Ontmoeting met de Belgische chemie en lifescience industrie, 11 dec 2014
Egwin Minami, Program manager
The Global/European picture

ViA – “Flanders in Action”

Europe 2020

Innovation Centre Flanders

New Industrial Policy Flanders

Innovation Union

Industrial Policy for the Globalisation Era

“Transformation through innovation” (Industrial innovation policy)
How to reach our goal

FISCH sets up and finances innovation projects that focus on collective interests and gains using the principles of open innovation

FISCH projects
• Have at least 3 partner companies
• Combine expert knowledge from multiple research institutes
• Develop regionally anchored value chains
Strong focus on sustainability

Resources
- RENEWABLES

Processes
- PROCES INTENSIFICATION & OPTIMISATION

Products
- Advanced SUSTAINABLE PRODUCTS

VALORISATION OF SIDE STREAM

Knowledge tools
Strategische Thema's

Renewable Chemicals
*Using nature's power*

Process Intensification
*Faster, smaller, better*

Sidestream Valorisation
*Waste becomes resource*

Advanced Sustainable Products
*Clean and green*
Strategische thema’s: roadmaps
Activities

Membership

**FISCH level**
- Events, KET roadmaps, stimulation of strategic R&D topics

**Program level**
- Open consortium meetings, roadmapping exercises

**Project level**
- Set up projects for FISCH budget
- Set up projects for other channels
Projectstatus

– **Goedgekeurde projecten** (status 12/2014, alleen consortia)
  18 ondernemingsconsortia met 40-tal ondernemingen waarvan ~50% KMO’s bewust kortlopend – 2jaar, max één verlenging.

– **Integratie** project Flanders’ Plastic Vision lopende.

– **Spin-off** gerealiseerd (AVORE), 1 gesteunde **start-up** in realisatie (Kaloritum)

– **R&D productlijn 3M** toegewezen aan FISCH consortia voor Europa.

– Project procedure stimuleert **Research concentratie** en synergie (uniek)

– **Internationaliseringsinitiatieven**, met consortia van kennisinstellingen en internationale bedrijven, zijn lopende.
FISCH project portfolio
with the aim to close the material cycle

**Renewable Chemicals**
- Vlaams Algenplatform
- Omega-Extract
- DEMOSPIR
- Carboleum
- Biovertol
- AMBER
- Chitinscept
- LigniWaste
- Bio-Wax
- Bio-esters

**Process Intensification & Optimization**
- Plant-on-a-truck
- ATOM
- AnM(B)BR
- SUCCeSS
- ECA-WatT

**Advanced Sustainable Products**
- ALFIBOND
- PU-Recycling
- FRoptiPLAST
- TabachemII
- DMF Free textile coating
- SUPER Solvents
- SUPER mat4construct

**Knowledge Tools**
- ASOPUS
- BEEHAPPY
- BlueChem

**Sidestream Valorization**
- Symbiose
FISCH project partners
Renewables (1)

**VLAAMS ALGEN PLATFORM** (NIS project): total budget € 256,555 (subsidy € 205,244)
The Flemish Algae platform is a stimulating and facilitating environment for the establishment of existing algae activities and the development of new initiatives.

**OMEGA-EXTRACT** (ICON project): total budget € 1,103,802 (subsidy € 923,806)
A research project for the extraction and refinery of long chain omega-3 rich oils from micro algae on lab and pilot scale.

**DEMOSPIR** (SME feasibility study): total budget € 45,436 (subsidy € 22,719)
This study includes the cultivation of Spirulina on demonstration scale (200 m²) in greenhouses that were formerly used for the cultivation of Azalea.
CARBOLEUM (ICON project): total budget € 1,036,462 (subsidy € 673,322)  
The goal of this project is the creation of a new value chain for biomass-based chemicals. As raw material in the value chain there will be a focus on low-value biomass streams that contain lignocellulose or low-grade sugars and that may result in the desired biomass-based chemicals.

BIOVERTOL (ICON project): total budget € 1,622,095 (subsidy € 1,102,083)  
This project aims at the synthesis of branched mono-alcohols (C6-C40) from renewable raw materials and their conversion into valuable chemicals (eg esters, urethanes, surfactants, lubricants, ...). Starting materials are lower and higher bio-alcohols.
Renewables (3)

**LIGNIWASTE** (O&O-haalbaarheidsstudies): total budget € 102,056 (subsidy € 40,822)
Study on the waste water treatment of a paper producer in order to further purify the lignin stream to be used for bio-based chemistry, and in order to further purify the water to be used for the production of boiler water. Partners Purazur and Sappi.

**BIOWAX** (ICON project, submission in Aug 2014): total budget € 600,000 (subsidy € 500,000)
Due to a more optimized installation of the petrochemical refinery, long chain alkanes will become more scarce. The goal of this project is to ensure this supply and produce long chain alkanes from waste lipids for certain applications, *i.e.* candles and coatings. The performance of these new crude and purified biowaxes will be evaluated for both applications and the best resource-process combinations will be developed for each purpose and formulated in new consumer products.
**Advanced Sustainable Products**

**ALFIBOND** (O&O project): total budget € 970,973 (subsidy € 520,406)  
Recycling of PU-foam and thermoplastic fibres into foam-nonwovens via Airlaid technology

**PU-Recycling** (O&O haalbaarheidsstudie)  
Recycling of PU-isolation material from construction and demolition sites.
**ATOM** (ICON project)
*(industrial platform for flow chemistry)*
Development of a center of expertise and pilot production installation for industrial flow processes in Flanders
Process Intensific. & Optim.

Plant-on-a-truck