



# Onderzoeks Informatie Systeem: CRIS

## NIC bijeenkomst 18 oktober 2013





- Introductie CRIS: toepassingen
- CRIS & wensen NIC: Researcher en Management
- Dus:
  - Output / publicatie management
  - CV's
  - Management Rapportages
  - Externe representatie (web)



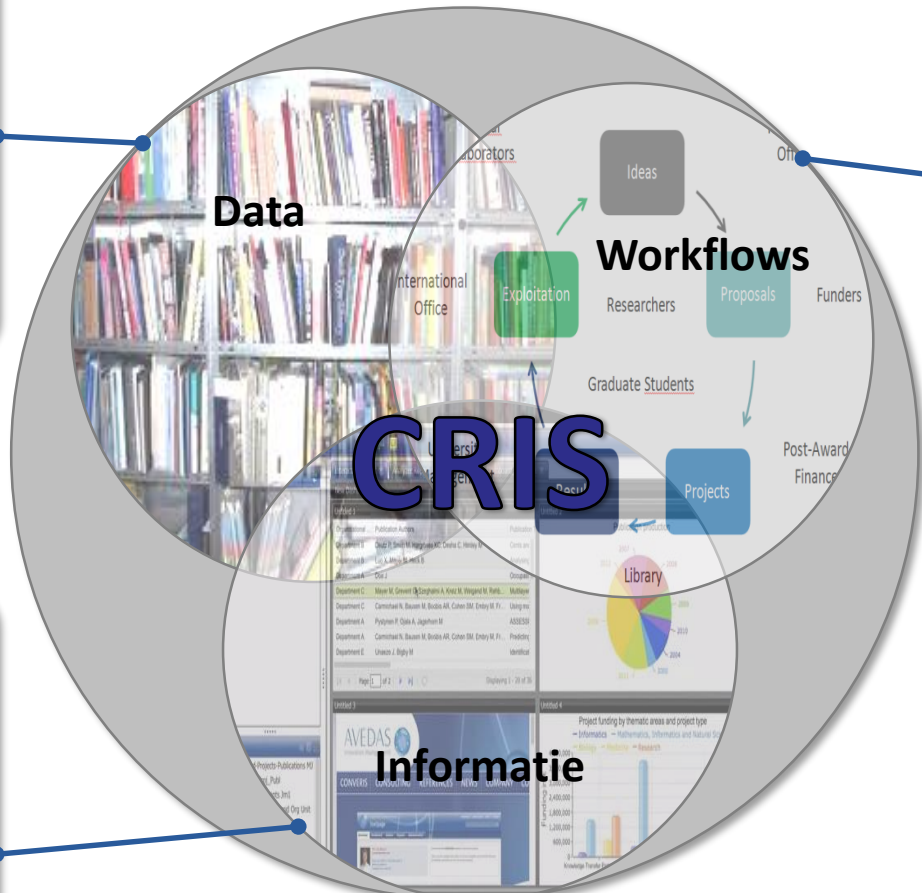
Een modern CRIS heeft drie primare toepassingsgebieden:

1. Output (Publicatie / IP) management
2. Pre- en post award contract management
3. Graduate Student Management



# Een CRIS integreert:

- Eenmalige en continue data import
- In- and externe systemen
- Eenmalige invoer; hergebruik
- Data QA, QC



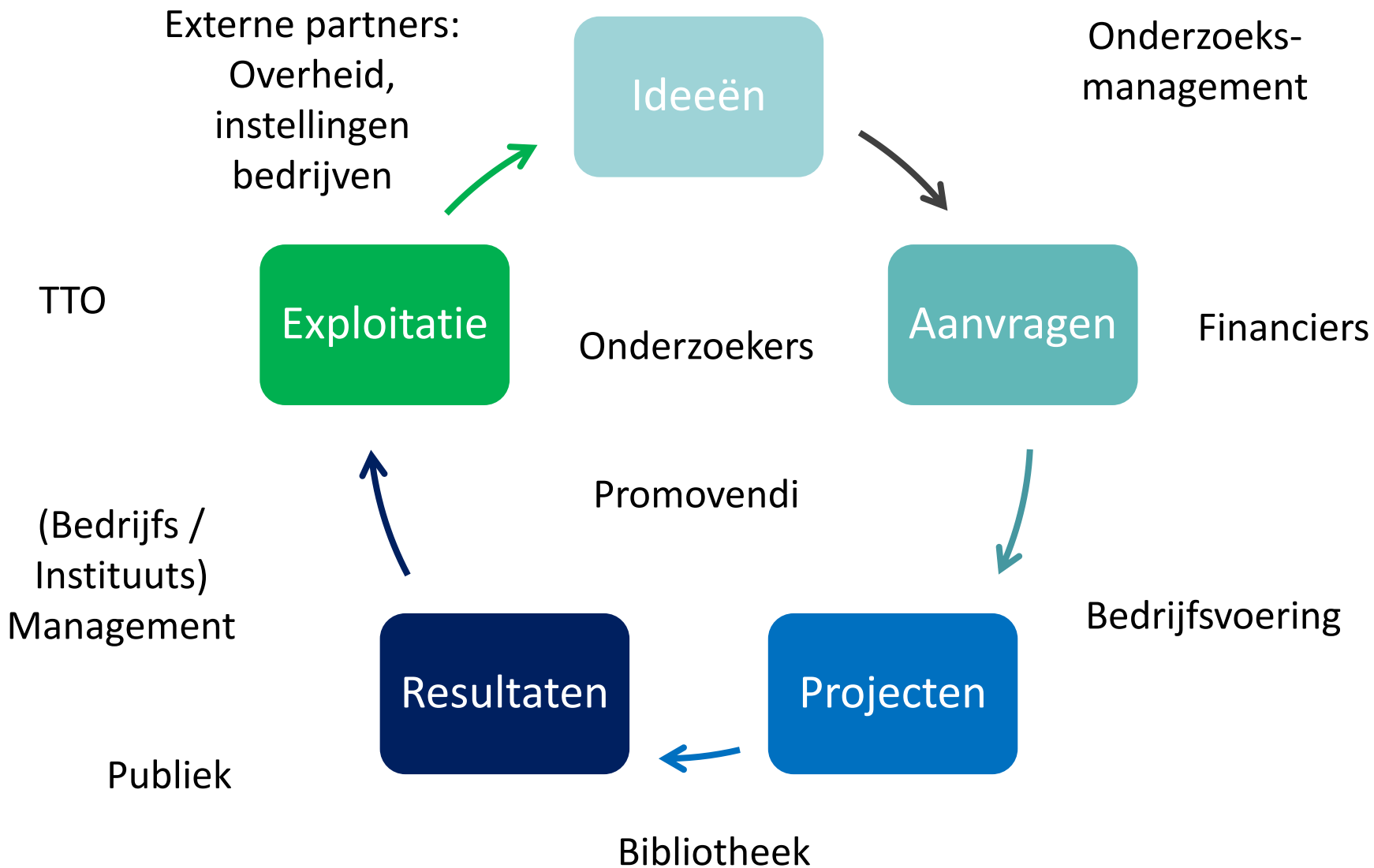
- Validatie van data
- Alle gebruikers:
  - Eigen data
  - Eigen to-to's
- Alle beslissingen in de 'research life cycle'
  - Plaats en rol in organisatie

## Complete informatie

- Alle aspecten van het onderzoek
- Need-to-know
- Flexibel; on demand
- In- en extern
  - Rapport, lijst
  - Website

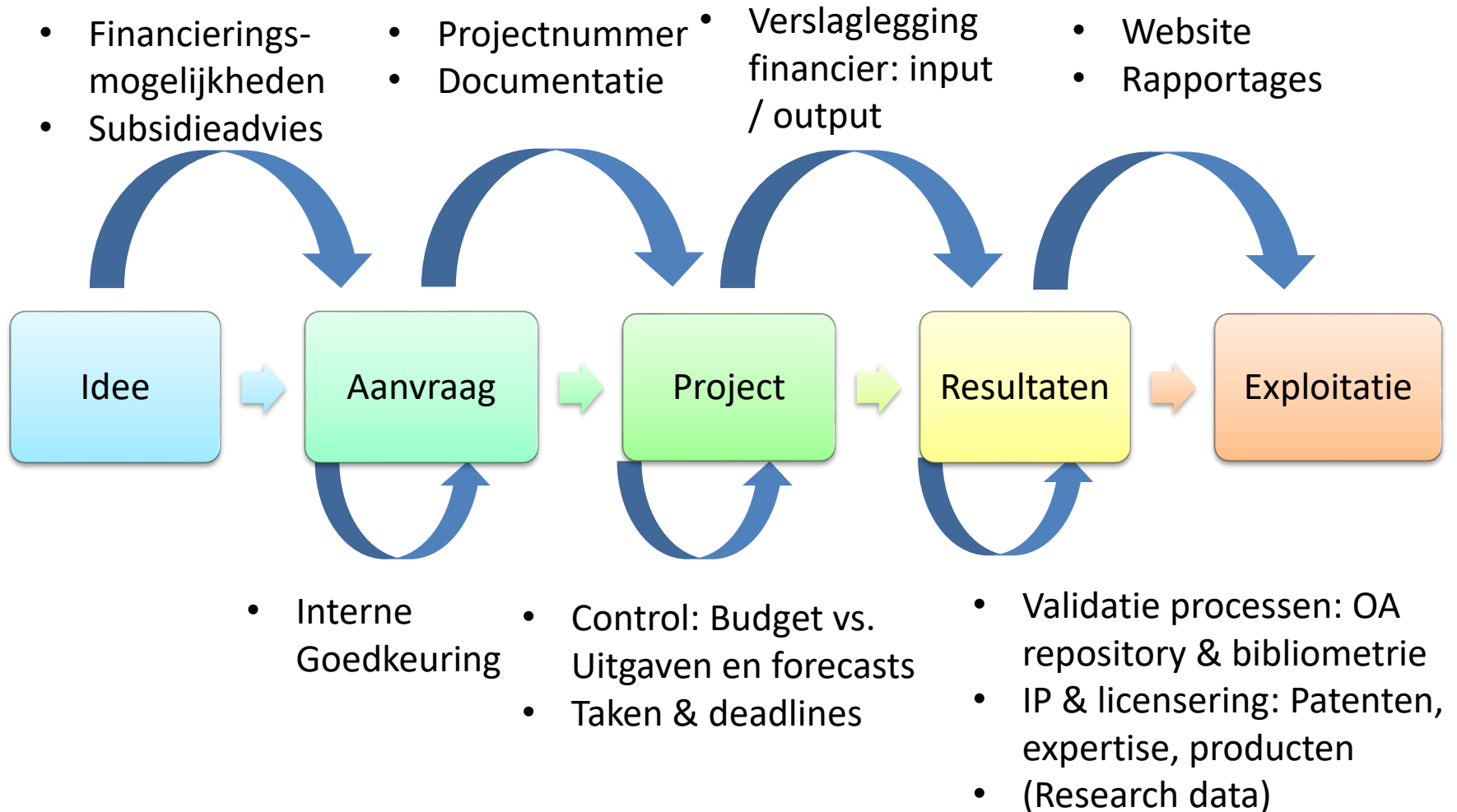


# De onderzoekscyclus





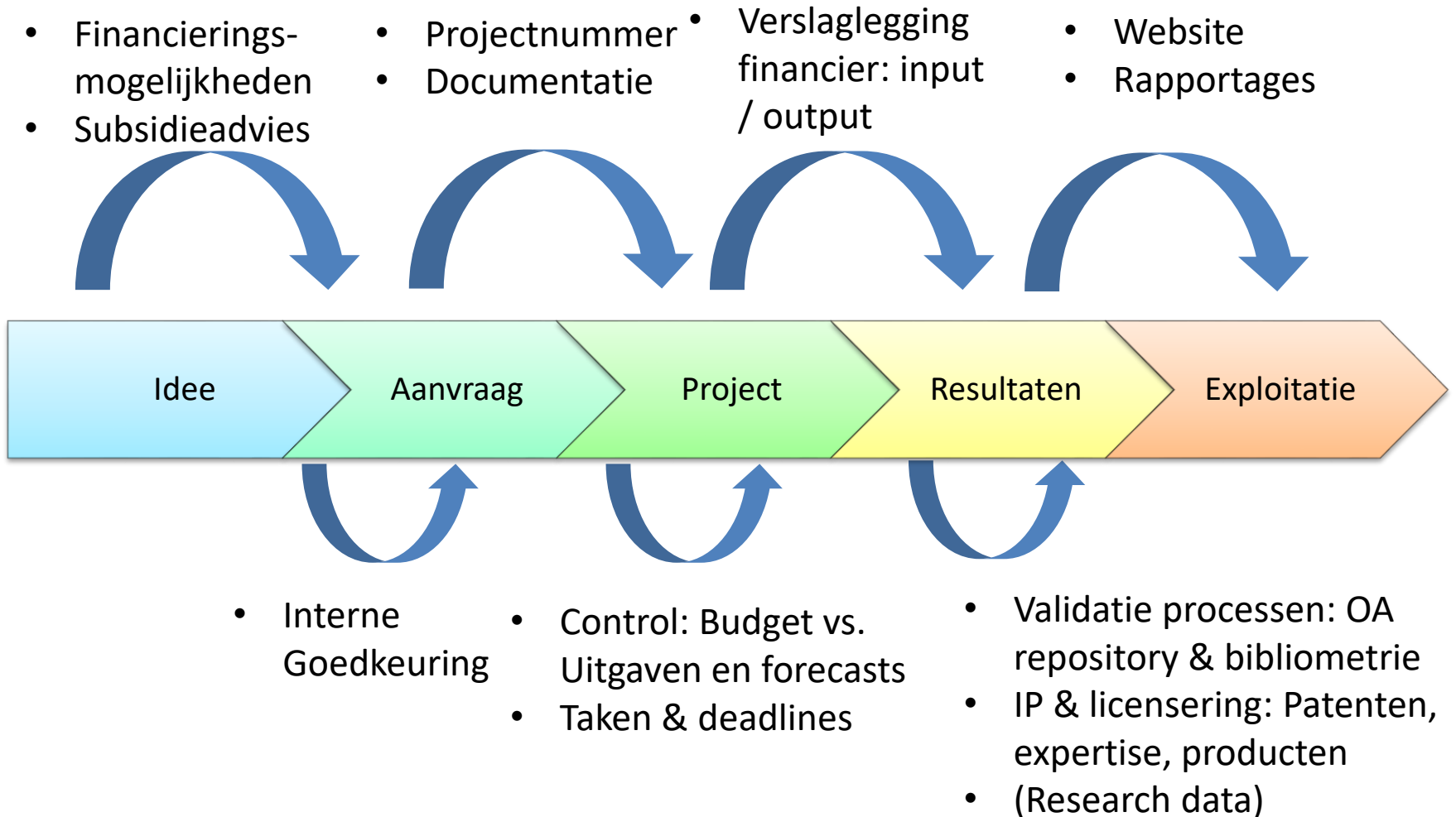
# Integratie CRIS in bestaande processen



**Doel: doorlopende administratieve processen**



# Integratie CRIS in bestaande processen



## Doorlopende administratieve processen



## Maar: iedere organisatie is toch uniek...?

- Zeker, maar de hoofdprocessen lopen ongeveer hetzelfde
- Een modern CRIS is volledig configureerbaar (door de klant):
  - Processen kunnen eenvoudig organisatiespecifiek gemaakt worden:
  - Rollen & rechten
  - Datamodel
  - User-interface





- CRIS voor individuele onderzoeker
- CRIS voor management



## Overview

### Notifications

No new messages

### Things to do

6 Publications to complete

5 Applications for completion

### Content

30 Publications

12 Projects

27 Project Applications

25 [Tasks](#)

11 Project Ideas

[Show all](#)

[+ Add new](#) ▼

### Recently created

Project Application: Erlotinib  
Plus Gemcitabine Co...





Home » Add new Publication



How do you want to create your publication?

Manually

Import from

external sources ▼

## Select the desired Publication type

Publication type	Information about the selected Publication type
Monograph	A poster is a visual presentation of an academic subject presented at a conference. The poster may be accompanied by a short paper published in the conference proceedings. A poster can be authored by one or more authors.
Otherbook	
Referencebook	
Textbook	
Commentary	
▼ Conference related publication types	
Conference proceeding	
Conference proceedings article	
Poster	
Presentation	
▼ Journal related publication types	
Journal article	
Journal article abstract	
Journal article review	
Letter	
Letter to editor	
Manual	

Cancel

Create manually



How do you want to create your publication?  Manually  Import from external sources

### Select a Person

Hoellrigl, Thorsten, Department of Informatics (01/08/2012-14/08/2015)

### Search for Publications

Coutinho R in field authors

Bilthoven in field affiliation

From year  to  Sort by date

PubMed (4)	Scopus Sciverse (112)	WoS Lite (51)	DNB (3)
<input type="checkbox"/> <b>Publication data</b> <span style="float:right">Action to be performed</span>			
<b>How patterns of migration can influence the heterosexual transmission of HIV in The Netherlands.</b>			
<input type="checkbox"/> Xiridou M, van Veen M, Prins M, Coutinho R Sexually transmitted infections: 289-91, 2011-Jun, ID:21441275 Affiliation: Centre for Infectious Diseases Control, National Institute of Public Health and the Environment, Bilthoven, The Netherlands. ... <a href="#">Link to PubMed</a>			Import and relate to you
<b>Can migrants from high-endemic countries cause new HIV outbreaks among heterosexuals in low-endemic countries?</b>			
<input type="checkbox"/> Xiridou M, van Veen M, Coutinho R, Prins M AIDS (London, England): 2081-8, 2010-Aug-24, ID:20671545 Affiliation: Centre for Infectious Diseases Control, National Institute of Public Health and the Environment, Bilthoven, The Netherlands. ... <a href="#">Link to PubMed</a>			Import and relate to you
<b>Epidemiology and control of influenza A(H1N1)v in the Netherlands: the first 115 cases.</b>			
<input type="checkbox"/> Hahné S, Donker T, Meijer A, Timen A, van Steenberghe J, Osterhaus A, van der Sande M, Koopmans M, Wallinga J, Coutinho R, Dutch New Influenza A(H1N1)v Investigation Team Euro surveillance : bulletin Européen sur les maladies transmissibles = European communicable disease bulletin, 2009-Jul-9, ID:19589332 Affiliation: Rijksinstituut voor Volksgezondheid en Milieu (National Institute for Public Health and the Environment), Bilthoven, the Neth ... <a href="#">Link to PubMed</a>			Import and relate to you
<b>Hepatitis B vaccination and changes in sexual risk behaviour among men who have sex with men in Amsterdam.</b>			
<input type="checkbox"/> Xiridou M, Wallinga J, Dukers-Muijers N, Coutinho R Epidemiology and infection: 504-12, 2009-Apr, ID:18631424 Affiliation: National Institute of Public Health and the Environment, Bilthoven, The Netherlands. maria.xiridou@rivm.nl <a href="#">Link to PubMed</a>			Import and relate to you



Mueller

Karlsruhe;KIT;Karlsruhe Institute of Technology

Status:

Active

Visibility:

Not publicly visible

Edit

History

1. Key information \*

2. Rejected publications

### Filters ?

Underneath it is possible to enter search terms for your search profiles. Please be aware that if you make the search profile too specific, you might miss out many relevant publications. More information can be found under the question mark.

**Names:** Here you can provide the author names you wish to search for. Please, use the format: Last name Initial, Last name Initial (Example: Brando M; Johnson LD). Result will have the matches for all authors (OR catenation)

Mueller

**Affiliations:** Here you can add search terms that should be found in the affiliations of the authors. It is advised to use the name of the organization, the abbreviation and also the name of the city, e.g. Karlsruhe; KIT. The search results will be catenated with OR.

Karlsruhe;KIT;Karlsruhe Institute of Technology

### Sources

In this section you can define if the system shall search for your publications in one or more of the available online sources below.

PubMed:

Thomson ISI:

Scopus:



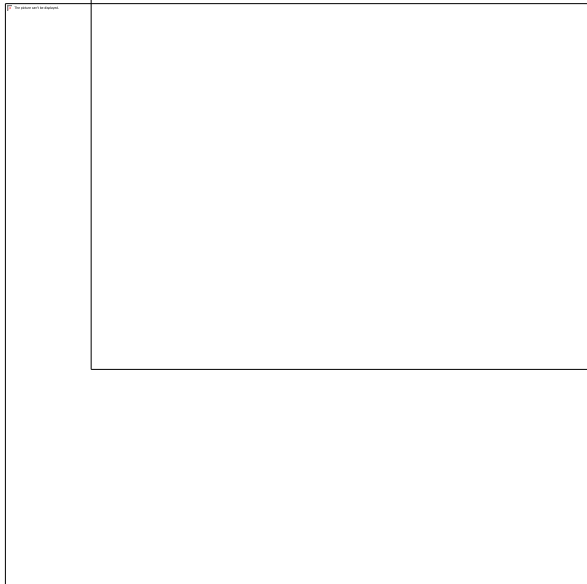
En natuurlijk ook gewoon file in / export

- Handig bij verschillende aanstellingen en toch registratieverplichting lokaal



- Naast publicaties ook activi
- Projecten (als aanwezig)
- Verschillende formats mog standaard)

## Scheelt onderzoekers werk!



### Curriculum Vitae

#### Dr. Thorsten Hoellrigl



Postal address:  
 Telephone: +49 (0)721 354 90 24  
 Mobile: +49 (0)1525 310 47 01  
 Fax: +49 (0)721 354 90 00  
 Email: T.Hoellrigl@avedas.com  
 Date of birth: 05/06/1985  
 Gender: Male

#### Positions

01/08/2012 - 14/08/2015 Dean for the department of IT (Head of Unit)  
 This position included a teaching activity of 12 hours per week as well as numerous administrative tasks.

Since 01/09/2011 Senior Manager (Head of Unit)  
 Responsible for the strategic orientation of CONVERIS...

03/12/2007 - 31/12/2015 Head of Unit

#### Projects as principal investigator

10/01/2014 - 20/02/2015 SMEpact 2  
 (Total funding: 0,00 GBP)

07/06/2010 - 30/08/2013 Integration of the University libraries in CONVERIS  
 In order to provide CONVERIS users with broad access to academic knowledge and thus automatically to extend the scope of the work, this interface is planned.  
 (Total funding: 80,000 GBP)

01/11/2008 - 01/01/2013 Netpact: Impact Study for the European Commission's 6th Framework Programme (FP6)  
 Networks are increasingly seen as a critical element in promoting competitiveness and innovative capabilities in research and technology. The European Commission therefore decided to utilise the AVEDAS competences related to data management and network analysis in order to get an improved understanding of the relationship between RTD networks and European competitiveness as well as of the impact that EC funding has on this relationship and on RTD network formation.  
 (Total funding: 70,000 GBP)

15/10/2010 - 31/12/2012 SMEpact: Impact study on the role of SMEs in EC funded research  
 AVEDAS leads a pan-European consortium that has been commissioned by the European Commission to analyse the role of small and medium enterprises (SMEs) in EU funded research projects. SMEs are increasingly seen as a critical element in promoting competitiveness and innovative capabilities in research and technology development as well as efficient vehicles for introducing new technologies to the European industry and markets. For this reason, the European Commission has with its framework programmes made significant efforts in encouraging the active participation of SMEs in EC-funded research projects.  
 (Total funding: 40,000 GBP)

11/01/2013 - 31/12/2012 MRC Medical Research Council in the UK



Een modern CRIS geeft informatie en staat acties toe afhankelijk van rol en positie in organisatie:

1. Afdelingshoofden zien en doen 'alles' van eigen afdeling maar niet van de 'buren'
2. HRM ziet alleen HRM-gerelateerde info; FIN ziet alleen financiële info; Bibliotheek valideert enkel publicaties, etc.
3. De top ziet en mag 'alles'





- Standaard rapportages
  - Dashboard
  - CV
  - Data export
  - Netwerk analyses
- Standard rapportages per Toepassingsgebied / Module
  - Publication reports
  - (Advanced) bibliometrische rapportages: CWTS
  - Project rapportages
  - Graduate student rapportages
  - SEP
- Geavanceerde rapportages
  - Drag and drop rapportages
  - Aanpassen / toevoegen filter pagina's. Alle attributen and relaties kunnen gebruikt worden.
  - Aanpassen / toevoegen output templates.



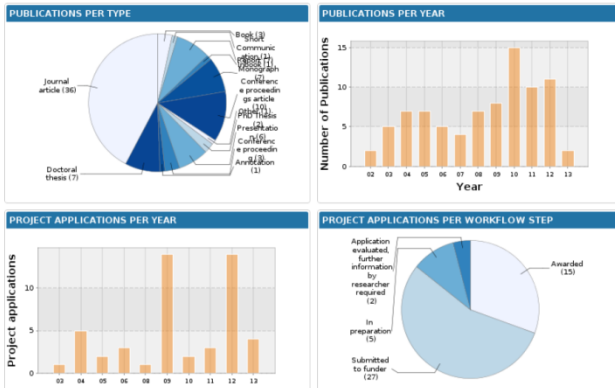
# „Research Analytics“

Library website showing a building image and a table with statistics:

in Mio. Euro	2012	2011	2010
Einzelne Ausgaben	200,7	188,0	185,1
Investitionsausgaben	101,9	71,7	85,0

- Voorgedefinieerde opmaak  
bv. kwartaal / jaarrapportages

Dashboard 2002 to 2013



- Voorgedefinieerde dashboards  
Overzicht / managementinzicht  
Output en input

AVEDAS

Detailed dashboard with multiple charts and tables:

- Publications per Year & Org Unit:** Bar chart showing publications by year and organization unit.
- Publication production:** Pie chart showing the distribution of publication production.
- Table:** Table with columns: Year, Country Name, Publication, Publication type, Status, Journal, Publication Title, Discipline, and Department.

- Interaktive rapportages



- Alle informatie in CRIS met de 'juiste' status
  - Publicaties
  - Projecten
  - Onderzoekers
  - Etc.
- In Samenhang
  - Doorklikbaar
  - Eigen vormgeving
- Voorbeelden:
  - <http://forschung.uni-kassel.de>
  - <http://www.sciencenet.se>
  - <http://www.healthcompetence.eu>
  - <http://www.toolsofscience.eu>



# Vragen?



# De-duplicatie

**Merge selected Publications**

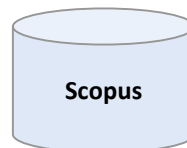
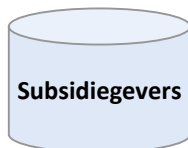
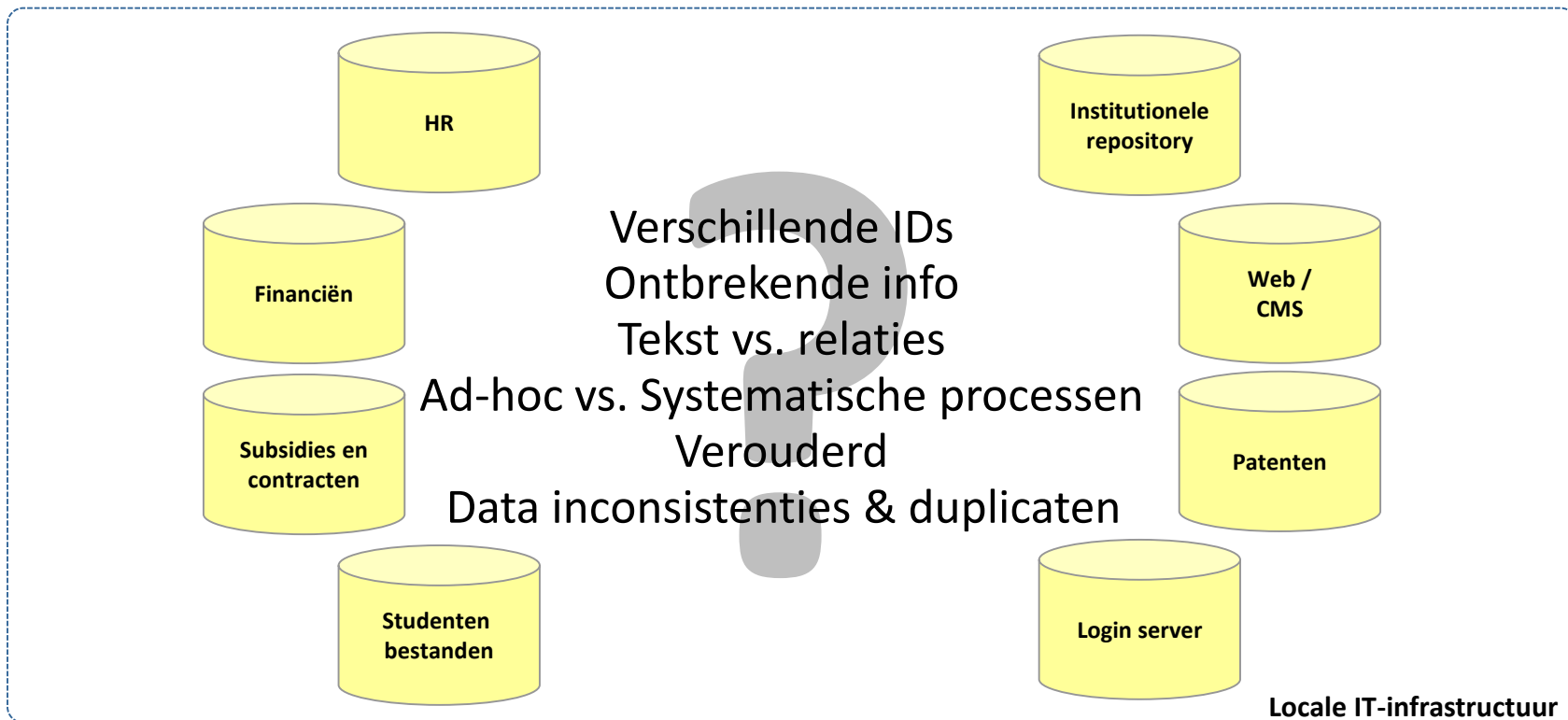
Please select all information of both Publications that should be kept after merging.

	Publication under modification	Already existing Publication
<b>Key Information</b>		
<b>Publication type:</b>	<input checked="" type="radio"/> Journal article	<input type="radio"/> Journal article
<b>Title:</b>	<input type="radio"/> Electrical conductivity and crystallization of amorphous bismuth ruthenate thin films deposited by spray pyrolysis	<input checked="" type="radio"/> Electrical conductivity and crystallization of amorphous bismuth ruthenate thin films deposited by spray pyrolysis.
<b>Subtitle:</b>		
<b>Abstract:</b>	<input type="radio"/>	<input checked="" type="radio"/> Amorphous oxide thin films with tailored functionality will be crucial for the next generation of micro-electro-mechanical-systems (MEMS). Due to potentially favorable electronic and catalytic properties, amorphous bismuth ruthenate thin films might be applied in this regard. We report on the deposition of amorphous bismuth ruthenate thin films



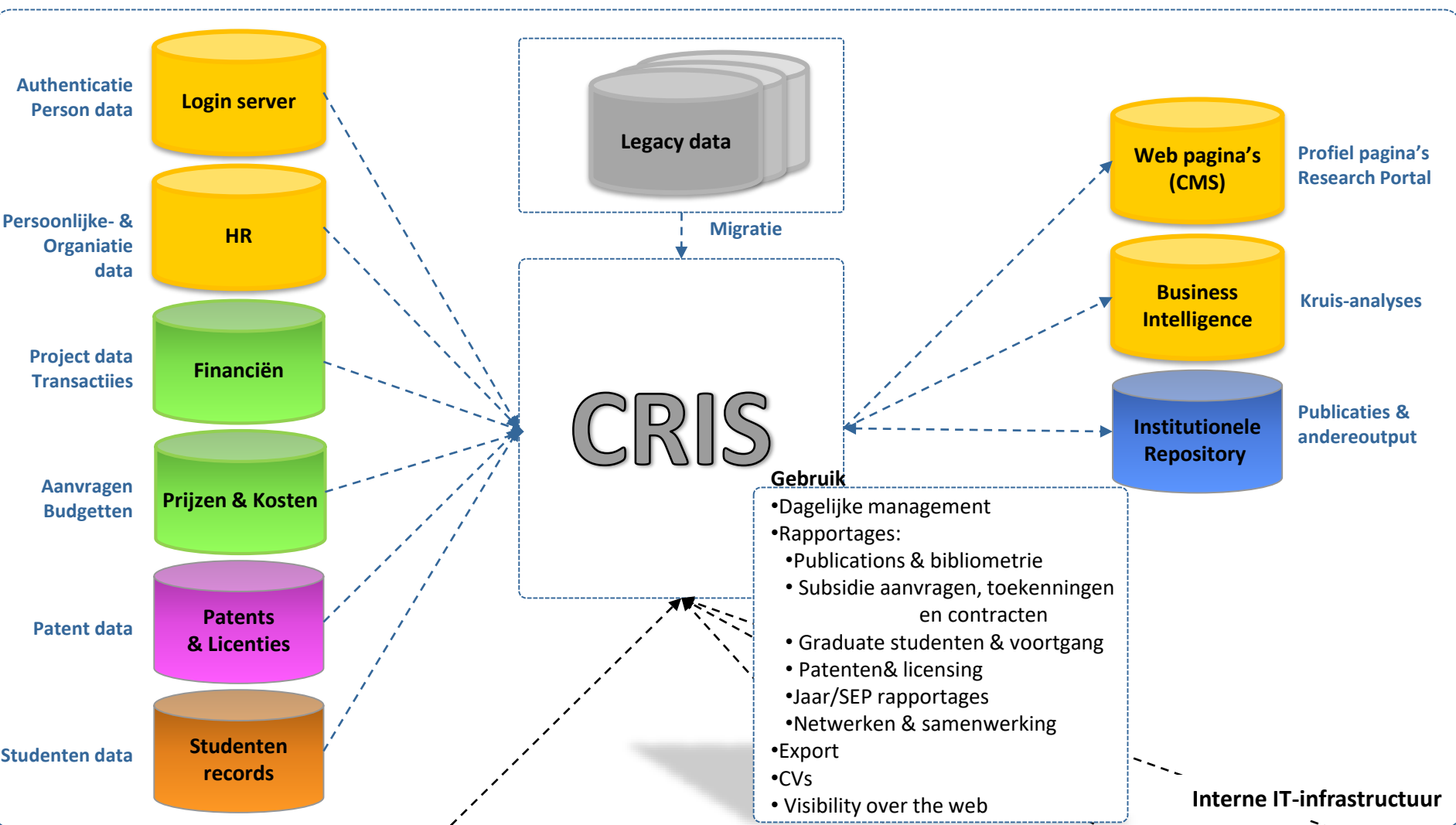
# Waarom CRIS?

## Fragmentatie, data inconsistentie, hoge kosten, ...





# CONVERIS & integratie



**Prepopulatie en (auto-)updates**

- Journals/Publishers
- Journal policy (Sherpa / RoMEO)
- DOIs (CrossRef)
- Classificatie (ISI, OECD, ISO, etc.)
- Organisaties

**Project data**

Nationale Financiers & EC

**Publication data**

WoS, Scopus PubMed, ...

**Patent data**

EPO



CONVERIS biedt 50+ connectors / interfaces voor:

- Login Server
- HR
- Financiën (budgettering)
- Studenten
- Institutionele Repositories (Dspace, Eprints, Fedora)
- Management Informatie Systemen
- CMS / Web pagina's

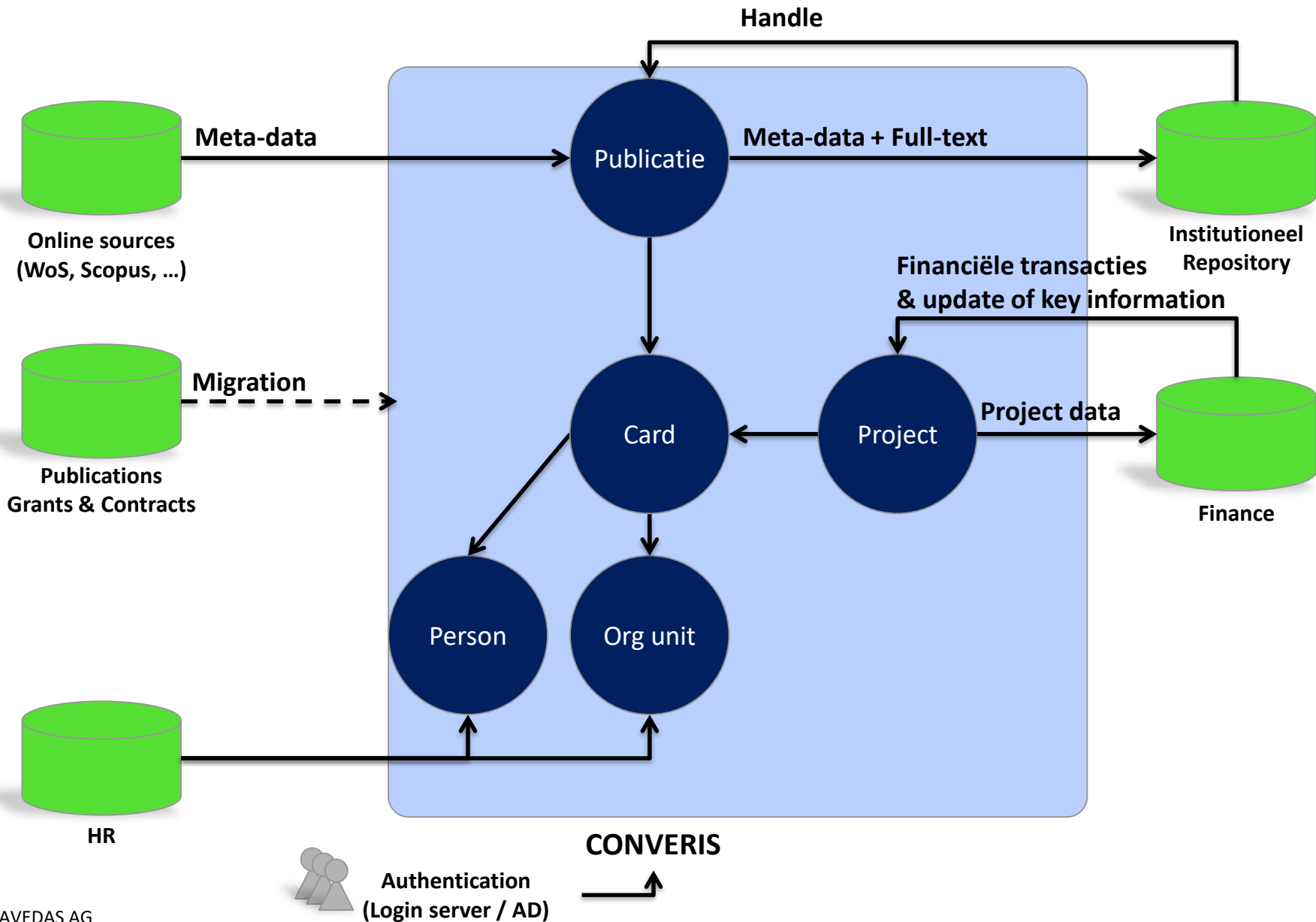
... primair via web services (& public web), periodieke file overdracht, directe database connection en OAI-PMH.

... voldoet al aan CERIF 1.5





# Integratie voorbeeld





# CONVERIS

Probeer 't zelf!





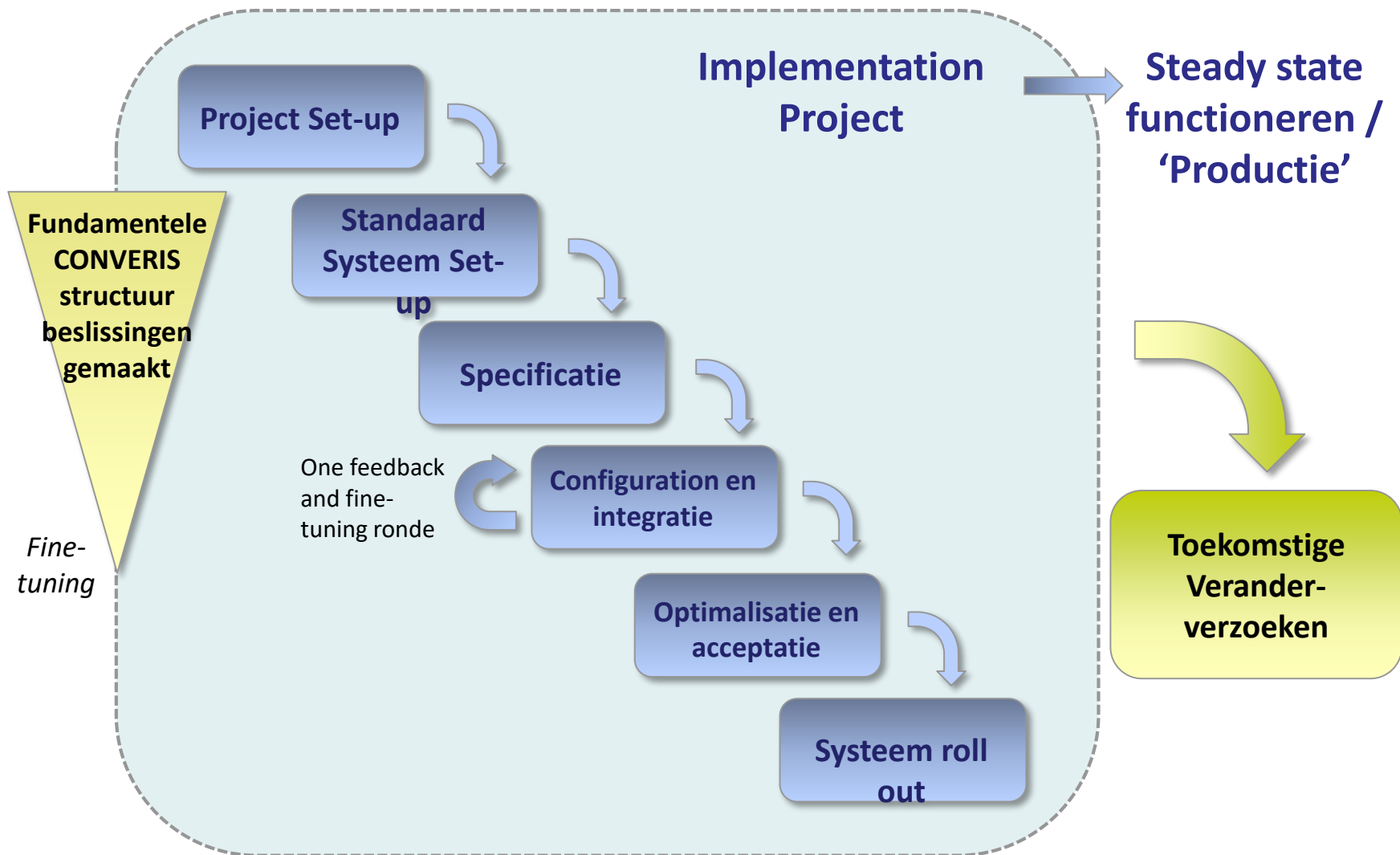
# CONVERIS

## Implementatie plan





# AVEDAS' implementatie benadering





## 0. Project set-up

- Organisatie set-up en gedetailleerde tijdsplanning

## 1. Systeem set-up (Milestone: Specification van configuratie en integratie)

- D1.1 Set-up of CONVERIS en pre-populatie system
- D1.2 Review eisen versus test system om specificatie te maken
- D1.3 Inventarisatie van interne bronnen en data om specificatie te maken

## 2. Systeem configuratie (Milestone: Customer specific system)

- D2.1 Configuratie om aan eisen te voldoen (data model & templates, gebruikers rechten, workflows en rapportages)

## 3. Systeem integratie (Milestone: System geïntegreerd enlive)

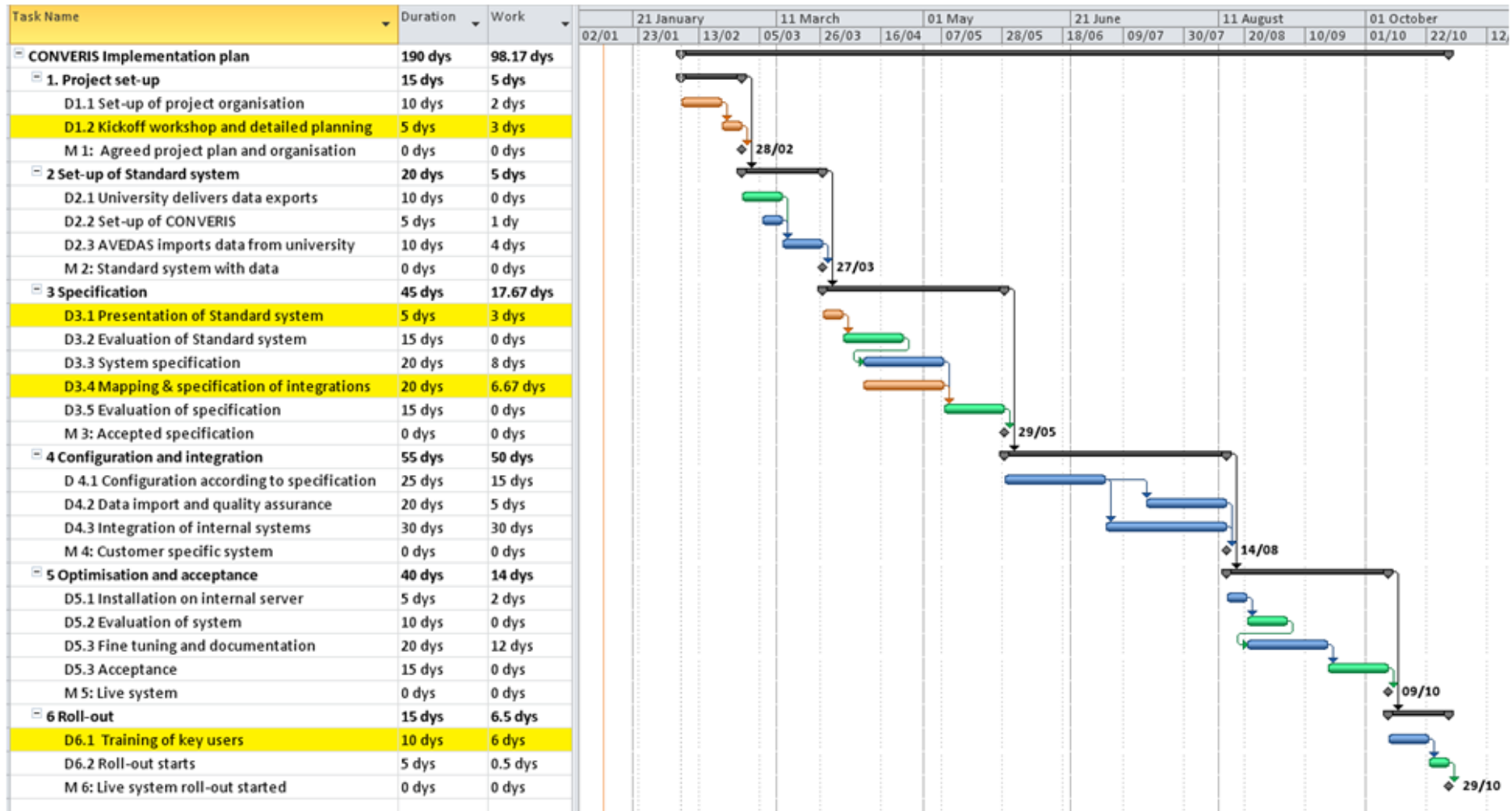
- D3.1 Mapping van data van interne systemen met CONVERIS & en integratie
- D3.2 Hergebruik van legacy data & kwaliteitsborging
- D3.3 Installatie, testen, optimalisatie en acceptatie

## 4. Systeem in gebruikname (Milestone: Live system in gebruik)

- D4.1 Training van key users (train de trainer)
- D4.2 Roll-out



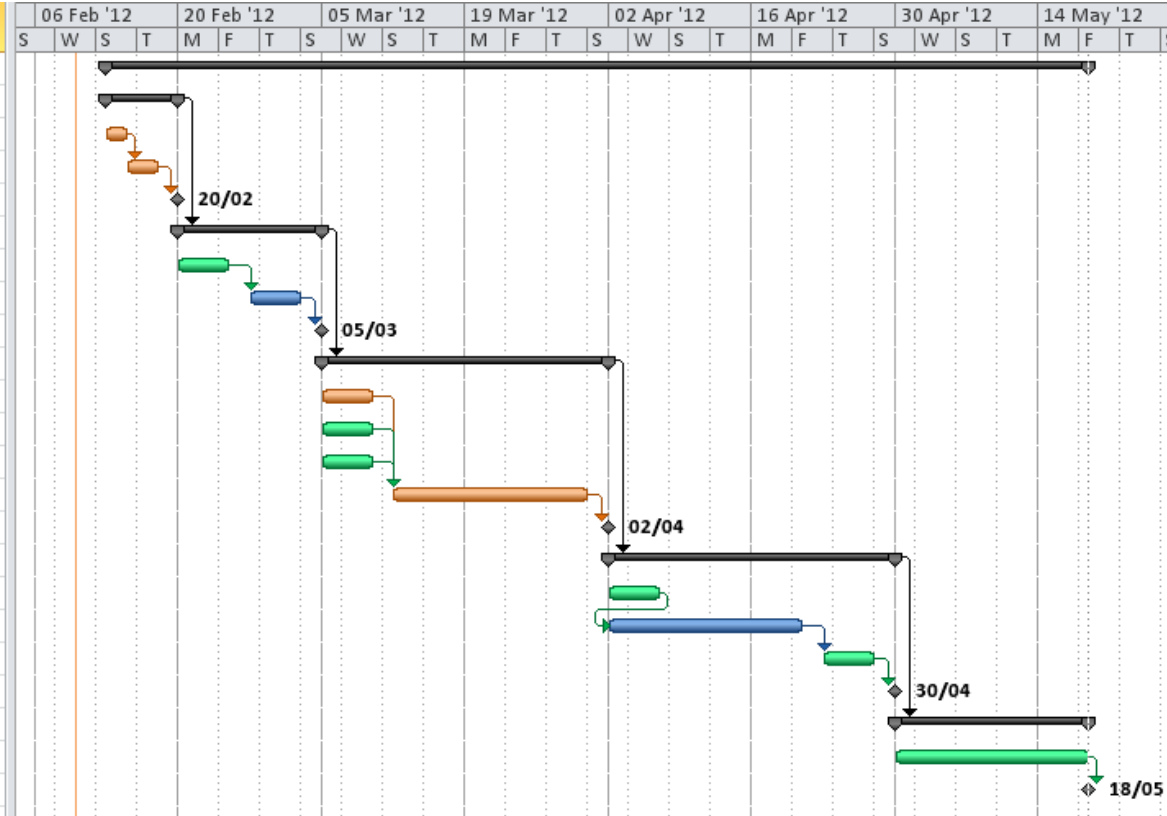
# Implementatie plan





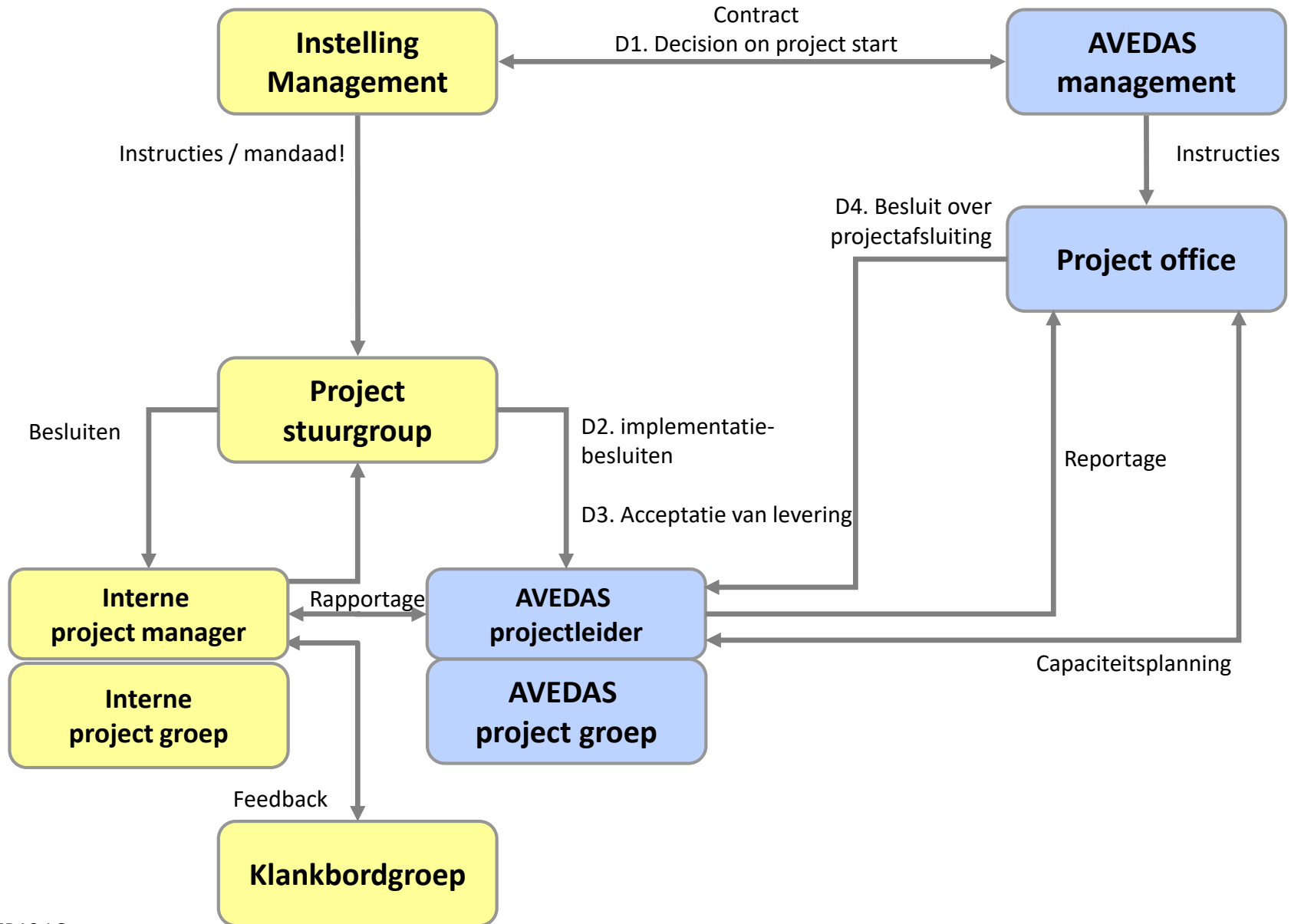
# CONVERIS Fast Track

Task Name
<b>CONVERIS Implementation Plan</b>
<b>1. Project set-up</b>
D1.1 Set-up of project organisation
D1.2 Kickoff workshop and detailed planning
<b>M 1: Agreed project plan and organisation</b>
<b>2 Set-up of Standard system</b>
D2.1 University delivers data exports (CERIF desired)
D2.2 Set-up of CONVERIS (external server)
<b>M 2: Standard system fully operational</b>
<b>3 Integration</b>
D3.1 Agreement of core workflows
D3.2 Mapping of internal data sources to standard CONVERIS connectors
D3.3 Specification of system changes
D3.4 Implementation of integrations
<b>M 3: Implemented integrations and configuration changes</b>
<b>4 Optimisation</b>
D4.1 Evaluation
D4.2 Finalisation (testing & documentation)
D4.3 Training of key users
<b>M 4: Live system</b>
<b>5 Acceptance and system roll-out</b>
D5.1 Acceptance testing
<b>M 5: Live system accepted and roll-out starts</b>





# Voorbeeld van project organisatie







# CONVERIS

## Operational Services





- Onderdeel van de jaarlijkse licentie:
  - Systeem onderhoud
  - Minor upgrades
  - Support: 2<sup>nd</sup> niveau
    - CONVERIS Support Forum (CSF): online
    - Telefoon, Skype, Email
- **Optioneel:** Server administratie en Hosting
- **Optioneel:** Additionele support (data migration, integration, configuration, development, trainings, etc.), major upgrades.



- Server administratie

Incl. installatie, upgrades, backups, roll-backs, server software updates, ...

- Housing: op een interne server bij de instelling

- Hosting: Server Administration & High Availability Hosting at AVEDAS

- Service Level Agreement (SLA)

- Alternatieven

- A - inhouse: Instelling doet alles, Avedas doet niets.

- B - housing: Instelling levert servers, Avedas doet server administratie

- C - hosting: Institution doet nothing, Avedas doet alles (met of zonder SLA).



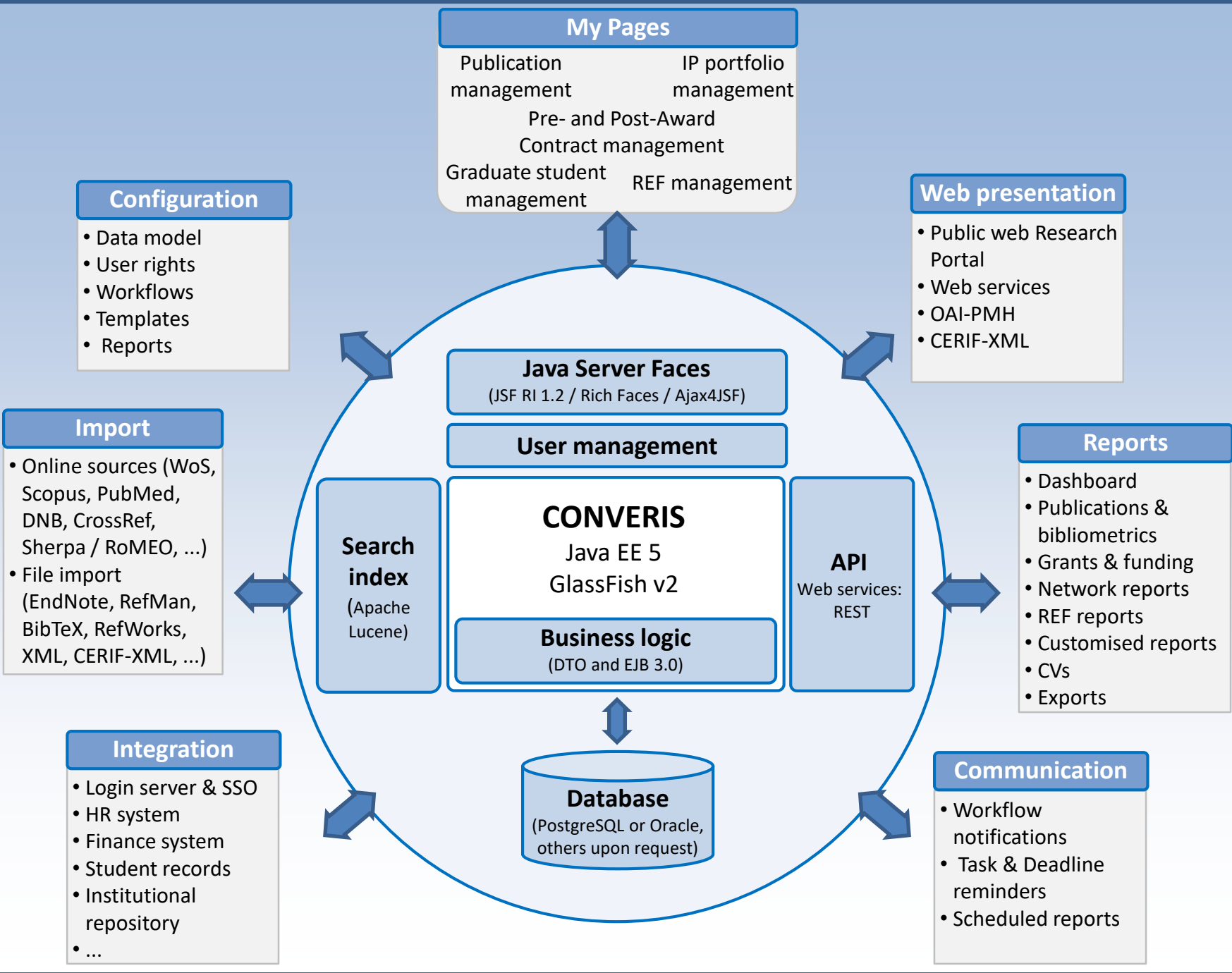
- Data model
- Workflows
- User rights
- Templates
- Reports
- ... see system!



# CONVERIS

## Technische details / specs





## My Pages

Publication management      IP portfolio management  
 Pre- and Post-Award Contract management  
 Graduate student management      REF management

## Configuration

- Data model
- User rights
- Workflows
- Templates
- Reports

## Web presentation

- Public web Research Portal
- Web services
- OAI-PMH
- CERIF-XML

## Import

- Online sources (WoS, Scopus, PubMed, DNB, CrossRef, Sherpa / RoMEO, ...)
- File import (EndNote, RefMan, BibTeX, RefWorks, XML, CERIF-XML, ...)

## Java Server Faces

(JSF RI 1.2 / Rich Faces / Ajax4JSF)

## User management

# CONVERIS

Java EE 5  
 GlassFish v2

## Business logic

(DTO and EJB 3.0)

## Search index

(Apache Lucene)

## API

Web services: REST

## Reports

- Dashboard
- Publications & bibliometrics
- Grants & funding
- Network reports
- REF reports
- Customised reports
- CVs
- Exports

## Integration

- Login server & SSO
- HR system
- Finance system
- Student records
- Institutional repository
- ...

## Database

(PostgreSQL or Oracle, others upon request)

## Communication

- Workflow notifications
- Task & Deadline reminders
- Scheduled reports



# Example Technical Infrastructure

