

PERIODIC ACTIVITY REPORT

FINAL REVIEW REPORT



FP & Contract No. COOP-CT-2005-016106

EAN-SEABUCK

“Establishment of European-Asian Network for the development of strategies to enhance the sustainable use of Sea Buckthorn”

Specific Support Action (SSA)
Priority 5: Food Quality and Safety Priority

D 27 Second Progress Report (25 Months)

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Dissemination Level

PU	Public	
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	x

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Publishable executive summary

Sea Buckthorn (*Hippophae rhamnoides*) is native to Europe and Asia and has been known and used by humans for centuries.

During the last decades, Sea Buckthorn has attracted special attention and became an important subject for domestication in many countries as it is one of the most interesting plants for human use.

Sea Buckthorn berries are amongst the most nutritious and vitamin-rich fruits found in the flora. Several studies confirm numerous beneficial characteristics and more than 190 bio-active compounds in Sea Buckthorn.



The EAN-SEABUCK project aims at the establishment of an integral cooperation network between Europe, China, Russia and the New Independent States for a joint sustainable utilisation of Sea Buckthorn.

Aims and milestones of the EAN-SEABUCK project are:

- Establishment of a Network for the trans-national technology and know-how transfer for a joint sustainable utilisation of Sea Buckthorn in Europe, China, Russia and the NIS countries
- Improvement and exchange of knowledge between Europe and Asia in the field of Sea Buckthorn harvesting and processing
- Achieve a better product quality and safety which permits to reach international quality standards and thus make the obtained products available for the European market
- Establishment of a long-term Sea Buckthorn industry in the targeted countries, supporting the rural sector development
- Strengthen the competitiveness of the European food industry in the use of bio-active compounds
- Support healthy nutrition in the Asian and European population
- Support of anti-erosion measures by incentives to the care of the Sea Buckthorn plantations

Implemented activities and results:

- Investigation of the actual requirements and lacks in know-how in Asian countries (main Sea Buckthorn producing countries) and Russia/NIS (developing Sea Buckthorn production); exploration of the potential in the respective as well as European markets; identification of main actors, decision makers and multipliers,
- Assessment of the technological state of the art in order to select the Best Available Technologies of Sea Buckthorn harvesting and processing best suited for the participating INCO countries (China, Russia) and targeted ones (NIS),
 - Market review on food and non-food application fields for Sea Buckthorn and intermediate Sea Buckthorn products for Europe and Asia,
 - Definition of international quality and safety standards for Sea Buckthorn to address standards, practices, legislation and policies on fruit processing and quality assurance in the fruit processing sector,
 - Organisation of work shops and training on Sea Buckthorn harvesting and processing as well as quality assurance, marketing and commercialisation,
 - Broad dissemination of the EAN-SEABUCK results via multiple media, amongst them an electronic EAN-SEABUCK newsletter, a Sea Buckthorn manual and a multilingual

project web-site as main dissemination and communication tool with public as well as restricted areas for partner exchange and concerted involvement of stakeholders,

- Networking between Europe and Asia in joint expert work groups, via virtual bridge-building over the project web-site and a planned expert exchange programme,
- Review of current research activities on Sea Buckthorn in Asia and Europe for a sustainable implementation supported by recommendations for future research policies and by the creation of further international co-operation projects.

The R&D programme for the EAN-SEABUCK project is structured as follows:

1. Definition of support requirements and identification of best available technologies
2. Development of training modules
3. Implementation of pilot training
4. Implementation of training and workshops
5. Dissemination activities and information campaign of the EAN-SEABUCK project
6. Coordination of research activities
7. Project management

For more information about the project, visit our project website: www.eanseabuck.com

To achieve the EAN-SEABUCK project objectives, a strong and complementary project consortium was selected, including Chinese, Russian and European representatives

PARTNERS OF THE PROJECT:

TTZ- ttz Bremerhaven (Germany), NIG Nahrungs-Ingenieurtechnik GmbH (Germany), ICRTS- International Centre on Research and Training on Sea Buckthorn (China), ARK-Northern Research Institute of Forestry (Russia)

WITH THE SUPPORT OF THE EUROPEAN UNION

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Section 1 – Project Objectives and Major Achievements During the Reporting Period

The EAN-SEABUCK project aims at the establishment of a European-Asian network for the trans-national technology and know-how transfer, exchange of best practice for joint sustainable utilisation of the Asian resources and development of the Russian/NIS market on Sea Buckthorn. Further objectives of EAN-SEABUCK are:

- to improve and exchange mainly the knowledge between Europe and Asia in the field of Sea Buckthorn harvesting and processing – in order to achieve a better product quality and safety which permits to reach international quality standards and thus make the obtained products available for the European market.
- to lead in long-term to the establishment of a Sea Buckthorn industry in the targeted INCO countries and thus employment alternatives for less developed and climatically disadvantaged remote rural areas against migration into cities,
- to increase the competitiveness of the European food industry by pre-empting the competition mainly from the US in the use of bio-active compounds derived from Sea Buckthorn of Asian and Russian/NIS origin,
- to increase the use of bio-active compounds in the European diet – a matter which is limited only due to the availability of Sea Buckthorn on the European market,
- to support vitamin supply and healthy nutrition of the relevant Asian and Russian/NIS population by increased valorisation of the endemic Sea Buckthorn fruit,
- to support anti-erosion measures by incentives to the care of the Sea Buckthorn plantations and to solidify the cooperation between European and Asian agriculture, food and rural development sectors

During the first stage of the project the basis of the Network has been established. They should guarantee that the final achievements correspond to the needs of the end-users and stabilises the bases to co-ordinate the technical development.

Simultaneously, first dissemination activities such as the launching of the project webpage and the design of the project flyer have been carried out during the reporting period. The EAN-SEABUCK project has been also presented in 2 international conferences specifically on Sea buckthorn so far.

Section 2 – Work Package Progress

Please note that only work packages, which have started within the first 12 months are listed.

WP	Work Package Title	WP Leader	Total Length (Months)	Elapsed Time (Months)	Left Time (Months)
1	Definition of support requirements and identification of BAT	ARK	6	7	Finished
2	Development of training modules	NIG	9	9	Finished
3	Implementation pilot training	NIG	4	4	Finished
4	Implementation model training and workshops	ICRTS	8	8	Finished
5	Dissemination activities and information campaign	TTZ	24	24	Finished
6	Coordination of research activities	TTZ	12	12	Finished
7	Project management	TTZ	24	24	Finished

Table 1: Work package progress

2.1 Work Package 1: “Definition of support requirements and definition of best available technologies”

WP leader: **ARK**

This WP aims to establish the basis for a European-Asian Network for the joint sustainable utilisation of Sea Buckthorn by

- Identifying relevant actors in the targeted Asian countries (producer and consumer market) and Europe (equipment supplier, customer (food industry) and consumer market) to set up the EAN-SEABUCK network,
- Assessing the current situation, identification of gaps and needs in the respective countries and the potential of sustainable utilisation of Sea Buckthorn offers for Europe,
- Selecting Best Available Technologies (BAT) suitable for the adaptation to needs of targeted countries.

Tasks	Partners Involved
1.1 <i>Identification of stakeholders in Sea Buckthorn</i> (months 1-2)	ALL
1.2 <i>Assessment of actual situation in Sea Buckthorn business</i> (months 2-5)	NIG , TTZ, ICRTS, ARK
1.3 <i>Definition of required quality and safety standards</i> (months 3-6)	TTZ

Task 1.1 Identification of stakeholders in Sea Buckthorn

For the establishment of a sustainable network it was necessary to identify the key actors in Europe and Asia (incl. Russia and NIS-countries) and assemble a critical mass of core partners in the Sea Buckthorn business (both public and private). This was crucial for Asia and Russia in order to achieve a widespread impact of the project as they would act as intermediates and multipliers of the results to the regional/local farmers and organisations involved in the Sea Buckthorn business. On the European side, partner NIG contacted potential equipment supplier and TTZ contacted the processing industry including potential end users in the food and cosmetics field. On the Asian side and in Russia/NIS, ICRTS and ARK identified and contacted stakeholders and multipliers from governmental and non-governmental organisations and associations. By these means crucial interest groups were made familiar with the objectives of the SSA and were informed and invited to support the workshops and training activities foreseen in WP 3 and WP4. They provided also important input for the market survey (task 1.2), definition of required quality standards (task 1.3) and BAT selection (task 1.4).

The partners used for instance the member list of the International Sea Buckthorn Association (ISA), personnel contacts as well as the participant list of the last International Sea Buckthorn Congresses held in Beijing (1999), New Delhi (2001) and Berlin (2003), and again in Beijing in 2005, in which all partners participated. Especially during the last Conference in Beijing, where the project was presented during a conference session dedicated to international cooperation, the project partners were able to approach a great number of stakeholders. All partners are members of the International Sea Buckthorn Association, which together with their own contacts in the Sea Buckthorn business, maximise the number of relevant contacts.

While the responsibility for the Asian countries lied with partner ICRTS supported by partner NIG, partner TTZ was in charge for Europe. ARK covered the bridge-building Russia and NIS-countries.

The results of the gathered information constitute the D1 (Comprehensive list of key actors in Europe and Asia involved in the Sea Buckthorn business). The list is fully accessible in the

project website and a database has been set up. Search facilities are provided to facilitate interactions and networking between stakeholders.

In order to provide an up to date overview of key actors in the Sea Buckthorn business, the key-actors database was reviewed and updated in months 15 and 16. All partners contributed to the update providing new and update information from their respective countries or areas. The key actors identified at the beginning of the project were contacted to cross-check details again (contact, person in charge, continuity of activity, etc). The partners took the chance to inform the contacted persons about the running of the EAN-SEABUCK project, changes and updated information in the project webpage and newsletter. Partner TTZ gathered all new or changed information and make the database available in the website. (See deviations/remarks).

Task 1.2 Assessment of actual situation in Sea Buckthorn business

Based on the experience of a previous study conducted by partner NIG and supported by the rest of the partners, NIG contacted the under task 1.1 identified stakeholders in order to collect actual information about the size of commercial Sea Buckthorn cultivation (e.g. number and type of organisations involved), the degree of Sea Buckthorn utilisation (e.g. quantities) and current employed /available technologies for Sea Buckthorn processing in the targeted INCO countries. Furthermore, information about the current goods produced (types), and about the major importing countries was gathered. ARK and ICRTS supported NIG's inquiry on location in China, Russia and NIS countries. TTZ supported NIG in the European side. Apart, the current market of Sea Buckthorn products in Europe, including the size, current limitations and future potential and trends was identified and summarise.

For this purpose, NIG with support of TTZ developed a questionnaire in English language, which was translated into the languages mainly spoken the targeted countries (Russian, Chinese). Additionally, the questionnaire also translated into German for its distribution in Germany. ICRTS was in charge of the Chinese translation and partner ARK for the Russian translation.

The results of this research constitute together the deliverables D3 (Report on the situation of the Sea Buckthorn industry in Russia and Asia), D4 (Market report for Sea Buckthorn products in the targeted INCO countries), D5 (Market report for Sea Buckthorn products in Europe). The project partners agreed on including the 3 deliverables in the same document. The reason for this was that the 3 areas are linked to each other and therefore it is difficult to separate them in different documents. Taking into account how the questionnaires were structured and the form in which the information was received, the partners considered that the information should be gathered in the same document and not separated in 3 different reports, although the document is classified in different and clearly defined sections. Another reason for that was the fact that this research constitutes one of the most important outcomes of the project, aimed to be distributed to interested parties. Having the information gathered in a single document makes its distribution easier. The document constitutes in this way also the project milestone 1 (Assessment report of the situation and trends in the Sea Buckthorn business in Europe, Russia and Asia).

The project partners faced many difficulties gathering relevant information from the stakeholders, who were reluctant to deliver some data to the project partners. The project partners had then to get back to them individually, make clear the objectives of the research, and the reason why some specific (economical) information was enquired. Most of them delivered the enquired data in the end. However, some of them remained silent. In those cases, an estimation of quantities/prices was carried out by the project partners with the help of their experience and of the stakeholders. In the case of Russia, collecting the data for the market assessment was especially difficult. Support from the European partner was provided to the Russian partner to try to gather more information. However, the response ratio still remained low.

The resulting final document was reviewed by an external expert on marketing (see section 3, “scientific support”), who assessed the relevance of the investigated data as well as their representativity.

The results of this task were the basis for the selection of the Best Available Technologies (BAT) (Task 1.4) as well as for the development of the training and dissemination material (WP 2 and WP 5).

Due to the relatively low response rate in some areas investigated in the market study (especially Russia), the questionnaire developed for the market research was kept on the website in order to be able to get new data for possible visitors who can fill it out online. As agreed with the project officer after the evaluation of the 12 months periodic report, the partners continued distributing the market questionnaires after finalization of the task in order to try to get new data. After the partners’ experience getting data for the study at the beginning of the project, they resorted to more insistent methods, contacting companies and organizations many times by telephone, by email or visiting them. Many times they got data from intermediaries. Some companies were requested many times to deliver the necessary data without success. In those cases the partners turned to institutions such as agricultural ministries or similar institutions able to provide approximate figures. The draft version (see deviations/remarks) of the assessment report that was available on the website has been substituted by the final version, and it is so indicated to the visitor.

Task 1.3 Definition of required quality and safety standards

Partner TTZ compiled the quality and safety requirements for Sea Buckthorn products in a single document by collecting information from relevant authorities (regarding legal requirements) and by talking to the industrial stakeholders identified in Task 1.1 (industrial requirements). The European requirements were compared to the ones in the targeted INCO countries identified by partner NIG and ICRTS (Asia) and partner ARK (Russia and NIS). Especially in Russia, products have to fulfil demanding quality and safety standards and comply with the rigid GOST-standards to enable export. This document has been the basis for the later development of the training material in WP 2 and permits giving recommendations.

The output of this task was reviewed with the stakeholders of Task 1.1 in order to achieve a broad acceptance of the matter. (See section 3, “scientific support”).

As agreed with the project officer after the evaluation of the 12 months periodic report, the submitted report on required quality and safety standard (D6) was considered as a draft to be improved until the end of the project, when a final version of the deliverable has to be delivered. The partner in charge (TTZ) has revised and updated the information contained in the report and a final version is already available on the website substituting the draft document (See deviations/remarks).

Task 1.4 Identification and selection of Best Available Technologies (BAT)

The gaps and needs identified in the previous tasks were used by partner ARK supported by ICRTS and NIG to identify the BAT technologies by reviewing recent scientific and technical publications and contacting stakeholders in the Sea Buckthorn business. The result is a catalogue which covers the following areas:

1. Cultivation,
2. Harvesting,
3. Processing and preservation.

The compilation of the catalogue was done under consideration of economic (investment and operation cost) and technical aspects (mainly available skills for operation, maintenance and repair). Partner ARK and ICRTS facilitated the catalogue section on cultivation due to their re-known expertise, NIG was responsible for processing.

The catalogue has been reviewed many times since the document was first delivered to the coordinator. This was due to the many revisions done by external collaborators (stakeholders) identified in WP2 taking part of working groups with the project partners, who send their contributions to the responsible partner (ARK). Contributions from Romania, and Germany, between others, completed the document some months later than the scheduled date for the deliverable. The partners considered important to review the catalogue again and use the latest information received for the preparation of the training modules. Additionally, the catalogue was reviewed by external experts on the fields of Sea Buckthorn cultivation, harvesting and processing, collaborating at a regular basis in the EAN-SEABUCK project (see section 3 “scientific support”).

After evaluation of the mid-term report, it was agreed with the EC to consider the deliverable as a draft to be consolidated by the end of the project. Apart from revising the document and completing it with more information, a better introduction was developed to give clear explanations towards the agreement on the selected BATs. The document was posted as draft version on the project website until the end of the project, being substituted by the final version at month 24.

Achievements

	Due Date	Actual Submission date	Lead Contractor
D 1 Comprehensive list of key actors in Europe and Asia involved in the Sea Buckthorn business	September 2005	October 2005	ARK
D 2 Questionnaire for Sea Buckthorn market assessment in 3 languages (English, Russian, Chinese)	October 2005	October 2005	NIG
D 3 Report on the situation of the Sea Buckthorn industry in Russia and Asia	December 2005	February 2006	NIG
D 4 Market report for Sea Buckthorn products in the targeted INCO countries	December 2005	February 2006	NIG
D 5 Market report for Sea Buckthorn products in Europe	December 2005	February 2006	NIG
D 6 Report on required product quality and safety standards	January 2006	February 2006	TTZ
D 7 Catalogue on selected Best Available Technologies	January 2006	February 2006	ARK

Deviations/Remarks

Due to the fact that the project first meeting was held at the end of the first project month, all partners started working on the first tasks a bit later (in month 2), once the tasks were clear to them after discussion during the Kick-off meeting, which subsequently implied a delay in the deliverance of the first deliverables (D1-D7) of approximately one month. During the kick-off meeting, the deadlines for the first deliverables were adapted and set one month later than scheduled.

After evaluation of the first periodic report (12 months), the EC considered necessary the review/ update/ optimisation of some deliverables (D3-7). As agreed with the project officer, the already submitted deliverables were considered as a draft, being the partners requested to deliver a final version of the respective deliverables at the end of the project. The documents were maintained in the project website for public access with a clear indication that the documents were a draft version. The draft documents were substituted by the final documents and are available on the project website, which will be maintained one year more after project finalisation.

Additionally, deliverable 1 (Comprehensive list of key actors in Europe and Asia involved in the Sea Buckthorn business) was reviewed and updated in months 15 and 16 by all partners in their respective countries or areas before transformed in a database with searching facilities available to the public in the web site. The project partners undertook this update in order to provide actual and reliable information to any interested visitor. The key actors identified at the beginning of the project were contacted to cross-check details again (contact, person in charge, continuity of activity, etc). The partners also took the chance to inform the contacted persons about the running of the EAN-SEABUCK project, changes and updated information in the project webpage and newsletter.

The table below shows a list of the deliverables to be submitted again at the end of the project including the necessary update, review or extension.

	Due Date (revision)	Actual Submission date	Lead Contractor
D 3 Report on the situation of the Sea Buckthorn industry in Russia and Asia	August 2007	August 2007	NIG/TTZ
D 4 Market report for Sea Buckthorn products in the targeted INCO countries	August 2007	August 2007	NIG/TTZ
D 5 Market report for Sea Buckthorn products in Europe	August 2007	August 2007	NIG/TTZ
D 6 Report on required product quality and safety standards	August 2007	January 2006	TTZ
D 7 Catalogue on selected Best Available Technologies	August 2007	July 2007	ARK/TTZ

2.2 Work Package 2: “Development of training modules”

WP leader: **NIG**

The aim of this workpackage is to develop five different training modules focused on the improvement of the joint sustainable utilisation of Sea Buckthorn created by specialised work groups for different fields of activity. The content of the modules are derived from the results of WP 1. Work Package 2 is conformed as follows:

Tasks	Partners Involved
2.1 <i>Development of training module on cultivation and harvesting technologies (months 4-11)</i>	ICRTS, ARK
2.2 <i>Development of training module on Sea Buckthorn processing (months 4-12)</i>	NIG
2.3 <i>Development of training module on product development (months 4-12)</i>	TTZ
2.4 <i>Development of training module on safety and quality management (months 4-11)</i>	TTZ
2.5 <i>Development of training module on marketing and commercialisation (months 4-12)</i>	NIG

For the development of the different training modules, special German/Russian/Asian work groups were established. Each group consists of one or more project partners plus minimum one independent stakeholder from Europe and Asia. The responsible partner leads the work group and is responsible for the implementation of the work; whereas all partners supported the module development with their respective expertise. External expertise has been subcontracted to support some of the areas (marketing, quality and safety management, product development), in order to cover all important aspects related to the specific module and to provide the audience attending the pilot training in WP3 with expert lecturers, who agreed to contribute to the task. A budget was allocated for this purpose according to the contract.

As defined during the kick-off meeting, the partners contacted and selected until October 2005 (month 3) 1-2 national experts/stakeholders in the different fields (cultivation and harvesting, processing, product development, quality and safety management, marketing and commercialisation) in China, Russia and Europe. The stakeholders worked together with the project partners in the preparation of the training modules, cross-checking information, making their own contributions in the topic, giving ideas, providing relevant contacts, etc. They also contributed to the tasks in WP1 (see WP1)

Task 2.1 Development of training module on cultivation and harvesting technologies

The training material corresponding to this training module can be found in Annex VII. For the development of this training module, ICRTS worked closely together with ARK for the preparation of this training module.

Stakeholders from China (Chengdu Institute of Biology), Russia (The Lisavenko Research Institute of Horticulture for Siberia), Latvia (Latvian Sea Buckthorn Grower's association), Romania (University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca, Company Proplanta) and Germany (Technical University of Berlin, Humbolt University) contributed to this task.

Task 2.2 Development of training module on Sea Buckthorn processing

The training material corresponding to this training module can be found in Annex VIII. NIG was in charge of the task. The content of the training materials was cross-checked with experts from Germany and China.

Task 2.3 Development of training module on product development

The training material corresponding to this training module can be found in Annex IX. TTZ was in charge of the task and work closely together with the University of Applied Science in Bremen, Germany.

ICRTS and ARK contributed to the preparation of the tasks taking part of the training providing Sea Buckthorn products produced in China and Russia (Sea Buckthorn juice for a task on sensory evaluation, different food, cosmetic and pharmaceutical products for evaluation by the training participants).

Task 2.4 Development of training module on safety and quality management

The training material corresponding to this training module can be found in Annex X. TTZ was in charge of the task and work closely together with the company UBF in Germany, which also collaborated in task 1.3 (Definition of quality and safety standards)

Task 2.5 Development of training module on marketing and commercialisation

This module corresponds to Annex XI. Partner NIG was in charge of the preparation of this task and worked closely together with the University of Applied Sciences in Magdeburg in Germany.

Achievements

The work package is finished.

The materials for each training modules were developed in time by the different expert groups. The basic training material consists in power point presentations, which during the training actions was completed by audio-visual material (video and photographs), provided by the project partners and from the collaborating experts as well as Sea Buckthorn products and machines, which support the training. The training modules developed can be found in the Annexes VIII-XII (D8-12)

The implementation of pilot training constitutes the whole WP3 and started in month 12 (see next section).

	Due Date	Actual Submission date	Lead Contractor
D 8 Training module cultivation and harvesting technologies	July 06	August 06	ARK/ICRTS
D 9 Training module Sea buckthorn processing	August 06	August 06	NIG
D 10 Training module product development	August 06	August 06	TTZ
D 11 Training module quality and safety management	July 06	August 06	TTZ
D 12 Training module marketing and commercialisation	August 06	August 06	NIG

Deviations/Remarks

None

2.3 Work Package 3: “Implementation of Pilot Training”

WP leader: **NIG**

The objective of this workpackage was to implement pilot training with the under WP” developed training modules to enable their optimisation prior to the implementation with the final target audience.

Tasks	Partners Involved
3.1 <i>Implementation of a pilot training module on cultivation and harvesting technologies</i> (months 12-15)	ICRTS, ARK
3.2 <i>Implementation of a pilot training module on processing</i> (months 12-15)	NIG
3.3 <i>Implementation of a pilot training module on product development</i> (months 12-15)	TTZ
3.4 <i>Implementation of a pilot training module on quality and safety management</i> (months 12-15)	TTZ
3.5 <i>Implementation of a pilot training module on marketing and commercialisation</i> (months 12-15)	NIG
3.6 <i>Optimisation of the training modules and final development</i> (months 14-15)	all

The implementation of the pilot training in China (Beijing) and in Russia (Barnaul) took place in month 14 of the project (September 2006).

Five pilot training courses were carried out by the partners in order to assess the adequacy of the developed modules. The audience were be multipliers / stakeholders identified in WP 1 (i.e. associations, chamber of commerce, consultancy actors, NGOs, etc.) in the targeted countries (China, Russia and NIS countries). The attendance to the pilot trainings was free of charge for the participants; accommodation and subsistence expenses were provided. Due to the different languages spoken in the targeted countries and the respective different technical levels in the Sea Buckthorn business, each pilot training was implemented in China as well as in Russia. The five training modules were organised by ICRTS for pilot trainings in China. Partner ARK organised and hosted the pilot training in Russia. Multipliers / stakeholders from NIS countries were invited to the pilot trainings in Russia. To minimise travel costs, the pilot training was implemented by the partner in charge within one week and was further parented by the local partner.

Representatives of other foreign institutions were also contacted and invited to take part in the pilot trainings. These include representatives from Nepal, Mongolia, Latvia and Poland. NIS countries were also represented, as specified in the contract. Besides attendants of Chinese and Russian nationality, also multipliers from the following countries attended the pilot trainings (Uzbekistan, Tajikistan, Kyrgyzstan, Mongolia, Nepal and Poland).

TTZ supported ICRTS and especially ARK contacting possible multiplies, especially out of Russia (NIS, Baltic countries, Mongolia, Nepal). Partner NIG also contributed providing TTZ with many relevant contacts.

The selection between individual applicants was based on their curriculum vitae and motivation letter to check their potential to support the trainings for the final audience (WP 4). Institutions sending their representatives provided in many cases a motivation letter as well. A good command of English and communication skills was required. However, the partners found some difficulties in finding appropriate attendees at the same time able to understand and speak English. Therefore, ICRTS and ARK arranged linguistic support for the respective

trainings in China and in Russia to assure a smooth communication between trainers and participants.

The outcome of the whole WP3 is fully reported in the deliverable D13 (Assessment report of the pilot training).

The following Gant Chart illustrates the EAN-SEABUCK training program.

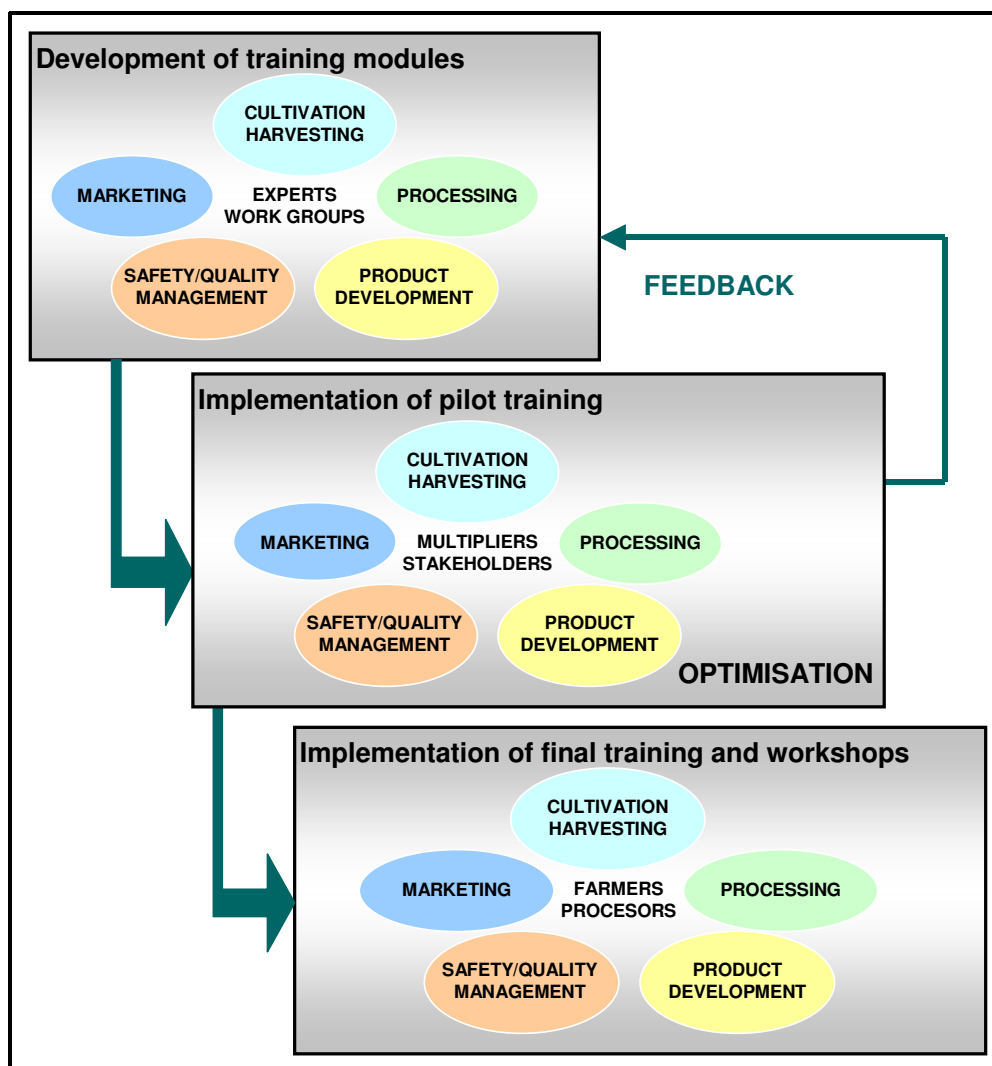


Figure 1: EAN-SEABUCK training program

Achievements

The work package is finished.

Each training module was implemented by the partner in charge and parented by the local partner. The whole training event constituted training for trainers in order to implement the model training in the local language with the final audience on a further stage (WP4)

The optimization of the training modules and final development took place during and after the pilot training in September 2006. Discussion with the training participants (multipliers) and their feed-back to the training evaluation during and after the pilot trainings made possible the preparation of the final materials, more adapted to the final audience in the different areas and with specific needs.

	Due Date	Actual Submission date	Lead Contractor
D 13 Assessment report of the pilot training	October 06	October 2006	NIG
D 14 Set of optimised training modules ready for implementation	November 06	December 2006	all

Extensive information about the pilot training carried out can be found in the assessment report of the pilot training, attached to this report as Annex XIII (D13). The set of optimised training modules can be found attached as well in Annex XIV (D14).

Deviations/Remarks

None

2.4 Work Package 4: “Implementation of Model Training and workshops”

WP leader: **ICRTS**

The objective of this workpackage was to implement training with the final targeted audience by means of the optimised training modules (WP3).

Tasks	Partners Involved
4.1 <i>Implementation of a training module on cultivation and harvesting technologies (months 12-15)</i>	ICRTS, ARK
4.2 <i>Implementation of a training module on processing (months 12-15)</i>	ICRTS, ARK, NIG
4.3 <i>Implementation of a training module on product development (months 12-15)</i>	ICRTS, ARK, TTZ
4.4 <i>Implementation of a training module on quality and safety management (months 12-15)</i>	ICRTS, ARK, TTZ
4.5 <i>Implementation of a training module on marketing and commercialisation (months 12-15)</i>	ICRTS, ARK, NIG

The implementation of the model training in China (Inner Mongolia) and in Russia (Arkhangelsk) and Uzbekistan (Samarkand) took place in May 2007 (month 22 of the project).

After preparation of the training materials (WP2), implementation of final training, optimisation of training materials and after the training of selected multipliers (WP3), the EAN-SEABUCK partners were prepared for the implementation of model trainings and workshops in China, Russia and the selected New Independent State (Uzbekistan). The organization of the final training was coordinated by ICRTS in China and ARK in Russia and Uzbekistan. The whole training process and the results of the task are extensively reported in deliverable 15 (Assessment report on the implemented training modules), which can be found as annex XVI.

Achievements

Workpackage finished.

Each training module was implemented by the partner in charge and parented by the local partner (ICRTS in China and ARK in Russia and Uzbekistan). The training was implemented in the local language (Chinese, Russian and Russian/Uzbek) by multipliers formerly trained during the pilot training (WP3). The evaluation of the final training constitutes the deliverable 15 (assessment report of the implemented training modules). Extensive information about the training can be found in that document (Annex XVI). This workpackage was finalised within the scheduled time for its implementation.

	Due Date	Actual Submission date	Lead Contractor
D 15 Assessment report on the implemented training modules	June 07	June 07	TTZ/all

Deviations/Remarks

None

2.5 Work Package 5: “Dissemination activities and information campaign of the EAN-SEABUCK project”

WP leader: **TTZ**

The objective of this workpackage is to make a broad interested public familiar with the objective and opportunities the European-Asian network offers.

This workpackage started at the very beginning of the project and includes the detailed development and fulfilling of the exploitation and dissemination strategy. The dissemination of the EAN-SEABUCK results is performed via the design of a multilingual project flyer and the edition of a Sea Buckthorn manual consisting of five different booklets. An additional tool for dissemination is the developed project web-site as well as the partners own web-site.

Tasks	Partners Involved
5.1 Design and implementation of project flyers (months 3-24)	TTZ, ARK, ICRTS
5.2 <i>Project website and newsletter</i> (month 1-24)	TTZ
5.3 <i>Development/Implementation of a Sea Buckthorn manual</i> (month 5-13)	all
5.4 <i>Presentation at relevant exhibitions and conferences</i> (month 15-23)	all

Task 3.1 Design and implementation of project flyers

The EAN-SEABUCK flyer was designed for being used as general dissemination tool and in fairs, seminars, conferences and other dissemination activities. Partner TTZ was in charge of the flyer design in English language, while ICRTS and ARK translated it into Chinese and Russian language. ICRTS was in charge of printing the 3 versions of the project flyer (1000 copies each version, 3.000 in total)

The project flyer contains

- a description of the EAN-SEABUCK network objectives,
- services offered to interested parties not yet active member of the network,
- information and services provided by the EAN-SEABUCK web-site (manual, training programmes, work shops etc.),
- contact details (postal address, phone, fax, e-mail).

The flyers were ready for their distribution at the ISA conference in August 2005 in Beijing, when the project also started. The EAN-SEABUCK project was presented at that conference with an oral presentation. Due to the high number of attendees who heard the project and the interest aroused, a considerable number of flyers were distributed.

The partners have visited many other relevant exhibitions, fairs and conferences (see task 3.4 below)

The project flyer is available on the project website in its three versions (in English, Russian and Chinese language).

The three versions of the flyers in the 3 different languages (English, Chinese and Russian) can be found as Annex XIV

the project. By keeping the questionnaire available in the web site, the project partners expect to still obtain some data from interested visitors willing to provide their information.

- Questionnaire for training evaluation: Handed out to the audience at the pilot training and also at the final trainings, this questionnaire aims provide the audience facilities to give their opinion about the implemented training and give suggestions in an easy and user-friendly way.

The 2 questionnaires will be kept on the website one year more to give any interested visitors the chance to fill them out.



Figure 3: EAN-SEABUCK website

The first project Newsletter was produced in July 2006, although it was scheduled for the 12th month. The project partners considered having the newsletter ready before that date so it could be used as dissemination tool for the pilot trainings planned in month 13 in Russia and China. The Newsletter contain general information about the project, aims and milestones, project consortium, work plan and upcoming activities (pilot training), as well as a detailed description of the EAN-SEABUCK training program.

The second project Newsletter was launched in April 2007 and included the latest information about the running of the project, the services provided by the EAN-SEABUCK website and informed about the upcoming activities such as the final training in China, Russia and Uzbekistan in May 2007 and the international Sea Buckthorn conference in Quebec in August 2007.

The project newsletters were posted on the project website and also distributed among the partner contacts via email.

Task 3.3 Development/Implementation of a Sea Buckthorn manual

The Sea Buckthorn manual aimed to be a serie of five booklets in a simple format developed on the topics listed below. Partners in charge of writing each booklet are indicated:

Topic	Responsible partner
Cultivation/Harvesting technologies	ICRTS
Sea Buckthorn processing	NIG
Product development	TTZ
Safety and Quality requirements	TTZ
Marketing techniques	NIG

Task was scheduled until the end of August (month 13). This task was extended until month 18. The reason for this delay was that the foreseen optimization of the training materials (task 3.6) after the pilot training in September in China and Russia was used as well for the optimization of the 5 Sea Buckthorn booklets too. Therefore, the partners agreed during the mid-term meeting on delivering the final booklets after optimisation of the training materials, besides their revision by external expert collaborators. Finally, the partners in charge translated the booklets into Chinese and Russian. All booklets in the 3 different languages were finished at the end of January 2007 and available on the project website

Task 3.4 Presentation at relevant exhibitions and conferences

- **ISA 2005 - International Seabuckthorn Association Conference**

Beijing, China - 26-29th September 2005

<http://www.icrts.org/meetings/isa2005/shajixh/oralpresentation.htm>



All project partners attended the ISA (2nd International Sea buckthorn Association Conference) in Beijing 2005: “Seabuckthorn – A Multi-Purposes Plant, Solution to Nutrition, Health and Environment”. Sponsored by the International Seabuckthorn Association (ISA) and organised by the China Administration Centre for Seabuckthorn. Development (CACSD), the Ministry of Water Resources, P. R. China.

One of the aims of the conference was to encourage and promote the potential international cooperation in any mean. Therefore, a special section “International Cooperation on Sea Buckthorn” within the conference took place on Monday 29. Ms. Maria Hermoso from TTZ was invited to present there the EAN-SEABUCK project. The presentation called “EAN-SEABUCK- New opportunities for Sea Buckthorn” capture the captured of many attendees. A discussion was held after the presentation and many questions were asked. The audience was especially interested in the training modules to be performed within the project. Maria Hermoso appealed the experts present among the audience to collaborate in the development of the training materials and in the performance of the training modules either as experts in the different topics (e.g. trainers to be trained during the pilot trainings) or as audience (for final trainings). For this aim a list was distributed, in which they could write down their contact data, topic/s of their interest and interest in acting as expert or audience. This list was also translated to Chinese in order to capture non English speaking audience, taking into account many of the conference attendees were of Chinese origin since it was held in Beijing.

- **All Russian Conference on Sea Buckthorn Development**

Moscow, Russia – 7th December 2005

ARK visited the *All Russian Conference on Sea Buckthorn Development* took place in Moscow on the 7 of December 2005. Mainly Russian scientist attended this conference. However, many enterprises working on Sea Buckthorn were also present. Mrs. Natalia Demidova from ARK did a presentation about the EAN-SEABUCK project at the conference. She reported the project aroused great interest among the audience. Mrs. Demidova took

this opportunity for distributing the questionnaire for the market assessment (WP1, task1.2) to enterprises' representatives.

- **ICRTS discussion meeting workshop**

Beijing, China – November 2005

ICRTS organized a discussion meeting or workshop in November 2005. The workshop constituted an important dissemination action among many Chinese enterprises. Moreover, it permitted interview and discussion with enterprise representatives. For example, the questionnaire developed for the market assessment was distributed among them in order to collect actual information about the size of commercial SB cultivation, degree of Sea Buckthorn utilisation, current employed/available technologies for Sea Buckthorn processing in China, current goods produced and major importing countries (WP1, task 1.2). The identification and selection of Best Available Technologies (WP1, task 1.4) was also discussed at this workshop. It was useful as well for establishing the basis for the development of the training and dissemination material (WP2 and WP5). 2-3 external speakers were invited. ICRTS joined the NGO China Seabuckthorn Enterprise Association (organization to serve enterprises in China in the area of Sea Buckthorn variety, materials, processing and marketing in terms of technical exchange, information and training, business coordination etc). It was the role of China Seabuckthorn Enterprise Association to organize discussion of some issues e.g. national standard requirement for raw materials and products, national and international marketing, further R&D etc. There are about 30 active members of Chinese main enterprises in this NGO. The workshop lasted 3 days and about 30-40 Chinese enterprises attended it.

The organization of this workshop was not specifically foreseen in the Workplan. The activity in no case exclude the on-going of any task described in the DoW. On the contrary it was an effective tool to efficiently accomplish the tasks described above. The workshop did not mean any economic benefit to ICRTS. ICRTS undertook this activity after being communicated to the co-ordinator TTZ, who informed the project officer about the issue.

- Partner NIG presented the EAN-SEABUCK project at a **meeting of the German Sea Buckthorn association in Berlin** (10th November 2005) and also the results of the assessment of the Sea Buckthorn business (21st November 2006). This presentation aroused the interest of the German audience and an extensive discussion of the results of the study was held.

German Sea Buckthorn association

<http://www.sanddorn.net/>

- **Towards FP7 A regional contribution to Food, Agriculture and Biotechnology**

Bucharest, Romania- November 26th, 2005

http://www.romnet.net/ro/Program_26Nov.doc

In November 2005 partner TTZ attended the conference “Towards FP7 A regional contribution to Food, Agriculture and Biotechnology” in Bucharest, Romania, supported by the European Commission and the Ministry of Education and Research of Romania. The conference aimed to bring together scientists, experts from industry and other stakeholders, from the Balkan region and from other European areas, in order to exploit new and emerging research opportunities that address social, economic and environmental challenges in food, agriculture, forestry, aquaculture, and fisheries, including biotechnological aspects. The conference aimed to provide a timely forum for discussing and highlighting opportunities and specific themes of interest to be jointly developed in view of potential co-operation within FP7.

Sea buckthorn is widely cultivated in Romania, where many companies and associations have invested in the development of an infrastructure for Sea Buckthorn cultivation and processing in the last 10 years. Active research on Sea Buckthorn is also being done in Romania. Under this framework, the conference offered the opportunity to establish relevant contacts in Romania and meet organizations already working on Sea Buckthorn. Collaborations for relevant materials for the EAN-SEABUCK project could be arranged and contacts for potential follow-up projects established.

- **BioFach (International fair of organic products)**

Nürnberg, Germany –26-29th February 2006

<http://www.biofach.de>



In February 2006 partner TTZ attended the **BioFach** fair, the world largest and most important **fair for the organic sector** (food and cosmetic products). The EAN-SEABUCK project objectives were disseminated among interesting attendees to the fair visiting TTZ's stand, where the project flyers were placed for the visitors disposal. Apart from that, TTZ met some Sea Buckthorn companies represented at the Biofach too. Most of them were already familiar with the EAN-SEABUCK project and the aim of these meetings was mainly to get information from them for achieving some of the scheduled project activities (e.g. market report). At the same time, they were informed about the running of the project.

- **Anuga FoodTec**

Cologne, Germany - April 4-7th 2006

<http://www.anugafoodtec.com>



Additionally, partner NIG and partner TTZ visited the **Anuga Foodtec** and got in contact with international representatives of the **food and drink technology**. The Anuga Foodtec is the leading information and acquisition platform of the food industry, and offers experts and professionals coming from the commercial management and the engineering and construction field the opportunity to exchange knowledge about food innovation trends.

- **Vitafoods International 2006 Conference and Exhibition**

Geneve, Switzerland- May 9-11th, 2006

<http://www.vitafoods.eu.com/>



Partner TTZ also visited the **Vitafoods International 2006** in Geneve, which is one of the leading European exhibitions for the **nutraceutical industry**. Over 300 of the leading suppliers from 39 countries converged at this event, which is a truly International event. Vitafoods International 2006 Exhibition combined the areas of nutraceuticals, cosmeceuticals, functional foods and drinks presented by manufacturers, distributors, marketing professionals, product developers and scientists. The Finished Products Expo run

alongside Vitafoods International and welcomed over 60 leading suppliers of dietary supplements and functional foods & drinks.

- **CEFood 2006**

Sofia, Bulgaria- 22-24 May 2006

<http://www.cefood.org/>



22-24 May 2006, Sofia (Bulgaria)

In May 2006 the 3rd Central European Congress on Food (CEFood 2006) took place in Sofia, Bulgaria, providing an open international forum where academics and stakeholders from across Europe and around the world can propose knowledge-based solutions of the current problems by presenting and discussing recent research findings, developments and trends in the sustainable production, preservation and supply of healthy and high-quality foods and beverages. The congress gave scientists and practitioners an opportunity to meet colleagues and share ideas that may shape food research and engineering for years to come. TTZ was present at this Congress and carried out some dissemination of the EAN-SAEBUCK project, since concerns the sustainable production of foods products ensuring their high quality and safety.

- **InterCool 2006**

Düsseldorf, Germany – 24-27 May 2006

<http://www.intercool.de>



In September 2006, partner TTZ visited the Intercool fair. Intercool one of three agreed food fairs Exhibitors (InterMopro, InterCool and InterMeat), International Trade Fairs for Dairy Products, Frozen Food and Ice Cream as well as Meat and Processed Meat. More than 965 firms presented a wide range of products and offered experts from the retail trade new impulses for designing their ranges.

- **IBA 2006**

Düsseldorf, Germany - 3 – 9 October 2006

<http://www.iba.de>



IBA is the International Trade Fair World Market for Baking. IBA plays for the entire baking sector an important role and has leading significance as an exhibition event for bakers and confectioners. In the frame of this exhibition, partner TTZ performed some dissemination for the EAN-SEABUCK project. Between others, there is a potential for the application of Sea Buckthorn for baking products. More than 76.000 persons from 14 countries visited IBA in 2006. 979 exhibitors from 49 countries were present.

- **Health Ingredients Europe 2006**

Frankfurt, Germany - 14-16 November 2006



Health Ingredients Europe 2006 (HI Europe), a three-day event, joined more than 500 other international food ingredient companies from over 88 countries. HI counted with over 440 exhibitors and more than 9,000 attendees. Food manufacturers are especially keen on finding ingredients that promote long-term good health. Specialist professional buyers are at HI looking for ingredients that meet this enormous consumer demand. Partner NIG attended HEI and presented the EAN-SEABUCK project during the fair.

- **Vitafoods International 2007 Conference and Exhibition**

Geneve, Switzerland - 8-10 May 2007

<http://www.vitafoods.eu.com>



Partner TTZ also visited the Vitafoods International 2007 in Geneve, which is one of the leading European exhibitions for the nutraceutical industry. Over 400 of the leading suppliers from 76 countries converged at this event, which is a truly International event. Vitafoods International 2007 Exhibition combined the areas of nutraceuticals, cosmeceuticals, functional foods and drinks presented by manufacturers, distributors, marketing professionals, product developers and scientists. The Finished Products Expo run alongside Vitafoods International and welcomed over 60 leading suppliers of dietary supplements and functional foods & drinks.

- **Symposium “Seabuckthorn- New and healthy resource in the 21st century”**

Beijing, China – 10 May 2007

http://www.icrts.org/chinese/news_view.asp?id=364

ICRTS participated in this symposium, focused on the role of Sea buckthorn as a source for health. 23 media were present at the event, with a subsequent wide coverage. The purpose of the symposium was to guide consumers to make the reasonable utilization of sea buckthorn products, especially on the healthy care to exert the medical and pharmaceutical function. ICRTS presented the project at the symposium and carried out extensive dissemination of the EAN-SEABUCK project.

- **ISA 2007 - International Seabuckthorn Association Conference**

Quebec, Canada - 12-16th August 2007

<http://www.isa2007.net>



The Conference was of particular interest to university and government researchers, research institutions, private companies, growers, graduate students and regulatory agencies involved in the development of nutraceuticals and functional foods. The technical session themes included production (Cultivation and Harvesting Practices and Breeding), processing (Technologies and Chemistry - Nutritional, Medicinal and Cosmetic) and Product Development and Marketing (Uses of Seabuckthorn and Its Products).

All EAN-SEABUCK partners attended the ISA 2007. Following papers were presented at the different sessions, all based on activities developed during the project:

- *EAN-SEABUCK: A Successful Story of Sea buckthorn International Cooperation.* Maria Hermoso (TTZ)
- *Review on Sea Buckthorn Research in the Russian Federation and NIS.* Natalia Demidova (ARK)
- *Assessment Report on the Sea buckthorn Market in Europe, Russia, NIS-Countries and China. Results of a Market Investigation in 2005.* Axel Wähling (NIG)

Additionally, the partners presented a project poster: *EAN-SEABUCK: A Successful Story of Sea buckthorn International Cooperation.*

The EAN-SEABUCK partners organized a Discussion group meeting at the ISA 2007 conference: *Building strategies for joint Sea Buckthorn development.* The meeting aimed to provide a scenario for the exchange of ideas in views of Sea Buckthorn development, alongside the technical sessions at the ISA 2007, and focused on the following topics:

- The situation of the Sea Buckthorn business in Europe, Asia and America
- Industry-oriented Sea Buckthorn development: current situation and expectations
- Strategies for deeper market introduction of Sea buckthorn products - Towards standardisation: problems and possibilities
- Role of the ISA for the development of Sea buckthorn - critical review and future view
- Establishment of partnerships, research and not-research networks

Additionally to the original dissemination plan the partners NIG and ttz planned a seminar called “**SEA BUCKTHORN: Future of a wonder plant for Europe and Asia**”, Brussels, Belgium - 19 September 2007.

This informative seminar organized by ttz and NIG would have presented the outcomes of the EAN-SEABUCK network and the important role of Sea Buckthorn in Europe as a high valuable raw material for the food, cosmetic, nutraceuticals and pharma industry; and in less developed countries in 3 main aspects:

- Environmental protection: combat of erosion by wind and water, degraded soils
- Poverty reduction in rural areas: employment alternatives for less developed and climatically disadvantaged remote rural areas, additional income and slowing down migration into big cities.
- Vitamin supply and support of healthy nutrition in such areas

This seminar should address representatives from organizations working in the field of agriculture, food, environmental protection, international cooperation and development. This includes the European Commission (DG agricultural and rural development, environment, research; the cooperation office EuropeAid) as well as development organizations (FAO, UN,

UNDP, UNESCO, Worldbank), since Sea Buckthorn is gaining importance in less developed and new industrialising countries. The seminar might have been of interest for other organizations (ENVI AGRI, DEVE or JTRE Committees) and even representatives of New Independent States in Brussels.


Other activities under the WP dissemination

Poster, Publications, Media

Poster

A project poster was developed for being used in fairs, seminars, conferences and other dissemination activities. The poster was presented at the 3rd International Sea buckthorn Association Conference in Quebec in August 2007. It will also be presented in September 2007 at the Food Engineering Topics Symposium in the University of Applied Sciences in Bremerhaven, Germany. The project partners will make further use of the poster to continue dissemination of the EAN-SEABUCK project at relevant conferences and other events.

Publication



EAN-SEABUCK: a successful story of Sea buckthorn international cooperation

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Project N°: COOP-CT-2005-016106

Project duration: August 1st, 2005 - August 31st, 2007

Project Summary

Hippophae rhamnoides (Sea buckthorn) is native to Europe and Asia. It has been used for centuries in traditional Russian and Chinese medicine and it is rich in bioactive compounds, such as vitamins, minerals and essential oils. The plant offers a huge potential as raw material for premium food, cosmetic and pharmaceutical products. However, commercial cultivation and exploitation is poorly developed in some areas due to a lack of know-how in harvesting and processing technologies and marketing. In other areas (Europe), there is a shortage of raw material. During the last two years, the European project EAN-SEABUCK, financed by the European Commission under the 6th Framework Programme, has been dedicated to the successful establishment of an integrated cooperation network between Europe and Asia, including Russia and the Newly Independent States for a joint sustainable utilisation of Sea buckthorn, to improve technical knowledge and know-how on Sea buckthorn production, from cultivation and harvesting to processing and product development, leading in the long-term to the establishment of a solid Sea buckthorn industry. Current research has been assessed, as well as the production and marketing situation, and Best Available Technologies (BAT) have been identified. Training modules on the different topics has been designed, collecting feedback to optimise training effectiveness. Training has been successfully carried out in areas of China, Russia and Uzbekistan addressed to Sea buckthorn farmers and processors. A win-win situation has been achieved by mobilising scientific and technological capacities to the benefit of the Sea buckthorn international community.

Workplan



The EAN-SEABUCK project is of seven workpackages, with tasks that include:

- Definition of support requirements and identification of Best Available Technologies (BAT)
- Development of training modules
- Implementation of pilot training
- Implementation of training and workshops
- Dissemination activities and information campaign of the EAN-SEABUCK project
- Research assessment
- Project management


Activities carried out during the project:

- Assessment of production and market situation in Europe and Asia
- Identification of BAT for cultivation, harvesting and processing
- Assessment of current research
- Assessment of quality and safety requirements
- Development of a training program
 - Training materials
 - Handbooks
 - Promotion of the network
- Presentation at fairs, conferences
- Organization of seminars, discussion groups

The consortium includes highly experienced partners in different aspects of Sea buckthorn utilization (cultivation, harvesting, processing, product development, etc) and training, with resources for achieving successful project outcomes.

EAN-SEABUCK OBJECTIVES

EURASIAN COOPERATION NETWORK



- * Improvement and exchange of knowledge and know-how on Sea buckthorn production
- * Better product quality and safety
- * Establishment of Sea buckthorn industry at a long-term
- * Support of rural areas
- * Strengthen competitiveness of the food and cosmetic industry
- * Support of healthy nutrition
- * Support of antierosion measures

Expected outcomes:

- Sustainable production of Sea buckthorn
- Economic alternatives for rural areas
- Improvement of harvesting and processing technologies:
 - * Higher yield
 - * Higher quality
- Access of the industry to larger quantities of raw material (Europe)
- Development of a market for equipment
- Prevention of desertification / save soil fertilisation
- Utilization of by-products (leaves, branches)
- Increased awareness of Sea buckthorn potential
- Starting-up of new business and scientific cooperation

Co-ordinator: tiz Bremerhaven – Germany

Further partners:

- NIG Nahrungs-Ingenieurtechnik GmbH – Germany
- Northern Research Institute of Forestry – Russia
- International Center for Research and Training on Seabuckthorn (ICRTS) - China

With the support of the European Union. Scientific Officer:
Mr. Jean François Maljean
E-mail: Jean-Francois.MALJEAN@ec.europa.eu

Project website

<http://www.eanseabuck.com>

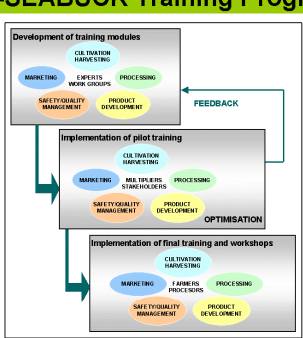
Project management
Project general information
Key-actors database
Access to documents developed during the project (free registration):

- Assessment of current situation and trends of the Sea buckthorn business
- Quality and safety requirements in Europe, China and Russia
- Catalogue of Best Available Technologies (cultivation, harvesting and processing)
- Multilingual training materials
- Multilingual Sea buckthorn manual (collection of 5 booklets)
- Project leaflet (English, Chinese, Russian)
- On-line survey Sea buckthorn market assessment

SUPPORT TOPICS

- Sea buckthorn cultivation and harvesting technologies
- Sea buckthorn processing technologies
- Product development with Seabuckthorn
- Quality and safety of Sea buckthorn and 1st products
- Marketing and commercialisation of Sea buckthorn products

EAN-SEABUCK Training Program



The EAN-SEABUCK project is an EC funded initiative which aim to establish an European-Asian network for the sustainable utilisation of Sea buckthorn.

Disclaimer:
The authors are solely responsible for the content of this poster and it does not represent the opinion of the European Community. In addition, the European Community is not responsible for any use that might be made of data appearing therein.

Figure 4: EAN-SEABUCK poster

New opportunities for Seabuckthorn. 2nd International Seabuckthorn Conference (ISA 2005). Beijing, China. 26-29 August 2007

- Hermoso M., Wähling A. and Lohmann M. 2007. Sea Buckthorn Products: Processing and Marketing Strategies in Eurasia. SÖFW Journal (in German and English).
- Hermoso M.; Wähling A., Gimmler G.; Demidova N.; Xia Jinfang. EAN-SEABUCK: a successful story of Sea buckthorn international cooperation. 3rd International Seabuckthorn Conference (ISA 2007). Quebec, Canada. 12-16 August 2007. (paper and poster)
- Demidova N. Review on Sea Buckthorn Research in the Russian Federation and NIS. 3rd International Seabuckthorn Conference (ISA 2007). Quebec, Canada. 12-16 August 2007.
- Wähling A. Assessment Report on the Sea buckthorn Market in Europe, Russia, NIS-Countries and China. Results of a Market Investigation in 2005. 3rd International Seabuckthorn Conference (ISA 2007). Quebec, Canada. 12-16 August 2007.

Media

- In September 2006, Dr. Natalia Demidova from ARK was interviewed on a regional TV channel of Archangelsk. The subject of the interview was the existing research on Sea buckthorn in the European north of Russia and in this frame, the project EAN-SEABUCK was presented as an example of the international collaborations of the field.
- The manager of ICRTS was interviewed on 15 May 2007 by the public TV channel CCTV-8 at the facilities of ICRTS. The purpose of the interview was to make the public scientifically know more about sea buckthorn, and introduce the pharmacy and medical function of sea buckthorn. The manager of ICRTS talked during this interview about the EAN-SEAUBUCK project. CCTV-8 is a TV channel of a very high audience rate in the whole Chinese territory.
- The training event in Samarkand was covered in the local radio as well as in the regional newspaper “Zarafshan” in June 2007. A copy of one of the articles published in the newspaper and can be found below.
- In June 2007 an interview on a Samarkand radio channel was provided with Mrs. Flora Kabulova, multiplier supporting the training in Uzbekistan. Extensive information about the training and the EAN-SEABUCK project was provided.

Achievements

All activities planned within this work package have been carried out. A very high level of dissemination has been achieved, contributing to the objectives of the network. However, certain dissemination activities will continue at least one year more after completion of the project. For instance, the project website will be maintained until July 2008 and all public documents will be available until then. The project partners plan continuing dissemination at fairs, conferences, contacts, etc after completion of the project. More details regarding future planned activities for dissemination can be found in the plan for using and disseminating the knowledge (Annex I).

	Due Date	Actual Submission date	Lead Contractor

D 16 Project flyer (3 versions)	November 05	August 05	TTZ, ICRTS
D 17 Project website	October 05	November 05	TTZ
D 18. 1st project newsletter	July 06	July 06	TTZ
D 18. 2nd project newsletter	April 07	April 07	TTZ
D 19 Manual of five booklets on Sea Buckthorn	August 06	January 07 (on-line version) Mai 07 (printed version)	ALL
D 20 Assessment report about exhibition participation on EAN-SEABUCK	August 2007	August 2007	TTZ
D 21 Assessment report about conference participation	August 2007	August 2007	TTZ

Deviations/Remarks

As already mentioned, the flyers were ready for their distribution much earlier than scheduled, specifically for the kick-off meeting in Beijing, China, held aside the ISA conference in August 2005. The project partners wanted to take the opportunity at the conference to conduct project dissemination by as many means as possible.

The development of the Sea Buckthorn manual was scheduled from month 5 to month 13. However, this task was extended until month 18. 5 months more were necessary until the partners in charge of each of the 5 booklets gathered the necessary information and expert comments to be able to produce a final version of each booklet and the subsequent translation. The information contained in the booklets is based in the materials prepared for the trainings in the 5 different topics and in the input acquired from the audience during the pilot trainings. Thus, the booklets were optimised at the same time as the training materials were optimised. This has permitted the creation of a consistent training material (including the Sea Buckthorn manuals) under consideration of the inputs and opinions of experts and audience.

Extensive information about dissemination activities can be found in the final plan for using and disseminating the knowledge (Annex I) at the end of this document.

2.6 Work Package 6: “Coordination of Research Activities”

WP leader: **TTZ**

The aim of this workpackage is to make a review about the current status of research on Sea Buckthorn among the targeted countries, to exchange expertise and to formulate joint strategies for the future.

WP 6 is conformed as follows:

Tasks	Partners Involved
6.1 <i>Review on current research activities</i> (month 18-21)	TTZ, ARK, ICRTS
6.2 <i>Exchange of experts</i> (month 15-23)	ICRTS, ARK
6.3 <i>Recommendations for future research policy</i> (month 20-22)	all

Task 6.1 Review of current research activities

Partner NIG for Europe, partner ICRTS for Asia and partner ARK for Russia and NIS conducted a review of the current state of research on Sea Buckthorn. This report provides an in-depth analysis of research projects funded and defines those areas that have been extensively covered in the past.

The results of the survey were presented during a seminar organised by partner TTZ and ICRTS aside with the formal 12 months project meeting in Beijing, China the 14th September 2006 (month 14). The contents and all presentations held at the seminar were provided to the project officer at the EC together with the documentation of the mid-term meeting. All partners presented their contribution to the review. The seminar offered a forum for discussion about existing gaps in Sea Buckthorn research, product development and marketing and potential fields of research and development to be covered in the next years.

The report review on current research activities can be found in Annex XIII.

Task 6.2 Exchange of experts

The exchange of experts started at month 12 after completion of the review of current research activities (see task 6.1 above) and lasted until the end of the project. The program had the aim of spreading best practice throughout Europe, Russia and Asia so that the regions could benefit from each other's expertise. The exchange program had two targeted audiences:

- Scientist from non-profit research organizations
- Senior representatives from governmental organizations

The exchange program assisted the goal of standardisation. By observing many different techniques and technologies, some convergence of technologies and policies occur. The staff involved in the exchange of experts recommended changes and improvements to their organizations and policy stake holders in order to adopt best practice.

The report about the exchange of experts constitutes the deliverable 23 and can be found in Annex XXIII

Task 6.3 Recommendations for future research policy

A work group consisting in one senior representative of each partner analysed the results of the research review and the (task 6.1) and the exchange of experts (task 6.2). A report, compiled by NIG with the support of TTZ, showing the recommendations of the consortium for future research policy was produced.

The recommendations report is the project deliverable 24 and can be found in Annex XXIV.

Achievements

	Due Date	Actual Submission date	Lead Contractor
D 22 Booklet on current state of research activities	October 06	August 06	TTZ, all
D 23 Report about the exchange of experts	August 07	August 07	ICRTS/all
D 24. Recommendations report	August 07	August 07	NIG/all

Deviations/Remarks

The review of current research activities (task 6.1) was scheduled from month 18 to month 21. However, it was foreseen to hold a seminar on current research activities aside the mid-term meeting (month 12) to present the results of the survey. Therefore, the time schedule for this task was corrected and moved forward from month 10, having to be finalised in month 14 and therefore making possible the presentation of the derived results at the seminar in September 2006 in Beijing, China.

The exchange of experts (task 6.2) and recommendations for future research policy (task 6.3) were extended until month 25 as a consequence of the project extension of duration of 1 month (until August 2007) and to optimise the performance of the task.

2.7 Work Package 7: “Project management”

WP leader: **TTZ**

The objective of this WP is to ensure effective Project Management and co-ordination over the entire project duration. This includes, amongst others, the development of a monitoring and communication strategy and to develop the Plan for using and disseminating the knowledge

A specific and detailed description about actions concerning management and dissemination can be found later on in this report (Section 3 - Consortium management and Section 4 - Dissemination and use)

2.8 Deviations from the Work Program

No great deviations from the original Gantt Chart planned have been occurred. However, taking into account the difficulties that all partners faced while collecting information for the Sea Buckthorn market assessment (WP1, task 1.2), it was decided to extend this task one month more in order to get more accurate information and achieve a more exact picture of the Sea Buckthorn business. This was the case of task 1.4 too (Identification of Best Available Technologies). Furthermore, the correspondent deliverable 7 (catalogue of BATs), which was reviewed many times after deliverance in order to be able to compile contributions from experts/stakeholders that arrived after the delivery date.

The time schedule for the design and implementation of the project flyer (task 5.1 of WP5: Dissemination activities and information campaign of the EAN-SEABUCK project) was brought forward in order to have the flyers (in English, Russian and Chinese) at the partners disposal for their distribution at the ISA conference in Beijing, held the first month of the project.

The partners agreed on bringing task 6.1 of WP6 (review on current research activities), scheduled in month 18-21 forward in the workplan and start in month 11 until month 14), in order to be able to present the results of the survey in a seminar organize alongside the mid-term meeting in month 14.

After evaluation of the first periodic report (12 months), it was agreed with the EC to consider deliverables (D3, D4, D5, D6, D7) as a draft document for their, revision, update or extension and their submission as final document at the end of the project. The projects partners therefore performed the necessary work until after completion of the time period initially scheduled and until the project end.

In views of the upcoming International Seabuckthorn Association conference in August 2007, the project partners applied for an extension of duration of the project of 1 month that was granted by the Commission. The extension permitted all partners to attend the ISA 2007 and present the EAN-SEABUCK project as well as the outcomes of some activities developed during the project; as well as the organization of a discussion group meeting in the frame of the conference and the further implementation of the exchange of experts. This extension of the duration subsequently involved the extension of many of the tasks involved in the project such as dissemination, project management, exchange of experts and building recommendations for future research policies. The extension did not involved a deviation of the work programme per se, but rather the extension for certain tasks.

Section 3 – Consortium Management

The main action related to the management activities within this reporting period was to “launch” the EAN-SEABUCK project in order to introduce the partners to each other, establish links between work packages members and organise the upcoming tasks for the first twelve months.

During the first 12 months of the project a continuous communication flow has been maintained among the members of the Consortium. Contribution of every partner to the overall consecution of the project, discussions among partner team of subtasks and team leaders of the tasks and up-dating of the general situation of different work to be executed have intensively been kept. Fluent information share has been provided by meetings, telephone, fax, e-mailing and post. TTZ, as general co-ordinator responsible of the overall management of the project, has been responsible of collecting all relevant results derived from the tasks leaders, meeting preparations, partner communication, and other administrative and financial issues as well as the scientific/ technical and IPR management.

TTZ has been responsible of updating the project members’ area in the web site, which is useful tool for the transfer of documents among the consortium.

During the progress of the project one official meeting and two technical meetings have been held:

- **Kick-off meeting:** Held in Beijing, China, at, on the 29th August 2005. It was attended by the four partners of the EAN-SEABUCK Consortium. The minutes of the meeting are attached to this report (*Annex II*). During the event, the EAN-SEABUCK partners discussed and accurately planned the tasks for the first 12 months
- Additionally, two **technical meetings** took place between the two German partners involved in specific tasks to exchange ideas, define procedures, solve problems and assure a cooperative supportive work between partners at any time.

The geographical situation of the partners, located in Germany, China and Russia did not make possible holding technical meetings between all of them. Therefore, continuous information flow was kept by phone and email, both representing the main tool for communication in this project. However, several technical meetings took place between the two German partners NIG and TTZ to exchange ideas, define procedures, solve problems and assure a cooperative supportive work at any time. The other two partners of the EAN-SEABUCK consortium were informed immediately about the issues discussed during these meetings. Mrs. Maria Hermoso visited NIG in Magdeburg in November 2005. Mr. Gerhard Gimmier and Mr. Axel Wähling travelled to TTZ in Bremerhaven the 17th January 2006. Both German partners NIG and TTZ met in July 2006 in Magdeburg, together with 2 of the subcontracted experts supporting the training sessions of product development and quality and safety management to discuss the procedures of the pilot training. NIG and TTZ met once more in May 2007 in Berlin and in July 2007 in Bremerhaven. Additionally, several meetings took place between the partners in charge of each module and the invited experts to define tasks and the workshops procedures.

- The **mid-term meeting** was organized in month 14 in Beijing, China. The reason for having established that date and not an earlier one was that the partners were all in China during the implementation of the pilot training (WP3). In order to optimize time and budget, the partners decided to hold the mid-term meeting in China at the same time as the pilot training.
- The project **final meeting** was held in month 25 in Quebec (Canada), during the 3rd International Seabuckthorn Association Conference that all partners attended, and for which the project was extended (1 month) as agreed with the EC.

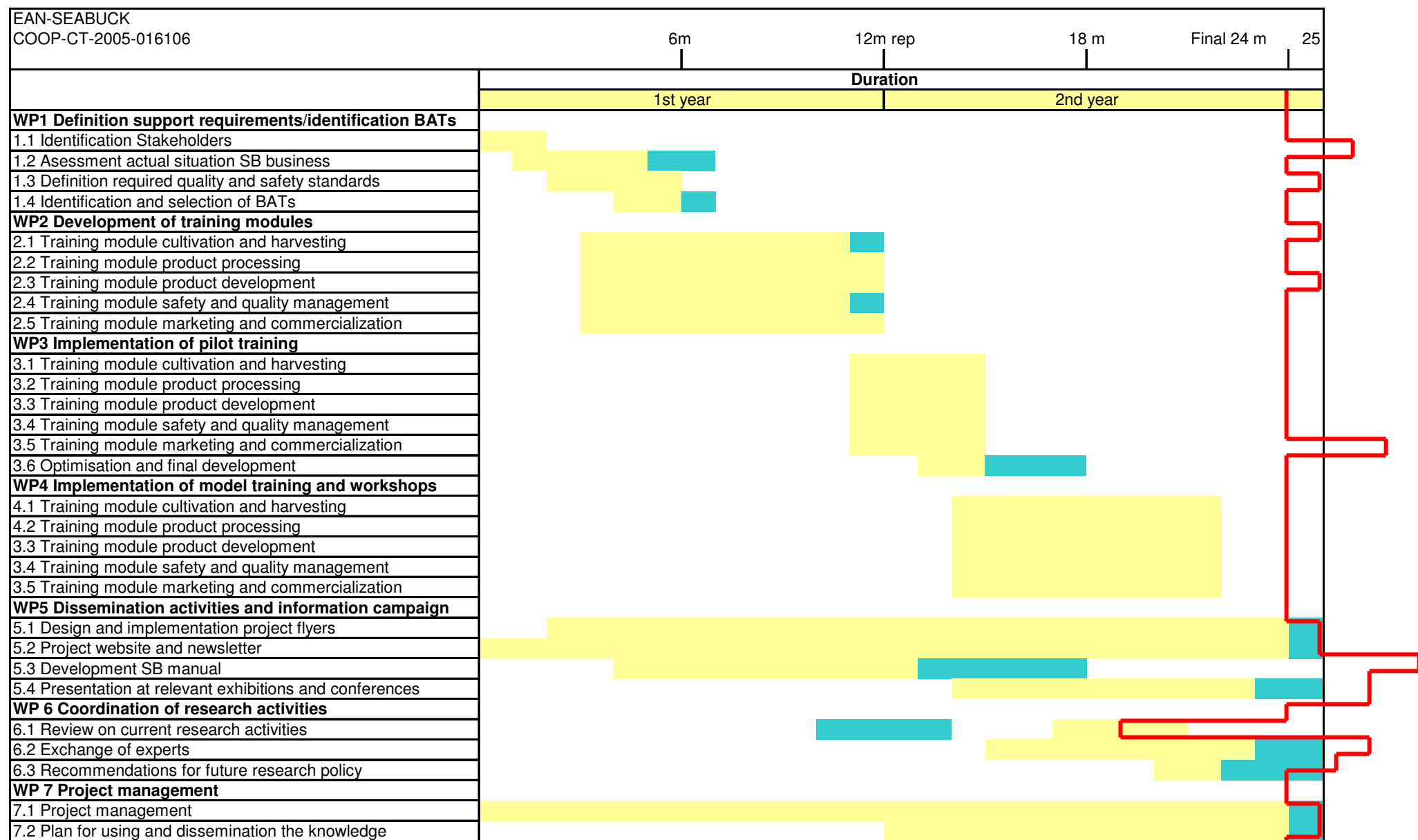
Project timetable and status

During this reporting period, the consortium performed some rearrangements to the initial Work Plan in order to optimise the effectiveness of the work. The main modification, which is mainly related to the WPs timetable, was performed during the first 6 month of the project and already contemplated in the first Progress report (corresponding to the report after the 6th month). Such modification supposed the change of the scheduled timetable for WP1 and WP2. The partners agreed during the kick-off meeting that the related tasks needed to be delayed since the first project meeting, where the tasks were specifically defined, took place at the end of the 1st project month.

Later on, the partners agreed on bringing task 6.1 of WP6 (review on current research activities), scheduled in month 18-21 forward in the workplan (month 11-14), in order to be able to present the results of the survey in a seminar organize alongside the mid-term meeting in month 14.

After evaluation of the first periodic report (12 months), it was agreed with the EC to consider deliverables (D3, D4, D5, D6, D7) as a draft document for their, revision, update or extension and their submission as final document at the end of the project. The projects partners therefore performed the necessary work until after completion of the time period initially scheduled and until the project end. The final version of the concerned deliverables is attached to this periodic summary report as annexes.

In views of the upcoming International Seabuckthorn Association conference in August 2007, the project partners applied for an extension of duration of the project of 1 month that was granted by the Commission. The extension permitted all partners to attend the ISA 2007 and present the EAN-SEABUCK project as well as the outcomes of some activities developed during the project; as well as the organization of a discussion group meeting in the frame of the conference and the further implementation of the exchange of experts. This extension of the duration subsequently involved the extension of many of the tasks involved in the project such as dissemination, project management, exchange of experts and building recommendations for future research policies, as reflected in graph 1.



The following tables list the deliverables and milestones to be developed during the project, highlighting those, which have been already achieved.

DELIVERABLES:

WP No	Del No	Deliverable name	Date due	Actual/Forecast delivery date	Lead contractor	Nature	Status
1	1	Comprehensive list of key actors in Europe and Asia involved in the Sea Buckthorn business	2	2	ARK	R	✓
	2	Questionnaire for Sea Buckthorn market assessment in 3 languages	3	2	NIG, ICRTS, ARK	0	✓
	3	Report on the situation of the Sea Buckthorn industry in Russia and Asia	5	7	NIG	R	✓
	4	Market report for Sea Buckthorn products in the targeted INCO countries	5	7	NIG	R	✓
	5	Market report for Sea Buckthorn products in Europe	5	7	TTZ	R	✓
	6	Report on required product quality and safety standards	6	6	TTZ	R	✓
	7	Catalogue on selected Best Available Technologies	6	7	ARK	0	✓
2	8	Training module cultivation and harvesting technologies	11	12	ICRTS	0	✓
	9	Training module on Sea Buckthorn processing	12	12	NIG	0	✓
	10	Training module product development	12	12	TTZ	0	✓
	11	Training module safety and quality management	11	12	TTZ	0	✓
	12	Training module marketing and commercialisation	12	12	NIG	0	✓
3	13	Assessment report of the pilot training	14	15	NIG	R	✓
	14	Set of optimised training modules ready for implementation	15	15	NIG	0	✓

4	15	Assessment report on the implemented training modules	22	22	NIG	R	✓
	16	Project flyer	4	1	TTZ, ARK, ICRTS	0	✓
5	17	Project web-site	3	4	TTZ	0	✓
	18	Project Newsletter	12, 24	11,21	TTZ	0	✓
	19	Manual of five booklets on Sea Buckthorn	13	15	ALL	0	✓
	20	Assessment report about exhibition participation of EAN-SEABUCK	23	23	TTZ	R	✓
	21	Assessment report about conference participation	23	23	TTZ	R	✓
6	22	Booklet on current state of research activities	21	15	TTZ	0	✓
	23	Report on the exchange of experts	23	23	ICRTS	R	✓
	24	Research and policies recommendations report	22	22	NIG	R	✓
7	25	Four progress reports	6,12, 18,24	6,12,18,24	TTZ	R	✓
	26	Mid-term report	12	12	TTZ	R	✓
	27	Final report (Management report and final project documentation)	24	24	TTZ	R	✓
	28	Plan for using and disseminating knowledge	12,24	12,24	TTZ	R	✓

Keys: R = Report; O = Other

Table 2. List of Deliverables

MILESTONES:

WP No	Mil No	Milestone name	Date due	Actual/Forecast delivery date	Lead contractor	Status
1	M1	Assessment report on the situation and trends in the Sea Buckthorn business in Europe, Russia and Asia	7	7	ALL	✓
	M2	Framework for the EAN SEABUCK established	7	7	ALL	✓
2	M3	Set of five different pilot trainings modules established	13	12	ALL	✓
3	M4	Final set of five different training modules established	16	16	ALL	✓
4	M5	Successful completion of training modules implementation	24	24	ALL	✓
5	M6	Manual on Sea Buckthorn established and distributed	24	24	ALL	✓
6	M7	Recommendations report	24	24	NIG	✓
7	M8	Mid-term assessment report	13	13	TTZ	✓
	M9	Final report	24	24	TTZ	✓

Table 3: List of milestones

Impact indicators and project follow-up:

The following impact, follow-up and feed-back indicators of the EAN-SEABUCK project are envisaged in view of monitoring the impact of the project and in view of assessing to which extent the project objectives are met. A non-exhaustive list of indicators is presented in the table below, sorted by objectives (see 2.1). Present use of indicators follows:

Objective 1	Establishment of a European-Asian network for the trans-national technology and know-how transfer, exchange of best practice for joint sustainable utilisation of the immense Asian resources and development of the Russian/NIS market on Sea Buckthorn:
	<ul style="list-style-type: none"> ➤ Project website counting tools. ➤ Number of visitors of the database of key actors in the Sea buckthorn business
	<i>Since the beginning of the project, the partners have encountered many communications from private persons, research institutions, enterprises, etc either by email, phone or fax,</i>

interested in the project and requesting more information. They would have known about the project by different means:

- *Project Website: All partners' contacts are available in the website,*
- *Third parties (e.g.: Sea Buckthorn associations),*
- *Newsletter*
- *Etc.*

The project partners took and are still taking record of all these communications. A mailing list was produced in order to keep all this contacts informed of the development of the network and the materials and information produced.

Website tracking figures (until the date of this report):

- *Total number of visitors: 429*
- *Total number of key actors database visitors: 203*

Objective 2	Improvement and exchange of the knowledge between Europe and Asia in the field of Sea Buckthorn harvesting and processing – in order to achieve a better product quality and safety which permits to reach international quality standards and thus make the obtained products available for the European market
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- *Interest aroused around the training modules in the targeted countries, number of attendees to the training modules.*
- *Feed back of partners from the targeted Asian countries*
- *Information derived from the examination of the questionnaires given to the trainees at the end of the training modules.*
- *Number of booklets downloaded*
- *Number of manuals distributed*
- *Number of questionnaires filled.*

Due to the announcement made by the project partners in the website and the newsletter among others, not only the multipliers which were contacted for the pilot training, but also many other people, showed and is still showing interest in attending the pilot or final training and getting the information developed during the project, specially the training materials. The interest aroused not only in the targeted countries (China, Russia, NIS countries) but also other countries where Sea Buckthorn is present (Mongolia, Poland, Romania, Nepal, Sweden, Baltic countries, Canada). The project partners are following-up these contacts, which will be further informed and provided with the respective material. Many of this interested audience were invited to participate in the pilot or the final trainings, depending on their field of activity.

Attendees' opinions about the training modules was analysed after finalization of the pilot training in September 2006 and the final training in May 2007, as well as their feedback (given during the training modules and also derived from the questionnaires distributed to the training modules evaluation). Extensive information about the training evaluation and attendees' evaluation and feedback can be found in the following deliverables :

- *Assessment report of the pilot training (D13) and*
- *Assessment report of the implemented training modules (D15)*

The number of exemplars of the Sea Buckhorn manual (booklets) downloaded is being monitored by the project partners. Until the date when this report has been written, 83 booklets have been downloaded from the project website.

The EAN-SEABUCK website will be maintained one year after completion of the project (until July 2008). The tracking facilities will be as well kept in order to be able to evaluate the remaining impact one year after the project finished. All public documents will be kept accessible to the public. The documents are available to website visitors upon free registration.

*All printed versions of the booklets have been distributed, either during the training events (final training) or upon request. A total of 200 copies in Russian, 200 in Chinese and 150 copies in English (of each booklet). **In total, 2750 booklets in its printed version have been distributed.***

Number of questionnaires filled on line or directly sent to the project partners: 53. Were no response was obtained, the partners turned to governmental institutions, associations, etc who could provide a picture of the Sea buckthorn situation in the respective countries/areas.

Long-term objectives:

Objective 3	Establishment of a Sea Buckthorn industry in the targeted INCO countries and thus employment alternatives for less developed and climatically disadvantaged remote rural areas against migration into cities,
Objective 4	Increased competitiveness of the European food industry by pre-empting the competition mainly from the US in the use of bio-active compounds derived from Sea Buckthorn of Asian and Russian/NIS origin,
Objective 5	Increase use of bio-active compounds in the European diet – a matter which is limited only due to the availability of Sea Buckthorn on the European market,
Objective 6	Support of vitamin supply and healthy nutrition of the relevant Asian and Russian/NIS population by increased valorisation of the endemic Sea Buckthorn fruit,
Objective 7	Support of anti-erosion measures by incentives to the care of the Sea Buckthorn plantations and to solidify the cooperation between European and Asian agriculture, food and rural development sectors

The 5 objectives above are long-term objectives and therefore it is difficult building impact indicators related to them in a two year lasting project.

However, some indications can be obtained through the contacts built through the network the examination of the questionnaires filled up online, the examination of the trainees profile, the comments left on the website and the feedback obtained at exhibitions and conferences, specially during the two Seabuckthorn International Conferences that the partners have attended and where the project has been presented. The main immediate effects towards the long-term objectives 3-7 known by the project partners as a result of the European-Asian network are the following:

- *Awareness of the potential of the exploitation of Sea Buckthorn as an economic alternative in rural areas in the targeted INCO countries*
- *Increased awareness of the importance of quality and safety management and marketing aspects for exports to the EU*
- *Known established business contacts between starting-up companies and the processing industry in Europe.*
- *Increased interest of the European industry in the utilization of Sea buckthorn in new, competitive food, cosmetics, and healthy products; as proven through the contacts established during European fairs and exhibitions and the interest aroused around the project and the availability of larger resources of high quality Sea buckthorn.*
- *Increased awareness of the nutritional benefits of Sea buckthorn, especially against undernourishment in some areas, like for example high mountain areas where the provision*

of nutrients to the population is limited. Initiatives on this regard by certain NGOs are being carried out.

- *Incentives to the care of Sea buckthorn plantations is being given in some areas (e.g. north area of China) and is being considered in other areas due to its dual effect on one side on the environment and on other side on the population in the areas involved.*

- *The EAN-SEABUCK network has indeed solidified the cooperation between European and Asian agriculture, food and rural development sectors. A high level of networking on many different levels (business, cooperation, research, etc) has been achieved, not only between Europe and Asia but also between the Asian countries.*

Many activities carried out during the EAN-SEABUCK project, such as participation in exhibitions and conferences, distribution of manuals and project flyers, newsletters, mailing lists, seminars, meetings, etc ensured a high dissemination of the knowledge around Sea Buckthorn and therefore an increased valorisation of the Sea Buckthorn fruit.

Scientific support

In order to assure the scientific relevance of any material developed during the EAN-SEABUCK project and taking into account the differences scientific approaches in the field of Sea Buckthorn between the involved countries, the consortium established a consistent collaboration with a number of external experts in different fields of science/research. The experts were contacted at the beginning of the project (in the case of some of them, even during the proposal writing stage, foreseeing a need of cross-check information/scientific support). They have been provided with the relevant reports/studies/materials developed by the project partners in order to assess their adequacy. A list of the expert collaborators is provided below:

Name	Institution	Field	Country
Dr. Yury A. Zubarev	The Lisavenko Research Institute of Horticulture for Siberia	SB cultivation	Russia
Dr. Hu Jiangzhong	Beijing Forestry University	SB cultivation	China
Dr. Thorsten Rockschi	Humboldt-University Berlin	SB cultivation	Germany
Dr. Lu Rongsen	Chengdu Institute of Biology	SB cultivation	China
Dr. Andrejs Bruvelis	Latvian SB growers association	SB harvesting	Latvia
Mr. LU Jian	CONSECO Co. Ltd Beijing	SB harvesting	China
Dr. Thomas Mörsel	Technical University of Berlin	Quality and Safety management	Germany
Dr. Anja Noke	University of Applied Sciences Bremen	Product development	Germany
Mr. XIN Yaonian	Xi An Edible Oil Institute	SB processing	China
Dr. Regina Brucksch	University of Applied Sciences Magdeburg	Marketing	Germany

The above listed experts are very committed with the project work. They have timely provided the project partners with their feedback on all materials which has been sent to them. Their feed-back mainly consisted in:

- General opinion on the material provided (extension, scientific base, relevance to the targeted audience, reliability and representativity of the data)

- Specific input, usually referred to specific information in the report and done by inserting their comments in the report where the relevant information is shown.

- After processing their feedback, the materials have been provided to them for a second (and sometimes more) review.
- Extensive discussion has taken place between the project partners and the correspondent experts, especially by phone and also by email.
- In some cases the experts have been also involved in the training process, discussion groups, etc.

The consultation with the above mentioned experts have been maintained until completion of the project for various deliverables and materials. The project partners consider the collaboration of external experts on scientific matters of utmost importance for the development of high quality material, relevant to the target audience, in the frame of this SSA.

Section 4 – Other Issues

4.1 CONTRIBUTION OF THE PARTNERS TO EVERY WORK PACKAGE

All partners worked together in close cooperation. Problems were discussed during the meetings and by telephone and e-mail.

The amount of work and resources of the single partners in the whole period of the project was balanced. The work performed by the partners was in accordance to their human and technical resources.

Partners ICRTS and ARK have contributed mainly with their expertise in Sea Buckthorn cultivation and by reviewing the situation in China and in Russia (including NIS countries) regarding the Sea Buckthorn business, market, products, existing quality and safety standards, current research. They organized the pilot and model trainings (WP-3 and 4), which took place in both countries for selected multipliers and for the targeted audience in China, Russia and Uzbekistan. Both partners translated all materials, which were planned to be translated into Chinese and Russian in order to make them more accessible.

Partners NIG and TTZ represented the European part of the consortium. They contributed to the project mainly with their expertise in Sea Buckthorn processing (NIG) and product development (TTZ). Both partners have long experience in the field and have many relevant contacts among Europe and in Asia.

TTZ:

WP1. “Definition of support requirements and identification of Best Available Technologies”:

TTZ contributed to the task 1.1 (Identification of stakeholders in Sea Buckthorn) contacting the processing industry including potential en-users in the food and cosmetic field. TTZ also supported NIG in the development of the questionnaire for market assessment (D2) and in the development of D3, D4 and D5, which also constitute the M1 (Assessment report on the situation and trends in the Sea Buckthorn business in Europe, Russia and Asia).

TTZ was in charge of D 6 (Report on required product quality and safety standards), derived of task 1.3. TTZ gathered the information delivered by ICRTS and ARK about the requirements in the target countries, and compared it with the research carried out for Europe. The resulting document was used for the later development of training materials under WP2.

TTZ contributed to the task 1.4 (Identification and selection of BAT) by being the contact points for experts on cultivation in countries different than the countries represented by the EAN-SEABUCK consortium, who gave input to the task.

WP2. “Development of training modules”:

TTZ was in charge of two training modules, namely training module on product development and training module on quality and safety management. TTZ lead both expert groups and coordinated the work

WP3: “Implementation of pilot training”

TTZ actively collaborated with ICRTS and specially ARK contacting potential “multipliers” to attend the pilot trainings in China and Russia. TTZ specially contacted representatives of the NIS countries, the Baltic countries, Nepal and Mongolia. TTZ also supported ICRTS and ARK with many organizational aspects concerning the pilot trainings that took place in month 14 in Beijing (China) and Barnaul (Russia),

TTZ was responsible of the implementation of the pilot training module on product development and quality and safety management in China (Beijing) and Russia (Barnaul).

WP4: “Implementation of model training and workshops”

TTZ was responsible of the implementation of the training module on product development and quality and safety management in China (Inner Mongolia) and Russia (Arkhangelsk).

WP5: “Dissemination activities and information campaign of the EAN-SEABUCK project”

TTZ as project coordinator prepared the “Plan for using and disseminating knowledge”. TTZ’s carried out a very intense dissemination of the EAN-SEABUCK project at fairs, congresses, conferences, etc. (for more details see WP 5 and D28 in Annex I) and was responsible of the project website.

WP6: “Coordination of research activities”

TTZ is Workpackage leader of WP6. TTZ was in charge of task 6.1 collected information from ICRTS and ARK about the current state of research in China and Russia and together with the information gathered in Europe by NIG, produced a survey on the current state of research.

The results of the survey were presented at a seminar organized by TTZ and NIG in collaboration with ICRTS in Beijing alongside with the mid-term meeting.

TTZ participated as well in the exchange of experts (task 6.2) and compiled the information from all partners and prepared the final “recommendations report” (task 6.3)

WP7: “Project management”

TTZ is the responsible for the overall management of the project. They initiated intensive partner-to-partner communication and data transfer and monitored the activities in order to support smooth running of the project. Personal contact was established by means of regular meetings. The kick-off and mid-term meeting was organized in Beijing (China), whereas the final meeting took place in Quebec during the ISA conference. Several meetings took place between the German partners and the members of working groups.

NIG*WP1. “Definition of support requirements and identification of Best Available Technologies”:*

NIG contributed to the task1.1 (Identification of stakeholders in Sea Buckthorn) contacting the potential equipment supplier. NIG in the developed the questionnaire for market assessment (D2), translated it into German and distributed it among a great number of companies. Additionally, NIG developed D3, D4 and D5, which also constitute the M1 (Assessment report on the situation and trends in the Sea Buckthorn business in Europe, Russia and Asia), with the support of TTZ and bases on the information delivered by ICRTS

and ARK for Asia and for Russia. NIG supported ARK for getting the missing data when difficulties appeared.

NIG was also in charge of the part of processing and preservation in the task 1.4 (Identification of BATs), which derived catalogue constitutes the deliverable 7. NIG also supported ARK providing information about harvesting technologies. The resulting document was used for the later development of the training material for processing under WP2.

WP2. "Development of training modules":

NIG was in charge of two training modules, namely training module on Sea Buckthorn processing and training module on marketing and commercialisation, leading the correspondent working group.

WP3: "Implementation of pilot training"

NIG collaborated with ICRTS, ARK and TTZ contacting potential "multipliers" to attend the pilot trainings in China and Russia. NIG had relevant contacts to the Baltic countries and east Europe.

WP4: "Implementation of model training and workshops"

NIG was responsible of the implementation of the training module on processing and marketing and commercialisation in China (Inner Mongolia) and Russia (Arkhangelsk).

WP5: "Dissemination activities and information campaign of the EAN-SEABUCK project"

NIG contributed with their input to the "Plan for using and disseminating knowledge" and carried out dissemination of the EAN-SEABUCK project among a great number of contacts in the field of Sea Buckthorn. They presented the project and several project outcomes in several fairs, seminars and conferences.

WP6: "Coordination of research activities"

NIG was in charge of covering the review on research activities in Europe in collaboration with TTZ and delivered it to TTZ for the development of the final document including the reviews in China and Russia.

NIG participated as well in the exchange of experts (task 6.2) and worked on the preparation of the "recommendations report" (task 6.3)

WP7: "Project management"

NIG supported TTZ in some aspects of the management.

ICRTS

WP1. "Definition of support requirements and identification of Best Available Technologies":

ICRTS carried out the identification of stakeholders in China.

After translating the questionnaire for market assessment into Chinese, ICRTS distributed it for the market research in China and collected relevant information about the commercial Sea Buckthorn cultivation, degree of Sea Buckthorn utilisation and current employed

technologies for Sea Buckthorn processing in the targeted INCO countries, current types of goods produced and major importing countries, and delivered the information to NIG for assessment.

ICRTS also delivered TTZ a survey about the required quality and safety standards in China for task 1.3.

They also contributed to the part of cultivation and harvesting of the catalogue of Best Available Technologies, working in collaboration with ARK.

WP2: “Development of training modules”:

ICRTS supported ARK in the development of the training module on Sea Buckthorn cultivation and harvesting.

WP3: “Implementation of pilot training”

ICRTS was in charge of organizing and parenting the pilot training in China. They contacted and selected the potential multipliers to attend the pilot trainings with the support of TTZ.

WP4: “Implementation of model training and workshops”

ICRTS was responsible organized and parented the final training in China. ICRTS was responsible of the implementation of the training module on cultivation and harvesting in China (Inner Mongolia).

WP5: “Dissemination activities and information campaign of the EAN-SEABUCK project”

ICRTS carried out dissemination of the EAN-SEABUCK project among a great number of contact they have in the field of Sea Buckthorn, especially in China, and presented the project in conferences and seminars.

WP6: “Coordination of research activities”

ICRTS provided TTZ with a review on current research activities in China for the task 1.6, including scientific literature and patent search. They led the exchange of experts in China (task 6.2) and provided their contribution to the recommendations report (task 6.3) and translation of the final document.

ARK

WP1. “Definition of support requirements and identification of Best Available Technologies”:

ARK carried out the identification of stakeholders in Russia and the NIS countries.

After translating the questionnaire for market assessment into Russian, ARK distributed it for the market research in Russia, NIS countries and Baltic countries, and collected relevant information about the commercial Sea Buckthorn cultivation, degree of Sea Buckthorn utilisation and current employed technologies for Sea Buckthorn processing in the targeted

INCO countries, current types of goods produced and major importing countries, and delivered the information to NIG for assessment. NIG supported ARK enquiring the missing information

ARK also delivered TTZ a survey about the required quality and safety standards in Russia for task 1.3.

They also contributed to the part of cultivation and harvesting of the catalogue of Best Available Technologies, working in collaboration with ARK.

WP2: "Development of training modules":

ARK was in charge of the training module on Sea Buckthorn cultivation and harvesting, leading the correspondent working group and supported by ICRTS.

WP3: "Implementation of pilot training"

ARK was in charge of organizing and parenting the pilot training in Russia. They contacted and selected the potential multipliers to attend the pilot trainings.

WP5: "Dissemination activities and information campaign of the EAN-SEABUCK project"

ARK carried out dissemination of the EAN-SEABUCK project among a great number of contacts they have in the field of Sea Buckthorn, especially in Russia, the New Independent States and the Baltic countries.

WP6: "Coordination of research activities"

ARK provided TTZ with a review on current research activities in Russia and the NIS for the task 1.6, including scientific literature and patent search. They led the exchange of experts in Russia and the NIS (task 6.2) and provided their contribution to the recommendations report (task 6.3) and translation of the final document into Russian.

Annexes

- Annex I:* Final plan for using and disseminating the knowledge
- Annex II:* Meetings minutes (Kick-off meeting, mid-term meeting, final meeting, seminar on current research activities alongside the mid-term meeting)
- Annex III:* Deliverable 1: Comprehensive list of key actors in Europe and Asia involved in the Sea Buckthorn business
- Annex IV:* Deliverable 2: Questionnaire for Sea Buckthorn market assessment in 4 languages (English, Chinese, Russian, German)
- Annex V:* Deliverables 3-4-5:
- Report on the situation of the Sea Buckthorn industry in Russia and Asia
 - Market report for Sea Buckthorn products in the targeted INCO countries
 - Market report for Sea Buckthorn products in Europe
- Milestone 1: Assessment report on the situation and trend in the Sea Buckthorn business in Europe, China and Russia
- Annex VI:* Deliverable 6: Report on required product quality and safety standards (revised version)
- Annex VII:* Deliverable 7: Catalogue on Best Available Technologies (BAT) for Sea Buckthorn cultivation, harvesting and processing (revised version)
- Annex VIII:* Deliverable 8: Training module on cultivation and harvesting technologies
- Annex IX:* Deliverable 9: Training module on Sea Buckthorn processing
- Annex XX:* Deliverable 10: Training module on product development
- Annex XI:* Deliverable 11: Training module on quality and safety management
- Annex XII:* Deliverable 12: Training module on marketing and commercialisation
- Annex XIII:* Deliverable 13: Assessment report of the pilot training
- Annex XIV:* Deliverable 14: Set of optimised training modules ready for implementation.
- Annex XV:* Questionnaires for training evaluation (pilot and final training)
- Annex XVI:* Deliverable 15: Assessment report on the implemented training modules
- Annex XVII:* Deliverable 16: Project flyer in 3 different languages (English, Chinese, Russian): *only electronic version*
- Annex XVIII:* Deliverable 18: 1st and 2nd project Newsletter (July 2006 and May 2007)
- Annex XIX:* Manual of five booklets on Seabuckthorn (English, Chinese and Russian)
- Annex XX:* Deliverable 20: Assessment report about exhibition participation of EAN-SEABUCK

Annex XXI: Deliverable 21: Assessment report about conference participation

Annex XXII: Deliverable 22: Booklet on current state of research activities

Annex XXIII: Deliverable 23: Report on the exchange of experts

Annex XXIV: Deliverable 24: Research and policies recommendations report (English, Russian and Chinese)

Annex XXV: Deliverable 25: 1st and 2nd Progress report (6 and 18 months)

Annex XXVI: Deliverable 26: Mid-term report (12 months)



FP & Contract No COOP-CT-2005-016106

EAN-SEABUCK

“Establishment of European-Asian Network for the development of strategies to enhance the sustainable use of Sea Buckthorn”

Instrument: Specific Support Action (SSA)

Annex I: D18 Plan for using and disseminating the knowledge

Start date of project: 1st August 2005

Duration: 24 months (extended to 25 months)

TTZ Bremerhaven

Revision [1] August 2007

Project co-funded by the European Commission within the Sixth Framework Programme (2002-2006)		
Dissemination Level		
PU	Public	x
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	

Introduction

In the *Plan for using and dissemination the knowledge* the EAN-SEABUCK contractors aim to establish, in a detailed and verifiable manner, the terms of use and dissemination of the knowledge arising from the project, which they own, in accordance to their interests (*Article II.34.1* of the contract).

It is an evolving document which will have been regularly up-dated to give a cumulative overview of the project's undertaken and planned activities. The present deliverable, D28, is the final version of the *Plan for using and disseminating the knowledge*, which has been generated at the end of the second reporting period (end of the project), providing a complete picture of all activities undertaken and most importantly providing information on the future route to full use (exploitation or use in further research) and dissemination of the knowledge.

Section 1 - Exploitable knowledge and its Use

The EAN-SEABUCK project has generated exploitable knowledge. An overview can be seen in the following table.

Table 1: Exploitable knowledge

Exploitable knowledge	Exploitable product(s) or measure(s)	Sector(s) of application	Timetable for commercial use	Patents or other IPR protection	Owner & Other Partner(s) involved
Questionnaire	Questionnaire on Sea Buckthorn market (in English, Russian and Chinese language)	Agriculture, Food, nutraceutical, pharmaceutical and cosmetic sector industries.	-	Copyrights	EAN-SEABUCK
Database of key-actors in the Sea Buckthorn business	On-line database with search facilities	Food, nutraceutical, pharmaceutical and cosmetic sector industries	-	Database copyright	EAN-SEABUCK
Report on required product quality and safety standards		Certification, quality, exports	-	Copyrights	EAN-SEABUCK

Assessment on the current situation of the Sea Buckthorn business	Market report	Food, nutraceutical, pharmaceutical and cosmetic sector industries, research.	-	Copyrights	EAN-SEABUCK
Agreement for selection of Best Available Technologies for Sea Buckthorn cultivation, harvesting and processing	BAT catalogue	Food, nutraceutical, pharmaceutical and cosmetic sector industries, research	-	Copyrights	EAN-SEABUCK
Unified content for training Sea buckthorn farmers and processors	Course materials (in English, Russian and Chinese language): electronic and printed version	Professional training	-	Copyrights	EAN-SEABUCK
Unified content for informative material on Sea Buckthorn	Sea Buckthorn manual (5 booklets)	Professional training, public interest	-	Copyrights	EAN-SEABUCK

The knowledge generated during the EAN-SEABUCK will not be commercially exploited. The knowledge will be used for further actions of support.

Section 2 - Dissemination of knowledge

According to the structure adopted for the project management, TTZ (project coordinator) is the partner in charge preparing the dissemination and exploitation plans for the project results and controlling the dissemination activities.

In the following table, the dissemination activities carried out during the project duration are shown. More details on the fairs/seminars/conferences the partners attended can be found in section 2.2.3 of this deliverable.

2.1 Overview table

Table 2: Dissemination of knowledge activities overview

Planned / actual dates	Type	Type of audience	Countries addressed	Size of audience	Partner responsible / involved
From August 2005 to July 2008	Project website (English, Russian and Chinese Version)	Experts, Professionals, Institutions, General public	International	---	TTZ / All
From July 2007	Poster	Experts, higher education, industry	International	---	TTZ
From August 2005	Flyer (English, Russian and Chinese Version)	Experts, higher education, industry, general public	International	3.000	TTZ/all
26-29th September 2005	ISA 2005 (2nd International Sea Buckthorn Association Conference) Beijing, China	Experts, scientists, students companies,	International	About 250 attendees	ICRTS/ all
November 2005	EAN-SEABUCK discussion workshop Beijing, China	Enterprises representatives NGO representatives	National (China)	30-40 attendees	ICRTS
10th November 2005	Meeting members German Seabuckthorn association	German Seabuckthorn association members	National (Germany)	50 attendees	NIG
26th November 2005	Towards FP7: A regional contribution to Food, Agriculture and Biotechnology Bucharest, Romania	EC representatives, Scientists, enterprises	International	About 150 attendees	TTZ

Planned / actual dates	Type	Type of audience	Countries addressed	Size of audience	Partner responsible / involved
7th December 2005	All Russian Conference on Sea Buckthorn Development	Mainly Russian scientist but also enterprises representatives	National (Russia)	About 200 attendees	ARK
16-19th February 2006	BioFach (World Organic Trade Fair) Nürnberg, Germany	Experts, Professionals, Institutions, General public	International, 116 nations represented	More than 37,000 trade visitors from around countries	TTZ
4-7th April 2006	Anuga FoodTec (International Trade Fair for food and drink technology) Cologne, Germany	Experts, Professionals, Institutions, General public	International, 146 nations represented	About 39,000 visitors	TTZ
9-11th May 2006	Vitafoods International 2006 Conference and Exhibition Geneve, Switzerland	Experts, Professionals over 250 senior decision makers in the nutraceutical industry sector 60 leading suppliers of dietary supplements and functional foods& drinks	International 39 countries represented	About 20,000 visitors	TTZ
22-24 May 2006	CEFood 2006 Sofia, Bulgaria-	Experts, Professionals, Institutions, General public	International 30 countries represented	About 10.000 visitors	TTZ
24-27 May 2006	Intercool	Experts, professionals, Institutions, General public	International	More than 965 firms represented	TTZ
September 2006	TV interview – Sea buckthorn in Nord Russia and EAN-SEABUCK project	General Public	Russia (Arkhanglesk)		ARK
3-9 October 2006	IBA 2006	Experts, professionals, Institutions, General public	International	979 exhibitors from 49 countries	TTZ

Planned / actual dates	Type	Type of audience	Countries addressed	Size of audience	Partner responsible / involved
16-24 October 2006	Training for Seabuckthorn Ecological development and technique utilization	Technicians of ecological construction project	National (China: Inner Mongolian, Shannxi, Shanxi province)	Ca. 100 attendees	ICRTS
21st November 2006	Meeting members German Seabuckthorn association	German Seabuckthorn association meeting	National (Germany)	50 attendees	NIG
May 2007	TV Interview	General Public	Russia (Arkhanglesk)	Ca. 20,000	ARK
10 May 2007	Symposium Seabuckthorn - New and healthy resource in 21 Century	Companies, general public	National (China)	Ca. 200 attendees	ICRTS
15 May 2007	TV interview with the manager of ICRTS (channel CCTV-8)	General Public	China (national wide)	—	ICRTS
28 May 2007	Establishment of the Seabuckthorn Sale Ltd.Co, Conseco Beijing.	Companies, experts	National (China)	40 attendees	ICRTS
June 2007	Radio interview	General Public	Samarkand (Uzbekistan)	Ca. 20,000	ARK
June 2007	Article in Newspaper	General public	Samarkand region (Uzbekistan)	Ca. 10,000 reader	ARK
June 2007	TV interview- final training	General public	Arkhangelsk (Russia)	Ca. 20,000	ARK
June 2007	Press release	Experts, professionals, Institutions, general public	Germany	---	TTZ
July 2007	Article in SÖFW journal	Experts, professionals, Institutions,	Germany	---	TTZ

Planned / actual dates	Type	Type of audience	Countries addressed	Size of audience	Partner responsible / involved
		(cosmetics)			
12-16 August 2007	ISA 2007 (3rd International Conference on Sea Buckthorn) Quebec, Canada	Experts, scientists, students companies,	International	About 250 attendees	all
12-14 September 2007	Poster presentation FET Symposium Food Engineering Topics	Experts, professionals,	Germany	Ca. 1,000	TTZ
Several	EAN-SEABUCK website link at partners websites	Experts, professionals, Institutions	International	Ca. 1,000	All
Several	Direct contacts to relevant industries, and other institutions, companies, associations, authorities, key funding bodies, NGOs, development and agricultural organizations	All sectors (food producers, nutraceutical, cosmetic and pharmaceutical, implement industries, ...) research centres, NGOs, Agricultural associations and unions, development organizations,	International	---	All (through the EAN-SEABUCK network and their own contacts, partners visited interested companies and institutions and introduced them the EAN-SEABUCK project, includes also the exchange of experts)
Several	Direct e-mailing	Partners contacts, registered website visitors, others	International	Ca. 400	all

The training activities implemented during the EAN-SEAUBUCK project (pilot training and final training) have not been included in this overview since they represent an activity in the project per se.

It is planned to continue dissemination activities after project completion to raise especially the interest of end-users for Sea buckthorn in the field of food, cosmetics, nutraceuticals and pharmaceuticals, researches and any other actor involved in the Sea Buckthorn business. Additionally, the project partners continue the dissemination activities also towards

agricultural and development organizations, as well as key funding bodies and legal and industrial authorities in the different countries.

The outcomes of the project will be disseminated through the following activities:

1. Attendance/ presentations at relevant trade fairs/ conferences /seminars / workshops

The partners are regularly visiting fairs, conferences, seminars and workshops with international attendance. They will use these events to make the European research area familiar with the outcomes of the EAN-SEABUCK network.

2. Direct contacts to relevant industries, organisations and R&D centres

The EAN-SEABUCK consortium has established a significant number of contacts to relevant industries, organisations and research centres and which are part of the network. They will make use of these contacts to disseminate the project outcomes.

3. Articles and publications in relevant magazines

The publishable results of EAN-SEABUCK will be disseminated to the general public through articles and publications in relevant magazines after completion of the project, and always after unanimous agreement. The members are experienced in publishing articles in scientific journals in their respective countries (China, Russia, and Europe).

2.2 Dissemination carried out

2.2.1. EAN-SEABUCK website

The Project Web Site, for instance, is on-line since November 05 (www.eanseabuck.com). The information contained is available in English, Russian and Chinese language. TTZ was in charge of English version of the website and ICRTS and ARK provided the Chinese and Russian version. The EAN-SEABUCK website is linked to the own partners' web sites. Some of the partners' websites contain additionally some information about the EAN-SEABUCK project. The web site is being constantly updated according to the running of the project, namely new activities and newsletters.



Figure 1: EAN-SEABUCK website

2.2.2 EAN-SEABUCK flyer

EAN-SEABUCK flyers have been designed for being used as general dissemination tool and in fairs, seminars, conferences and other dissemination activities.

Project Nº:COOP-CT-2005-016106
EAN-SEABUCK
Establishment of European-Asian
Network for the development
of strategies to enhance the
sustainable use of
Sea Buckthorn

Sea Buckthorn (*Hippophae rhamnoides*) is native to Europe and Asia and has been known and used by humans for centuries.

During the last decades, Sea Buckthorn has attracted special attention and became an important subject for domestication in many countries as it is one of the most interesting plants for human use.

Sea Buckthorn berries are amongst the most nutritious and vitamin-rich fruits found in the flora. Several studies confirm numerous beneficial characteristics and more than 190 bio-active compounds in Sea Buckthorn.

The EAN-SEABUCK project aims at the establishment of an integral cooperation network between Europe, China, Russia and the New Independent States for a joint sustainable utilization of Sea Buckthorn.

The EAN-SEABUCK web-site (<http://www.seabuck.com>) provides the following services developed during the project:

- Sea Buckthorn booklets and manual
- Training programmes
- Workshops
- Annual newsletter
- Database of key actors in the Sea Buckthorn business

Cultivation and Exploitation of Sea Buckthorn

The commercial cultivation and exploitation of Sea Buckthorn berries is not well developed in China, Russia and the NIS countries. The limiting factor today is a lack of know-how with regard to harvesting, processing technologies and in product development and marketing. It has been identified that the harvesting technologies commonly applied in Asia are the crucial quality determining factor for half products and oils which need to be improved in view of the European market. Europe leads Sea Buckthorn cultivation and exploitation. It is mainly used as ingredient for the production of a wide range of high quality food, cosmetic and pharmaceutical products. However, the incorporation of Sea Buckthorn in food products in Europe is yet limited due to the restricted availability of high quality raw material and half products in sufficient quantities.

SUPPORT OF RURAL AREAS

The cultivation of Sea Buckthorn and the processing of the berries offer for rural areas a chance for additional income of the population, helping to slow down the migration into cities.

Besides the berries, remaining parts of the Sea Buckthorn plant (leaves and branches) could be used as a source, both for animal feed and fire wood.



Sea Buckthorn berries



Plant extracted from Sea Buckthorn berries



Sea Buckthorn berries

AIMS AND MILESTONES OF THE EAN-SEABUCK PROJECT FINANCED BY THE EUROPEAN COMMISSION ARE:

- **ESTABLISHMENT OF A NETWORK FOR THE TRANS-NATIONAL TECHNOLOGY AND KNOW-HOW TRANSFER FOR A JOINT SUSTAINABLE UTILISATION OF SEA BUCKTHORN IN EUROPE, CHINA, RUSSIA AND THE NIS COUNTRIES**
- **IMPROVEMENT AND EXCHANGE OF KNOWLEDGE BETWEEN EUROPE AND ASIA IN THE FIELD OF SEA BUCKTHORN HARVESTING AND PROCESSING**
- **ACHIEVE A BETTER PRODUCT QUALITY AND SAFETY WHICH PERMITS TO MEET INTERNATIONAL QUALITY STANDARDS AND THEREBY MAKE THE OBTAINED PRODUCTS AVAILABLE FOR THE EUROPEAN MARKET**
- **ESTABLISHMENT OF A LONG-TERM SEA BUCKTHORN INDUSTRY IN THE TARGETED COUNTRIES, SUPPORTING THE RURAL SECTOR DEVELOPMENT**
- **STRENGTHEN THE COMPETITIVENESS OF THE EUROPEAN FOOD INDUSTRY IN THE USE OF BIO-ACTIVE COMPOUNDS**
- **SUPPORT HEALTHY NUTRITION IN THE ASIAN AND EUROPEAN POPULATION**
- **SUPPORT OF ANTI-DESERTION MEASURES BY INCENTIVES TO THE CARE OF THE SEA BUCKTHORN PLANTATIONS**

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EU Research Programme

- **ISA 2005 - International Seabuckthorn Association Conference**

Beijing, China - 26-29th September 2005

<http://www.icrts.org/meetings/isa2005/shajixh/oralpresentation.htm>



All project partners attended the ISA (2nd International Sea buckthorn Association Conference) in Beijing 2005: “*Seabuckthorn – A Multi-Purposes Plant, Solution to Nutrition, Health and Environment*”. Sponsored by the International Seabuckthorn Association (ISA) and organised by the China Administration Centre for Seabuckthorn. Development (CACSD) ,the Ministry of Water Resources, P. R. China.

One of the aims of the conference was to encourage and promote the potential international cooperation in any mean. Therefore, a special section “International Cooperation on Sea Buckthorn” within the conference took place on Monday 29. Ms. Maria Hermoso from TTZ was invited to present there the EAN-SEABUCK project. The presentation called “EAN-SEABUCK- New opportunities for Sea Buckthorn” capture the captured of many attendees. A discussion was held after the presentation and many questions were asked. The audience was especially interested in the training modules to be performed within the project. Maria Hermoso appealed the experts present among the audience to collaborate in the development of the training materials and in the performance of the training modules either as experts in the different topics (e.g. trainers to be trained during the pilot trainings) or as audience (for final trainings). For this aim a list was distributed, in which they could write down their contact data, topic/s of their interest and interest in acting as expert or audience. This list was also translated to Chinese in order to capture non English speaking audience, taking into account many of the conference attendees were of Chinese origin since it was held in Beijing.

2.2.3 EVENTS the EAN-SEABUCK partners have attended to

- **All Russian Conference on Sea Buckthorn Development**

Moscow, Russia – 7th December 2005

ARK visited the *All Russian Conference on Sea Buckthorn Development* took place in Moscow on the 7 of December 2005. Mainly Russian scientist attended this conference. However, many enterprises working on Sea Buckthorn were also present. Mrs. Natalia Demidova from ARK did a presentation about the EAN-SEABUCK project at the conference. She reported the project aroused great interest among the audience. Mrs. Demidova took this opportunity for distributing the questionnaire for the market assessment (WP1, task1.2) to enterprises' representatives.

- **ICRTS discussion meeting workshop**

Beijing, China – November 2005

ICRTS organized a discussion meeting or workshop in November 2005. The workshop constituted an important dissemination action among many Chinese enterprises. Moreover, it permitted interview and discussion with enterprise representatives. For example, the questionnaire developed for the market assessment was distributed among them in order to collect actual information about the size of commercial SB cultivation, degree of Sea Buckthorn utilisation, current employed/available technologies for Sea Buckthorn processing in China, current goods produced and major importing countries (WP1, task 1.2). The identification and selection of Best Available Technologies (WP1, task 1.4) was also discussed at this workshop. It was useful as well for establishing the basis for the development of the training and dissemination material (WP2 and WP5). 2-3 external speakers were invited. ICRTS joined the NGO China Seabuckthorn Enterprise Association (organization to serve enterprises in China in the area of Sea Buckthorn variety, materials, processing and marketing in terms of technical exchange, information and training, business coordination etc). It was the role of China Seabuckthorn Enterprise Association to organize discussion of some issues e.g. national standard requirement for raw materials and products, national and international marketing, further R&D etc. There are about 30 active members of Chinese main enterprises in this NGO. The workshop lasted 3 days and about 30-40 Chinese enterprises attended it.

The organization of this workshop was not specifically foreseen in the Workplan. The activity in no case exclude the on-going of any task described in the DoW. On the contrary it was an effective tool to efficiently accomplish the tasks described above. The workshop did not mean any economic benefit to ICRTS. ICRTS undertook this activity after being communicated to the co-ordinator TTZ, who informed the project officer about the issue.

- Partner NIG presented the EAN-SEABUCK project at a **meeting of the German Sea Buckthorn Association** in Berlin (10th November 2005) and also the results of the assessment of the Sea Buckthorn business (21st November 2006). This presentation aroused the interest of the German audience and an extensive discussion of the results of the study was held.

German Sea Buckthorn Association

<http://www.sanddorn.net/>

- **Towards FP7 A regional contribution to Food, Agriculture and Biotechnology**

Bucharest, Romania- November 26th, 2005

http://www.romnet.net/ro/Program_26Nov.doc

In November 2005 partner TTZ attended the conference “Towards FP7 A regional contribution to Food, Agriculture and Biotechnology” in Bucharest, Romania, supported by the European Commission and the Ministry of Education and Research of Romania. The conference aimed to bring together scientists, experts from industry and other stakeholders, from the Balkan region and from other European areas, in order to exploit new and emerging research opportunities that address social, economic and environmental challenges in food, agriculture, forestry, aquaculture, and fisheries, including biotechnological aspects. The conference aimed to provide a timely forum for discussing and highlighting opportunities and specific themes of interest to be jointly developed in view of potential co-operation within FP7.

Sea buckthorn is widely cultivated in Romania, where many companies and associations have invested in the development of an infrastructure for Sea Buckthorn cultivation and processing in the last 10 years. Active research on Sea Buckthorn is also being done in Romania. Under this framework, the conference offered the opportunity to establish relevant contacts in Romania and meet organizations already working on Sea Buckthorn. Collaborations for relevant materials for the EAN-SEABUCK project could be arranged and contacts for potential follow-up projects established.

- **BioFach (International fair of organic products)**

Nürnberg, Germany –26-29th February 2006

<http://www.biofach.de>



In February 2006 partner TTZ attended the **BioFach** fair, the world largest and most important **fair for the organic sector** (food and cosmetic products). The EAN-SEABUCK project objectives were disseminated among interesting attendees to the fair visiting TTZ’s stand, where the project flyers were placed for the visitors’ disposal. Apart from that, TTZ met some Sea Buckthorn companies represented at the Biofach too. Most of them were already familiar with the EAN-SEABUCK project and the aim of these meetings was mainly to get information from them for achieving some of the scheduled project activities (e.g. market report). At the same time, they were informed about the running of the project.

- **Anuga FoodTec**

Cologne, Germany - April 4-7th 2006

<http://www.anugafoodtec.com>



Additionally, partner NIG and partner TTZ visited the **Anuga Foodtec** and got in contact with international representatives of the **food and drink technology**. The Anuga Foodtec is the leading information and acquisition platform of the food industry, and offers experts and professionals coming from the commercial management and the engineering and construction field the opportunity to exchange knowledge about food innovation trends.

- **Vitafoods International 2006 Conference and Exhibition**

Geneve, Switzerland- May 9-11th, 2006

<http://www.vitafoods.eu.com/>



Partner TTZ also visited the **Vitafoods International 2006** in Geneve, which is one of the leading European exhibitions for the **nutraceutical industry**. Over 300 of the leading suppliers from 39 countries converged at this event, which is a truly International event. Vitafoods International 2006 Exhibition combined the areas of nutraceuticals, cosmeceuticals, functional foods and drinks presented by manufacturers, distributors, marketing professionals, product developers and scientists. The Finished Products Expo run alongside Vitafoods International and welcomed over 60 leading suppliers of dietary supplements and functional foods & drinks.

- **CEFood 2006**

Sofia, Bulgaria- 22-24 May 2006

<http://www.cefood.org/>



22-24 May 2006, Sofia (Bulgaria)

In May 2006 the 3rd Central European Congress on Food (CEFood 2006) took place in Sofia, Bulgaria, providing an open international forum where academics and stakeholders from across Europe and around the world can propose knowledge-based solutions of the current problems by presenting and discussing recent research findings, developments and trends in the sustainable production, preservation and supply of healthy and high-quality foods and beverages. The congress gave scientists and practitioners an opportunity to meet colleagues and share ideas that may shape food research and engineering for years to come. TTZ was present at this Congress and carried out some dissemination of the EAN-SAEBUCK project, since concerns the sustainable production of foods products ensuring their high quality and safety.

- **InterCool 2006**

Düsseldorf, Germany – 24-27 May 2006

<http://www.intercool.de>



In September 2006, partner TTZ visited the Intercool fair. Intercool one of three agreed food fairs Exhibitors (InterMopro, InterCool and InterMeat), International Trade Fairs for Dairy Products, Frozen Food and Ice Cream as well as Meat and Processed Meat. More than 965 firms presented a wide range of products and offered experts from the retail trade new impulses for designing their ranges.

- **IBA 2006**

Düsseldorf, Germany - 3 – 9 October 2006

<http://www.iba.de>



IBA is the International Trade Fair World Market for Baking. IBA plays for the entire baking sector an important role and has leading significance as an exhibition event for bakers and confectioners. In the frame of this exhibition, partner TTZ performed some dissemination for the EAN-SEABUCK project. Between others, there is a potential for the application of Sea Buckthorn for baking products. More than 76.000 persons from 14 countries visited IBA in 2006. 979 exhibitors from 49 countries were present.

- **Training for Sea Buckthorn ecological development and technique utilization**

Beijing, China – 16-24 October 2006

http://www.icrts.org/chinese/news_view.asp?id=334

40 technicians of the ecological construction project in Inner Mongolian, Shannxi, Shanxi provinces participated in this training carried out by ICRTS. The purpose was the dissemination of knowledge on specific techniques of plantation, utilization and management. The attendees were informed about the training measures to be carried out within the EAN-SEABUCK project and the purpose of the network

- **Health Ingredients Europe 2006**

Frankfurt, Germany - 14-16 November 2006

<http://www.hi-events.com/content/default.aspx>



Health Ingredients Europe 2006 (HI Europe), a three-day event, joined more than 500 other international food ingredient companies from over 88 countries. HI counted with over 440 exhibitors and more than 9,000 attendees. Food manufacturers are especially keen on finding ingredients that promote long-term good health. Specialist professional buyers are at

HI looking for ingredients that meet this enormous consumer demand. Partner NIG attended HEI and presented the EAN-SEABUCK project during the fair.

- **Vitafoods International 2007 Conference and Exhibition**

Geneve, Switzerland - 8-10 May 2007

<http://www.vitafoods.eu.com>



Partner TTZ also visited the Vitafoods International 2007 in Geneve, which is one of the leading European exhibition for the nutraceutical industry. Over 400 of the leading suppliers from 76 countries converged at this event, which is a truly International event. Vitafoods International 2007 Exhibition combined the areas of nutraceuticals, cosmeceuticals, functional foods and drinks presented by manufacturers, distributors, marketing professionals, product developers and scientists. The Finished Products Expo run alongside Vitafoods International and welcomed over 60 leading suppliers of dietary supplements and functional foods & drinks.

- **Symposium “Seabuckthorn- New and healthy resource in the 21st century”**

Beijing, China – 10 May 2007

http://www.icrts.org/chinese/news_view.asp?id=364

ICRTS participated in this symposium, focused on the role of Sea buckthorn as a source for health. 23 media were present at the event, with a subsequent wide coverage. The purpose of the symposium was to guide consumers to make the reasonable utilization of sea buckthorn products, especially on the healthy care to exert the medical and pharmaceutical function. ICRTS presented the project at the symposium and carried out extensive dissemination of the EAN-SEABUCK project.

- **ISA 2007 - International Seabuckthorn Association Conference**

Quebec, Canada - 12-16th August 2007

<http://www.isa2007.net>



The Conference was of particular interest to university and government researchers, research institutions, private companies, growers, graduate students and regulatory agencies involved in the development of nutraceuticals and functional foods. The technical session themes included production (Cultivation and Harvesting Practices and Breeding), processing (Technologies and Chemistry - Nutritional, Medicinal and Cosmetic) and Product Development and Marketing (Uses of Seabuckthorn and Its Products).

All EAN-SEABUCK partners attended the ISA 2007. Following papers were presented at the different sessions, all based on activities developed during the project:

- *EAN-SEABUCK: A Successful Story of Sea buckthorn International Cooperation.* Maria Hermoso (TTZ)
- *Review on Sea Buckthorn Research in the Russian Federation and NIS.* Natalia Demidova (ARK)
- *Assessment Report on the Sea buckthorn Market in Europe, Russia, NIS-Countries and China. Results of a Market Investigation in 2005.* Axel Wähling (NIG)

Additionally, the partners presented a project poster: *EAN-SEABUCK: A Successful Story of Sea buckthorn International Cooperation.*

The EAN-SEABUCK partners organized a Discussion group meeting session at the ISA 2007 conference: *Building strategies for joint Sea Buckthorn development.* The meeting aimed to provide a scenario for the exchange of ideas in views of Sea Buckthorn development, alongside the technical sessions at the ISA 2007, and focused on the following topics:

- The situation of the Sea Buckthorn business in Europe, Asia and America
- Industry-oriented Sea Buckthorn development: current situation and expectations
- Strategies for deeper market introduction of Sea buckthorn products - Towards standardisation: problems and possibilities
- Role of the ISA for the development of Sea buckthorn - critical review and future view
- Establishment of partnerships, research and not-research networks

Additionally to the original dissemination plan the partners NIG and ttz planned a seminar called “**SEA BUCKTHORN: Future of a wonder plant for Europe and Asia**”, Brussels, Belgium - 19 September 2007.

This informative seminar organized by ttz and NIG would have presented the outcomes of the EAN-SEABUCK network and the important role of Sea Buckthorn in Europe as a high valuable raw material for the food, cosmetic, nutraceuticals and pharma industry; and in less developed countries in 3 main aspects:

- Environmental protection: combat of erosion by wind and water, degraded soils
- Poverty reduction in rural areas: employment alternatives for less developed and climatically disadvantaged remote rural areas, additional income and slowing down migration into big cities.
- Vitamin supply and support of healthy nutrition in such areas

This seminar should address representatives from organizations working in the field of agriculture, food, environmental protection, international cooperation and development. This includes the European Commission (DG agricultural and rural development, environment, research; the cooperation office EuropeAid) as well as development organizations (FAO, UN, UNDP, UNESCO, Worldbank), since Sea Buckthorn is gaining importance in less developed and new industrialising countries. The seminar might have been of interest for other

organizations (ENVI AGRI, DEVE or JTRE Committees) and even representatives of New Independent States in Brussels.

However, due to only 4 registrations, the seminar had to be cancelled.

2.2.3. Newsletter


The first project Newsletter was produced in July 2006, although it was scheduled for the 12th months. The project partners considered having the newsletter ready before that date so it could be used as dissemination tool for the pilot trainings planned in month 13 in Russia and China. The Newsletter contain general information about the project, aims and milestones, project consortium, work plan and upcoming activities (pilot training), as well as a detailed description of the EAN-SEABUCK training program.

The second project Newsletter was launched in April 2007 and included the latest information about the running of the project, the services provided by the EAN-SEABUCK website and informed about the upcoming activities such as the final training in China, Russia and Uzbekistan in May 2007 and the international Sea Buckthorn conference in Quebec in August 2007.

The project newsletters were posted on the project website and also distributed among the partner contacts via email.

2.2.4 Poster

A project poster was developed for being used in fairs, seminars, conferences and other dissemination activities. The poster was presented at the 3rd International Sea buckthorn Association Conference in Quebec in August 2007. It will also be presented in September 2007 at the Food Engineering Topics Symposium in the University of Applied Sciences in Bremerhaven, Germany. The project partners will make further use of the poster to continue dissemination of the EAN-SEABUCK project at relevant conferences and other events.



EAN-SEABUCK: a successful story of Sea buckthorn international cooperation

Hermoso M.^a; Wähling A.^b; Gimmler G.^b; Demidova N.^c; Xia Jinfang^d

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^d International Center for Research and Training on Seabuckthorn (ICRTS), Jia 1, Fuxinglu, Haidian District, 100038 Beijing, P.R. China

Specific Support Action funded by the EU under the 6th Framework Programme (FP6)

Project N°: COOP-CT-2005-016106

Project duration: August 1st, 2005 - August 31th, 2007

Project Summary

Hippophae rhamnoides (Sea buckthorn) is native to Europe and Asia. It has been used for centuries in traditional Russian and Chinese medicine and it is rich in bioactive compounds, such as vitamins, minerals and essential oils. The plant offers a huge potential as raw material for premium food, cosmetic and pharmaceutical products. However, commercial cultivation and exploitation is poorly developed in some areas due to a lack of know-how in harvesting and processing technologies and marketing. In other areas (Europe), there is a shortage of raw material. During the last two years, the European project EAN-SEABUCK, financed by the European Commission under the 6th Framework Programme, has been dedicated to the successful establishment of an integrated cooperation network between Europe and Asia, including Russia and the Newly Independent States for a joint sustainable utilisation of Sea buckthorn, to improve technical knowledge and know-how on Sea buckthorn production, from cultivation and harvesting to processing and product development, leading in the long-term to the establishment of a solid Sea buckthorn industry. Current research has been assessed, as well as the production and marketing situation, and Best Available Technologies (BAT) have been identified. Training modules on the different topics has been designed, collecting feedback to optimise training effectiveness. Training has been successfully carried out in areas of China, Russia and Uzbekistan addressed to Sea buckthorn farmers and processors. A win-win situation has been achieved by mobilising scientific and technological capacities to the benefit of the Sea buckthorn international community.

Workplan



The EAN-SEABUCK project is of seven workpackages, with tasks that include:

- Definition of support requirements and identification of Best Available Technologies (BAT)
- Development of training modules
- Implementation of pilot training
- Implementation of training and workshops
- Dissemination activities and information campaign of the EAN-SEABUCK project
- Research assessment
- Project management


Activities carried out during the project:

- * Assessment of production and market situation in Europe and Asia
- * Identification of BAT for cultivation, harvesting and processing
- * Assessment of current research
- * Assessment of quality and safety requirements
- * Development of a training program
 - Training materials
 - Handbooks
 - Promotion of the network
 - Presentation at fairs, conferences
 - Organization of seminars, discussion groups

The consortium includes highly experienced partners in different aspects of Sea buckthorn utilization (cultivation, harvesting, processing, product development, etc) and training, with resources for achieving successful project outcomes.

EAN-SEABUCK OBJECTIVES

EURASIAN COOPERATION NETWORK




- * Improvement and exchange of knowledge and know-how on Sea buckthorn production
- * Better product quality and safety
- * Establishment of Sea buckthorn industry at a long-term
- * Support of rural areas
- * Strengthen competitiveness of the food and cosmetic industry
- * Support of healthy nutrition
- * Support of antierosion measures

Expected outcomes:

- Sustainable production of Sea buckthorn
- Economic alternatives for rural areas
- Improvement of harvesting and processing technologies:
 - * Higher yield
 - * Higher quality
- Access of the industry to larger quantities of raw material (Europe)
- Development of a market for equipment
- Prevention of desertification / save soil fertilisation
- Utilisation of by-products (leaves, branches)
- Increased awareness of Sea buckthorn potential
- Starting-up of new business and scientific cooperation

Co-ordinator:



tzt Bremerhaven – Germany

Further partners:

- NIG Nahrungs-Ingenieurtechnik GmbH – Germany
- Northern Research Institute of Forestry – Russia
- International Center for Research and Training on Seabuckthorn (ICRTS) - China

With the support of the European Union.

Scientific Officer:
Mr. Jean Francois Maljean
E-mail: Jean-Francois.MALJEAN@ec.europa.eu

Project website

<http://www.eanseabuck.com>

Project management
Project general information
Key-actors database

Access to documents developed during the project (free registration):

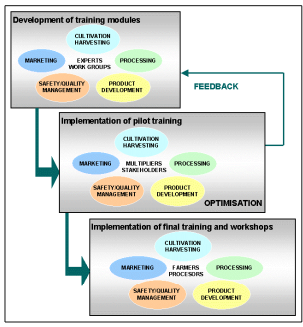
- Assessment of current situation and trends of the Sea buckthorn business
- Quality and safety requirements in Europe, China and Russia
- Catalogue of Best Available Technologies (cultivation, harvesting and processing)
- Multilingual training materials
- Multilingual Sea buckthorn manual (collection of 5 booklets)

Project leaflet (English, Chinese, Russian)
On-line survey Sea buckthorn market assessment

SUPPORT TOPICS

- * Sea buckthorn cultivation and harvesting technologies
- * Sea buckthorn processing technologies
- * Product development with Seabuckthorn
- * Quality and safety of Sea buckthorn and 1st products
- * Marketing and commercialisation of Sea buckthorn products

EAN-SEABUCK Training Program



The EAN-SEABUCK project is an EC funded initiative which aim to establish an European-Asian network for the sustainable utilisation of Sea buckthorn.

Disclaimer:
The authors are solely responsible for the content of this poster and it does not represent the opinion of the European Community. In addition, the European Community is not responsible for any use that might be made of data appearing therein.

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Figure 3: EAN-SEABUCK poster

2.2.5 Publications

- Hermoso M. EAN-SEABUCK: New opportunities for Seabuckthorn. 2nd International Seabuckthorn Conference (ISA 2005). Beijing, China. 26-29 August 2007
- Hermoso M., Wähling A. and Lohmann M. 2007. Sea Buckthorn Products: Processing and Marketing Strategies in Eurasia. SÖFW Journal (in German and English).
- Hermoso M.; Wähling A., Gimmler G.; Demidova N.; Xia Jinfang. EAN-SEABUCK: a successful story of Sea buckthorn international cooperation. 3rd International Seabuckthorn Conference (ISA 2007). Quebec, Canada. 12-16 August 2007. (paper and poster)
- Demidova N. Review on Sea Buckthorn Research in the Russian Federation and NIS. 3rd International Seabuckthorn Conference (ISA 2007). Quebec, Canada. 12-16 August 2007.
- Wähling A. Assessment Report on the Sea buckthorn Market in Europe, Russia, NIS-Countries and China. Results of a Market Investigation in 2005. 3rd International Seabuckthorn Conference (ISA 2007). Quebec, Canada. 12-16 August 2007.

2.2.6 Media

- In September 2006, Dr. Natalia Demidova from ARK was interviewed on a regional TV channel of Archangelsk. The subject of the interview was the existing research on Sea buckthorn in the European north of Russia and in this frame, the project EAN-SEABUCK was presented as an example of the international collaborations of the field.
- The manager of ICRTS was interviewed on 15 May 2007 by the public TV channel CCTV-8 at the facilities of ICRTS. The purpose of the interview was to make the public scientifically know more about sea buckthorn, and introduce the pharmacy and medical function of sea buckthorn. The manager of ICRTS talked in during this interview about the EAN-SEAUBUCK project. CCTV-8 is a TV channel of a very high audience rate in the whole Chinese territory.
- The training event in Samarkand was covered in the local radio as well as in the regional newspaper “Zarafshan” in June 2007. A copy of one of the articles published in the newspaper and can be found below.
- In June 2007 an interview on a Samarkand radio channel was provided with Mrs. Flora Kabulova, multiplier supporting the training in Uzbekistan. Extensive information about the training and the EAN-SEABUCK project was provided.

2007-yil 31-may, payshanba

*Fidoyilik -
Vatanga xizmat demak!*

Zarafshon

▶ 1917-yil may oyidan chiqa boshlagan ● № 65 (21.281) ● E-mail: Zarafshon@inbox.ru ◀

Чаканда ХОСИЯТИ ЭКИН

Самарқанд давлат университети биология факультетида FP6 Европа Иттифоқининг молиявий кўмагида ўтказилаётган EAN-SEABUCK лойиҳаси асосида "Чакандани ўстириш ва ҳосилини йиғиш" мавзусида семинар бўлиб ўтди.

Унда EAN-SEABUCK лойиҳаси аъзолари, Сибир ўрмончилик институти вакиллари, ЎзФА Ботаника илмий ишлаб чиқариш маркази ходимлари, биолог олимлар ҳамда қишлоқ хўжалиги ходимлари – фермерлар иштирок этишди.

– Бизнинг тилимизда облепиха дея кенг тарқалган ушбу доривор ўсимлик ҳар жиҳатдан фойдали саналади, – дейди СамДУ биология факультети доценти Ф. Қобулова. – Унинг меваси таркибида 12 та витамин ва 190 тадан зиёд биологик фаол моддалар учрайди. Шунинг учун унинг меваси ва баргидан тиббиёт учун ўта зарур ёғ ва турли бўёқлар олинади, илдирилари ер унумдорлигини оширишга хизмат қилади ҳамда саноатда ёғоч сифатида кенг ишлатилади.

Семинар давомида чакандани экиш ва кўпайтириш, унинг селекцияси ҳамда ҳосилини йиғишда механизмларни ишлатиш хусусида маърузалар бўлди.

Акрам БҮРИЕВ.

2.3 Dissemination to be carried out

As mentioned, after conclusion of the project, other dissemination routes will be implemented, such as:

- Publication of information
- Publications in relevant magazines and journals
- Presentation at conferences and symposia
- Trade fairs

Section 3 - Publishable results

The publishable results produced during the EAN-SEABUCK were defined as deliverables of a public dissemination level in the Description of Work. The concerned deliverables are listed below.

Del. No.	Deliverable name
D1	Comprehensive list of key actors in Europe and Asia involved in the Sea Buckthorn business
D2	Questionnaire for Sea Buckthorn market assessment in 3 languages (English, Russian, Chinese)
D3	Report on the situation of the Sea Buckthorn industry in Russia and Asia
D4	Market report for Sea Buckthorn products in the targeted INCO countries
D5	Market report for Sea Buckthorn products in Europe
D6	Report on required product quality and safety standards
D7	Catalogue on selected Best Available Technologies
D8	Training module cultivation and harvesting technologies
D9	Training module on Sea Buckthorn processing
D10	Training module product development
D11	Training module safety and quality management
D12	Training module marketing and commercialisation
D14	Set of optimised training modules ready for implementation
D16	Project flyer
D17	Project web-site
D18	Quarterly Newsletter
D19	Manual of five booklets on Sea Buckthorn
D23	Report on the exchange of experts
D24	Research and policies recommendations report

Dissemination and use

All public deliverables are available on the project website upon free registration¹ and easy to download. Information about the availability of those deliverables has been provided by the project newsletters, presentations at conferences, E-mailing lists, flyers and other dissemination tools and measures.

The deliverables are also available upon request and can be sent by email. The Sea buckthorn manual is available as not only electronically but as a printed version in Chinese, German and English, and is also available upon request. The printed manual (collection of five booklets) has been distributed during the EAN-SEABUCK final training to the audience in May 2007, and also during the International Sea Buckthorn Association Conference in Quebec in August 2007. Further copies are available. Partner ARL is in charge of the distribution of the Russian version of the booklets, ICRTS of the Chinese version and TTZ and NIG of the English version.



Figure 4: Exemplar booklets of the Sea buckthorn manual in English (blue), Russian (green) and Chinese (orange)

The project website plays a key role for networking, since most of deliverables produced throughout the project, including a database of key actors with search facilities. The website allows, and will allow after completion of the project, key actors from Europe and Asia involved in the Sea Buckthorn business to find each other and to establish relations and networking. The website counts with open areas for visitors to facilitate visitors' feedback, to maximise the exchange of information to encourage participation through open on-line questionnaires (market questionnaire, training evaluation questionnaire).

To facilitate further actions around EAN-SEABUCK, the project website will be maintained one year after project completion (until July 2008). Public deliverables and open questionnaires will be still available on the website. Open areas will be kept for public inputs.

¹ The information provided for the registration is solely used by the project for statistical and project follow-up purposes

Revised Versions

This document (second periodic activity report) has been revised posterior to the submission date as established in the following table

([Revision 1] considered as deliverable at submission date):

Revision n°	Date	Partner in charge
1	13/09/07	TTZ