



Meeting Minutes

MacroFuels 2nd WP2 Meeting

Date: 27th June 2016

Time: 17:00-18:30

Location: Hekla I, in Radisson Blu Saga Hotel, Reykjavik, Iceland

Participants

Name	Company
Xiaoru Hou	DTI
Ana Lopez Contreras	DLO-WUR
Jelle van Leeuwen	DLO-WUR
Truus de Vrije	DLO-WUR
Paulien Harmsen	DLO- WUR
Jaap van Hal	ECN
Antoine Moenaert	MATIS
Bryndís Björnsdóttir	MATIS
Olafur H. Fridjonsson	MATIS
Ed de Jong	AVT
Jens Legarth	FEXP

Agenda

- **Introduction to the meeting (Xiaoru Hou)**
- **Biomass Supply (Xiaoru Hou & Bert Groenendal)**
 - Possible Updated Biomass Request Information for WP2? (Xiaoru Hou)
- **Enzyme pretreatment, Task 2.3 (Bryndís Björnsdóttir & Xiaoru Hou & Paulien Harmsen)**
 - Progress/status of recombinant enzymes produced from Matis (Bryndís Björnsdóttir)
 - Updated information (status) of commercial enzymes asking from Novozymes A/S (Xiaoru Hou)
 - Status of DLO (Paulien Harmsen)

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- **Fractionation and mild chemical treatment, Task 2.4 (Jaap van Hal & Ed de Jong & Jelle van Leeuwen)**
 - Task status (any new agreement between task partners?) (Jaap van Hal)
 - AVT status (Ed de Jong)
 - DLO status (Jelle van Leeuwen)
- **Ensiling treatment, Task 2.2 (Xiaoru Hou & Rene Schepens)**
 - DTI's preliminary test results of FEXP's one *Lactobacillus* strain (Xiaoru Hou)
 - Introduction of FEXP's contribution to the task (e.g. facility and work plan) (Rene Schepens)
- **Etc. (All meeting participants)**
- **Next meeting**

Minutes of meeting

1. This meeting aimed to follow up WP2 progress and discuss some common interests and/or problems.
2. SAMS would start the harvesting in the following weeks, and the biomass (*Saccharina* and *Alaria*) would be delivered in the form of air-drying, following collected biomass request information from partners in MacroFuels.
3. Olafur presented detailed work of MATIS regarding constructing, producing, screening and testing alginate lyases, laminarinase (BglII), pustulanase, and auxiliary sulfatase produced by different bacteria strains (wild or recombinant, mesophilic or thermophilic). One of the recombinant alginate lyase Alg4 showed the hydrolysis efficiency on alginate of 99%. There are grams of alginate lyases and laminarinases available for testing. Just contact MATIS if any partner is interested. Production of Alg3, Alg4 and laminarinase Bgl110 in 100 liters fermentor is ongoing.
4. DTI's contact of Novozymes left the company, and DTI is waiting for the new possible contact's reply of possible free enzyme delivery. Xiaoru will inform WP2 as soon as DTI knows the possibility.
5. Rene Shepen's plane was delayed and Jens Legarth presented FEXP instead. DLO, DTI and MATIS all showed interest of testing the ensilage from FEXP, of which a mix of rye and *Ascophyllum* were ensiled together. The tests and investigation will be on the effect of ensiling on biofuel conversion and enzymatic hydrolysis treatment. FEXP will arrange the sample sending to DLO, DTI and MATIS. Xiaoru will call in a meeting with Rene (FEXP) to discuss about the ensiling lab-scale test in DTI.
6. Jelle presented the biorefinery pilot plant in DLO. DLO has finished the preparative work for production of sugars including literature research and pre-tests of equipment etc. They will design biorefinery schemes for brown, red and green seaweeds obtained from SAMS.



7. Ed de Jong showed the palletizer that is prepared for palletisation studies on dried seaweed. AVT planned to test the equipment with grass first and move on to seaweed.
8. Jaap mentioned that for purification and concentration of algal sugar syrups (task 2.5 which will start from Month 12), ECN is adapting a membrane system that could be used for concentrating sugar while at the same time removing salts (inhibitors).
9. Next meeting will be in the form of teleconference during November. Xiaoru will send Doodle invitation for date picking, and she will also talk with DTI IT department to see if a better way for teleconference can be found (due to the bad quality of Skype as mentioned by Ana).

Noted by Xiaoru Hou, 12th Jul 2016 (revised by Jaap van Hal on 13th Jul 2016)