

Report

Meeting

FISCH SME-event 23 april 2009

Solvay, Brussels

Attachments

Invitation with agenda



uitnodiging.pdf

Attendees



Deelnemerslijst.xls

Presentation (with conclusions added during the event)



Presentatie met conclusies.ppt

All presentations can be found on www.fisch-essenscia.be

Report date

30/04/2009

Copy

Attendees

FISCH-coreteam

Website www.fisch-essenscia.be

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1. Goal of this SME-event

Present to and discuss with SME's active in the chemicals value chains, the results of the FISCH feasibility study (after 4 months). The main question '**How will a SUSCHEM^{Flanders} platform enhance the innovation capacity of SME's active in the chemicals valuechains**' was broken down in 4 subquestions:

- Question 1: **Has the study detected the correct breakthrough domains for sustainable chemistry in Flanders ?**
- Question 2: **What are conditions for SME's to participate in SCHO⁶K ?**
- Question 3: **When will SCHO⁶K create an added value for SME's ?**
- Question 4: **How will the SCHO⁶K 'Criteria, measuring methods and business models for sustainable chemical products and processes' attract SME's ?**

Ofcourse we wanted to detect also whether SME's are positive/enthusiast about the study conclusions upon now.

2. Management Summary

After 1/3 of the FISCH-study, the results upon now were presented to and discussed with 30 SME's and 18

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organizations dedicated to SME-support, in the presence of large companies, knowledge centers and universities.

To attract SME's to the future SUSCHEM^{Flanders} platform (based on Sustainable CHEmistry Open Knowledge Alliances or SCHO⁶K) and enhance their innovation capacity, the following conditions have to be created (for details, see chapter 6 'Conclusions'):

1. *Redefine and concretise the SCHO⁶K-titels and their research lines into applications so SME's see clearly what's in for them.*
2. *Realize the most important horizontal SCHO⁶K 'Criteria, measuring methods and business models for sustainable chemical products and processes' as a counter for SME's and LE's, including IPR. Make sure it attracts SME-embryo's (young people and students).*
3. *Facilitate charing of infrastructure (research-equipment (i.e. analysis), pilot plants and application labs) and its personal (i.e. legislation).*
4. *Consider fostership (universities foster enterprises, LE foster SME and even students).*
5. *Facilitate collaborative projects preferably also with partners over the Flanders borders. Consider organising a 'blind partnersearch'.*
6. *Minimize the participation cost for SME's and realise added value (1+1=3) for all partners involved. Remark: The current funding instruments might not be fit to support breakthrough innovations nor the application of innovative technologies.*
7. *Assure exploitation rights to participating SME's and design a fair and open system for Intellectual Property Rights. Remark: The current IPR-strategy of universities can pose a serious threat to (open) innovation.*

3. Analysis of the attendees (see attachment)

68 Organisations (83 persons) attended the event (of 94 announced) of which 48 organisations are SME's or dedicated to SME-support. **75% of the attendees (63) represent SME's or organizations dedicated to SME-support.**

31 SME's (Absam, Alvacon, ALN Plastics, Beta Recycling management, BioBasedApplications, Christeyns, Conwed Plastics, Corden Pharmachem, Crop design, Dacral, Dacota Coatings, DVD technology/Aquaconcept, Ecolab, EcoSynth, EcoTreasures, EggCentris, Ekol, EOC, Grontmij, Imperbel, M4E, Microtherm, Peptisyntha, Proficos, Radiant Color, Supralon, Tensio, Transfurans, Valeron Strenth Films, Orineo, Value-for-Technology)

The **activity domains of these SME's** are plastic conversion, plastic recycling, waste recycling, detergent, pigment, cosmetics, biotech, cleantech, green chemistry, adhesive, hygiene, and environmental consultancy.

18 Organisations dedicated to SME-support (Agentschap Ondernemen, Agoria, Artesis, Bio.be, Denayer instituut, essenscia, Flamac, Flanders Bio, Hogeschool West, Innovatiecentrum provincie Limburg, Innovatiecentrum provincie Antwerpen, Innovatiecentrum provincie Vlaams Brabant, IWT, Karel de Grote Hogeschool, Polygonia, Sirris, VITO, VKC, VLARIP)

12 Large enterprises (Bayer, Ecover, Huntsman, Indaver, Janssen Farmaceutica, Oleon, P&G, Proviron, Recticel, , Solvay, Umicore, Vincotte), 4 of which were not involved in the FISCH study uptonow (Ecover, Huntsman, P&G, and Vincotte).

4 Universities: Gent, Antwerpen, Leuven, Kortrijk, Brussel

2 other organizations (Bond Beter Leefmilieu, VLEVA)

4. Workshop content

- The timing described in the invitation (see attachement) was followed.
- After the introduction 'Sustainable development at Solvay' by Christiane Malcorps (Solvay, member of the FISCH steering comité) and an introduction 'Flanders-in-Action' by Paul De Bruycker (Indaver, member of

the FISCH steering comité), Carl Van der Auwera (essenscia, FISCH project responsible) presented the results of the FISCH study after 4 months (presentation, see attachment).

- After that 4 SME's active in green chemistry (Orineo, M4E, Ecosynt and Ecover) presented their company and its activities and gave their answers to the 4 questions. After every SME-presentation one of the 4 questions were discussed with the public.
- After a short break the conclusions of these 4 discussions were presented and the conclusion discussed.
- Paul De Bruycker presented his closing and concluding words.
- The event ended with a networking reception.

5. Discussions

The discussions with and between attendees will not be described in a chronological order, but grouped around the 4 questions. Some additional inputs received after the (Workshop-questionnaire an received e-mails) are added where appropriate:

Discussions related to question 1:

Has the study detected the correct breakthrough domains for Flanders sustainable chemistry ?

- Yes, they give a good picture of the Flanders strengths in sustainable chemistry (Orineo, M4E, Radiant, VITO, Ecover).

The technologies are described so broad that the major part of the SME's will find their activities reflected in them (this does not necessarily mean that this is a good picture of the strengths of Flanders). The strengths of Flanders are not only the technologies that we are strong in, but must be focused where Flanders as a region (small surface but a vaste chemical infrastructure) can get a competitive advantage from (Ecosynth).

SCHO⁶K-definition:

* With 1 exception all SCHO⁶K are technological. We should not forget that services (CTC, chemical leasing) are very important and these projects could be realized on short term with SME's. (Innovation Center Antwerp Province).

* By redefining SCHO⁶K (and their research lines) as applications (not as technologies) SME's would see more clearly what is in for them. Define everything as concrete as possible. (Conwed Plastics)

* All descriptions must be rewritten so that it is clear that a SCHO⁶K can lead to a better and easier new business (=ROI) for LE and SME's .(P&G)

SCHO⁶K-content:

* The SCHO⁶K are very broad. We should focus on domains where Flanders can excel internationally. Choosing is loosing but it must be possible to find focus (Ecosynth). On the contrary the advantage of a braod definition of SCHO⁶K is that we can investigate more generally where open collaborations can emerge. This is a difficult process (experience = MIP). Eliminating SCHO⁶K or SCHO⁶K-themes at this stage (or at any stage) may eliminate possible SCHO⁶K with large future potential. (VITO)

* A lot of SCHO⁶K-themes (defined mainly by large companies and knowledge centers) do not have SME-activity in Flanders at the moment. This has to be considered as an opportunity for SME's. (VITO)

* A collaboration project (or even a SCHO⁶K) could emerge on HPC (Heat Power Coupling = WKK) waste heat (300°C) innovations, i.e. biomass production or chemical reactions (pyrolysis). LE are too slow to realize these types of projects and SME's lack the means. (company ?)

* A collaboration (or even a SCHO⁶K) could emerge on electrochemicals. (Solvay, Peptisyntha)

* The business models for the SCHO⁶K are at this moment not yet clear but are very important. Clearly defined expected applications combined with alliances on common collaboration problematics or opportunities will result in very strong business case. (Innovation Center Antwerp province).

Discussions related to questions 2 and 3:

What are conditions for SME's to participate in SCHO⁶K and when will SCHO⁶K create an added value for SME's ?

Acces to and networking with companies, knowledge centers and collaborative projects

* direct acces to collaborative research and customers = market. (Orineo, M4E, Conwed Plastics)

* direct acces to (pilot)-installations of LE and the knowledge about these installations. (M4E, Ecover)



- * The fast measurement of the performance of innovations (= application labs) is very important. (Conwed Plastics)
 - * Facilitation of collaborative projects, even over the Flanders borders. (Peptisyntha)
 - * Solvay gives start-up SME's (university students) incubation facilities (= use of facilities). (Solvay)
- Collaboration between companies on sites is important, i.e. Proviron+Ecosynth. (Proviron, Ecosynth)
- Legislation (i.e. REACH) is a major problem when trying to reduce the time to market. As large companies have these expertises a longterm relationship (fostership) between LE and SME is very important. (Alvacon, Ecosynth, essenscia)
- But also scientific fostership of LE and SME's by universities and knowledge centers should be considered, as is current practice in Germany (UGent)
- * SME's are more than LE looking at short-term opportunities and added value (Conwed Plastics)
- LE also have to work more and more short to market and their strategic business units have to be as creative and opportunistic as SME's are. (Solvay)
- * Access of all companies to the SCHO⁶K should be regulated so that ou only have companies that have a positive contribution (Proviron)

- Valorisation, intellectual property rights (IPR) and exploitation rights (ER)

- * ER of generated technology must stay with the participant SME. (Orineo, Conwed Plastics, Ecover)
- * Patents are considered as a cost. (Orineo, Ecosynth)
- * Make good agreements on IPR. (Proviron)
- * There must be a win-win for all collaborating parties, SME as well as LE. (Proviron).

It must be very clear to LE and SME's what is the added value (1+1=3) for them when they step into an SCHO⁶K (P&G, Ecosynth). Value for money. (Ecover)

* Universities are more and more obligated to create and valorize IPR. The strategy 'the university is the owner of all IP generated in this collaboration' is not motivating companies nor knowledge centers to collaborate openly with universities and could become a limiting factor at tech-transfer activities. (University of Gent, Ecotresures). When this problem is not solved SME's might prefer to innovate without university partners. The Businessplan of knowledge centers and universities needs to be redesigned. Sirris does not generate IPR (Ecotresures).

The IPR generated by universities and knowledge centers can be freely sold abroad. The rules to protect and market IPR generated with public money should be optimised. (Innovation Center Antwerp Province)

An open innovation initiative without a good protection of IP is not imaginable. In the biotech industry IP protection is not considered per definition negative. (Flanders Bio)

IP protection depends on the businessmodel and is very important in for instance red biotechnology. (Orineo)

Flanders petrochemistry drives on patents. Flanders has to protect herself against the outside world. (Katholic University of Leuven)

The SCHO⁶K 'Criteria, measuring methods and business models for sustainable chemical products and processes' could contain an IPR-counter. (Ecosynth)

*

A consortia building process should be organized where companies can become partners without any potential partner knowing this in the beginning of the partnermaking process. An example is the partnermaking process which is happening at REACH. In a pre-registration phase, companies can (in a not visible way) show their interest in specific compounds (here technologies) and after that phase, companies need to agree how they work together on that specific compound (here technology). This will solve main issues like:

- Most innovative SME's (and also LE) are in the beginning reluctant to show/share their knowledge, their current activities of interest in future activities in an open way and without full trust of the partners (even though they want to explore the option to collaborate in an open way).
- IP and cost issues will be discussed within the consortia (every technology/situation will be different) (Ecosynth)

- Funding:

- * No significant investment for SME's. (M4E, Conwed Plastics)



* SME want to winback their money on short term. The funding climate has to be created so that projects can be realized. That the gouvernement supports large projects is clear in France (large fields of rapeseed), but not at all clear in Belgium (sugarbeet industry has disappeared although it has large potential for chemicals). (Bayer)

* What can the Flemish gouvernement do to support marketdevelopment and government purchase behaviour etc... Is the accelerated development of breakthrough processes fundable through focussed and meaningful legislation, and what are the degrees of freedom for Flanders in the European context ? Furthermore, O&O is one thing, but actively involve SME's at already developed innovations (or innovations with a short-term commercialization in sight) is another process for which the actually active valorisationmechanisms have to be enlarged. (Agentschap Economie)

* A good businessplan has a large chance to receive funding from IWT. (IWT)
On the other hand most of the banks demand a ROI < 3 jaar, that may conflict with 'sustainable' (= longterm). (Ekol)

* It is more easy to get a project funded with partners in the Netherlands than in Brussels or Wallonie. (Peptisyntha)

Discussions related to question 4:

How will the SCHO⁶K 'Criteria, measuring methods and business models for sustainable chemical products and processes' attract SME's ?

- All attendees concluded that this is a very important SCHO⁶K.

- The idea of a counter (for not only SME's) for the complex problematics of more sustainable chemical products and processes (i.e. how can I make business out of green solvents) is unique and very exiting. Moreover this counter can generate a neutral area where clusters can emerge and youth (a student can be considered as a SME-embryo) can be motivated. This generates long-term output. (Karel de Grote Hogeschool)

- It is critical (but immensely complex and difficult) for a company to know where the added value in future will be. (P&G)

This SCHO⁶K can assure that enterprises (LE and SME) can make the right choices for their processes and products on the basis of sustainable development criteria. (University Gent)

The counter of this SCHO⁶K should contain an IPR expertise. (Ecosynth)

- We must make sure that the outside world does not get the impression that chemical industry is measuring their own sustainability. (Ekol)

On the contrary the chemical Industry has a long record of accepted 'self assesment' and this will in future not be different for sustainable development indicators. (Solvay)

6. Conclusions

According to the SME's and the SME-supporting organizations, the study seems to have **detected the correct breakthrough domains for sustainable chemistry in Flanders.**

However, the following Points-of-Attention/Discussion were detected:

1. The SCHO⁶K are very broad. Is further focus needed or is it better to leave the broad focus (to be decided by the steering group of the study)
2. The SCHO⁶K 'Criteria, measuring methods and business models for sustainable chemical products and processes' is very important (perhaps even most important) because it is the only SCHO⁶K with focus on services.
3. Under the SCHO⁶K 'Katalysis and alternative energy' 2 possible collaboration projects (or separate SCHO⁶K?) were brought up:
→ HPC (Heat Power Coupling = WKK) waste heat (300°C) innovations, i.e. biomass production or katalysis reaction
→ Electrochemicals
4. The SCHO⁶K contain a lot of topics that are important for LE, but where there is no SME-activity yet at the moment in Flanders. This is to be seen as an opportunity for SME's.

A SUSCHEM_{Flanders} platform with its SCHO⁶K **will attract SME's and enhance their innovation capacity when the following conditions are realised:**



1. Concretise everything (including the business models of the SCHO⁶K) as much as possible. With 1 exception, all SCHO⁶K (and their research lines) are defined in a technological manner. The visibility and comprehensibility for SME's (what's in it for me ?) could be enhanced by trying to redefine SCHO⁶K-titels and their research lines as applications (not 'biomass conversion' but 'chemicals from biomass' or 'biochemicals' or 'renewable chemicals'). More attention should also be given to 'services'.
2. Realise open acces to and contact with potential clients. Consider fostership by LE (i.e. REACH) for SME's and even for students (a student can be considered as an SME-embryo). LE can learn from SME's (creative, opportunistic, short-term). Fostership by universities for LE's as well as SME's is common practice in Germany.
3. Organise acces-rules to SCHO⁶K
4. Facilitate acces to pilot plants, application labs, research-equipment (i.e. analysis) and its personal (i.e. legislation). Application labs are very important to prove the performance of a new invention.
5. Realise fostership by LE (i.e. REACH) for SME's and even for students (a student can be considered as an SME-embryo). LE can learn from SME's (creative, opportunistic, short-term).
6. Facilitate collaborative projects preferably also with partners over the Flanders borders.
7. Organise a 'blind partnersearch' (like REACH consortia).
8. Make sure that SME's have to make no significant investments to collaborate.
9. Realise added value (1+1=3) and a win-win situation for all partners (SME and LE).
10. Create a smooth acces to funding. A good businessplan has a large chance to receive funding from IWT. On the contrary most of the banks demand a ROI < 3 jaar, that may conflict with 'sustainable' (= longterm). Motivate the Flemish government to support (within the boundaries of the European context) marketdevelopment, government purchase behaviour, the accelerated funding of breakthrough innovations and the enlargement of the valorisationmechanisms to involving SME's at already developed innovations (or innovations with a short-term commercialization in sight). Make sure that funding does not stop at borders.
11. Assure exploitation rights to SME's.
12. Design a fair and open system for Intellectual Property Rights. The current IPR-strategy of universities ('the university is the owner of all IP generated in this collaboration') could result in hesitation of SME's, knowledge centers and universities to openly collaborate in SCHO⁶K (this is a topic to be resolved by the governance board of the FISCH study).
13. The SCHO⁶K 'Criteria, measuring methods and business models for sustainable chemical products and processes' is very important (perhaps even most important) not at least because it is the only SCHO⁶K with direct focus on services. Organising it as a counter will help not only SME's with their complex problems or objectivate their ideas into real opportunities. It should enable SME's (but als LE's) to make the right future choices: 'Where in the valuechain will be the added value in future ? What IPR should I protect ?'. It should attract students (that should be considered as SME-embryo's), generating the required longterm output. Objectivate the rules for the used metric systems. This SCHO⁶K could contain an IPR-counter.

In his closing words, Paul De Bruycker concluded:

We need to be outstanding, make choices and be effective, speed up time-to-market and transform knowledge into skills and realisations. We must realise large returns with small investments. Open innovation only works when you share knowledge but in return this will reduce your innovation cost and increase your innovation output. We must identify over the value chains and sectors where these values can be used.

The presented SCHO⁶K (and their research lines) are to be considered as a good set of possible projects that have to be concretised and indeed cover the whole range of topics related to sustainable chemistry where Flanders could excel in future. There is no need at this stage of the FISCH-study to eliminate some of them as this is expected to be a natural process after we have given all parties enough time to think about where they want to invest in future (knowledge, time, infrastructure and money) . Succesfactors for this SUSCHEM-platform are knowledge sharing, a fare piece of cake for every participant, ownersrights, investments and collaboration over the borders of the institutions. If we listen to SME's and organise it right for them, they will find their way to the knowledge centers and realize more added value. LE's can also learn from collaboration with SME's how to make their teams more opportunistic and creative ('beter goed gejat dan slecht bedacht').



The SCHO⁶K 'sustainable processes and products' may well become the driver of the SUSCHEM-platform because we have to be able to define and measure objectively what the more sustainable added value is of a change of our proces or product, to the whole value-chain we act in.

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