



# Meeting Minutes

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## WP8 \_ 1<sup>st</sup> WP Leaders Meeting (Skype)

**Date:** 20 April, 2016

**Time:** 13.00 – 15.30

### Participants

DTI (Coordinator & WP8 leader):	Anne-Belinda Bjerre
SIOEN (WP1 leader):	Bert Groenendaal
DTI (WP2 leader):	Xiaoru Hou
DLO (WP3 leader):	Ana Lopez Contreras
ECN (WP4 leader):	Wouter Huijgen ( <i>Absent, and was represented by Jaap</i> )
ECN (WP5 leader):	Jaap Willem van Hal
ERM (WP6 leader):	Jonna Fry
EURIDA (WP7 leader):	Rita Clancy
MATIS:	Bryndís Björnsdóttir

### Agenda

1. Short about status in Work Packages (10 minutes for each participating WP-leader)
  - a. WP1 -WP2-WP3-WP4-WP5-WP6-WP7
2. From Management group (WP8)
  - a. WP1 amendment (Anne-Belinda)
  - b. Management tools (Anne-Belinda)
    - ½ year progress report (Anne-Belinda)
    - uploading of deliverables (Anne-Belinda/Xiaoru)
  - c. Short about shared Workspace on project level (Rita)
  - d. Shared Protocols on WP-level (Jaap)
3. Biomass requests on WP-level (Bert and Xiaoru)
4. Project meeting in Iceland (Gudmundur if attending)
5. Evt.

### Minutes



## 1. Short about status in Work Packages

Anne-Belinda, as the host of the meeting, started the meeting by briefly introducing the aim i.e. to let all the WP leaders have more opportunity to communicate and discuss, thus to have a better follow-up of the project. She also mentioned the suggestion from Bert that to have such WP leaders meeting (roughly) every second month.

After that, the WP leaders sequentially (WP1 → WP7) gave short summary of each WP's progress during the first 4 months of the project. All WPs went well at the moment, with the important points as noted down below:

### ***a.1 WP1 status (by Bert Groenendaal)***

The work of WP1 (seaweed cultivation) started 2-3 months earlier than the official kick-off of MacroFuels in January 2016. And the latest WP1 status meeting was held on 18<sup>th</sup> April 2016.

SAMS has deployed ~150 m ropes (provided by SIOEN) in Scotland, and two brown seaweed species *Saccharina* and *Alaria* have been seeded on the ribbons.

Aarhus University has started cultivation work in Denmark half a week ago. Two brown seaweed species *Saccharina* and *Fucus* have been seeded. AU has also started the research on the effects of different substrates (provided by SIOEN) on seaweed growing, and crude results already showed clearly difference from different substrates. These results will be presented in more details in the 1<sup>st</sup> MacroFuels project meeting in June.

WP1 has collected the feedback from the other partners about the seaweed biomass request and the real quantity will be clear in June when the 1<sup>st</sup> harvest is expected. WP1 will take responsibility for the supply of biomass to the partners on the conditions (e.g. dried, frozen etc) requested.

The work for the summer crops of Green seaweed *Ulva* and red seaweed *Palmaria* has also been initiated.

Anne-Belinda suggested a summarized cultivation status sheet with clarified information regarding e.g. cultivated seaweed species, cultivation locations, cultivation time, substrate types, cultivation conditions, yield *etc.*, which can give an even more informative overview of WP1. Bert said such sheet is under development for collecting information.

Jaap suggested WP1 to start communicate with WP6 (technol-economic and sustainability assessment), and provide information e.g. relating with seasonal variation of biomass composition as well as the materials the cultivation substrates are made of, when it is ready and available, as the crude input of footprint for sustainability assessment. This may assist in selecting the lowest footprint cultivation materials.

### ***a.2 WP2 status (by Xiaoru Hou)***

WP2 (conditioning, pretreatment and storage) initiated by 1<sup>st</sup> WP2 meeting on 23<sup>rd</sup> Feb 2016. The roles of all the WP2 partners and the tasks have been discussed thoroughly and made agreements for the following 4-6 months' work. A biomass request list with the information of request amount, transportation way from WP2+WP4's partners have been sent to WP1 on March 7<sup>th</sup>. All the requested seaweed biomass will be delivered directly from WP1 to all the partners except Matis, whose requested biomass will be supplied by DTI after the same treatment, which will be used for comprising hydrolysis by produced recombinant enzyme (run in Matis) and commercial enzymes (run in DTI) .



As agreed in WP2, DTI and DLO will take their own responsibility for providing the necessary hydrolyzed substrate for their own tasks in WP3, and DTI will try to contact Novozymes A/S for free supply of their enzymes. Anne-Belinda has tried and will continue trying to contact Novozymes to see the possibility.

#### ***a.3 WP3 status (by Ana Lopez Contreras)***

WP3 (bioethanol, ABE and biogas production) has started the WP kick-off meeting on March 3<sup>rd</sup>, with the discussions of all the partners' roles and tasks in WP3. DTI will take responsibility of bioethanol production from wide spectrum C6 and C5 sugars; *Thermoanaerobacterium* AK17 will be gene-modified (in Matis) to produce ethanol from alginates, as well as to improve the ethanol yield by removing side metabolic pathways. DLO has already started the research on ABE production by Clostridia strains and the process is under improving. Anaerobic digestion in SAMS has not been started yet as it was scheduled from M20, but SAMS is expected to start an anaerobic digester earlier e.g. at the end of this year. For the composition analysis, Ana asked if ECN could help to do the elemental analysis, and Jaap will look into more details about it. Jaap also informed that ECN is developing quick analysis methods for e.g. sugar contents, in order to give quick evaluation of seasonal variations. Ana also asked WP5 to give a defined quality and quantity (volume) of biofuels need for fuel tests as early as possible, so that WP3 can design and look into the possibility of the production processes.

#### ***a.4 WP4 status (by Jaap Willem van Hal)***

WP4 leader Wouter Huijgen was at the same time attending another project meeting, thus Jaap gave a summary of WP4 (Thermochemical fuel production). WP4 moved along fine and collaborated well between partners (ECN and AVT) up to the date. The task responsibilities have been discussed thoroughly and agreed. Regarding the thermochemical conversion of carbohydrates to furans, it was agreed that AVT will work on conversion of carbohydrates to furans in alcoholic media and ECN will work on dry process i.e. solvent-free conversion of carbohydrates to furans.

#### ***a.5 WP5 status (by Jaap Willem van Hal)***

In WP5 (fuel suitability and by-product application tests), Jaap had a meeting with the responsible contact in DTI Jacob Benjamin Jeppesen. Jacob mentioned that 200L biofuels (pure or blended) will be needed for biofuel application tests. Anne-Belinda asked about the lowest acceptable mixing rate of biofuels e.g. bioethanol in this 200L test fuel, and Jaap will look into it with Jacob (Notice: according to the email Jaap sent to all the WP leaders on 29<sup>th</sup> April, Jacob suggested that the aim would be at least a 10% blend of the test fuels, which means 20L of each (ethanol, n-butanol, ether)). Jaap also mentioned that the final demonstration could be based on one selected biofuel from the four studied. For example, if furanic based fuels will be used for demonstrating in WP5, about 10L of distilled MMF will be no problem for AVT pilot plant (according to WP4 meeting), and could check with AVT if 20 L could be available.

#### ***a.6 WP6 status (by Jonna Fry)***



WP6 (Techno-economic and sustainability assessment) has started the development of scenarios for analysis. The likely number of scenarios is 4, with X further scenarios where one aspect of the main scenarios are varied (sensitivity analysis). The scenarios will be drafted prior to the MacroFuels project meeting in Iceland, with the aim of agreeing this in the WP6 meeting and presenting the scenarios at the project meeting. Additionally, ERM is drafting a data collection template (in Excel), which will be distributed to the other WP6 members prior to the Iceland meeting. This data collection template will be presented to all the partners at the Iceland meeting, so that all parties are aware of the type of information needed for WP6.

#### ***a.7 WP7 status (by Rita Clancy)***

WP7 (Dissemination, communication and exploitation) has started with many activities, e.g. Project website has been established with keep-on improvement according to the feedbacks from partners; social network groups (LinkedIn, Facebook and Twitter) have been established with increasing followers and feedbacks from interests.; 1<sup>st</sup> press release has been sent to ~200 contacts, of which the numbers in the contact list will be further prolonged (as asked by Rita to all the partners to send her the possible interested contacts); The internal forum (Members Area in MacroFuels website with restricted access to only consortium) has been established and can be used as a good management tool for following up the project, as all the internal documents e.g. meeting minutes, deliverables, presentations *etc.* can be uploaded.

Anne-Belinda mentioned that DTI has been hosted annual Nordic Seaweed Conference for the last 4 years and will host the 5<sup>th</sup> in autumn this year. She would like Rita also take the opportunity for disseminations in that conference, and will also send the interest group list of that conference to Rita.

There was also discussion regarding the dissemination especially of partners' published peer-reviewed journal papers within the related field but not in the exact MacroFuels project. As reminded by Jaap, a careful evaluation regarding the copy right restrictions has to be done before putting these materials on the project public website.

## **2. From Management group (WP8)**

### ***2a. WP1 amendment (by Anne-Belinda Bjerre)***

Anne-Belinda announced and explained the amendment of WP1, which was mainly due to the re-construction of DTI that DTI has to transfer their tasks relating cultivation in WP1 to AU. The amendment resulted in the reduction of DTI's man months in WP1 from 15 man months to 5 man months, and DTI will continue to contribute the analysis tasks in WP1 as promised. Such transfer won't affect the activity of MacroFuels i.e. MacroFuels will continue the project with the same activity as proposed. Anne-Belinda also briefly introduced the amendment procedures.

Anne-Belinda also mentioned another amendment needed from Wageningen University, which asked for the unit costs to be applied from the start of the project. EU commission is waiting for the explanation of such adjustment. Ana replied that Wageningen is working on the explanation.

### ***2b. Management tools (by Anne-Belinda Bjerre)***



Anne-Belinda introduced the submitted deliverable D8.2 Manual of Management Tools, which could be very useful for the WP leaders in this Horizon2020 project. Jaap suggested all the WP leaders to send this deliverable D8.2 to all the partners which did not have experience of running H2020 project before, as this manual instructed financial reporting ways of H2020 project in details (Chapter 5 written by Charlotte Øhlenschläger, the financial manager of MacroFuels).

**- ½ year progress report (by Anne-Belinda Bjerre)**

Anne-Belinda emphasized that this internal ½ year progress report is a good tool for both the WP leaders and project management group to follow up the project, and help to solve problems as soon as possible. This ½ year progress report (of each WP) can be also used as record and materials for the periodic status report of MacroFuels.

The progress report is expected to be short e.g. 3-5 pages summarizing the half-year progress and/or problems, together with illustration pictures if necessary. A template of such report will be prepared and sent out to all the partners in May. Anne-Belinda, as the project coordinator, will send out a reminding request of this ½ year progress report of each WP before the deadline, and the first ½ year progress report is expected to be ready before 26<sup>th</sup> June, so that the WP leaders have opportunities to read before they meet in Iceland for the 1<sup>st</sup> project meeting.

**- uploading of deliverables (by Anne-Belinda Bjerre/Xiaoru Hou)**

Anne-Belinda explained that all the deliverables need to be sent to the management group for pre-proof reading before uploading and submitting in the ECAS system. This process is for the purpose of quality control of deliverables. Only the members of the management group has the right of uploading deliverables in ECAS system, and only the Coordinator has the right to submit the deliverables to EU commission.

**2c. Short about shared Workspace on project level (by Rita Clancy)**

Rita introduced in details about the shared workspace (Members Area), which was recommended to be used as management tools. The workspaces included at the moment 8 themes that can be used for uploading and sharing documents of 1) Minutes of Meetings 2) Presentations 3) Images 4) Deliverables 5) Abstracts and Publications 6) Progress Reports 7) Templates and 8) General Assembly.

**2d. Shared Protocols on WP-level (by Jaap van Hal)**

Jaap mentioned that a quick analysis method (protocol) of sugar content e.g. laminarin and mannitol will be available before the large quantity harvest, for the purpose to ensure the reasonable amount sugar in the harvested seaweed available for the sugar-conversion tasks in WP3 and WP4.

**3. Biomass requests on WP-level (by Bert Groenendaal and Xiaoru Hou)**

As has been explained in WP1 and WP2 status, information list of the requested biomass from all the partners have been ready. WP1 will inform each partner at least one week in advance of sending, so that the receivers can be ready for the places of storage *etc.*



#### **4. Project meeting in Iceland (by Bryndís Björnsdóttir)**

Bryndís informed that the hotel booking has been ready for all the present-registered attendees. The hotel was fully booked, and thus if there will be any new attendants, they have to stay in a different hotel.

According to the draft agenda sent by Guðmundur: 27th June will be the time for WP arrival and holding WP meetings, 28th – 29th June will be the MacroFuels project meeting at Matis, and on 30th June it can be a social net-working activity such as hiking into geothermal area and dinner etc.

Bryndís will send the information of attendants and hotels, so that WP leaders can organize WP meetings. Bryndís can help to book the meeting rooms if asked by WP leaders. Anne-Belinda will send a more detailed agenda of project meeting to Jaap and Guðmundur for discussion and agree, before sending out to the whole consortium.

#### **5. Any Other Business (AOB)**

Anne-Belinda asked about the status of Advisory Board establishment. Jaap responded that ECN has contacted quite a few business contacts, however the responsible person for building such net-work was in sick-leave now, so that Jaap has to use some time for sorting out the actual status now. Anne-Belinda suggested to invite Novozymes A/S to be presented in the Advisory Board, considering the fact that WP2 trying to ask for free enzyme supply from them.

*Noted by Xiaoru Hou, revised by Wouter Huijgen, Jaap Willem van Hal, and Jonna Fry (29th April 2016)*