



## INNOVATION AND SME PROGRAMME

### SHARED-COST RTD ACTION

### RESEARCH AND TECHNOLOGICAL DEVELOPMENT AND DEMONSTRATION COMBINED PROJECT

|   |
|---|
| <i>Report on Assessment Visit to Poland</i> |
|---|

Project number: IPS-2001 -42123

Project acronym: CSN-INTRAN

Project full title: Creating supporting network for international transfer of innovative technologies in European aquaculture

Duration: 36 Months

Project Coordinator: University of Stirling

Date of issue: 10 May 2005



## **Table of contents**

|          |   |          |
|----------|---|----------|
| <b>1</b> | <b>INTRODUCTION</b>                       | <b>1</b> |
| <b>2</b> | <b>OVERVIEW OF AQUACULTURE IN POLAND</b>  | <b>1</b> |
| <b>3</b> | <b>KEY ISSUES IDENTIFIED BY THE VISIT</b> | <b>3</b> |
| <b>4</b> | <b>RECOMMENDATIONS FOR FURTHER ACTION</b> | <b>3</b> |

### **ANNEXES**

1. Itinerary

## List of partner acronyms

|            |   |
|------------|---|
| UoS:       | University of Stirling                                      |
| DDL:       | Double Delta R&D  |
| FEAP:      | Federation of European Aquaculture Producers                |
| USB.RIFCH: | Research Institute of Fish Culture and Hydrobiology         |
| HRP:       | Hodowla Ryb Paraszyno (Association of Polish trout farmers) |
| EAU:       | Estonian Agricultural University                            |
| IFREMER:   | French Research Institute for the Exploration of the Seas   |
| AQIM       |   |
| SINTEF     |   |
| AVL:       | Aquaculture Vaccine Ltd.                                    |
| AQFT:      | Aquacultur Fischtechnik GmbH                                |
| EAS:       | European Aquaculture Society                                |
| EUROFISH   |   |
| AQUAPARK   |   |



*Figure 1: Signs of technology transfer from Denmark to Poland!*

## I Introduction

Partners from the CSN-INTRAN consortium visited Poland from 24 to 28<sup>th</sup> September 2004 to conduct a rapid appraisal of the status of aquaculture in that country and signs for and barriers to innovation and technology transfer. Participating in the visit were John Bostock (University of Stirling, UK), Aleksander Hansen (SINTEF, Norway), François René (IFREMER, France), Sergey Blokhin (Double Delta, Hungary) and Dariusz Gorbaczow (HRP, Poland), who acted as host.



*Figure 2: Study team visiting a processing factory - From left to right: François René, Sergey Blokhin, Dariusz Gorbaczow, Aleksander Hansen and John Bostock.*

The team visited a number of aquaculture production, processing and research centres and met with representatives of the aquaculture industry, and government research sector. Background statistics and information on the sector was provided by Dariusz Gorbaczow and materials produced by the Polish Trout Farmers Association. The team used recognised rapid appraisal techniques to understand the situation and develop dialogue with the stakeholders to explore key concerns, hopes for the future and perceived constraints.

## 2 Overview of aquaculture in Poland

Poland has over 1,000 aquaculture or inland fishery sites. Over 300 produce carp while 150 produce rainbow trout. The remaining sites are involved in fishing of inland waters. Total volume of aquaculture production is around 35,500 tonnes with an estimated worth of € 72 million. Annual production of carp and trout equals 22,000 and 11,000 tonnes (2002

figures) respectively. Trout as well as salmon are also produced for restocking purposes to support commercial and recreational fishing. Farming of marine species is extremely limited in Poland.

Although considered Europe's number one carp producer, 2001 saw a decline in production from 22,600 tonnes to 21,000. Despite the drop carp production has been stable over the past 10 years averaging between 21,000 and 24,000 tonnes making Poland the highest producer of carp in Europe (20% share) excluding Russia. The majority of production is semi-intensive pond culture. Grass carp production is stable at about 1,500 tonnes annually. Meanwhile trout farming is expected to have a promising future in Poland as production increased from 5,800 tonnes in 1996, 9000 tonnes in 1998 to 11,000 in 2002. The overwhelming majority of production (70%) takes place in the North (Gdansk).



Figure 3: Excellent facilities at the Fario trout farm



Figure 4: Hot smoked trout

Over the last few years Poland has introduced two new species to aquaculture, one being sturgeon, the other catfish. In 2001 150 tonnes of sturgeon was produced, while catfish production was about 270 tonnes; 200 of which was African catfish and 70 European catfish. Although sturgeon farming started from virtually nothing in the early 90's it is not expected to compete with traditional cultured fish, but many see it as a valuable supplement, increasing the range of species offered by culturists. Catfish production on the other hand is expected to increase steadily over the next decade as some farmers look into more intensive means of raising this fish, although efforts needs to be taken in promoting catfish to the Polish consumer.

Other species farmed to a limited extend include, koi carp, Prussian carp, goldfish, ide (*Leuciscus idus*), asp (*Aspius aspius*), roach, pike, burbot (*Lota lota*) and salmon

For the period 2004 to 2005, € 200 euros have been programmed from the FIFG (Financial Instrument for Fisheries Guidance) for the restructuring of the Polish fisheries sector. Of this total, € 100 million will be allocated for investment in aquaculture, processing and port facilities as well as other socio-economic measures for retiring fishermen.



Figure 5: Discussions at the Government research station

### 3 Key issues identified by the visit

The team were only able to assess the trout industry due to the limitations of time. Unlike the other countries visited, production in Poland has increased in recent years with considerable evidence of new investment both in production and processing. One of the key drivers appeared to be technology transfer support from the Danish feed company Aller Aqua, which has also invested significantly in the country. Technology transfer from Germany was also in evidence in the processing sector. The sector was also reasonably well organised with a producer association and links to a government funded research station.

The key issues for the Polish trout industry appeared to be linked with intensification of production and potential risks to



and from the environment as the country continues to develop. Both the trout and carp sectors have suffered significant losses due to disease, suggesting scope for improvements to health management. Water quality was also highlighted as an issue as the expanding trout industry is seen as a threat to environmental protection by government agencies, whilst pollution from agriculture and other developments are leading to deterioration in water quality for the fish farms.

Figure 6: Processing trout for the German market

The carp sector is more intensive than in the Czech Republic, but shares the same problem of a stagnant or slightly declining market. The lower salaries in Poland have given it a competitive advantage compared with Western European countries, however, the differential is expected to decrease and Poland will need to develop strategies to remain competitive, both within Europe and in relation to potential imports from further East.

### 4 Recommendations for further action

The main priorities in Poland appeared to be to support the expansion of the trout sector through emerging technical difficulties, particularly with respect to health management and environmental controls. For the carp sector, support is mainly needed in improving quality and marketing.

These themes will be taken forward in the forthcoming project actions:

- Pond workshop - mainly for the carp sector to discuss issues with wider audience and promote innovation and technology transfer
- Health management training course to help improve local practice and access to vaccines and therapeutants

- Identify potential candidates for visit to Norway and Aquanor to learn about marketing, quality control and product development (carp and trout sectors)
- Develop website materials to support technology transfer and learning about new approaches and innovations
- Identify potential sources of funds to support the introduction of new technologies and practices and provide guidance on how to access them
- Identify candidates able to adopt closed system technologies and support through training course in Hungary and study visit to Germany

# **ANNEXES**

1. Annex 1: Itinerary

## **Annex I: Itinerary**

### **Friday, 25.09.04**

Arrival of John Bostock and Sergey Blokhin - Gdansk Airport  
Transfer to hotel in Gdynia-Rumia.

### **Saturday, 25.09.04**

10:30 -departure to airport Gdansk to receive Alexander Hansen (arrival time)  
11:35  
12:00 - visit to Inland Fisheries Institute, Rutki/Gdansk - with Prof.Krzysztof Goryczko  
-President of Polish Trout farmers Association  
15:00 - lunch in Borkowo, Fish Restaurant.  
17:00 - Gdansk Old Town, sightseeing.  
19:00 - return to Hotel

### **Sunday, 26.09.04**

10:00 – Depart for new hotel in Paraszyno  
11:00 - short visit to Darek Gorbaczow trout farm (traditional, partly earth ponds).  
11:30 - Visit two modern trout farms- in Dabie and Budowko ca 100 km from Paraszyno (Mr. Jacek Juchniewicz and Krzysztof Grecki )  
? - return to Motel Paraszyno

### **Monday, 27.09.04**

10:00 - visit to 2 farms and 2 processing plants - ca 150 km to drive (Mr. Ryszard Balcerzyk and "Temeaben")  
? - return to Motel Paraszyno

### **Tuesday, 28.09.04**

9:00 - Agency of Restructurization and Modernization of Agriculture in Gdynia -  
(Discussion . . .)