

WHO'S WHO SURVEY QUESTIONNAIRE – Part 1

*Please fill in the blanks (preferably using "insert" Word format)
 where and if appropriate (your answer can exceed one page)*

Pls insert here your
LOGO

then please SEND IT BACK TO: eaba@eaba-association.eu or to fax +32 2 7630457

NAME

(name of your company, institution or personal name in case of individuals)

ADDRESS: City and Postcode Country

Phone Fax email..... Website.....

***Facultative line: n. of employees– active people in algae activity: Tot company–institution annual turnover(€):*

Contact person1: position: email: phone:

Contact person2: position: email: phone:

Please qualify yourself – for companies–institutions – (cross one of the two options): profit non–profit

Please further qualify yourself (cross): industry academia and/or research individual technology provider

General description: *(please provide a general description of your activities and/or your interest on algae biomass):*

.....

Main interests: 1.

(or main focus) 2.

ALGAE BIOMASS PRODUCTION and/or RESEARCH

– if production: *pls specify – installed production capacity (tonnes/year) as from (month, year).....*

– if project: *pls specify – projected production capacity (tonnes/y) project to start (month, year).....*

– if laboratory or pilot(s) *pls describe:* pilot1

pilot 2 pilot 3:

Final use of the products *(specify kind of –intended?– feeding, aquaculture, energy, cosmetics, nutraceuticals, others...)*

1. 2. 3.

4. 5. 6.

ALGAE STRAINS produced and/or researched upon – including micro and macro and seaweeds *please list the main ones:*

1. 2. 3. 4. 5.

6. 7. 8. 9. 10.

Eventual work on metabolism and or on genes *pls describe:*

.....

TECHNOLOGY employed, researched or provided – in case of technology providers

Kind of technology and/or processing *cross:* Bioreactors Open ponds : Others

additional information:

Other processing and/or technology and/or materials specialisation: *pls describe*

.....

RESEARCH PROJECT INVOLVEMENT (International, EU, national) *pls specify project name and website:*

1. 2. 3.

4. 5. 6.

I hereby accept and acknowledge that the attached information can be used for public and publication purposes.

Name: **Date:** **Signature:**

Ref: /MIS/09

17/4/2010

WHO'S WHO SURVEY QUESTIONNAIRE

Part 2 – DETAILED QUESTIONNAIRE PAGES

If your time schedule is tight you can limit your answers to the questions of part 1 (only page 1) of this questionnaire. However should you have more time, your answers to the question detailed in the next pages will be extremely helpful. If you prefer you can eventually send your answers to part 2 at a later stage. Contrary to part 1 you can ask that information provided by you remains confidential. You can skip parts for which you do not have an answer, please note however that asterisked (**) parties are MANDATORY.

**THE TERMS ALGAE BELOW REFERS TO ALL KIND OF MICRO, MACRO ALGAE AND SEaweEDS
AND AQUATIC BIOMASS (rivers, lakes, etc.)**

*Please fill in the blanks (preferably using "insert" Word format)
where and if appropriate*

then pls SEND IT BACK TO: eaba@eaba-association.eu or by fax to +32 2 7630457

NAME

(name of your company, institution or personal name in case of individuals)

Contact person: position: email:.....phone:.....

**** HOW LONG HAVE YOU BEEN ACTIVE IN THE ALGAE SECTOR?**

Number of years:

Field of activity: *(research, industrial develop., food related issues, aquaculture, feed, investment, technology provider, etc. etc.):*

Area(s) of your activities

(cross): Europe US-Canada Asia Africa Middle-East South America Oceania

YOUR PERSPECTIVES OF INTEREST IN THE ALGAE BIOMASS SECTOR

Are you broadly interested to the algae sector or your interest related to one or two specific areas?

Pls cross: Broad interest Specific interest in one or two areas

Please state in a few words what is your perspective of interest in algae biomass:

Are you *(pls cross)* AN END USER (eventually also a potential one) OF ALGAL PRODUCTS
 A PRODUCER AN INTERMEDIARY PROCESSOR a RESEACHER

In the above perspective **which kind of end uses** are you targeting?: *(biofuels, aviation biofuels, feed, algae oil, aquaculture, food, pharma, nutraceuticals, CCS, water management, electricity generation, fertiliser, etc. ..)*

Pls specify and rank them:

- 1.
- 2.
- 3.
- 4.
- ...

Animal feeding end uses:

please provide here a detailed list of the major species of algae that you employ (or plan to employ) for the production of animal feeding – this answer is very important for feed since the overall results will be used to indicate in the next weeks to the EC Commission the major (micro and macro)algae species to be listed in the Community Catalogue of Feed Materials (implementing art. 24 of EC Regulation 767/2009):

-
-
-
-
- ...

Aquaculture end uses:

please provide here a detailed list of the major species of algae that you use (or plan to) use for aquaculture pls also detail the specific use:

-
-
-
-

LIQUID BIOFUELS PRODUCTION PROCESSES and END USES

Targeted biofuel: (*biodiesel, hydro-treated diesel, BTL, bioethanol, biogas, others, ...*)

Pls specify:

- Biofuel: Production process:
- Biofuel: Production process:
- Biofuel: Production process:
- Biofuel: Production process:

Reason(s) for which the above biofuel(s) has(ve) been targeted (*pls specify*):

Main co-product foreseen and targeted use(s):

- Co-product: % of dry biomass: ... Targeted use(s):.....
- Co-product: % of dry biomass: ... Targeted use(s):.....
- Co-product: % of dry biomass: ... Targeted use(s):.....
- Co-product: % of dry biomass: ... Targeted use(s):.....

SUSTAINABILITY AND ENERGY BALANCE OF ALGAE BIOFUELS PRODUCTION

Please provide eventual reference of known works already performed on algae biomass and biofuels sustainability

.....

Please provide eventual of individuals/ institutions working on algae biofuels LCA and sustainability

.....

Energy balance of algae to biofuels production chains:

Have you ever measured what is the algae energy balance of the algae you are eventually producing?

.....

If yes what was the result?

.....

**** STAKEHOLDERS: please SEND US YOUR LIST OF CONTACTS – MAJOR STAKEHOLDERS IN YOUR REGION**

In order to make this survey as complete as possible your contribution is very welcome, thanks in advance to forward this questionnaire to your main and regional contacts and also **thanks to indicate us:**

1. the main stakeholders you are in touch with (at international level) in the algae sector
2. the stakeholders directly or indirectly involved in algae (also minor) present in your region

You can send such a list by separate mail or you can also send us an email with eventually your ready made contact lists or surveys (you do not need to change their format) which you may have available in your computer to the following address: eaba@eaba-association.eu

Alternatively, if they are only a few you can list them here:

-
-
-
-
- ...

R&D PATWAYS AND RESEARCH PROJECTS

What is your investment level per year over the next 10 years on algae? (*also approx in €*):

Main technology challenges for algae development: pls list and rank them:

- 1.
- 2.
- 3.
- 4.
- 5.
- ...

Research project in which you/ your company–institution is/was involved

Please list them also adding the name and reference web–site (only eventually a comment)

- 1.
- 2.
- 3.
- 4.
- 5.
- ...

BIOLOGY OF ALGAE and ALGAE STRAINS (facultative)

General description of major divisions and classes.

Please select and rank main classes and families of algae that you research on and please also detail (if info available) what could be the realistic productivity per ha on large scale production pr each strain:

1. expected productivity of dry biomass tonnes/ha: ...
2. expected productivity of dry biomass tonnes/ha: ...
3. expected productivity of dry biomass tonnes/ha: ...
4. expected productivity of dry biomass tonnes/ha: ...
5. expected productivity of dry biomass tonnes/ha: ...
- ...

Please describe (eventually) multiplication and reproduction strategies:

BIOTECHNOLOGY

Please indicate the kind of technology that you employ/research on or plan to employ in terms of:

Culture media: *examples – main artificial (synthetic media for marine, saline or freshwater species); natural (media based on freshwater, seawater or wastewaters); complex (media of non fully known composition for specific algae species), others ...*

–
–
...

Cultivation methods: *examples –batch, semicontinuous and continuous cultivation methods, others ...*

–
–
...

Production systems: *examples – a) laboratory, b) pilot c) demonstration, and industrial systems; a) photobioreactors, b) ponds, c) tanks, d) lagoons, others ...*

–
–
...

Harvesting methods *examples – (i) Centrifugation, Filtration, Flocculation, Sedimentation (microalgae) (ii) manual or mechanical, others ...*

–
–
...

Biomass processing *examples – (i) dewatering (ii) extraction (oil, carbohydrates, proteins), others ...*

–
–
...

Do you plan or focus algae genetic modifications GMOs or natural selection and reproduction?

.....

Please detail eventual scaling up problems or limitations for any of the above specific steps:

–
–
...

CRITERIA FOR STRAIN SELECTION

Please select the criteria for strain selection according to the order of importance:

- *Robustness*
- *Productivity under natural conditions*
- *Chemical composition*
- *Harvestability*
- *Growth on wastewaters and flue gases*

- *Biofuels yields*
- *High growth rate, high temperature and CO2 concentration tolerance*
- *Starch, oil or protein content*
- *Others*

MAPPING OF AVAILABLE RESOURCES

What is the number of available production sites for algae biomass production?

- *In Europe:*
- *In Northern Africa:*
- *Worldwide:*
- *Other regions:*

What is in your view their potential cumulate extension?

ha

What is the biomass volume potential of natural blooms in your region?

.....

Other comments on available resources, their opportunities and limitations:

.....

Is there an estimate of marine surfaces in which macro-algae are grown? If yes pls provide reference studies also on the potential of such marine surfaces:

.....

Is the interaction with off-shore wind farms possible?

.....

**** EABA (EUROPEAN ALGAE BIOMASS ASSOCIATION) STRATEGIES AND ACTIVITIES**

(For more info visit www.eaba-association.eu)

What do you expect from EABA, what should be its role and its focuses? *pls describe:*

.....

Interest in participation to EABA activities/ membership:

- yes, general interest
- yes, please contact me detailing membership conditions

**** PARTICIPATION TO AQUAFUELS Project ACTIVITIES (18 months)**

(For more info visit www.aquafuels.eu)

Next Autumn an **AquaFUELS Round Table** among major stakeholders will be organised the objective of the roundtable will be to promote critical thinking and reasoning on actual state of the art of research, development, and industrial initiatives in EU and outside with particular reference to technological and non barriers, economical, environmental and social implications of algae biofuels.

*Are you interested in taking part to this Round Table? **yes, as auditor** **yes, as speaker** **no***

Within the AquaFUELS project an Expert Group (EG) is being selected, its members have been and are being selected based on their expertise among internationally recognized organizations worldwide distributed (from EU, to US and Japan). They will actively participate to the validation of AquaFUELS conclusions and documents

*Do you intend to express a qualified interest in taking part to AquaFUELS Expert Group?: **yes** **no***

PUBLICITY OF YOUR ANSWERS to PART 2 of this Questionnaire: PLEASE CHOSE AN OPTION AND SIGN:

OPTION 1

I hereby accept and acknowledge that the attached information can be used for public and publication purposes.

OPTION 2

I prefer that my answers to part 2 of this questionnaire remain confidential (Internal AquaFUELS project use), they can only be used in order to feed general statistics where the name of my company/institution will not figure information can be used for public and publication purposes. Part 1 is public.

Company/Institution:

Name: ***Date:*** ***Signature:***