



Shift your horizon...

A joined service platform for academic and industrial R&D

IDEE, Maastricht Instruments and DSM Resolve joining forces

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Frans Smeets, Director MI and IDEE



DSM Resolve, Maastricht Instruments and IDEE.....joining forces

By combining the competence sets of IDEE,
Maastricht Instruments BV and DSM Resolve we achieve:

- A very strong service proposition to R&D work force in academic and industrial context:
 - At the Chemelot Campus and at the Life & Science Campus
 - In the Euregion
 - Open-minded for cooperation with SME, knowledge institutes and hospitals;
- A team of specialists creating breakthroughs in partnerships with others (Open Innovation).

Joined offering DSM Resolve and IDEE and MI

Present on Life & Science
Campus

DSM Resolve

- Analytical sciences
- Technical services
- SHE services
(total 160 fte)

Chemelot Campus
Sittard-Geleen

Present on Chemelot
Campus

Maastricht Instruments B.V.

Engineering/technical
solutions for
medical &
life sciences
(10 fte)

IDEE

(Maastricht UMC+)
Engineering/technical
services
for MUMC+
(30 fte)

Life & Science Campus
Maastricht

Introducing DSM Resolve

DSM Resolve

- high-end **analytical, technical** and **SHE** services, in R&D context;
- **integral solutions provider** - providing solutions in the areas of **materials** science, **chemicals**, **life sciences** and **forensics** in a customer intimate way;
- **Packaged Products: Instrumentation, Lifetec** (pharma and health), **Safety** and **Forensics**;
- a brand of DSM R&D Solutions B.V., a Service Unit of Royal DSM;
- fully self-financed;
- ISO 9001-2008, 17025 for selected methods.

Key Figures

- Turnover: 30 MEUR, 10 % growth/year;
- Employees: 160 FTE (30 % PhD);
- Customers: 50 % DSM, 50 % non-DSM.



DSM Resolve – What we do

Analytical

- Sophisticated chromatography/mass spectrometry (GC/LC, MS);
- Spectroscopy (NMR, IR, Raman, UV-VIS-NIR and Fluorescence);
- Microscopy/Imaging (TEM, SEM, AFM, optical microscopies);
- Mathematics and Statistics (chemometrics);
- In field, mobile analytics;
- a.o.

Technical Engineering

- Technical engineering of R&D setups from analytical instrumentation to pilot plant level, including technical safety of instrumentation;
- Maintenance of lab equipment;
- Subcontracting.

Safety

- Safety consulting services, risk inventory, safety nanomaterials, process safety, runaway reactions & explosions.

Introducing Maastricht Instruments B.V.

- A Maastricht University spin-off company (founded 1998);
- Located at the Life & Science Campus Maastricht;
- A high tech company for innovative and creative solutions for medical technology and life sciences;
- Keywords: user centric design, custom solutions, feasibility, multidisciplinary competences, result oriented, enabling technology and access to a large (academic) knowledge potential;
- Competences: hardware, embedded software, biometrics, physics, software, mathematics, mechanics, mechatronics, prototyping and valorization;
- Wide network for enabling technologies with broad range of partners;
- Close cooperation with IDEE (Maastricht University);
- Fully self-financed company;
- ISO9001:2008, ISO13485:2007 and MDD/93/42/EEC certified.

Introducing IDEE

- A university department within the Maastricht University Medical Centre + (MUMC+) for engineering and technical service;
- Mission: 'stimulate innovative research, with innovative technology';
- Supporting researchers and physicians within the MUMC+ with multidisciplinary & high tech solutions;
- Competences: hardware, embedded software, biometrics, physics, software, mathematics, mechanics, mechatronics and prototyping;
- Wide network with partners in the academic world;
- Close cooperation with Maastricht Instruments B.V.;
- ISO9001: 2008 certified.

Offering a broad R&D support: how it works

You either contact DSM Resolve or MI or via UBL

- DSM Resolve: www.dsm-resolve.com; 046 476 0100
- Maastricht Instruments: www.maastrichtinstruments.nl; 043 388 1371
- United Brains Limburg
 - New (2009): network of cooperating, regional knowledge institutes;
 - For all knowledge- and innovation related questions, technical and non-technical.

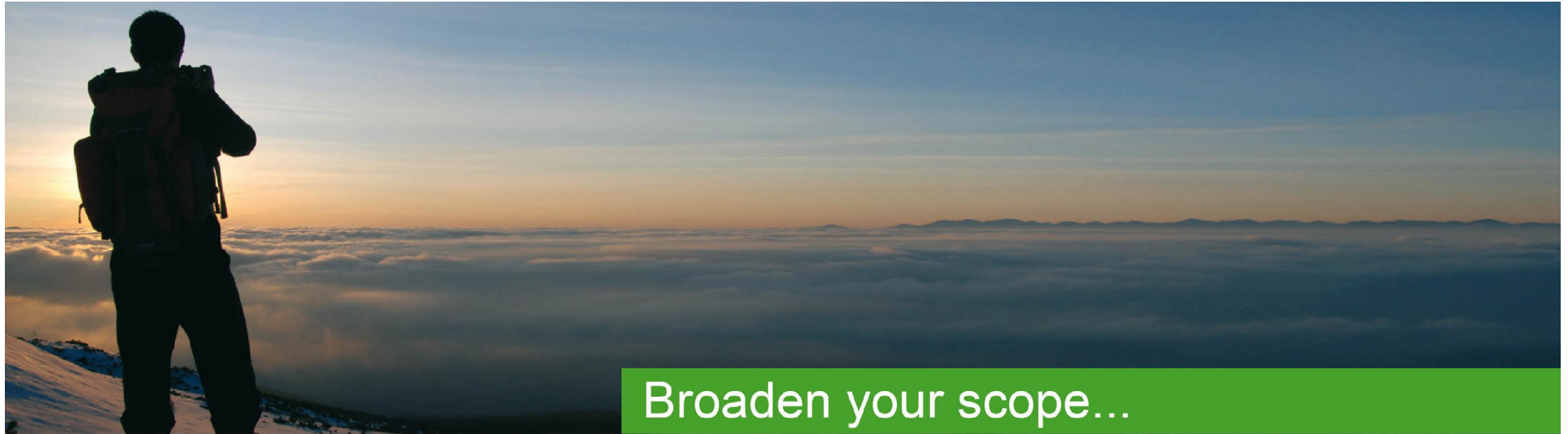
info@unitedbrainslimburg.nl

046 476 0404



United Brains Limburg

- Not only in-house competences but also via DSM Resolve and MI access to their broad network;
- Innovation, 'kennis' or business vouchers are welcome and will be accepted (MI and DSM Resolve are recognized voucher knowledge institutes).



Broaden your scope...

Following some examples of the
cooperation between
DSM Resolve,
Maastricht Instruments
and IDEE

Some examples: Respiration Rooms & FAMOUS

Respiration Rooms

- Whole Body Calorimetry System;
- Partners:
 - DSM Resolve: airtight & conditioned room (pilot plant experience);
 - MI: Omnical detailed CO₂/O₂ measurement in in- and out-going air;
 - Human Biology: metabolic explanation measured values (software).



FAMOUS – Mobile Analytical Equipment (Pieken in Delta)

- Portable/in field analytical equipment;
 - law enforcement (drugs/explosives) in cooperation with innovation center KLPD;
 - safety hospital world (narcotics, cytostatics, vaporized drugs).
- Partners:
 - MI: communication, technology instrumentation in the field and central facility;
 - DSM Resolve: Near Infrared Spectroscopy, handling drugs & explosives;
 - TiPB: chemometrics.



Some examples: Exhaled Breath Analysis

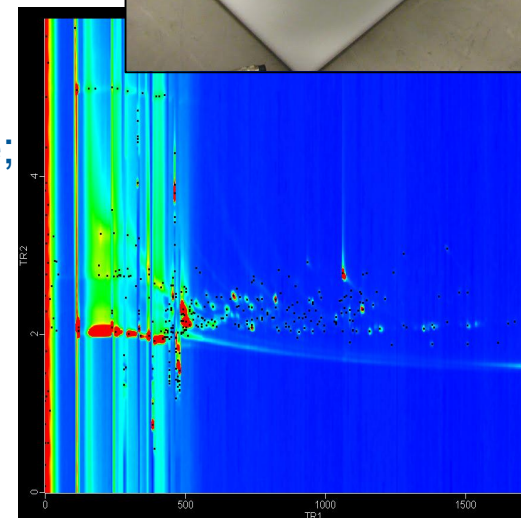
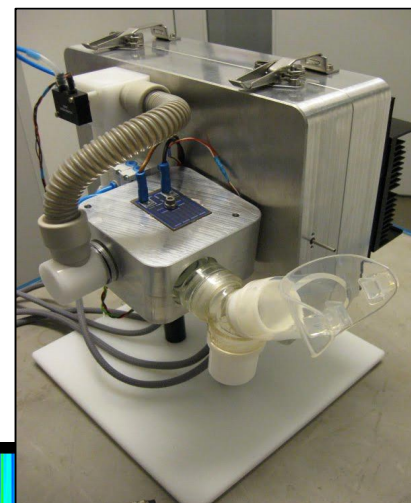
Exhaled breath as carrier of critical health info carrier

AIRFORCE (CTMM)

- Maastric Clinic, DSM Resolve, MI;
- Aim: non-invasive, diagnostic, prognostic personalized treatment of lung cancer.

Lung diseases (KWR, NIG1/2)

- MUMC+ (Dompeling, van Schooten), MI, IDEE, DSM Resolve;
- Volatile Organic Compounds (VOC) and condensates (EBC);
- (child) asthma, COPD,



Some examples: Reliable Food projects

Reliable Food

- Intention to start public private partnership on reliable food;
- Initiated by Regiegroep ICT, BiCore, AH, Philips, DSM;
- Program will be developed in 2010, subsidy grant by PiD.

TEGG Project

- Egg authenticity – ‘legbatterij, scharrel, uitloop ...’;
- Partners: DSM Resolve, TNO, Philips, Moba, Gebr. Van Beek, Omega Food, Nuovo, Ovotrack, University Twente;
- Total Budget: 3,300 k€ (PiD).

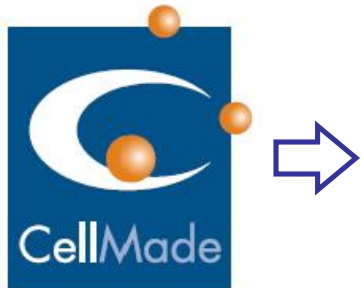
‘Mijn Vitaminen’

- Develop concept with which vitamin and mineral demands of its user can be determined and fortified juices can be made with lacking nutrients;
- Partners: DSM Resolve, Philips, UM Nutrim, UM IDEE, Prinsen, Vitak;
- Total Budget: 3,760 k€ (PiD).

Some examples: Pharma Testing Platform



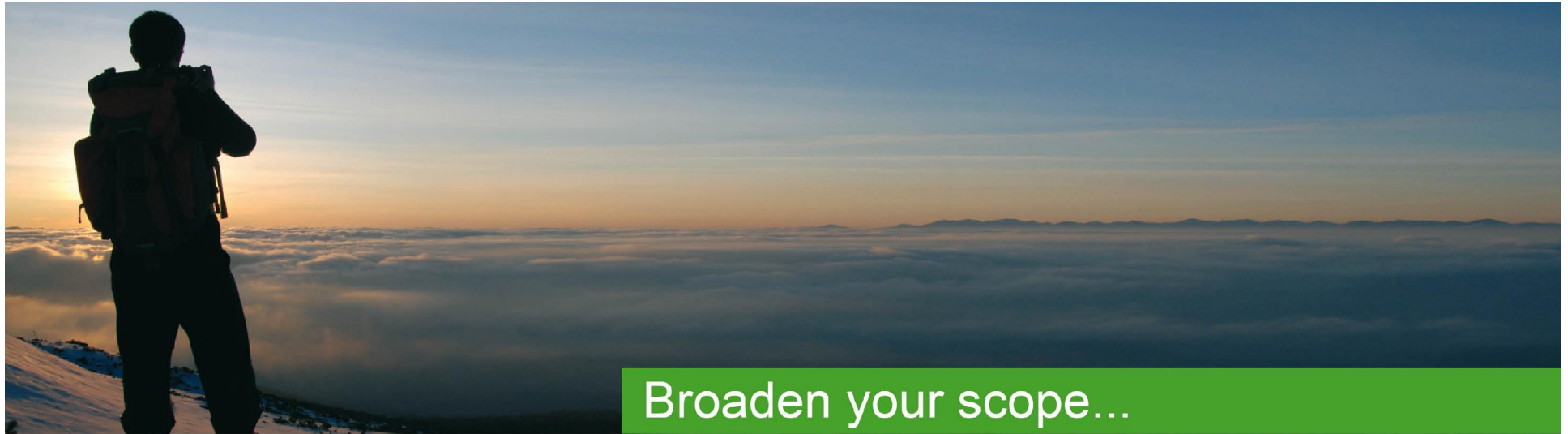
They killed me, my friends and my family, to analyse drug metabolism



CELL BIOLOGICAL SOLUTIONS...

ANALYTICAL SOLUTIONS...

Effect of the tested drug on cells (pharmacodynamics, early safety profiling) and effect of the cells on the tested drug (pharmacokinetics like **A**bsorption, **D**istribution, **M**etabolism, and **E**xcretion).



Broaden your scope...

Open Innovation – We experience it!!

Open Innovation:

- brings partners with complementary competences (technical, market, etc) together;
- creates breakthroughs, enhances development, brings the unexpected;
- is more than doing research together – sharing from idea to business;
- is based on trust, sharing and allow the other his success;
- is fun!!