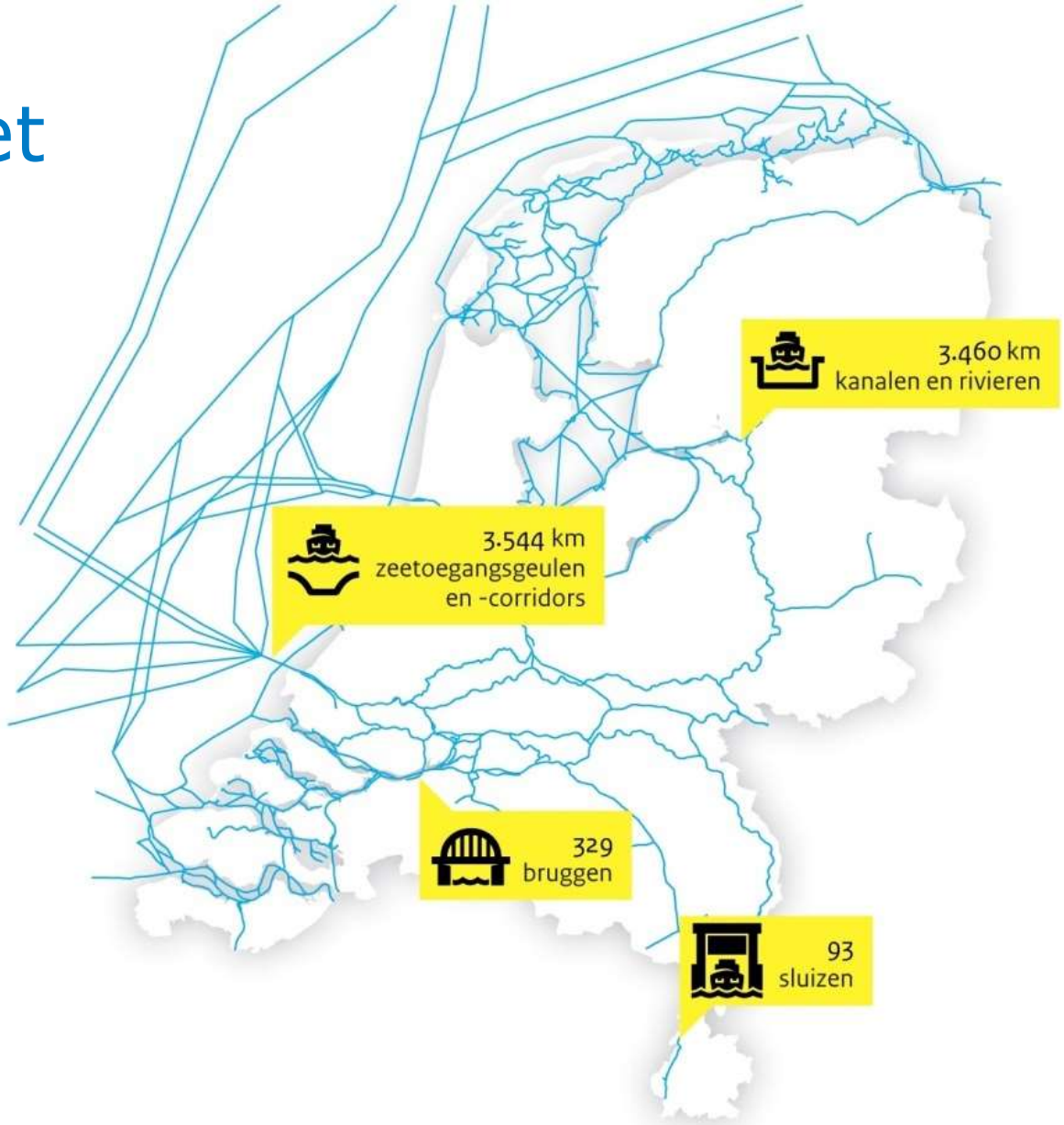
Wereldwijd het beste en intensiefst gebruikte snelwegennetwerk:

- jaarlijks 68 miljard voertuigkilometers
- dagelijks 3 miljoen weggebruikers

Hoofdvaarwegennet

35 procent van het totale goederenvervoer in Nederland:

- 365 miljoen ton goederen per jaar
- 3,2 miljoen containers per jaar

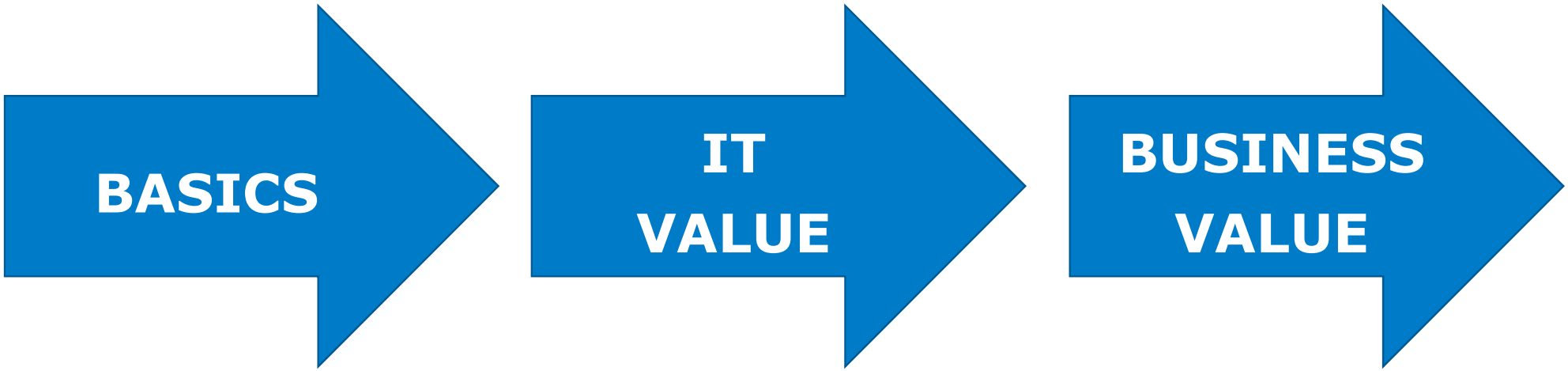


Hoofdwatersystemen

- 9 miljoen Nederlanders wonen in overstroombaar gebied
- in dit gebied wordt 65 procent van het BNP verdiend

Groeiproces Rijkswaterstaat

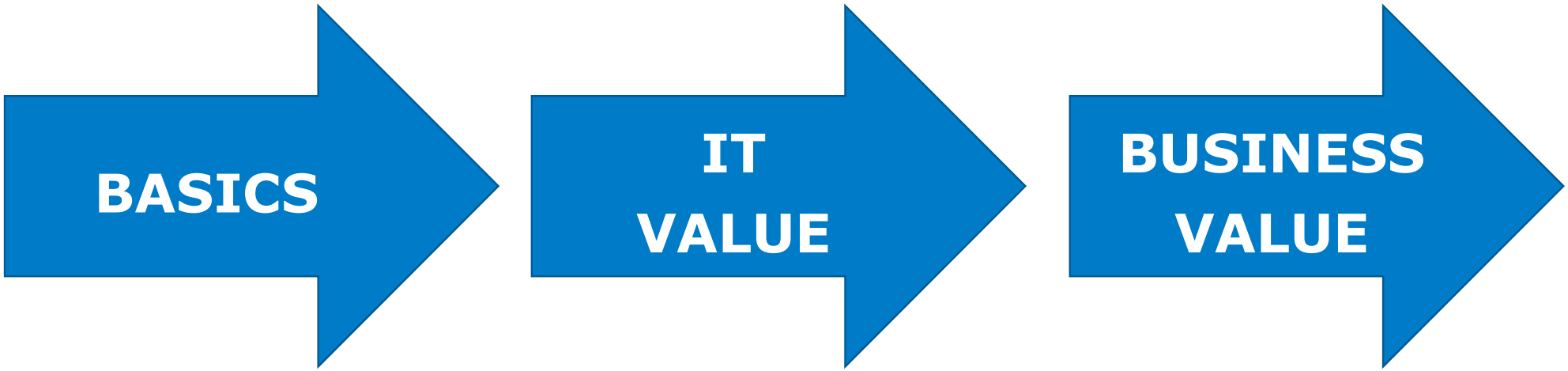
ISACA
Vertrouwen in en waarde uit informatiesystemen
Netherlands Chapter



PAIN POINTS & TRIGGER EVENTS

Groeiproces Rijkswaterstaat

ISACA®
Vertrouwen in en waarde uit informatiesystemen
Netherlands Chapter

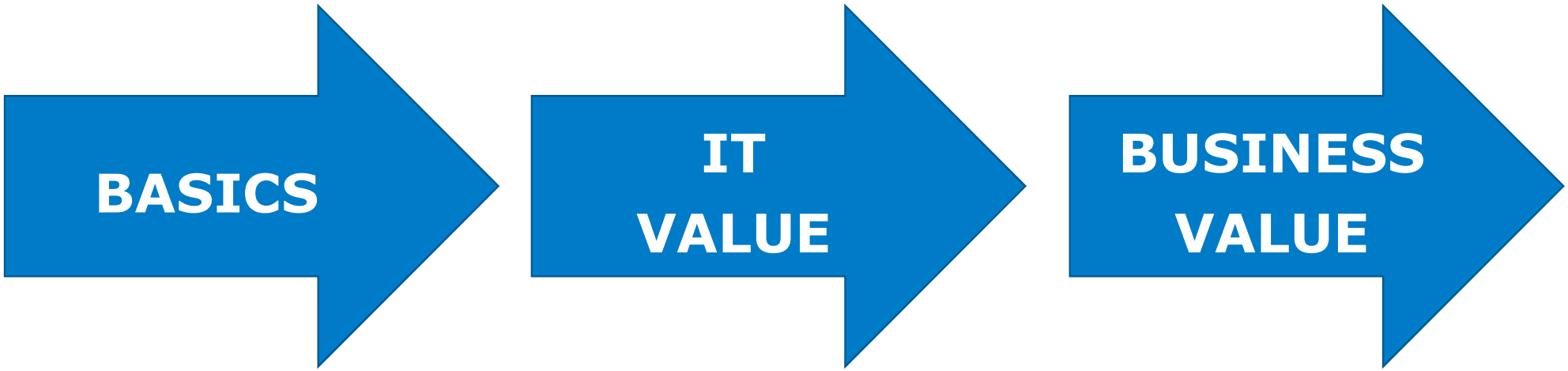


COBIT® 5
AN ISACA® FRAMEWORK

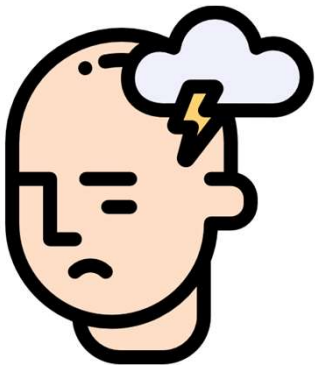
A Business Framework for the Governance and Management of Enterprise IT

Groeiproces Rijkswaterstaat

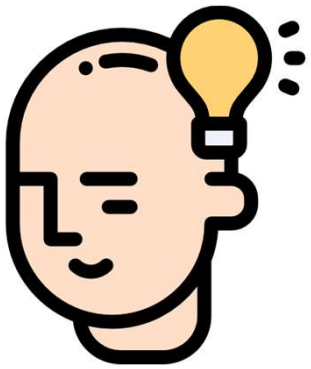
ISACA
Vertrouwen in en waarde uit informatiesystemen
Netherlands Chapter



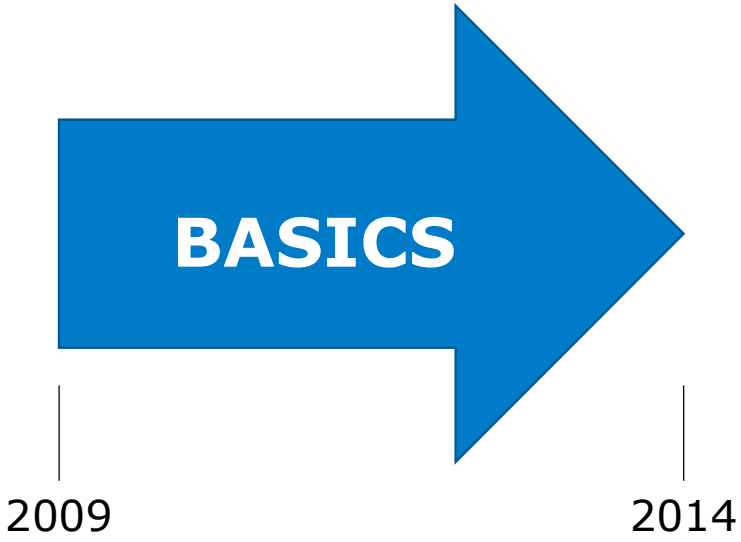
SUCCESSEN

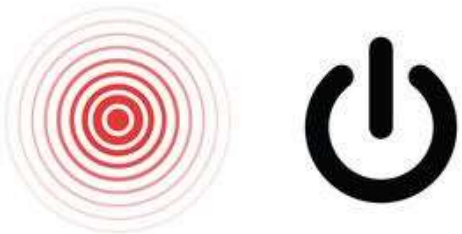


TEGENVALLERS



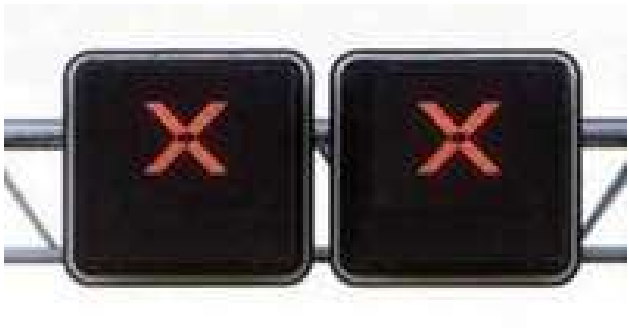
LEERPUNTEN





PAIN POINTS & TRIGGER EVENTS

- Data versus ICT
- onvoorspelbare IV (klantwaarde)
- medewerkers weten onvoldoende wat van ze wordt verwacht (rol en bijdrage IV-dienstverlening)
- onbetrouwbare managementinformatie
- wisselingen in (top)management
- onduidelijkheid over de ‘stip op de horizon’



BASICS

2009 — 2014

SUCCESSEN

- Data + ICT = IV
- Introductie van ‘Lean Management’
- IV = primair proces
- IV-procesketens uitgewerkt
- IV-taken belegd in de organisatie
- IV-sturing ingevuld

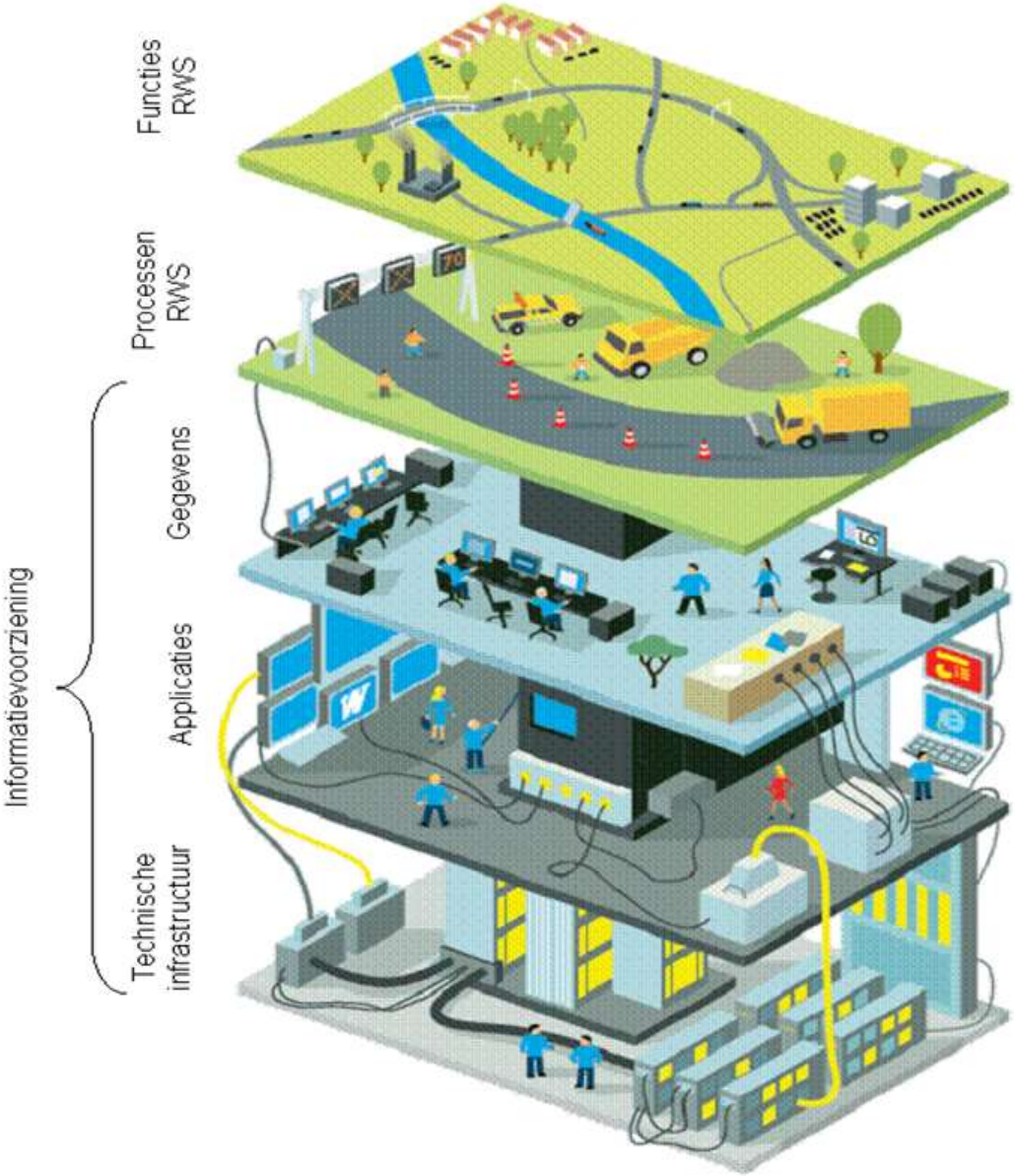
Informatievoorziening is…

… het geheel aan:

- infrastructurele hulpmiddelen,
- applicaties,
- gegevensverzamelingen en
- organisatorische inrichtingen,

  … dat dient tot het aan gebruikers verstrekken van informatie.

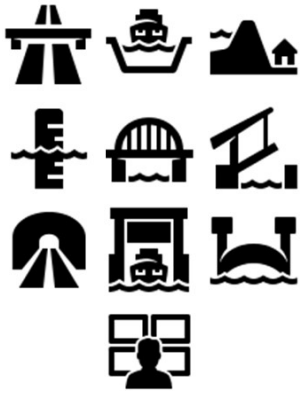
(definitie conform BiSL)



Wat is Informatievoorziening bij RWS?

1. Areaalinformatie over RWS-netwerken en –objecten
2. IV t.b.v. bewaken, besturen en bedienen van RWS-netwerken en –objecten

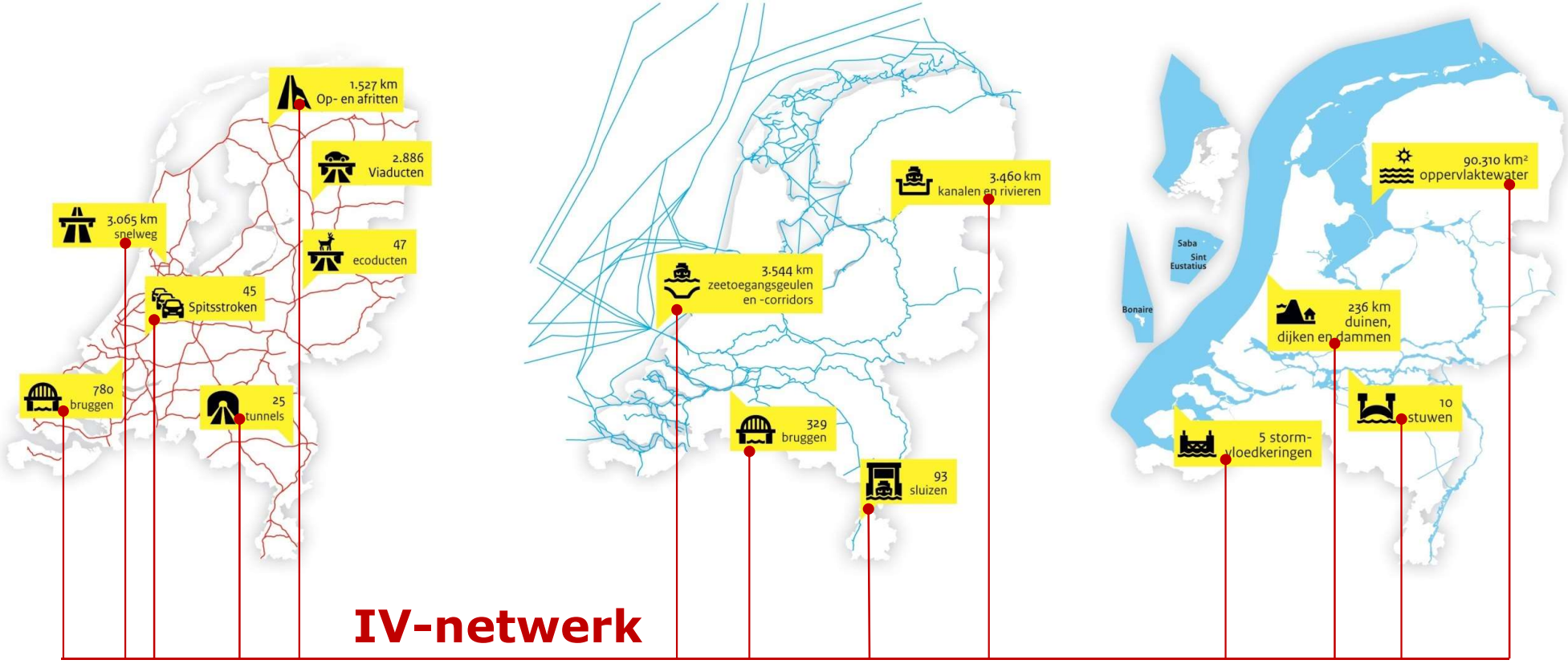
netwerk-gerelateerd



3. IV ter ondersteuning en beheersing van de RWS-processen

4. IV-kennis/-expertise

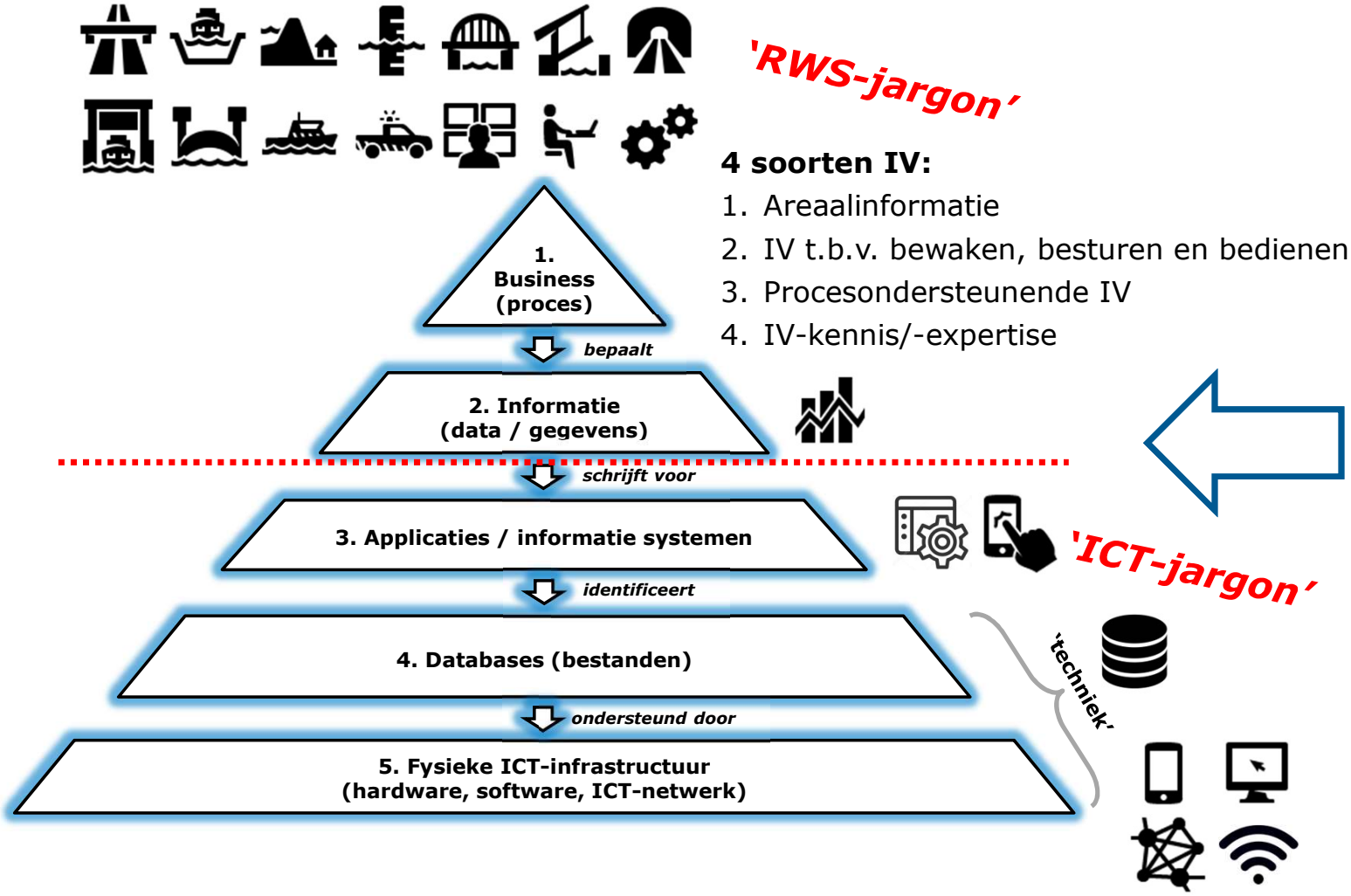
NB: betreft zowel *bestaande* als *te ontwikkelen* IV-diensten



IV-netwerk

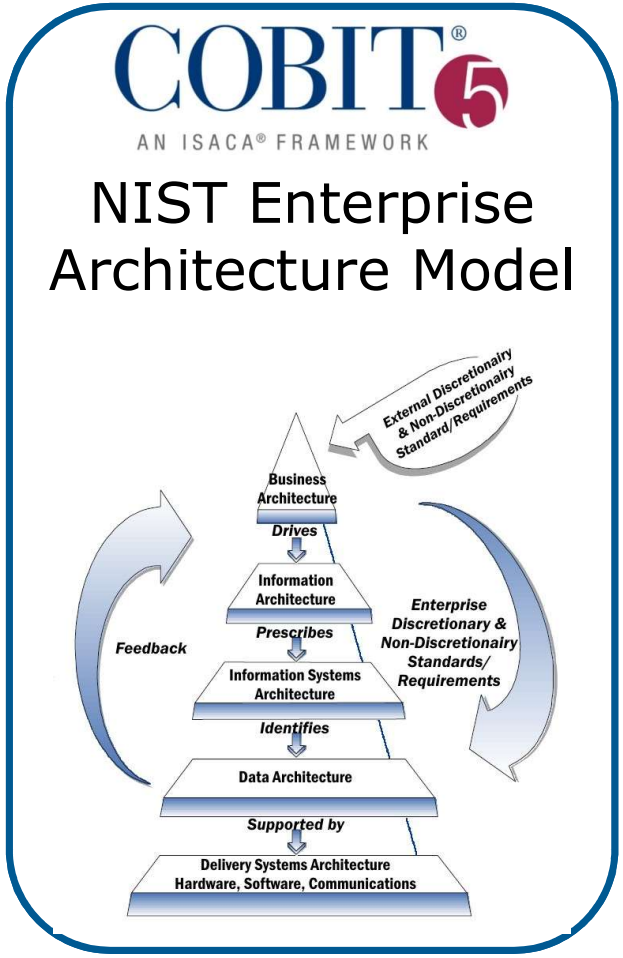
4.400 km glas | 2.000 camera’s | 900 applicaties | 1.200 datasets | SOC | RWS Datalab | ODC

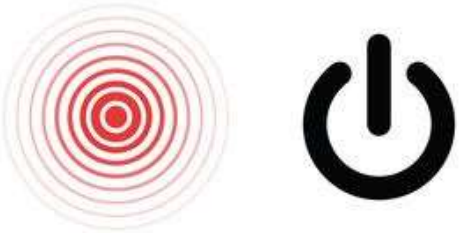
Business-taal versus IT-taal



4 soorten IV:

1. Areaalinformatie
2. IV t.b.v. bewaken, besturen en bedienen
3. Procesondersteunende IV
4. IV-kennis/-expertise



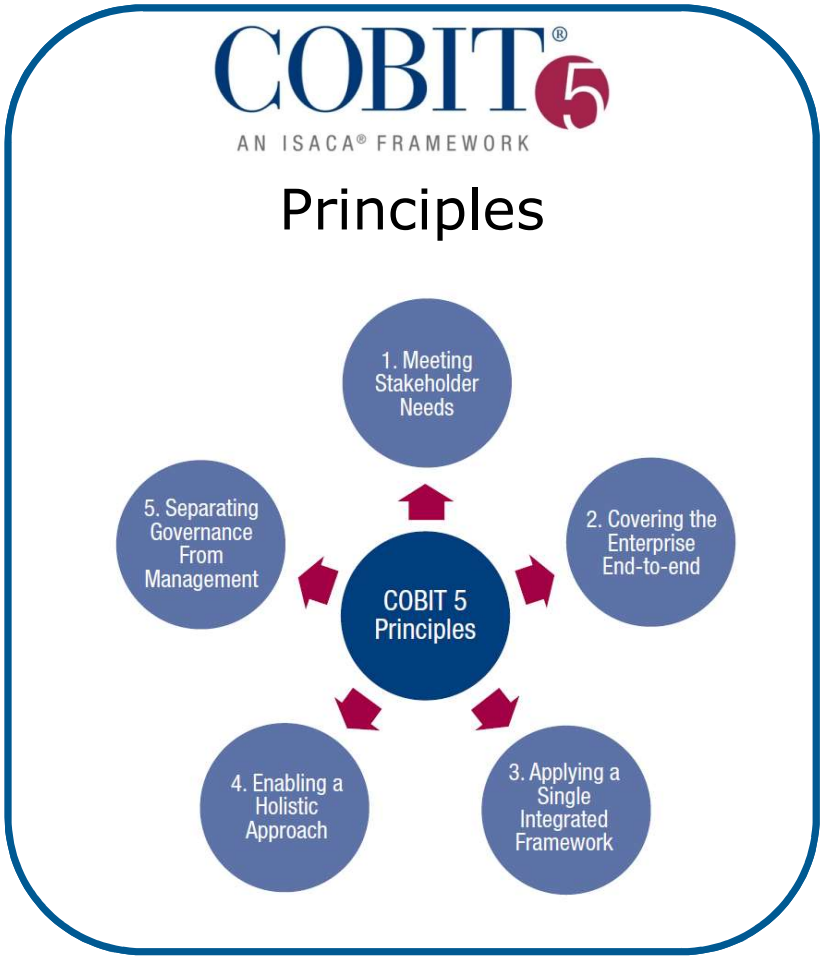


PAIN POINTS & TRIGGER EVENTS

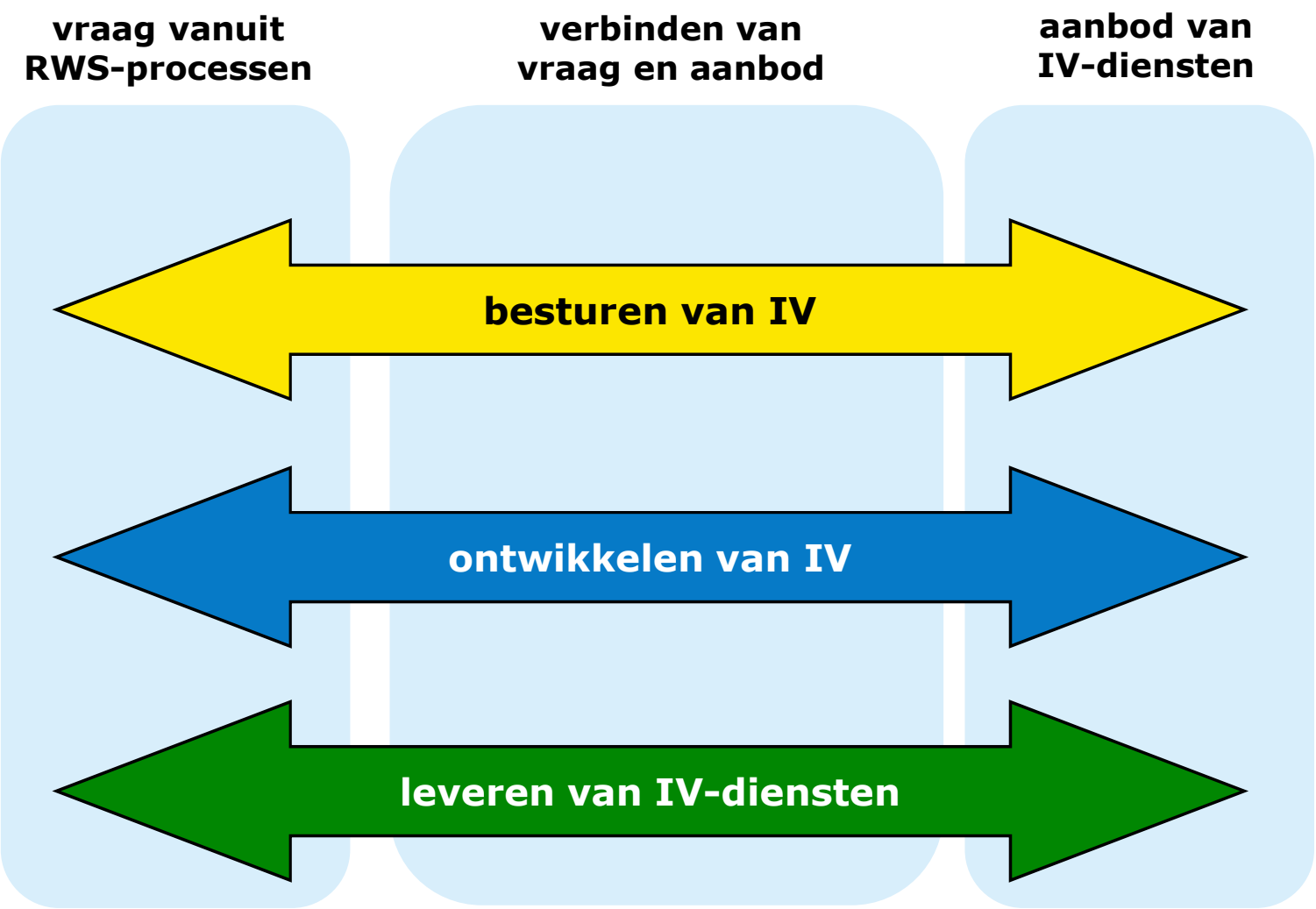
Animatie RWS OP2015 (2012)

Ontwerp van het IV-proces

- ontwerp van IV-procesketens (géén losse processen):
  - besturen van IV
  - ontwikkelen van IV
  - leveren van IV-diensten
- vanuit 'klantwaarde'
- alle in- en outputs benoemd
- bron herleidbaar (audit-trail)
- samen met medewerkers



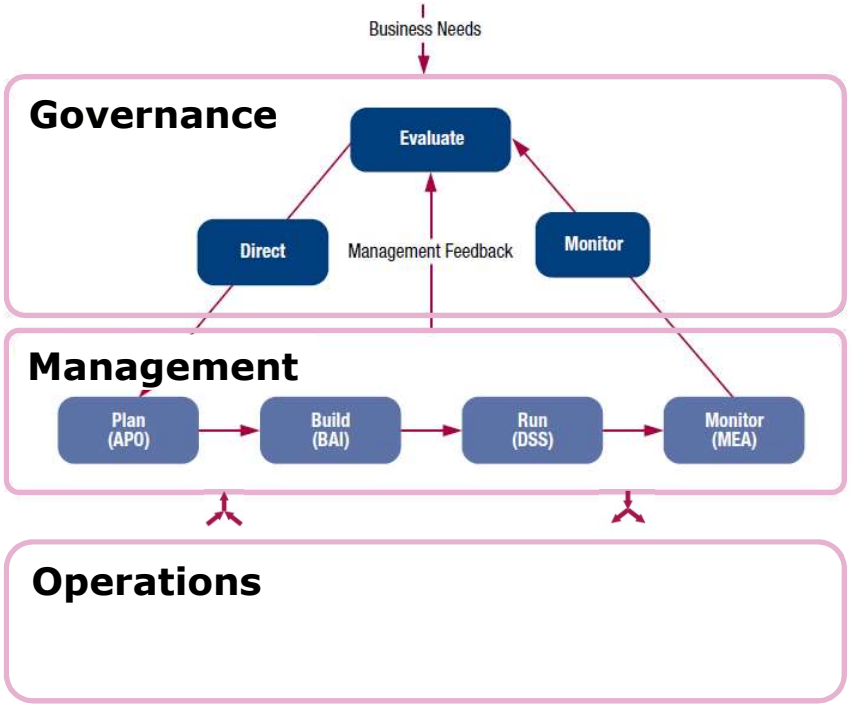
IV-procesketens



COBIT5 als ‘overkoepelende kapstok’

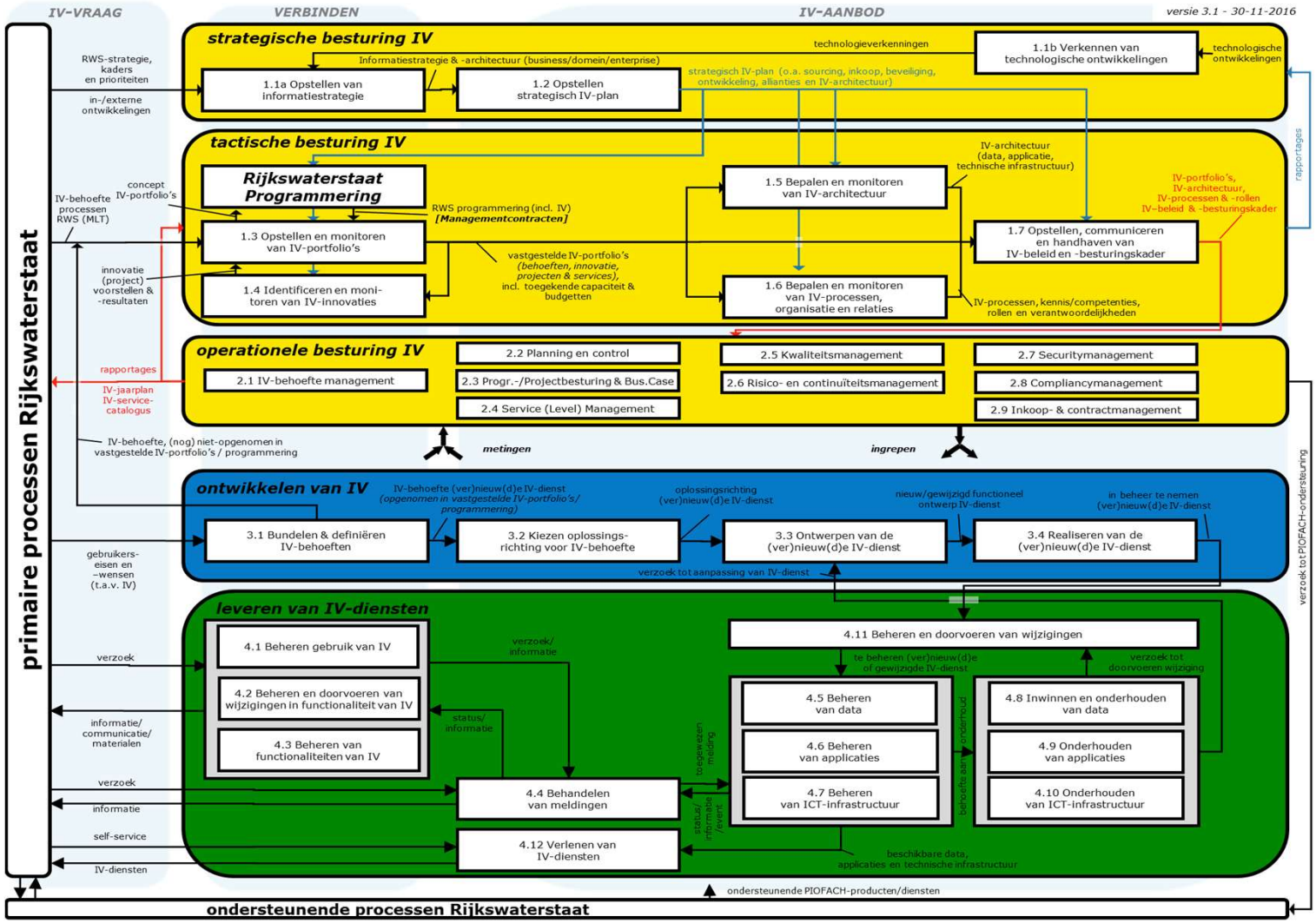
COBIT 5
AN ISACA® FRAMEWORK

Governance & Management Key Areas



TOGAF®
MoP®
BABOK® v3 SERIES
MSP®
PRINCE2®
bisl® business information services library
DAMA International
ITIL®
APPLICATION SERVICES LIBRARY asl®

IV-procesarchitectuur



Uitwerking van IV-procesketens en ieder IV-proces daarbinnen

- procesdoelen
- outputs/resultaten
- KPI's
- kernactiviteiten
- koppeling aan IV-rollen/functies

COBIT 5

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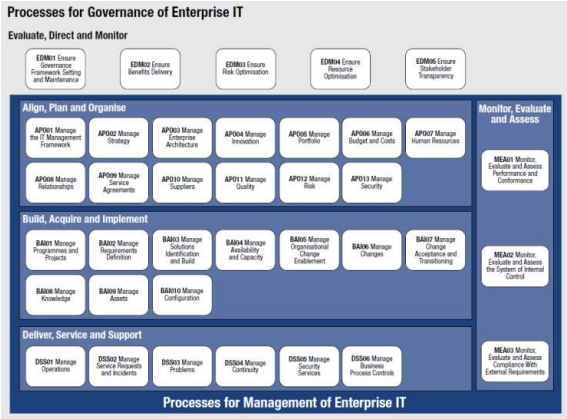
Process Reference Model
Governance &
Management Practices

Process Goals
& Metrics



IV-procesontwerp is de basis voor…

- IV-functieprofielen (rollen, verantwoordelijkheden en samenwerking)
- Ontwerp van de (procesgerichte) organisatiestructuur
- Besturingskader IV (processturing en besluitvormingsstructuur RWS
- Heldere afspraken - verantwoordelijkheid en eigenaarschap
- Gestandaardiseerde werkprocessen (samenhang IV-procesketens)
- Startpunt voor (verandering in) houding & gedrag

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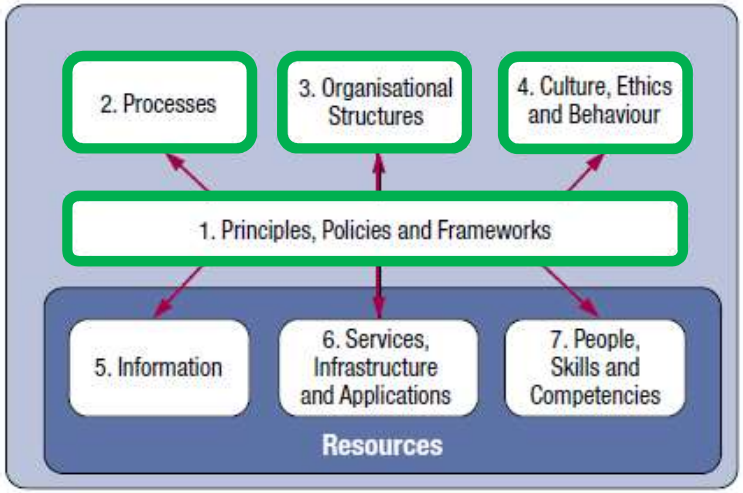
Enterprise Enablers



Referentiekader ‘Governance & Management’

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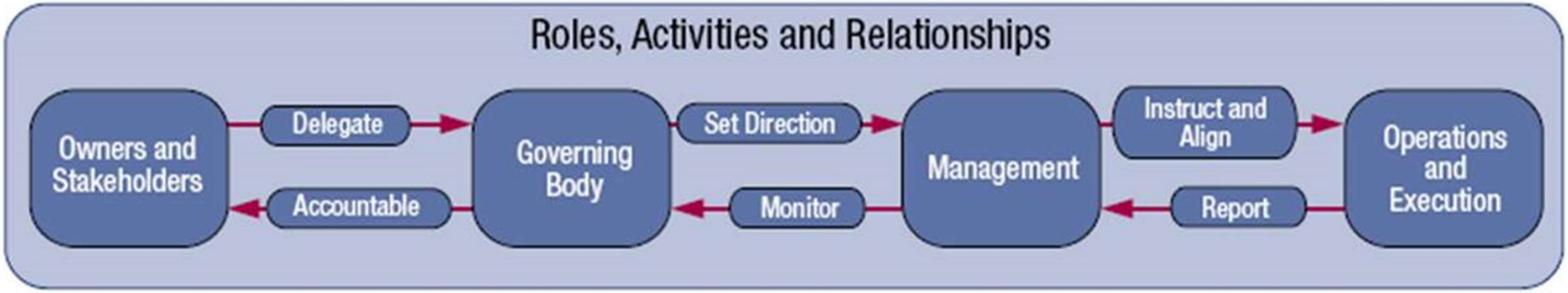

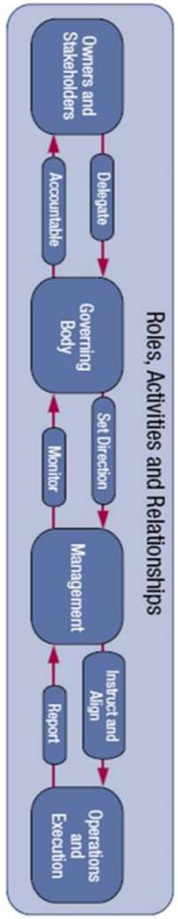

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Owners and Stakeholders

Governing Body

Management

Operations and Execution

SG IenW (eigenaar)

Beleids-DG's (opdrachtgevers)

Bestuur RWS

Groepsraad RWS

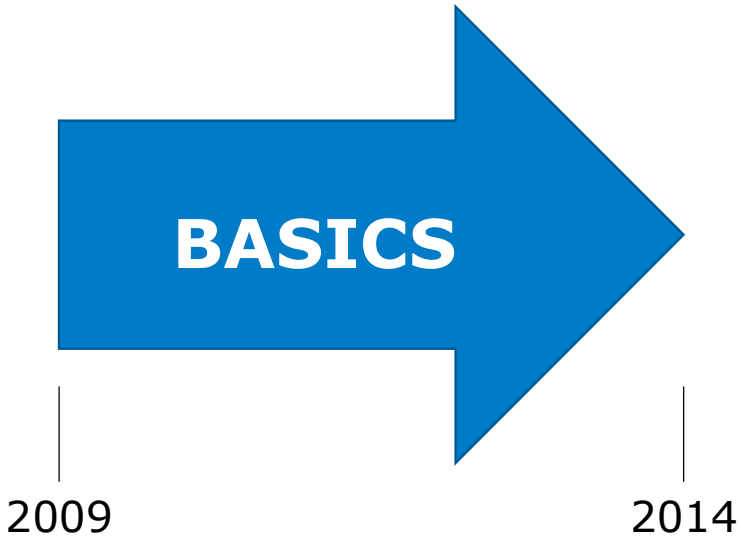
RWS-onderdelen

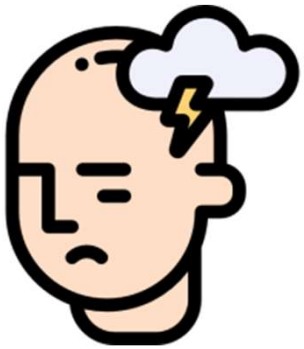
Beschreven in 'IV-besturingskader'
incl. koppeling aan processen en rollen

Tactisch Beraad IV (TBIV)
IT strategy committee

IV Portfolio Overleggen (PFO)
IT steering committees

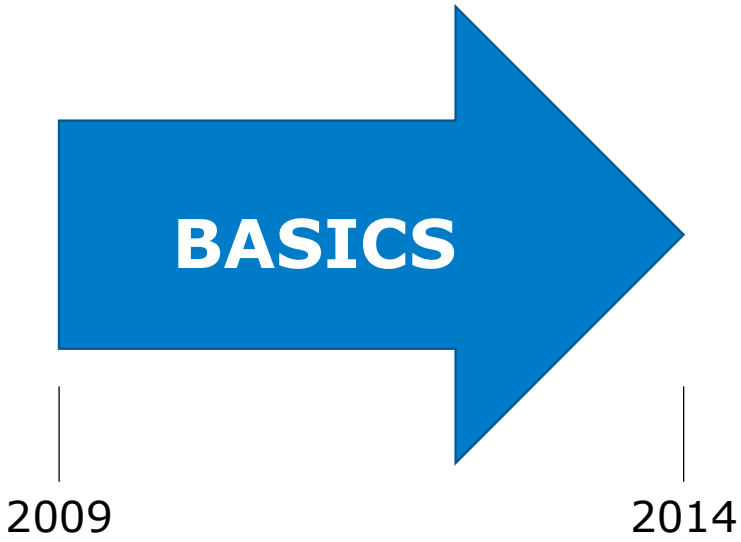
Gerealiseerde netwerkkwaliteit
- toestand van de RWS-netwerken
- netwerkprestaties
- publieksbeleving

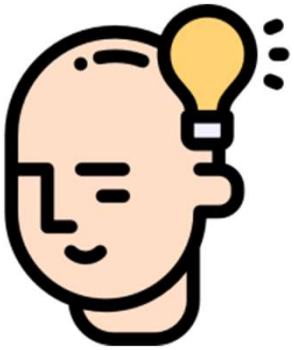




TEGENVALLERS

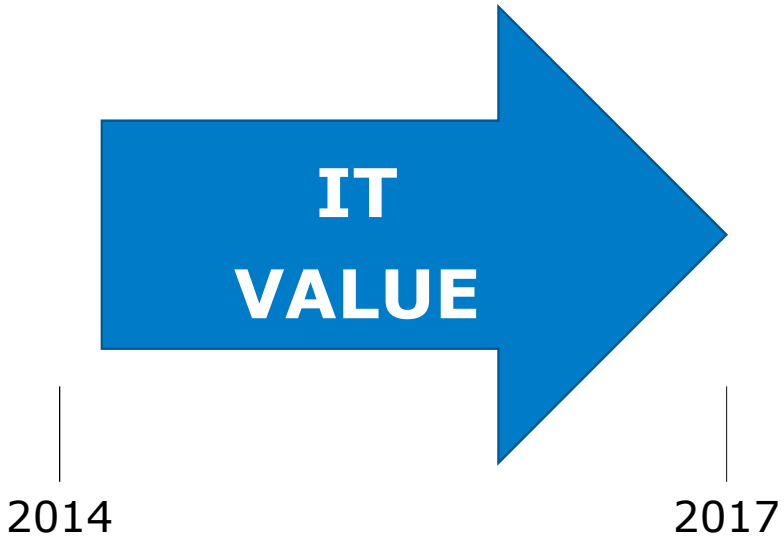
- Tegelijkertijd reorganiseren botst:
  proces & mens vs. FTE & structuur
- RWS-brede instrumentele introductie van ‘KR8’ (lean)
- IV-procesarchitectuur <u>niet</u> geschikt als communicatiemiddel

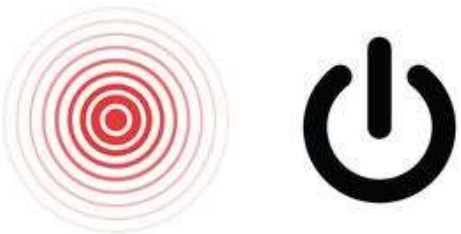




LEERPUNTEN

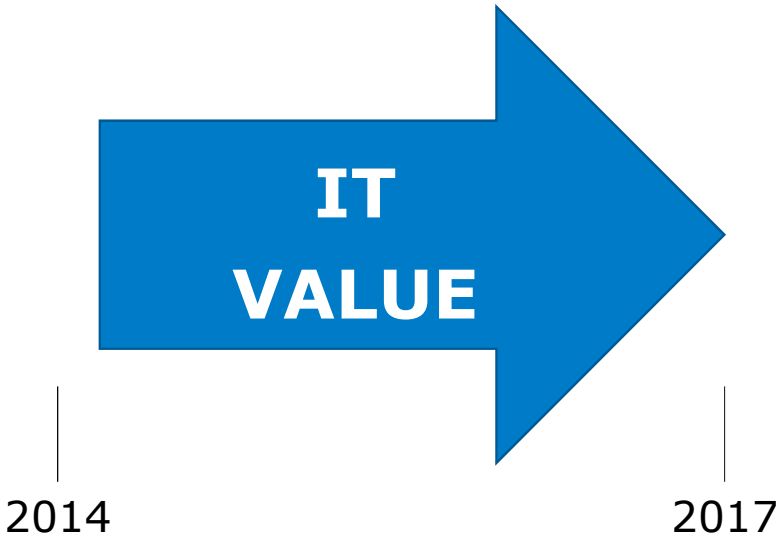
- Aanhaken/vasthouden van managementaandacht kost tijd, met name bij veel ‘verstoringen’:
  9 maanden werk, maar doorlooptijd van 3 jaar (!)
- Toewijding en volharding van ‘experts’ o.h.g.v. proces- en organisatieontwerp/-inrichting is cruciaal (kennis, inzet, scherpe blik, zorgvuldig beheer, verwerken recente ontwikkelingen, …)





PAIN POINTS & TRIGGER EVENTS

- Start Perry van der Weyden (HID CIV & CIO RWS)
- Samenwerking in IV-proces verloopt moeizaam
- Onvoldoende ‘grip op IV’ (aanbodzijde)
- GWW vs. ICT (werkveld, taal en dynamiek)
- Commissie Elias => Bureau ICT-Toetsing
- Reorganisatie => focus op regels vs. ‘bedoeling’



SUCCESSEN

- Intakeproces CIV
- i-Strategie RWS
- Infographic IV-proces
- Kwaliteitsraamwerk IV-projecten

CIV gezien als
‘black box’ vol verrassingen

opdrachtgevers
&
eindgebruikers

vraag

verrassing

Intakeproces / Intakeboard CIV

- doel: voorkomen van onaangename verrassingen/gedoe tijdens de uitvoering
- taak: beoordelen van alle aanvragen voor ‘niet-standaard leveringen’ door de CIV
- vaste doorlooptijd (1–3 weken afhankelijk van type aanvraag)
- alleen toezeggingen richting opdrachtgevers, die vooraf zijn getoetst op haalbaarheid (capaciteit & financiën) en kaders (zoals i-Strategie, architectuur, security)
- ondersteund door workflowsysteem: iedere aanvraag altijd inzichtelijk voor iedereen

i-Strategie RWS (2015)

‘Toets’ op Koers 2020 en i-Strategie

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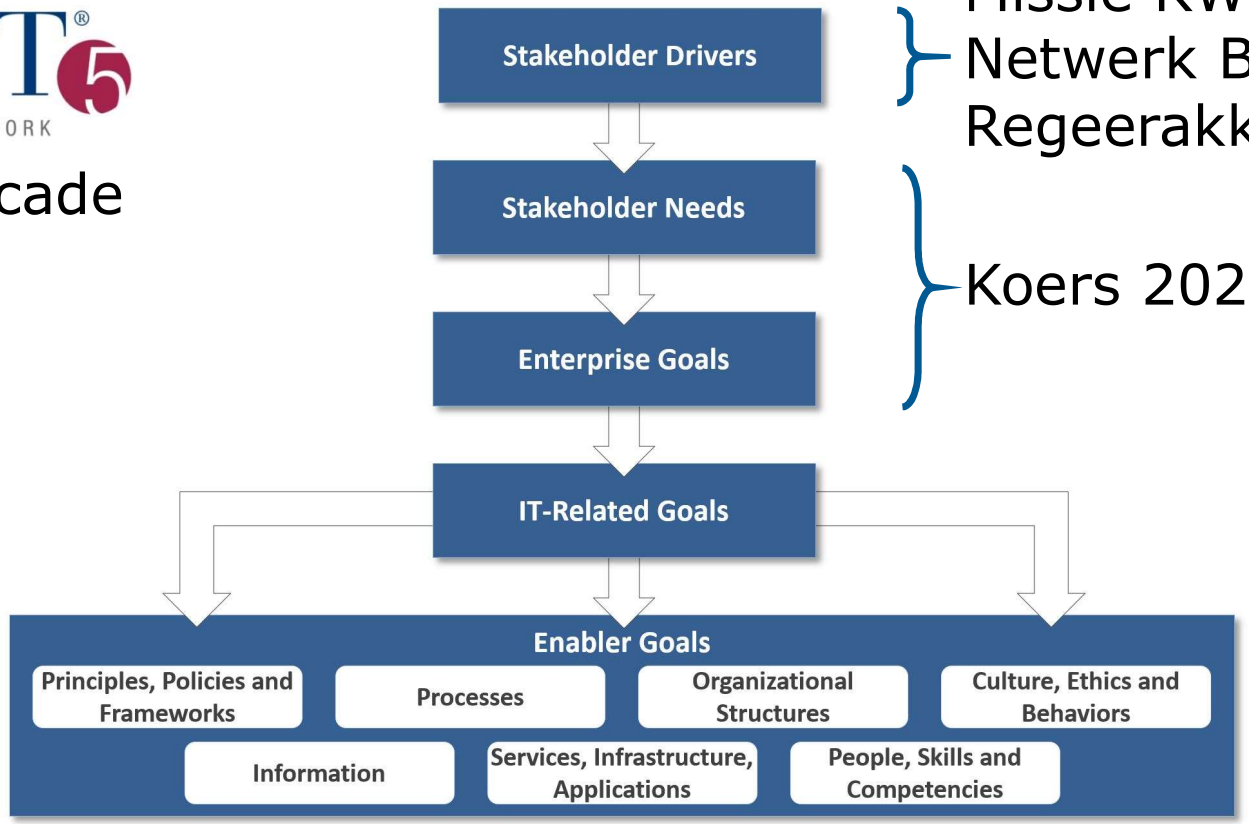
Goal Cascade



Missie RWS
Netwerk Beheer Visie (NBV)
Regeerakkoord

Koers 2020

i-Strategie

Op zoek naar verbetermogelijkheden

Enterprise Goals **(score: 13 v. 17 = 76%)**

IT-Related Goals **(score: 13 v. 17 = 76%)**

Processes

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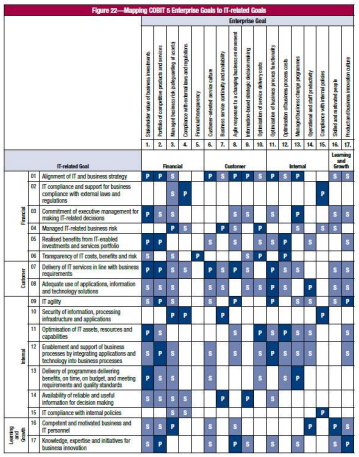
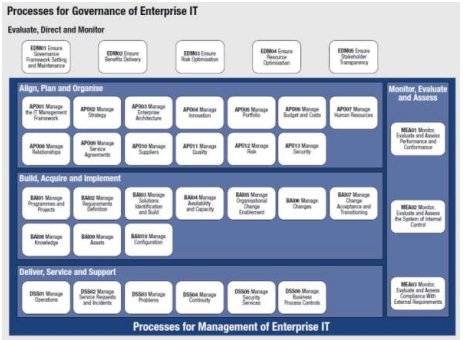
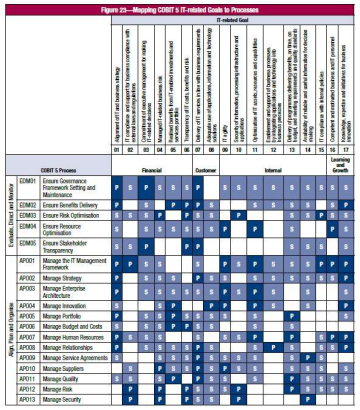
Detailed Mapping



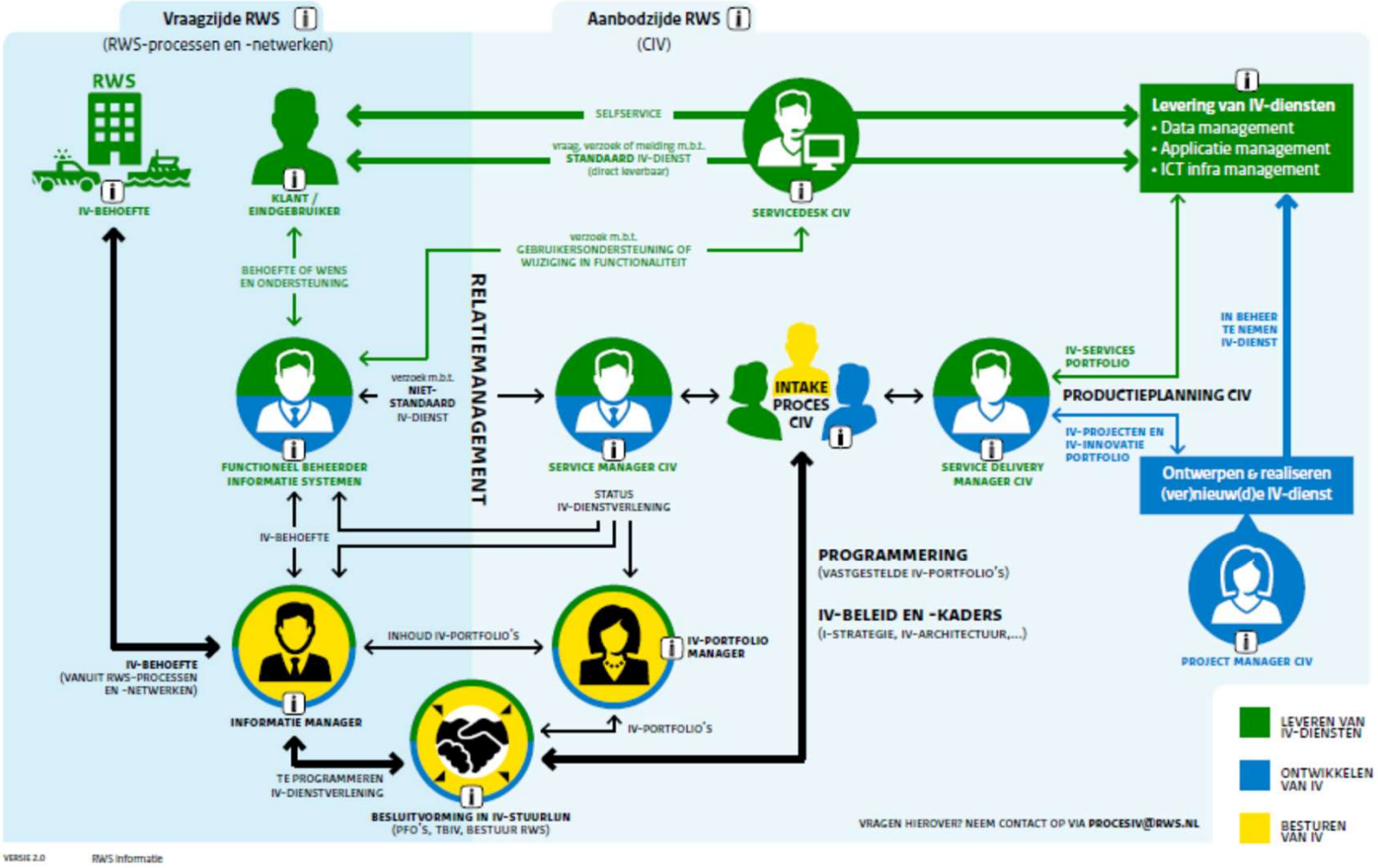


Bevindingen:
beleid of blinde vlek?

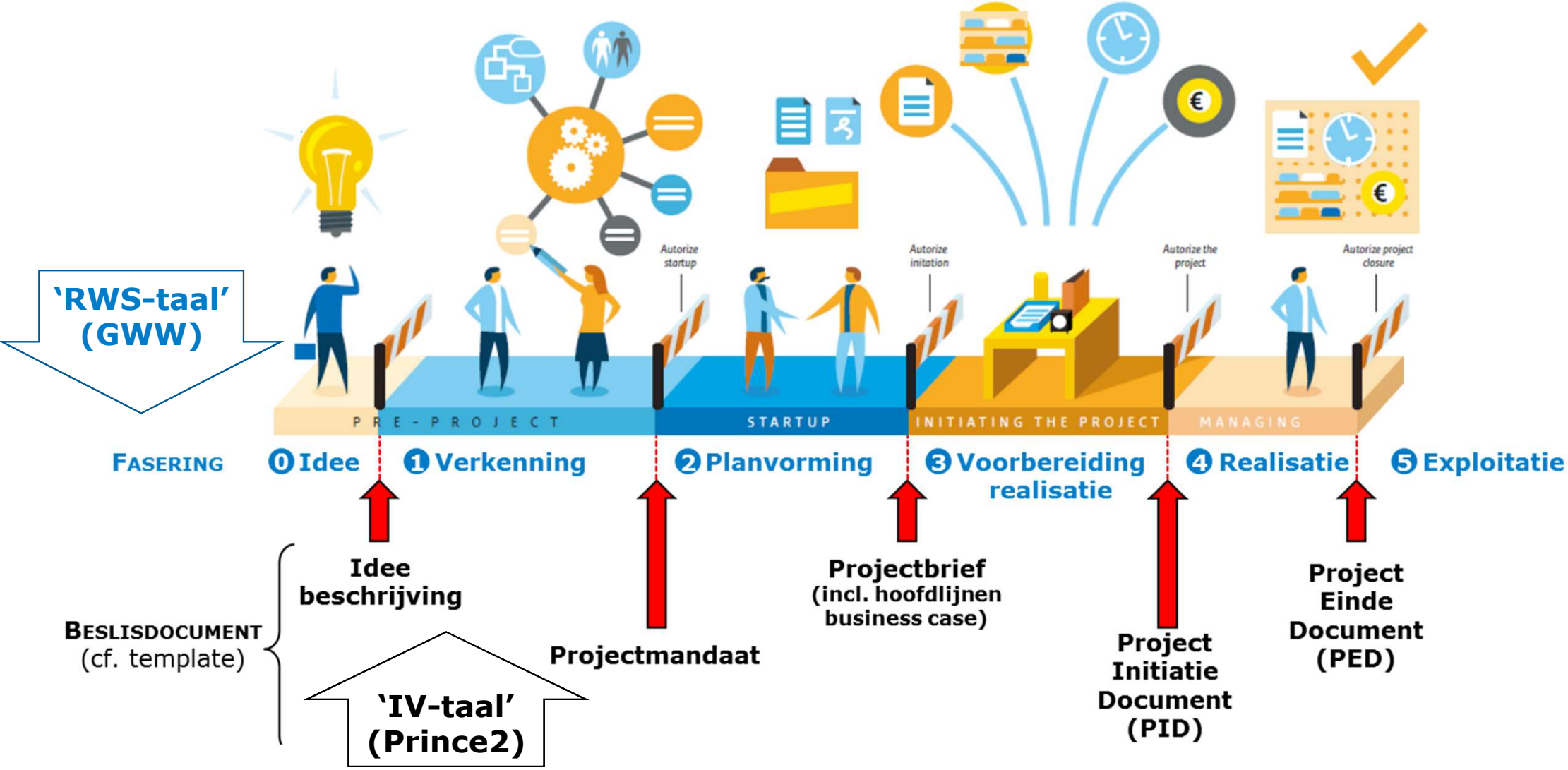


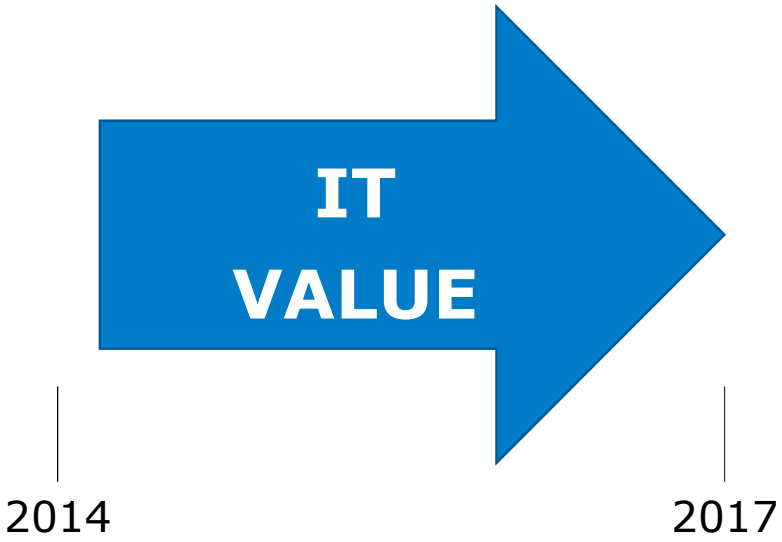
Focus: samenwerking rollen/functies op verbindingsvlak tussen ‘vraag’ en ‘aanbod

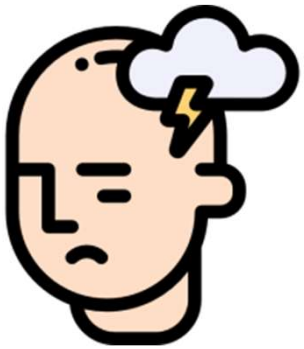
Hoe realiseren we betrouwbare en voorspelbare Informatievoorziening?



Focus: fasering en besluitvorming bij Ontwikkelen van IV

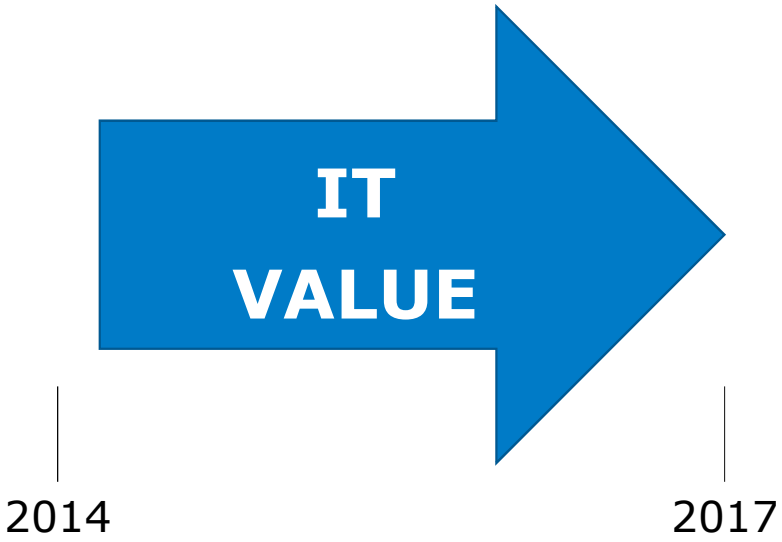


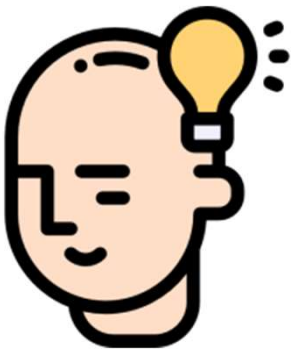




TEGENVALLERS

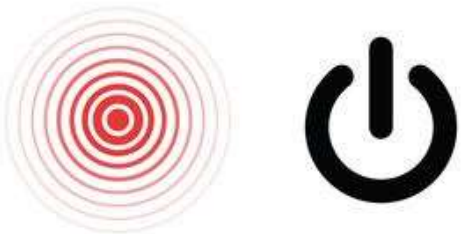
- (voorbeeld)gedrag management
- i-Strategie een ‘IV-aanbod’-feestje
- rolinvulling en samenwerking op het verbindingsvlak van IV-vraag en -aanbod
- IV-stuurlijn (rapportages, lijn-/proces-/programmasturing, échte ‘business’ aan tafel)





LEERPUNTEN

- directe aansturing van Intakeproces door de hoofddirecteur is cruciaal (één CIV)
- automatiseren om te uniformeren (no escape)
- gebruik ‘visuals’ met beperkte boodschap
- bied hulp bij 1) verkennen eigen rol en 2) opzoeken van de samenwerking tussen rollen
- blijf de ‘basics’ goed beheren en onderhouden



PAIN POINTS & TRIGGER EVENTS

Tussenstand 2018:

- IV (Data en ICT) steeds crucialer voor primaire taken RWS
- toename IV-vraag binnen RWS (digitalisering)
- sturing en financiering van IV borgen in RWS-brede 'programmering'
- toename managementaandacht (o.a. CIO-oordelen en BIT-toetsen)

Tussenstand 2018:

SUCCESSEN

i-Visie RWS (2017)

Focuspunten Bestuur RWS (2018)

Business IT Alignment (2018)

i-Strategie 2.0 (in wording)

i-Visie RWS (2017)

Focuspunten Bestuur RWS

- Verjongen, Vernieuwen en Verduurzamen
- Duurzame Leefomgeving
- Data en Informatievoorziening
- Smart Mobility
- Omgevingswet
- Samenwerking

COBIT 5
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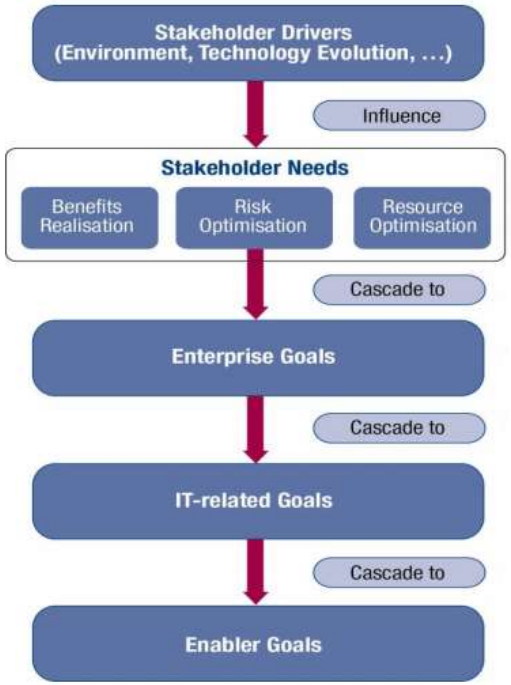
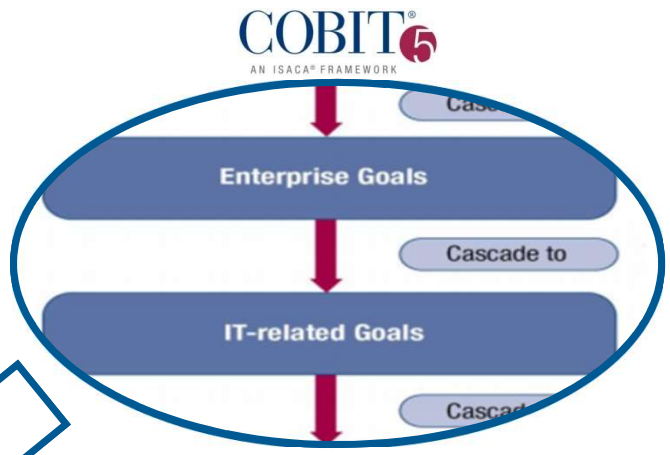
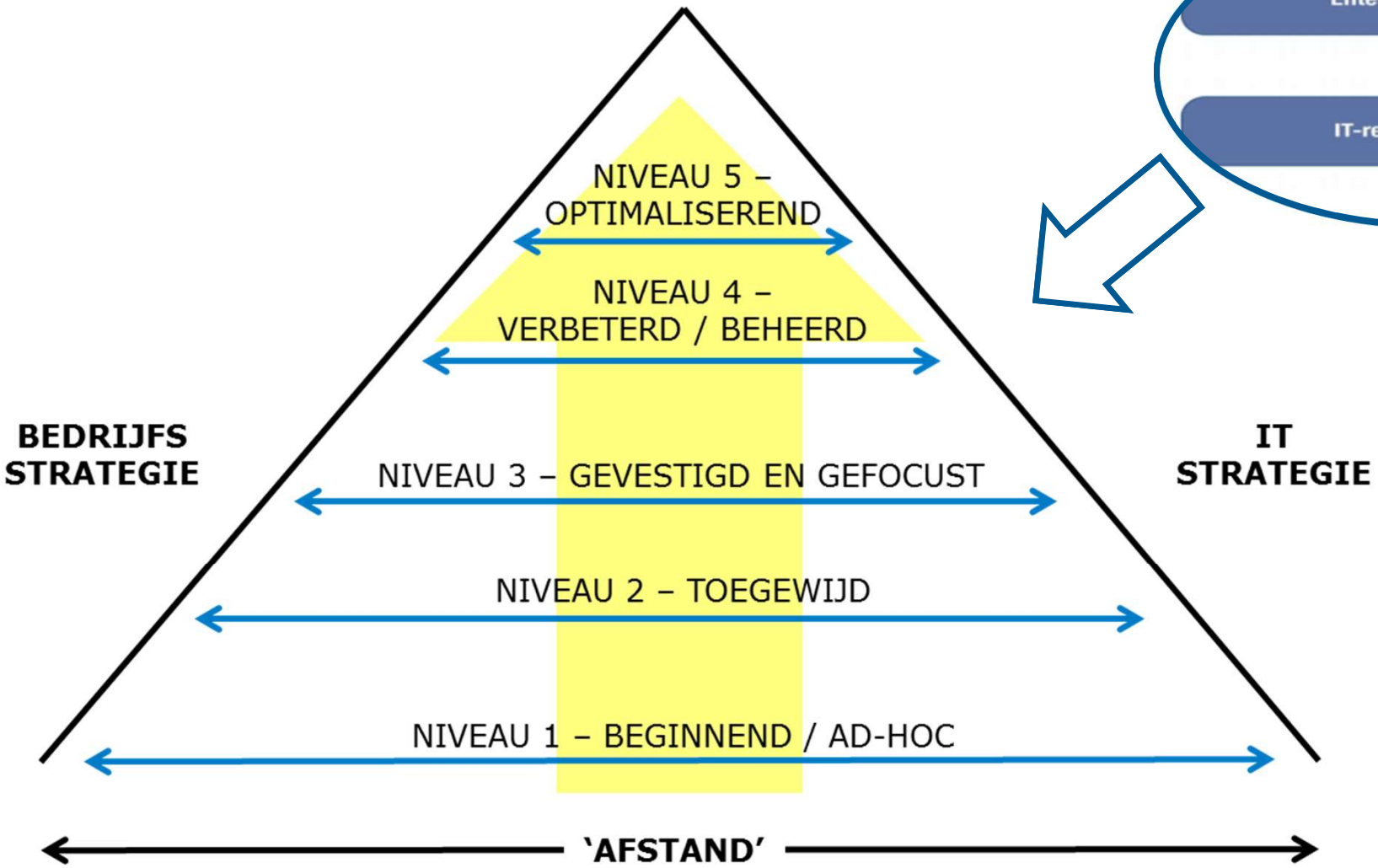
Goal Cascade



Business IT Alignment

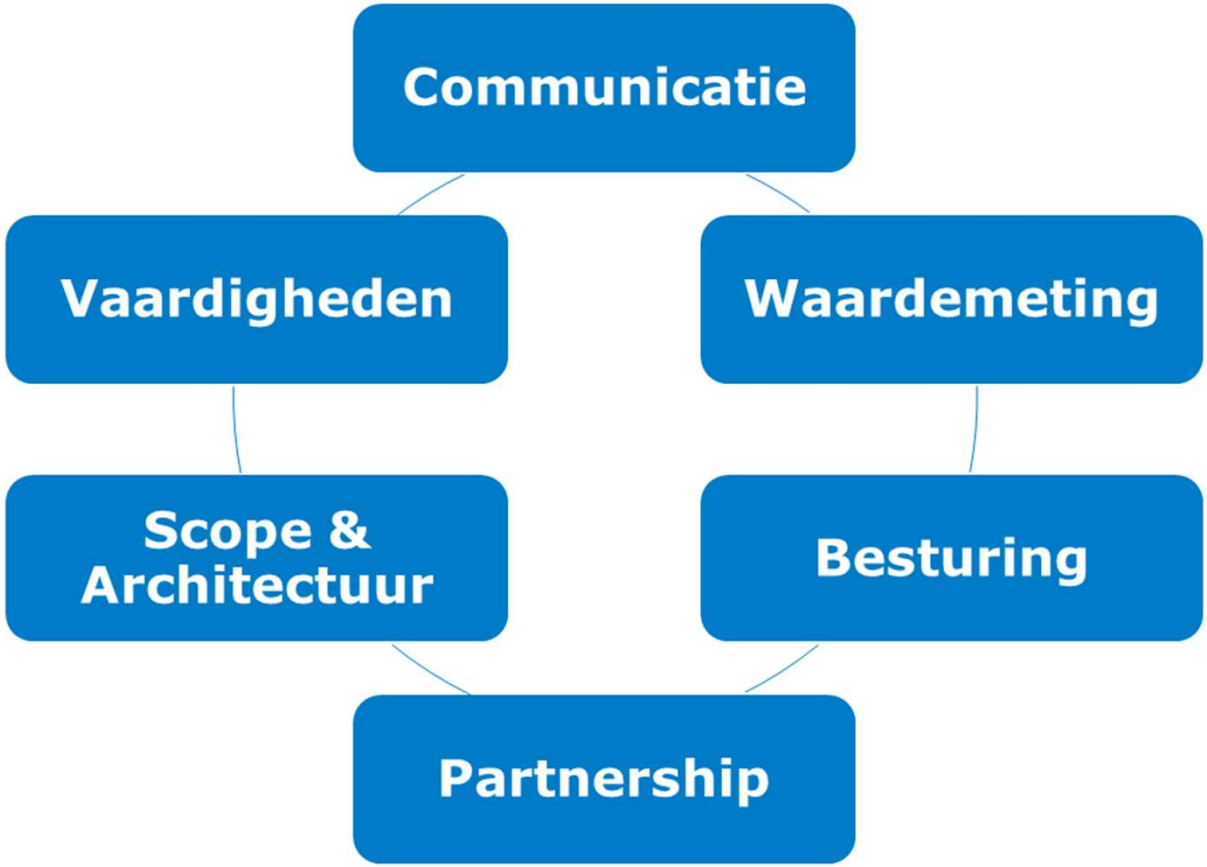
volwassenheidsmodel cf. Luftman



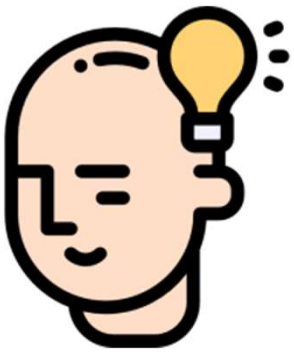


Business IT Alignment

(competenties cf. Luftman)

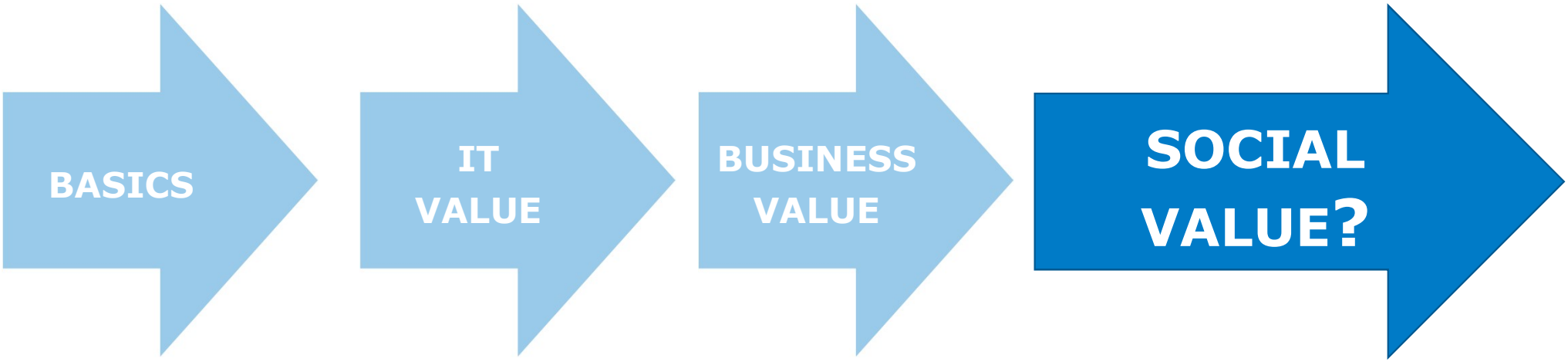


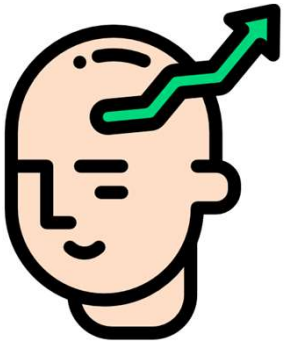
Tussenstand 2018 / Uitdagingen:



LEERPUNTEN

- i-Strategie 2.0: thema ‘verbinding business met IV’
- realiseren integratie IV in RWS-sturing & -financiering
- Business IT Alignment - belangrijkste aspecten voor verbetering: ‘communicatie’ en ‘waardemeting’
- portfoliomanagement/-rapportages (incl. tooling)
- ‘basics’ bijwerken → COBIT 2019



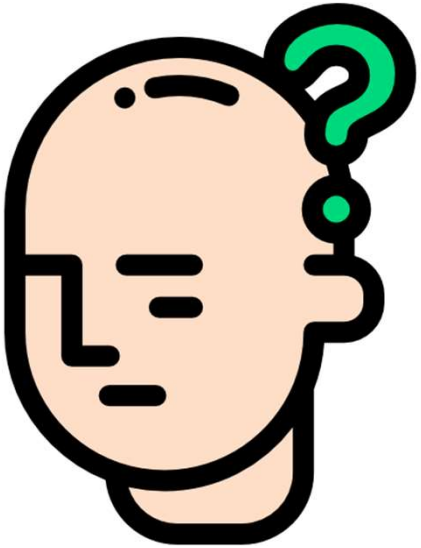


RWS 2030 (2020)

WHAT'S NEXT?

Strategische Verkenning Sensortechnologie (2018)

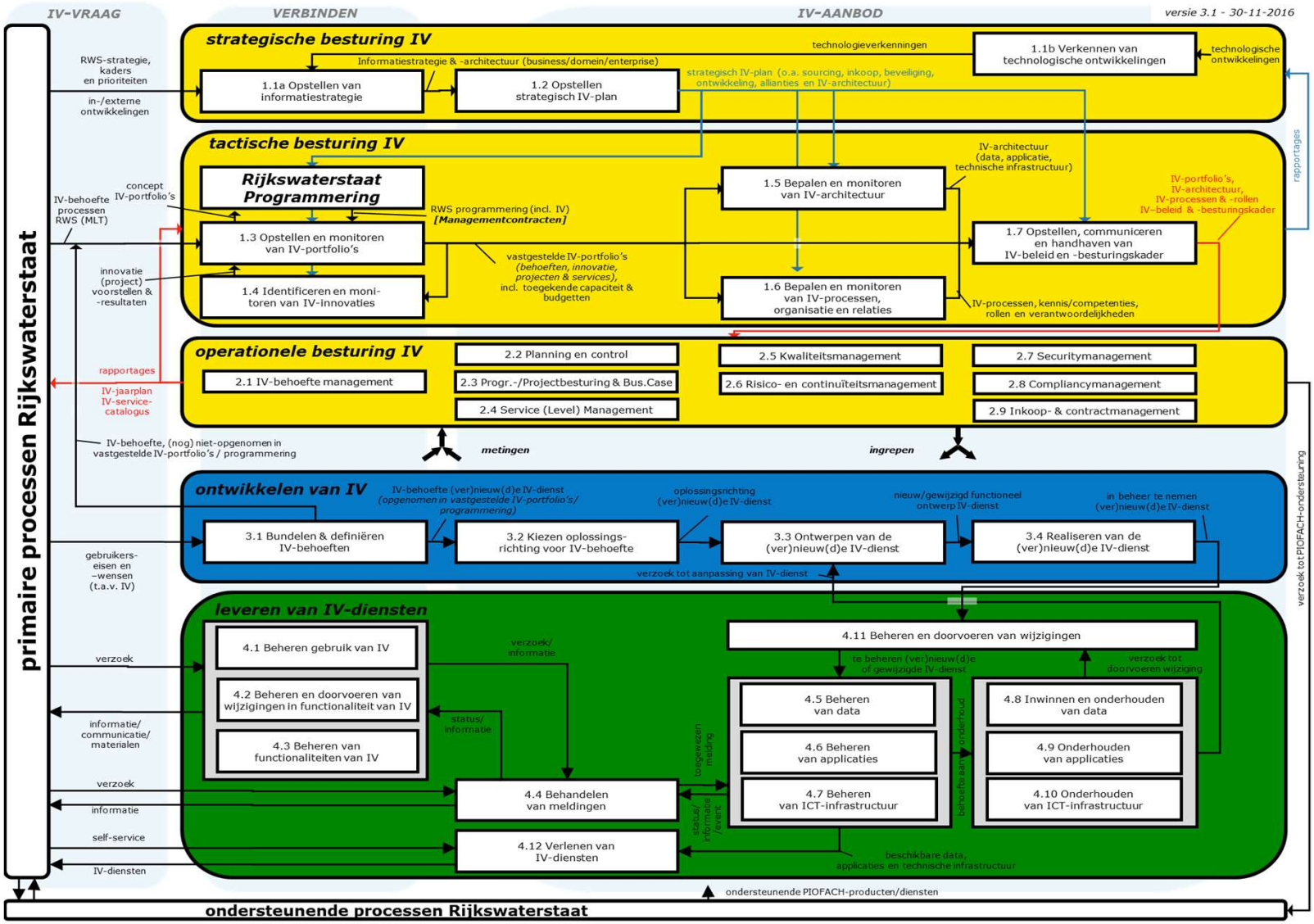
Vragen?



matthijs.sepers@rws.nl

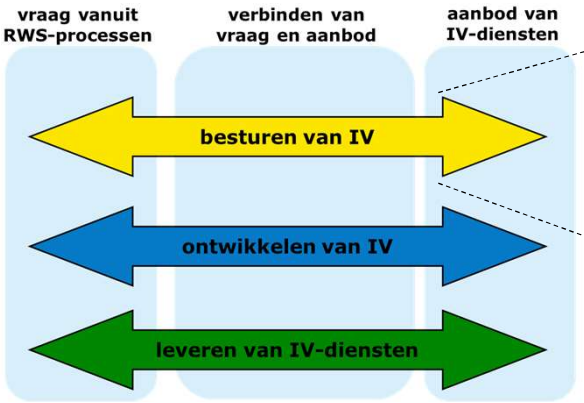
Bijlagen

IV-procesarchitectuur Rijkswaterstaat

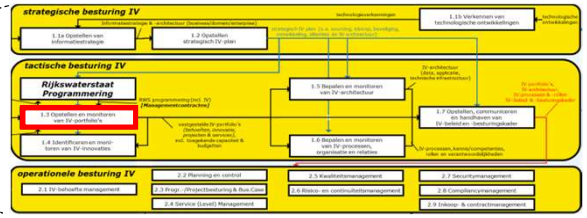


IV-procesontwerp - voorbeeld: ‘Opstellen en monitoren van IV-portfolio’s’

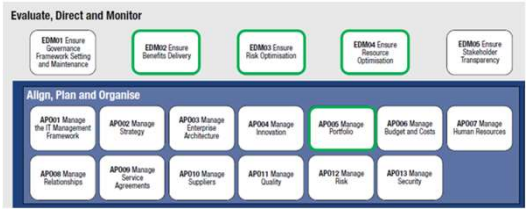
IV-procesketens



IV-processen



Process Reference Model
Governance & Management Practices



COBIT 5
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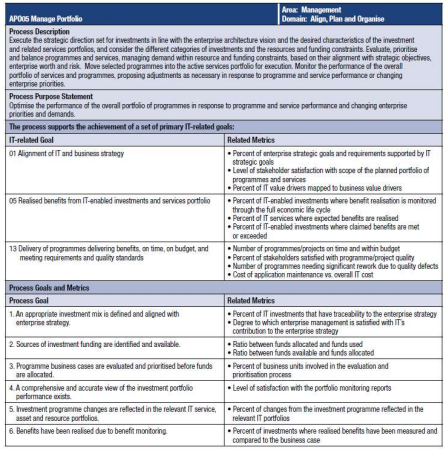
Process Goals & Metrics



APO05 Manage Portfolio	Area: Management Domain: Align, Plan and Organise
Process Description Execute the strategic direction set for investments in line with the enterprise architecture vision and the desired characteristics of the investment and related services portfolios, and consider the different categories of investments and the resources and funding constraints. Evaluate, prioritise and balance programmes and services, managing demand within resource and funding constraints, based on their alignment with strategic objectives, enterprise worth and risk. Move selected programmes into the active services portfolio for execution. Monitor the performance of the overall portfolio of services and programmes, proposing adjustments as necessary in response to programme and service performance or changing enterprise priorities.	
Process Purpose Statement Optimise the performance of the overall portfolio of programmes in response to programme and service performance and changing enterprise priorities and demands.	
The process supports the achievement of a set of primary IT-related goals:	
IT-related Goal	**Related Metrics**
01 Alignment of IT and business strategy	• Percent of enterprise strategic goals and requirements supported by IT strategic goals • Level of stakeholder satisfaction with scope of the planned portfolio of programmes and services • Percent of IT value drivers mapped to business value drivers
05 Realised benefits from IT-enabled investments and services portfolio	• Percent of IT-enabled investments where benefit realisation is monitored through the full economic life cycle • Percent of IT services where expected benefits are realised • Percent of IT-enabled investments where claimed benefits are met or exceeded
13 Delivery of programmes delivering benefits, on time, on budget, and meeting requirements and quality standards	• Number of programmes/projects on time and within budget • Percent of stakeholders satisfied with programme/project quality • Number of programmes needing significant rework due to quality defects • Cost of application maintenance vs. overall IT cost
Process Goals and Metrics	
Process Goal	**Related Metrics**
1. An appropriate investment mix is defined and aligned with enterprise strategy.	• Percent of IT investments that have traceability to the enterprise strategy • Degree to which enterprise management is satisfied with IT's contribution to the enterprise strategy
2. Sources of investment funding are identified and available.	• Ratio between funds allocated and funds used • Ratio between funds available and funds allocated
3. Programme business cases are evaluated and prioritised before funds are allocated.	• Percent of business units involved in the evaluation and prioritisation process
4. A comprehensive and accurate view of the investment portfolio performance exists.	• Level of satisfaction with the portfolio monitoring reports
5. Investment programme changes are reflected in the relevant IT service, asset and resource portfolios.	• Percent of changes from the investment programme reflected in the relevant IT portfolios
6. Benefits have been realised due to benefit monitoring.	• Percent of investments where realised benefits have been measured and compared to the business case

Proces ‘Opstellen en monitoren van IV-portfolio’s’ (kernactiviteiten)	Bron Cobit5
Monitoren van, optimaliseren van, en rapporteren over de samenstelling van en wijzigingen in de portfolio's	APO05.04
Beheren van de portfolio's	APO05.05
Bewaken van de realisatie van de beoogde baten van projecten en programma's ten opzichte van de afspraken uit de RWS programmering	APO05.06
Evalueren, monitoren en besturen van de waarde-optimalisatie van de portfolio's	EDM02.01 t/m 03
Evalueren, monitoren en besturen van de risico-optimalisatie van de portfolio's	EDM03.01 t/m 03
Evalueren, monitoren en besturen van de resource-optimalisatie van de portfolio's	EDM04.01 t/m 03

Uitwerking van ieder IV-proces:

- procesdoelen
- outputs/resultaten
- KPI’s
- kernactiviteiten
- koppeling aan IV-rollen/functieprofielen

Verankering in organisatieonderdelen en besturing

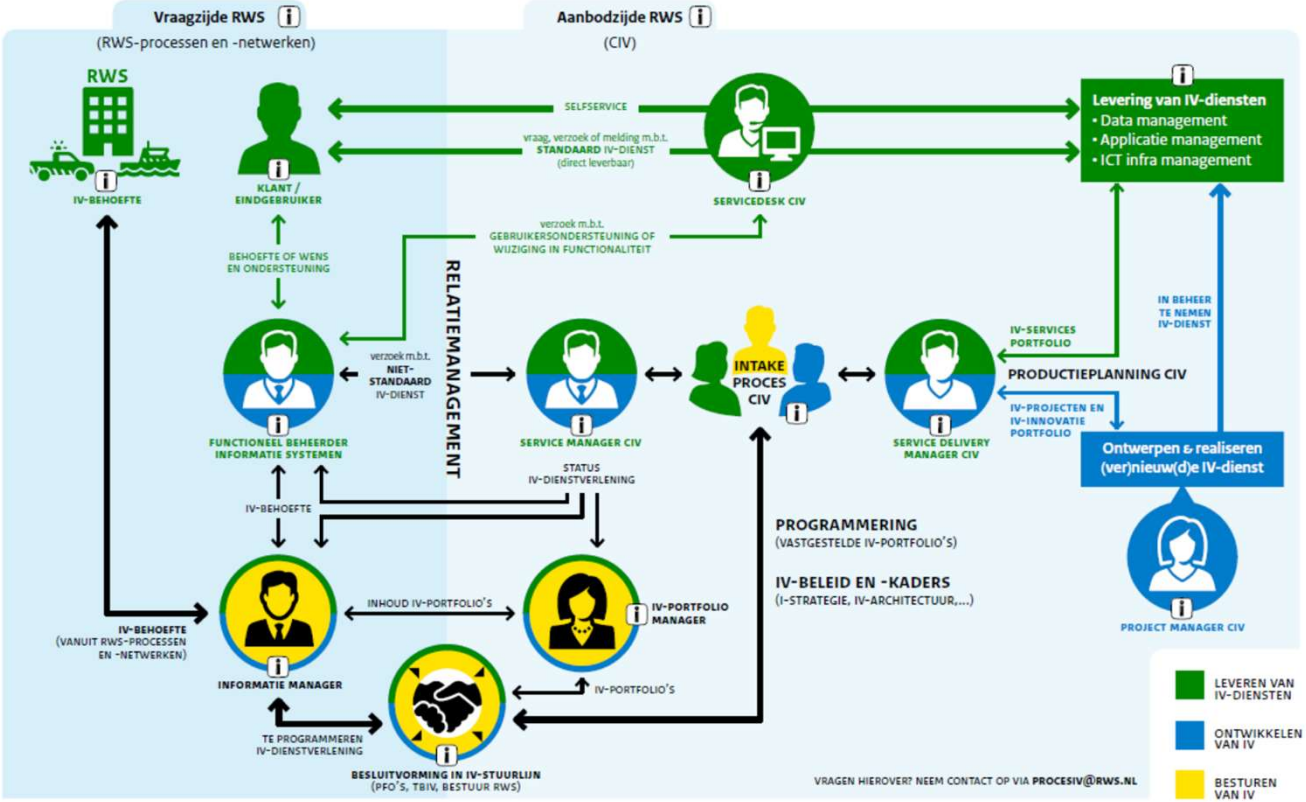
Resultaatverantwoordelijke IV-rol/functie:

Infographic IV-proces

belangrijkste rollen bij verbinden IV-vraag en –aanbod

Rijkswaterstaat
Ministerie van Infrastructuur en Milieu

Hoe realiseren we betrouwbare en voorspelbare Informatievoorziening?



VERSIE 2.0 RWS Informatie