

# LIMS in een research-omgeving



Studiedag Dataflows in het labo

# Contents

- Introduction Agfa organisation
- Material Technology Centre in Agfa
- IMPALA – Lims system
- Workflow
- Clusters : Services, Techniques en tests
- Webapplication
- Results
- Questions

# Organisation of activities



## Graphics

### Complete solutions for the Graphic Arts industry

- Prepress and Inkjet Printing
- Workflow and Project Management
- Film and Plates, Inkjet Media



## HealthCare

### Complete Solutions for Radiology

- Film & Hardcopy Systems
- Direct/Computed Radiography
- PACS/RIS/IMPAX



## Materials/Specialty Products

000

- Motion Picture
- Microfilm
- Substrates
- NDT-film

# About MTC

- AGFA's Material Technology Center
  - To make this happen, a worldwide internal and external R&D community is building on experience and expertise in the following three areas:



Software



Materials



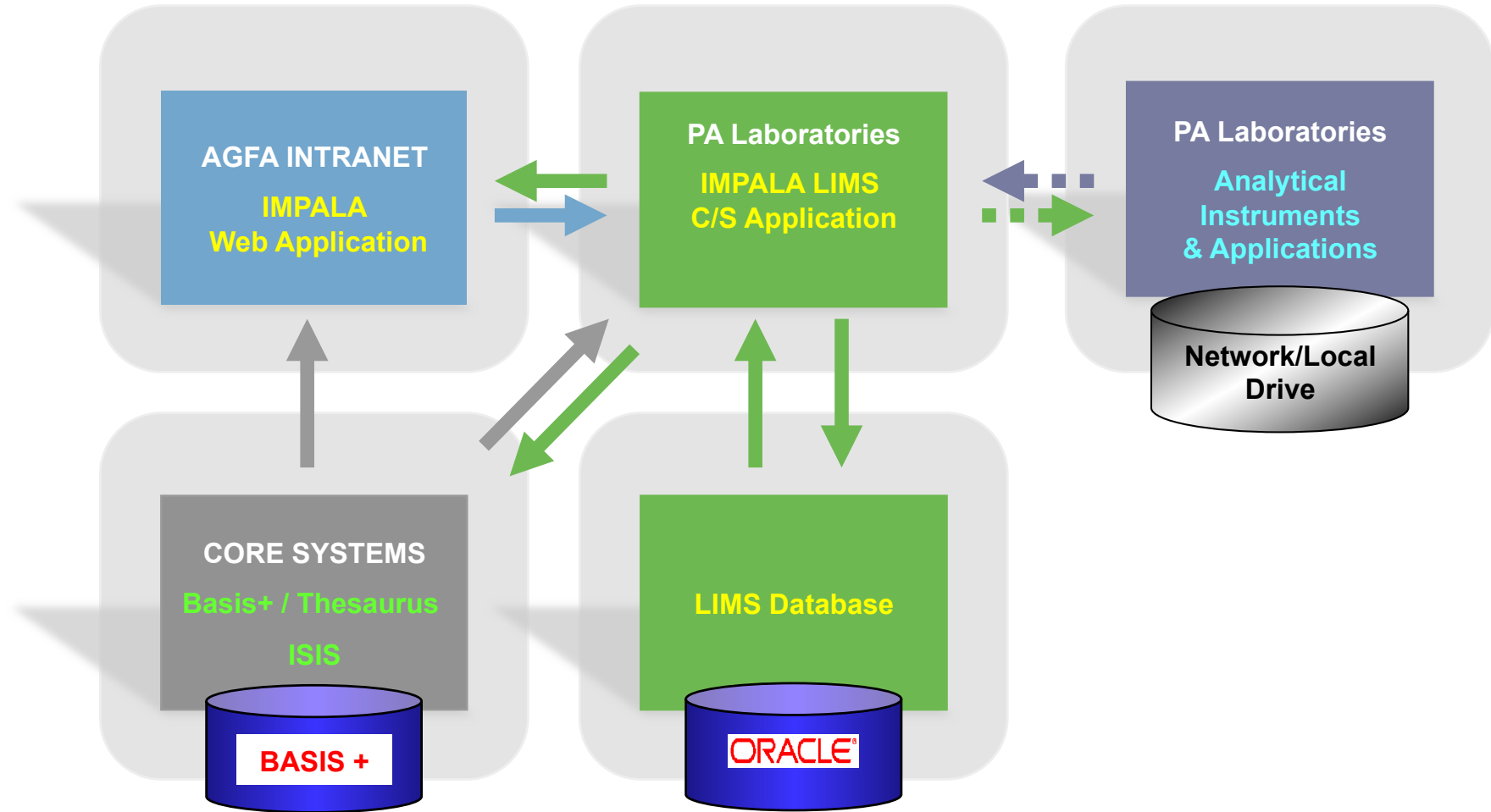
Equipment

# Physical & Analytical Laboratories


- Activities of MTC/CRC
  - MTC/CRC provides services and competencies in the fields
    - Chemical physicochemical and physical analysis
    - Imaging systems analysis
    - Inkjet systems analysis
    - High throughput screening
  - To support product development, application research, and production at Agfa.
  - In contrast with a lot of existing service laboratories, MTC/CRC will not operate as a typical QA service lab
  - MTC/CRC operates “problem driven” and not “sample driven”

# Basic Architecture of IMPALA

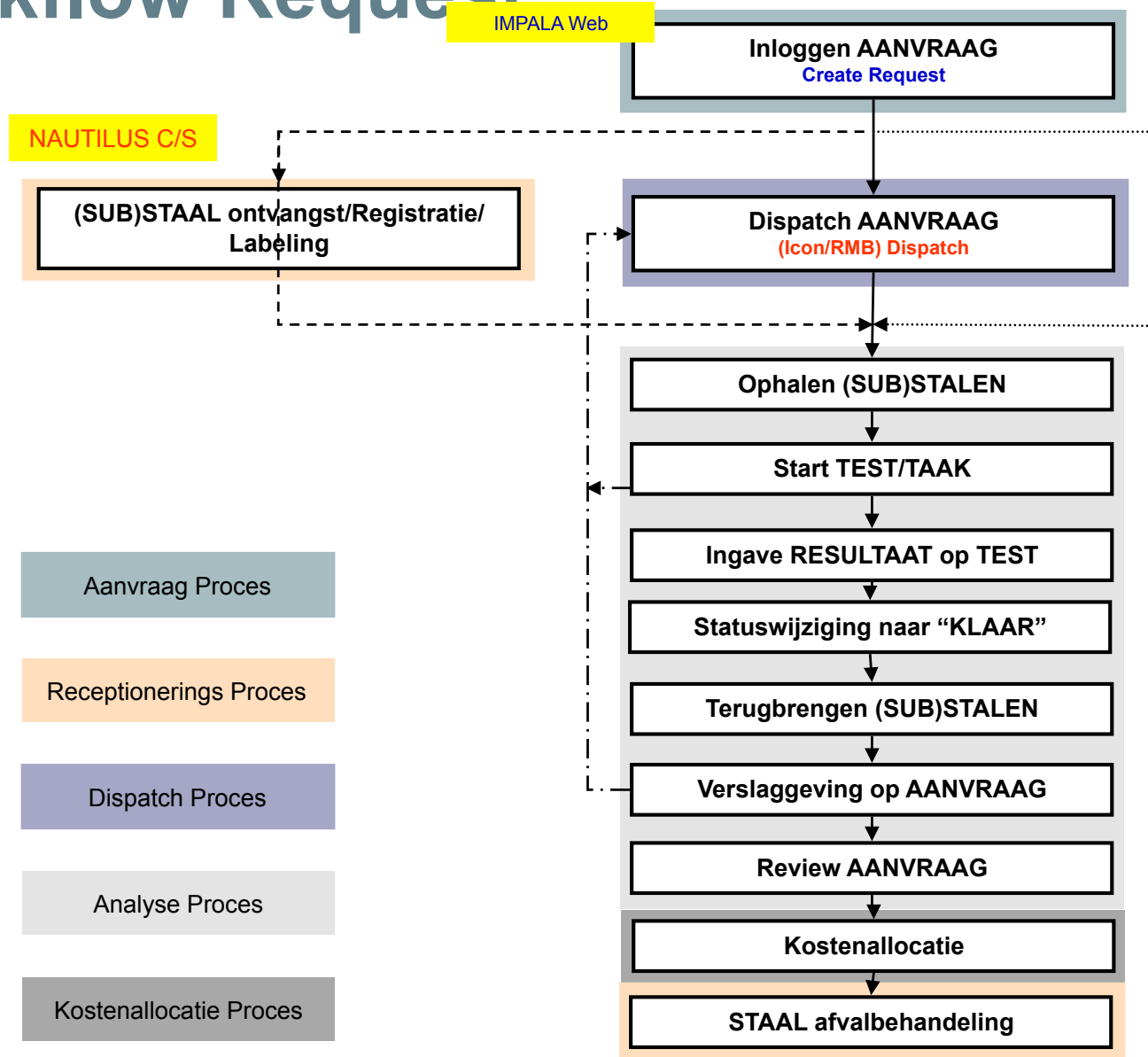
Materials/Department



# LIMS in a research environment

- Problem driven
  - No samples needed
  - Assign tests (with parameters)
    - Requester
    - Dispatch on MTC/CRC
  
- Clusters Services, Techniques, Tests 
- Addressing request
  - Based on Clusters
  - Automatic assigning coordinator
  - Addressing to a folder in Lims → Dispatch, Operator, Test
- Reporting Tools
  - Result files
  - Data
  - Office files

# Workflow Request







# Webapplication

- Entry point for requester
  - Make a new request
  - Edit an old request
  - Gives an overview of all his requests
  - Search the database
  - See the results
  
- Communication with mail
  - Link result page of the request

# Webapplication request : Admin

**AGFA**  [Agfa.com](#) | [Search](#) | [Support](#)

IMPALA

**Research & Development Materials** 

[RDM Home](#) | [Departments](#) | [Services](#) | [Applications](#) | [How to use](#)

---

PA-Request for VAN BEEK JAN, 3188 Help

Administration | Problem Description | [Samples](#) | [Tests](#)

\* = required

Requester:  \*

Your Reference:

Problem Title:  \*

Mail Report To:

Project Number:  \*

Project Leader:

Project Title:

It's always possible to propose a due date for this request in the problem description field in the next tabpage.  
If your request is urgent please contact a RDM/PA responsible or the RDM/PA office ( 3191 ).

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E-mail our [webmaster](#) if you have questions or problems regarding this Web site.

# Webapplication request : Problem

AGFA  Agfa.com | Search | Support

IMPALA

Research & Development Materials 

RDM Home Departments Services Applications How to use

PA-Request for VAN BEEK JAN, 3188 Help

Administration Problem Description Samples Tests

Description:  
Evaluatie van nieuwe poeders YMCB met vermoedelijk gereduceerde primaire deeltjesgrootte.

Gelieve te meten :

Op bijgeleverde poeders : density & spec opp als maat voor primary particle size

Op bijgeleverde pellets : opp vrije energy van poeders op basis van pellets

Op beeld : Beeldkleur ivf verouderingstesten

Add Attachment:  
 Browse... Attach

[alchimeia\\_10.jpg](#) Delete Attachment

Cancel Save Request as Template Preview Submit Request

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# Webapplication Request : Samples

The screenshot shows the AGFA RDM web application interface. At the top, there is a navigation bar with the AGFA logo, the text 'Agfa.com | Search | Support', and 'IMPALA'. Below this is a banner for 'Research & Development Materials RDM'. A secondary navigation bar contains 'RDM Home', 'Departments', 'Services', 'Applications' (highlighted), and 'How to use'. The main content area is titled 'PA-Request for VAN BEEK JAN, 3188' and includes a 'Help' link. There are four tabs: 'Administration', 'Problem Description', 'Samples' (selected), and 'Tests'. The 'Samples' tab contains a table with three rows of sample data. Below the table are buttons for 'Make Sample file', 'Add Samples from file', and 'Add Sample'. At the bottom of the form are buttons for 'Cancel', 'Save Request as Template', 'Preview', and 'Submit Request'. A footer contains copyright information: '©1995-2004 Agfa-Gevaert Group. All rights reserved. Legal information. E-mail our webmaster if you have questions or problems regarding this Web site.'

AGFA Agfa

Agfa.com | Search | Support

IMPALA

Research & Development Materials RDM

RDM Home Departments Services Applications How to use

PA-Request for VAN BEEK JAN, 3188 Help

Administration Problem Description Samples Tests


Sample Number	Sample Description	Lot No	No of Aliquots	
<a href="#">001</a>	Ink Material 1	<input type="text" value="A34"/>	1	Delete
<a href="#">002</a>	Ink Material 2	<input type="text" value="B253"/>	1	Delete
<a href="#">003</a>	Ink Material 3	<input type="text" value="C235"/>	1	Delete

Make Sample file Add Samples from file Add Sample

Cancel Save Request as Template Preview Submit Request

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# Webapplication : Clusters Service Technique test


Agfa.com | Search | Support

IMPALA

**Research & Development Materials** RDM

RDM Home
Departments
Services
Applications
How to use

PA-Request for VAN BEEK JAN, 3188
Help

Administration
Problem Description
Samples
Tests

**Search Test**

Service	Technique	Test
Molecular Modelling	(none)	(none)
New Method Developmen	Mechanical	DMA
Opt Char Inkjet Printheads	Thermal Analysis	DSC
Opt Char Materials	Tribology	MFT
Opt Char Sources & Disple		PCA
Opt Image Capturing		TGA
Physical Properties		TGA-MS
Quantitation		
Sample Preparation		
Visual Appearance		

**Physical Properties = Physical Properties**  
**Thermal Analysis = Thermal Analysis**  
**PCA = Photocalorimetric Analysis**

Service	Technique	Test	
<a href="#">Image Permanence</a>	<a href="#">Accel Weathering</a>	<a href="#">LIGHT-FAST</a>	<input type="button" value="Delete Test"/>
<a href="#">Opt Char Materials</a>	<a href="#">Density Analysis</a>	<a href="#">Dispatch</a>	<input type="button" value="Delete Test"/>
<a href="#">Physical Properties</a>	<a href="#">Thermal Analysis</a>	<a href="#">PCA</a>	<input type="button" value="Delete Test"/>
<a href="#">Chem Struct Ident</a>	<a href="#">Dispatch</a>	<a href="#">Dispatch</a>	<input type="button" value="Delete Test"/>

# Webapplication Dispatch : Test Assignment

**Edit Test for**
**Help**

**Colloids and Surfaces \ Tensiometry \ Surface Free Energy** \* = required

**Due Date:**

**Operator**

**Parameters:**

Substrate:

Liquid:

Substrate Treatment:

Measuring Side:

---

**Test assignment:**

Aliquots	Assign	Aliquots	Assign	Aliquots	Assign
<a href="#">PA036489-001-001</a>	<input checked="" type="checkbox"/>	<a href="#">PA036489-004-002</a>	<input checked="" type="checkbox"/>	<a href="#">PA036489-008-001</a>	<input checked="" type="checkbox"/>
<a href="#">PA036489-001-002</a>	<input checked="" type="checkbox"/>	<a href="#">PA036489-005-001</a>	<input checked="" type="checkbox"/>	<a href="#">PA036489-008-002</a>	<input checked="" type="checkbox"/>
<a href="#">PA036489-002-001</a>	<input checked="" type="checkbox"/>	<a href="#">PA036489-005-002</a>	<input checked="" type="checkbox"/>	<a href="#">PA036489-009-001</a>	<input checked="" type="checkbox"/>
<a href="#">PA036489-002-002</a>	<input checked="" type="checkbox"/>	<a href="#">PA036489-006-001</a>	<input checked="" type="checkbox"/>	<a href="#">PA036489-009-002</a>	<input checked="" type="checkbox"/>
<a href="#">PA036489-003-001</a>	<input checked="" type="checkbox"/>	<a href="#">PA036489-006-002</a>	<input checked="" type="checkbox"/>	<a href="#">PA036489-010-001</a>	<input checked="" type="checkbox"/>
<a href="#">PA036489-003-002</a>	<input checked="" type="checkbox"/>	<a href="#">PA036489-007-001</a>	<input checked="" type="checkbox"/>	<a href="#">PA036489-010-002</a>	<input checked="" type="checkbox"/>
<a href="#">PA036489-004-001</a>	<input checked="" type="checkbox"/>	<a href="#">PA036489-007-002</a>	<input checked="" type="checkbox"/>		

# Reporting

- Routine
  - Result Files
    - As generated by the instrument
  - Data
    - Appended in LIMS
- Dispatch
  - Office files
    - Start with Template
    - Header office file, automatically filled with data from request

# Report



PA036448 2009-11-30

blz 1

## Analyseverslag Report RDM-PA/Mo

<b>Aan :</b>	021201 Cobben Bart (2635)	
<b>Van :</b>	019582 Vandecruys Jan (3692)	
<b>Afschrift:</b>	021045 Van Roost Christiaan (3700) 020419 Mues Willem (8605)	
<b>Date :</b>	2009-11-30	
<b>Betreft :</b>	SEM-onderzoek naar de poriëgrootte van membranen.	
<b>PaNr :</b>	PA036448,	
<b>SampleNr :</b>	PA036448-004-001,PA036448-005-001,PA036448-006-001,membrane bioreactor unspecified,	
<b>Pi :</b>	membrane bioreactor unspecified:251109-MFM01 - 182-begin PVP in; membrane bioreactor unspecified:251109-MFM01 - 182-midden PVP in; membrane bioreactor unspecified:251109-MFM01 - 182-einde PVP in;	PA036448-004-001; PA036448-005-001; PA036448-006-001;
<b>Pf :</b>	RP00590A,	
<b>De :</b>	RDM/PA-Mo:ANALYSIS:REPORT;TECH:SEM:	
<b>Your Ref:</b>		

### 1. Probleemstelling:

Problem Title:

poriëgrootte

Problem Description:

Graag de poriën visualiseren


### 2. Analyse:

Scanning Elektronen Microscopie van het oppervlak.  
Type toestel: Sirion (FEGSEM) - Ultra-high resolution

### 3. Monstervoorbereiding:



# Report : Mail

Send	Send and File...	Send & AutoTrash	Save As Draft	Address...	Delivery Options...	Tools	Agfa
	<b>Joannes Van Beek/JAMBGX/AGFA</b> 2009-11-30 11:38					To	AMGBB
						cc	AMELC,AGKDA,AMSTS,AMNFT,AMFNN,AGKDA
						bcc	
						Subject	Results : PA036071 - zuiverheid CH03817

Results : PA036071  
Your reference: V59488 AA F4B F4C F4D F4E F4F

To see the results : Click the following link: [http://impala.be.local/view\\_results.asp?name=PA036071](http://impala.be.local/view_results.asp?name=PA036071)

Probleemstelling:

Your Reference : V59488 AA F4B F4C F4D F4E F4F

Problem Title : zuiverheid CH03817

Problem Description :

Gevraagd:  
structuurbevestiging en contaminanten (NMR)  
→ DMSO? - methoxypropanol? - aceton? - V59473?  
Graag uitspraak in week 44.

CH03817/AA is de eerste schaalvergroting naar 100 l.

Het product zal fotografisch ge-evalueerd worden door Sonny Wynants.

F4B = CH03817/AA extra gewassen met acetontrile op laboschaal.  
F4C = CH03817/AA extra gewassen met aceton op laboschaal.

De kosten moeten gealloceerd worden op projectnummer DP06651A, maar ik vind deze niet terug in de lijst.

zie bijlage

Besluit:

Structuur OK - alle verwachte struktuurelementen zijn aanwezig.

Zuiverheid : zie resultatentabel

# Results : C/S

The screenshot displays a web application interface. On the left, a window titled 'PA036107 Properties' is open, showing a table of attachments. The table has columns for 'Attachment', 'Date Created', and 'Type'. The attachments listed are:

Attachment	Date Created	Type
Predis-PA036107-ALUMINIUM SUBSTRATE-1743 L.xml		Order
IMPALA_MLF_PA036107_WDXRF.doc	2009-10-26 11:...	blob
IMPALA_EvN_PA036107.xls	2009-11-24 9:0...	Public
IMPALA_EVN_PA036107_Interferometry.doc	2009-11-24 9:0...	blob
Extended_Order Information		Order
Order Information		Order
Verslag.doc	2009-11-24 9:5...	Internal

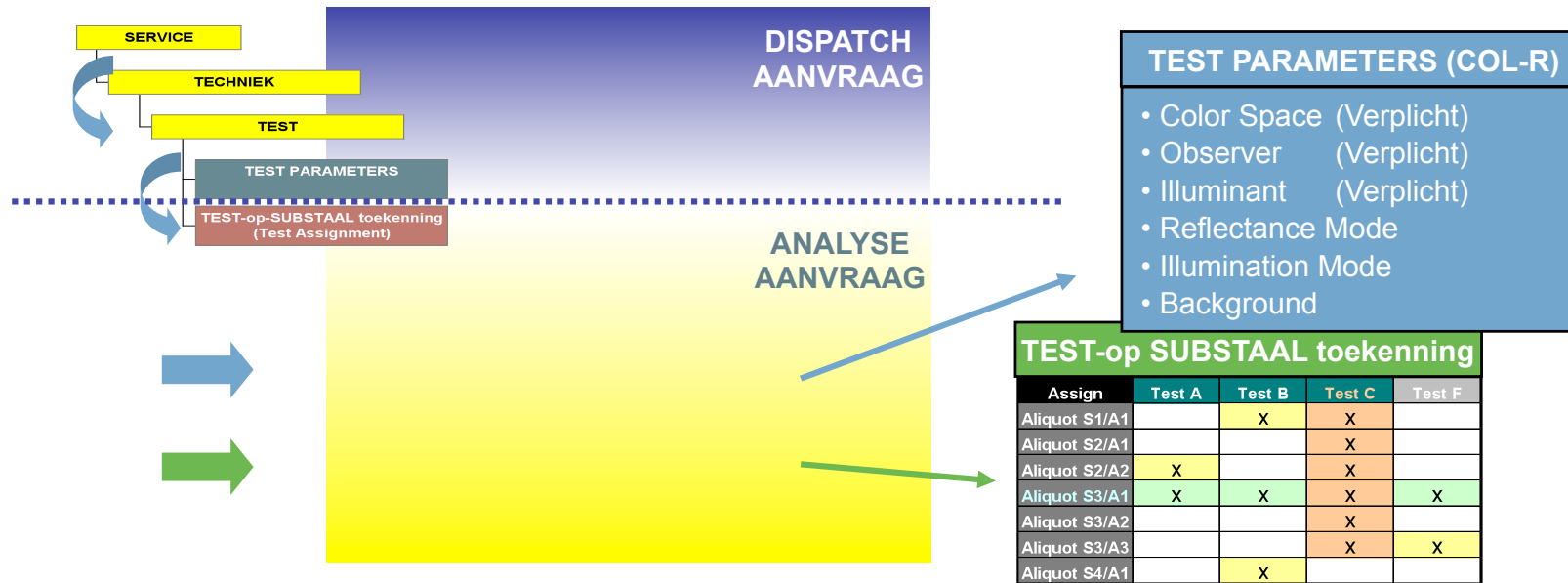
On the right, the main application area shows the 'AGFA' logo and 'Research & Development Materials' banner. Below the banner, there are navigation links: 'RDM Home', 'Departments', 'Services', 'Applications', and 'How to use'. The main content area displays 'Results PA036107 for VAN BEEK JAN, 3188' and includes sections for 'Order Information' (with a link to 'Order Information Form'), 'Reports' (with links to 'IMPALA\_MLF\_PA036107\_WDXRF.doc', 'IMPALA\_EvN\_PA036107.xls', and 'IMPALA\_EVN\_PA036107\_Interferometry.doc'), and a 'Test' dropdown menu. A 'Return to Overview' button is located at the bottom right of the main content area. The footer contains copyright information: '©1995-2004 Agfa-Gevaert Group. All rights reserved. Legal information. E-mail our webmaster if you have questions or problems regarding this Web site.'

# Questions?

Materials/Department

# Clusters Service Techniques tests

Materials/Department

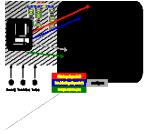


- TEST PARAMETERS (COL-R)**
- Color Space (Verplicht)
  - Observer (Verplicht)
  - Illuminant (Verplicht)
  - Reflectance Mode
  - Illumination Mode
  - Background

**TEST-op SUBSTAAL toekenning**

Assign	Test A	Test B	Test C	Test F
Aliquot S1/A1		X	X	
Aliquot S2/A1			X	
Aliquot S2/A2	X		X	
Aliquot S3/A1	X	X	X	X
Aliquot S3/A2			X	
Aliquot S3/A3			X	X
Aliquot S4/A1		X		

# Addressing requests



# Services, Techniques, Tests

- Chemical Structure Identification
  - MS
    - GCMS
    - LCMS
    - PYGCMS
    - PROBEMS
    - ...
  - NMR
  - SIMS
  - TOFSIMS
  - ...
- Colloids and Surfaces
  - Dispersion Analysis
  - Particle Characterisation
    - Oversizer
    - Particle Size Distribution
    - Porosity
    - Powder Flow
    - Sieve Analysis
    - ...
  - Rheology
  - Tensiometry



# Predispatch

To help protect your security, Internet Explorer has restricted this file from showing

RDM PA Services **PA026681**

## Predispatch: ethanol:

**Requester:** PAUWELS MICHEL,  
+3234445961

**Created by:**  
DE CUYPER MARC

**Project:** MP06761A : MAINTENANCE AND TROUBLESHOOTING BG GS/GO

**ProjectLeader :** Coppens Paul

**Your reference:** prestudie solventemissie PaM

[Thes](#) [Av](#) [Impala](#) [Nmr](#) [MS](#) [IR](#) [UV](#) [GC](#) [Chro](#) [Top](#)

To see chemical structures you must enter a password. click [here](#) to logon  
MW=46.07;0.00 MM=46;0 BF=C2 H

## Thesaurus

[Thes](#) [Av](#) [Impala](#) [Nmr](#) [MS](#) [IR](#) [UV](#) [GC](#) [Chro](#) [Top](#)

**LT = V48045**

UF : AS72  
UF : CASRN64-17-5  
UF : DKFZ5010  
UF : DKFZ5011  
UF : DKFZ5012  
UF : DKFZ5013

## Analysevoorschriften

Av-nummer	Status	Techniek
-----------	--------	----------

[Thes](#) [Av](#) [Impala](#) [Nmr](#) [MS](#) [IR](#) [UV](#) [GC](#) [Chro](#) [Top](#)

## LIMS Impala Info : 2 records

PANR :	PA034460-001	Andate :
PID :	Campina melkfiles:1377029/10%	
User:	WILLEMS NADINE	
Coordinator :	Van Luppen Jaymes	
	<b>Test</b>	<b>Operator</b>
	HPLC	

## LIMS BP Info :

PANR :	FA904855	Andate : 2004-07-08
PID :	V610586::STARTING	
User:	MATERIAL;FA350282/22	
Coordinator :	022358 GEUDENS JOHAN	<b>Operator</b>
	202912 MANNEKENS ELS	KC
	<b>Test</b>	
	LCMS	
PANR :	FA354742	Andate : 2004-10-22
PID :	CH01532	
User:	020264 LARDON PAUL	
Coordinator :	203421 LENAERTS JENS	<b>Operator</b>
	<b>Test</b>	
	FA-H2O	
PANR :	FA350282	Andate : 2004-06-30
PID :	V610586:E1A	
User:	022358 GEUDENS JOHAN	
Coordinator :	202912 MANNEKENS ELS	<b>Operator</b>
	<b>Test</b>	AP
	TLC	
	GCMS	
	FTIR	PD
	GC	

[Thes](#) [Av](#) [Impala](#) [Nmr](#) [MS](#) [IR](#) [UV](#) [GC](#) [Chro](#) [Top](#)

## NMR Info :

	OPNAMEN	DATA
1H	0	2
13C	0	8
N	0	0
60/90 MHz	V48045::NMR SPECTRUM	

[Thes](#) [Av](#) [Impala](#) [Nmr](#) [MS](#) [IR](#) [UV](#) [GC](#) [Chro](#) [Top](#)

## MS Info :

[Thes](#) [Av](#) [Impala](#) [Nmr](#) [MS](#) [IR](#) [UV](#) [GC](#) [Chro](#) [Top](#)

## IR Info :

CASRN64-17-5

[Thes](#) [Av](#) [Impala](#) [Nmr](#) [MS](#) [IR](#) [UV](#) [GC](#) [Chro](#) [Top](#)

## UV Info :

[Thes](#) [Av](#) [Impala](#) [Nmr](#) [MS](#) [IR](#) [UV](#) [GC](#) [Chro](#) [Top](#)

