

# Marine and Continental Aquaculture Engineering and Consulting Office



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## References



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## MARINE FISH FARMING

### 2019

- Conception of a sea-bass and bream hatchery, annual capacity of 50 million of fingerlings. **Private client**, SPAIN
- Conception of a sea-bass and bream pre-ongrowing, annual capacity of 300 tons. **Private client**, SPAIN
- Aquaculture process audit on fish hatchery facilities. **MARTEC**, COSTA RICA
- Aquaculture process and site audit for a new fish farm in Volpelière. **Private client**, FRANCE
- Conception and technical assistance of a new experimental fish unit with the optimization of the seawater supply. **ANSES**, FRANCE

### 2018-2019

- Feasibility study for the renovation of the sturgeon farm of Yenikand. **TOTAL**, AZERBAIDJAN
- Environmental accessibility study for the resumption of a fish farm in recirculation in Langolen, Odet. **Private client**, FRANCE
- Environmental study for aquaculture parameters (ICPE) for the development of a fish farm with recirculation system, capacity of 2 tons of distributed fish feed per day. **Private client**, FRANCE

### 2017-2018

- Technical assistance for the management of three continuous and intensive RAS rotifer production systems. **Private client**, SPAIN
- Technical assistance for the management of an intensive continuous RAS rotifer production system. **KILIÇ**, TURKEY

### 2016-2017

- Technical, economic, administrative and environmental feasibility study for the construction of the Embiez Aquaculture and Marine biology R&D Centre. In collaboration with Francois d'Ardailhon architect. **Institut océanographique PAUL RICARD**, FRANCE
- Technical and biological assumption review for a grouper hatchery using copepods production. **Private client**. KINGDOM OF SAUDI ARABIA
- Technical and biological assumption reviews for a multi-species R&D hatchery in Umm-Al-Qwain. **ANAF**, DUBAI.

- Technical assistance for the equipment supply and installation of the Aquaculture platform SEAFARE. In partnership with AQUIMER and Nouvelles Vagues. **Communauté d'Agglomération du Boulonnais**, FRANCE
- Technical and economical feasibility study of a marine fish farm in Libreville. Capacity of one hundred tons. **Private client**, GABON
- Design and technical assistance of an intensive RAS rotifers system. **Private client**, SPAIN

## 2016

- Technical assistance for the waste water treatment system of ANSES in Plouzané. **ANSES**, FRANCE
- Support assignment for the identification of aquaculture projects. **PENTAIR**, DUBAI
- Conception and construction supervision of a waste water treatment system. **IUEM (Sea european institut of university)**, FRANCE

## 2015-2017

- Technical assistance (definition of multi-species biological assumptions, systems design, equipment tenders and work supervision) for the Research and Development Centre of Wimereux, Boulogne. **PFI NOUVELLES VAGUES** FRANCE

## 2011-2017

- Assistance contract for the conception of an aquaculture research center in Doha (Qatar). Definition of biological assumptions, Design, Work supervision, Technical support and Financial analysis. Multi-species: Rabbitfish (*Siganus canaliculatus*), Orange-spotted grouper (*Epinephelus coioides*), Yellow-finned seabream (*Acanthopagrus latus*), Silvery black porgy seabream (*Acanthopagrus cuvieri*), Mullet (*Mugil cephalus*), Green tiger shrimp (*Penaeus semisulcatus*), Indian White shrimp (*Penaeus indicus*), Rabeed (*Gnathanodon speciosus*). **GEIC Qatar**, QATAR

## 2010-2017

- Construction supervision for a RAS nursery extension for seabream (*Sparus aurata*) and seabass (*Dicentrarchus labrax*) broodstock unit in Oleron Island. Annual capacity: 15 million 3-5g fingerlings. **FERME MARINE DU DOUHET**, FRANCE

## 2015

- Definition of zootechnical parameters for the technical specifications of a recirculating system to produce seabass (*Dicentrarchus labrax*) in USA and barramundi (*Lates calcarifer*) in Thailand. **PENTAIR**, USA & DENMARK

## 2014-2015

- Engineering studies and project design of a seabass (*Dicentrarchus labrax*) and seabream (*Sparus aurata*) hatchery. **PRIMAFISH**, TUNISIA
- Participation to the R&D strategy and management of the Aquatic Fisheries and Research Center. Several species: Rabbitfish (*Siganus canaliculatus*), Orange-spotted

grouper (*Epinephelus coioides*), Yellow-finned seabream (*Acanthopagrus latus*), Silvery black porgy seabream (*Acanthopagrus cuvieri*), Mullet (*Mugil cephalus*), Green tiger shrimp (*Penaeus semisulcatus*), Indian White shrimp (*Penaeus indicus*), Rabeed (*Gnathanodon speciosus*). **Public Work Authority**, QATAR

#### 2013-2015

- Feasibility study for marine fish and oyster hatchery Development. In collaboration with Cofrepêche Maroc. **ANDA**, MOROCCO

#### 2011-2015

- Detailed presentation file and Preparation of the ICPE file for the establishment of a pre-growing unit and transportation by sea of seabass (*Dicentrarchus labrax*), seabream (*Sparus aurata*) and maigre (*Argyrosomus regius*) fingerlings in Frontignan. Capacity of 20 million fingerlings at 10g. **LES POISSONS DU SOLEIL**, FRANCE

#### 2013-2014

- Conception of a hatchery-based project for the diversification of the production toward tropical species. **FERME MARINE DU DOUHET**, IRAN

#### 2012-2014

- Feasibility study on the implementation of grow-out cages for seabass (*Dicentrarchus labrax*), seabream (*Sparus aurata*), and meagre (*Argyrosomus regius*). **Private client**, Tizirt, ALGERIA

#### 2011-2014

- Technical and economical support for the development of label rouge quality procedures and on-site implementation for the Union of the Corsican Fish farmers Mare e Stagni Corsi. **Syndicat Aquacole Corse**, FRANCE

#### 2013

- Mission to identify eggs resources and / or Cobia larva (*Rachycentron canadum*) and to study their potential preparation and expedition to Panama and Florida. **MAYOTTE AQUA MATER**, FRANCE
- Technical and financial feasibility studies for a sea cucumber farm project in New Caledonia. **SAB AQUACULTURE**, NEW CALEDONIA
- Environmentally Protected Facility (ICPE) study including initial state and environment of the site. In collaboration with LagMay. **MAYOTTE AQUA MATER**, FRANCE
- Economic and financial analysis for an aquaculture company creation. Capacity of 1500T per year of tropical ombrine (*Sciaenops ocellatus*). **MAYOTTE AQUA MATER** - FRANCE

#### 2012

- Technical survey and economic audit for a seabass (*Dicentrarchus labrax*) and seabream (*Sparus aurata*) nursery and pre-growing production in Nin and Lamjana. Capacity of 25 million of fingerlings. **CROMARIS**, CROATIA

- Technical survey and tendering package for the setting-up of a multi-species hatchery: seabream (*Acanthopagrus cuvieri*), grouper (*Epinephelus fuscoguttatus*), mullet (*Mugil cephalus*). **AFRC Public Work Authority**, QATAR
- Economic and financial analysis and feasibility study of a project to create an aquaculture enterprise with a capacity of 4,000T per year of cobia (*Rachycentron canadum*) and 800T/year of red drum (*Sciaenops ocellatus*). In collaboration with Via-Aqua, Synaps, LagMay, Chambre d'Agriculture de la pêche et de l'aquaculture. **MAYOTTE AQUACULTURE**, FRANCE
- Study of potential sites for the creation of a multi-species hatchery on the Iranian south coast. Capacity of 10 million of fingerlings per year. **FERME MARINE DE DOUHET**, FRANCE

### 2011-2012

- Construction supervision for a seabass (*Dicentrarchus labrax*) and meagre (*Argyrosomus regius*) pre-growing unit in Frontignan; capacity of 20 million 10g fingerlings. **LES POISSONS DU SOLEIL**, FRANCE

### 2011

- Feasibility study to set up a grow-out salmon project (*Salmo salar*) with a recirculating system (double ring system). Capacity of 500T per year in Boulogne-sur-mer. **Coopérative Maritime Etaploise**, FRANCE
- Prime contractor for the extension of an acclimatization unit for the European sturgeon (*Acipenser sturio*) in the experimental station of Saint-Seurin sur l'Isle – **CEMAGREF** – Unit research "Ecosystèmes estuariens et poissons migrateurs amphihalins". Cestas, FRANCE
- Participation to a tender on designing an aquaculture technical center in Corsica, working on several Mediterranean fish species, urchins and oysters. **Université de Corse - Projet STELLA MARE**, FRANCE
- Accompanying the Corsican Aquaculture Union Trade for the setting-up of a quality framework for the "Label Rouge" certification, validation of the specifications and the control plan by INAO for the certification of 3 locally farmed species: seabass (*Dicentrarchus labrax*), seabream (*Sparus aurata*) and meagre (*Argyrosomus regius*). **Syndicat Aquacole Corse**, FRANCE
- Technical audit of a cobia (*Rachycentron canadum*) hatchery. **IN VIVO NSA**, VIETNAM
- Engineering studies (preliminary and detailed project design) for a versatile hatchery dedicated to several species: cobia (*Rachycentron canadum*), barramundi (*Epinephelus fuscoguttatus*), tilapia (*Tilapia nilotica*) and shrimp (*Penaeus sp.*). **IN VIVO NSA**, VIETNAM
- Project study for a pilot hatchery setting-up with recirculating systems. **ARDAG**, ISRAËL

### 2008-2011

- Technical support for farm construction: a hatchery and a packing unit for meagre (*Argyrosomus regius*) and seabass (*Dicentrarchus labrax*). Capacity 420T per year – **AQUASOLE**, ALGERIA

**2010**

- Detailed technical audit for the setting-up of a seabass (*Dicentrarchus labrax*) and seabream (*Sparus aurata*) pre-growing unit, with capacity 20 million fingerlings of 30-40 g per year. **CROMARIS**, CROATIA
- Technical support for pre-growing and on-growing units restructuring of a seabass (*Dicentrarchus labrax*) farm with recirculating systems. **LES POISSONS DU SOLEIL**, FRANCE
- Valuation assignment of an Atlantic salmon (*Salmo salar*) farm, with capacity 800T per year. **PRF RUNGIS and OSO-SOURCING**, FRANCE
- Technical survey of a seabass (*Dicentrarchus labrax*) and seabream (*Sparus aurata*) farm, with capacity 400T per year. **LINCKWOOD GROUP**, GREECE

**2009-2010**

- Definition, Conception, Engineering studies and Construction supervision of a seabass (*Dicentrarchus labrax*) and seabream (*Sparus aurata*) hatchery, with capacity 20 million fingerlings of 5 g per year. **EMIR EL BAHR**, TUNISIA
- Conception, Engineering studies and Construction supervision of a platex (*Platax orbicularis*) hatchery in Vairao, with capacity 300,000 fingerlings per year. **Ministry of Sea Resources**, FRENCH POLYNESIA

**2009**

- Feasibility study for the setting up of an aquaculture zootechnical center in Mayotte. **AQUAMAY / IFREMER**, MAYOTTE
- Technical survey on marine hatchery in Phuket. **Institute of Marine Research (IMR) on behalf of Department of Fisheries**, THAILAND
- Conception and construction supervision of the hydraulic networks within the framework of the rebuilding of the meagre (*Argyrosomus regius*) and seabass (*Dicentrarchus labrax*) hatchery. **LES POISSONS DU SOLEIL**, FRANCE

**2006-2009**

- Definition, conception, engineering and construction supervision for marine constructed wetlands integrating dual biofilter systems containing *Salicornia* on 3 pilot sites with different climatic conditions. **European program ENVIROPHYTE**, ISRAEL - PORTUGAL – WALES

**2008**

- Prefeasibility study for setting up a barramundi (*Lates calcarifer*) farm with recirculated systems in La Rochelle. **Private client**, FRANCE
- Survey for the setting up of a marine farm in Gabon. **Private client**, GABON
- Off-shore cages sites survey for meagre (*Argyrosomus regius*) on-growing activity in Algeria. **AQUASOLE**, ALGERIA

- Prefeasibility study for setting up a caviar farm in South of France. **Private client**, FRANCE
- Off-shore cages sites survey for seabass (*Dicentrarchus labrax*) on-growing activity in Libya. Capacity of 1,000T per year. **FARWA MARINE FARM**, LIBYA

## 2007

- Expertise of the Farwa marine seabass (*Dicentrarchus labrax*) hatchery project in Libya. Capacity 4 million fingerlings per year. **FARWA MARINE FARM**, LIBYA
- Setting up of a farm, a hatchery and a packing unit for meagre (*Argyrosomus regius*). Capacity 300 tons per year and 350,000 fingerlings per year. **AQUASOLE**, ALGERIA
- Technical support and construction supervision for a meagre (*Argyrosomus regius*) hatchery with recirculated systems. Capacity 2 million fingerlings per year. **LES POISSONS DU SOLEIL**, FRANCE
- Site survey for the construction of a turbot hatchery (*Scophthalmus maximus*). Capacity 2,5 million fingerlings per year. **Private client**, SPAIN

## 2006

- Detailed engineering studies for a seabass (*Dicentrarchus labrax*) and seabream (*Sparus aurata*) hatchery, with capacity of 10 million fingerlings per year. **CANNES AQUACULTURE**, FRANCE
- Setting up of a farm, a hatchery and a packing unit for meagre (*Argyrosomus regius*). Capacity 300 tons per year and 350,000 fingerlings per year. **AQUASOLE**, ALGERIA
- Start up and hydraulic tests for the hatchery nursery unit for tropical fishes: red drum (*Sciaenops ocellata*) and cobia (*Rachycentron canadum*) – Consulting companies files and construction supervision. **AQUAMAY**, MAYOTTE
- Technical, economic feasibility study and project study for the setting up of a hatchery and growing farm producing rabbit fish (*Siganus lineatus*). **AQUALAGON**, NEW CALEDONIA
- Study on market potentialities for marine fish ornamental species in Europe. **TULIP MANAGEMENT**, BELGIUM
- Project study for the enlargement of an aquaculture unit, for the breeding of seabass (*Dicentrarchus labrax*), seabream (*Sparus aurata*) and turbot (*Scophthalmus maximus*). **LPM ETEL**, FRANCE

## 2005

- Sites survey, detailed engineering studies, construction supervision and technical assistance on start-up of red drum (*Sciaenops ocellata*) and tropical seabream (*Rhabdosargus sarba*) hatchery and processing plant with capacity 1,5 million fingerlings/year and 1,500 tons/year. **FERME MARINE DE MAHÉBOURG**, MAURITIUS
- Project study for of a seabass (*Dicentrarchus labrax*) and seabream (*Sparus aurata*) hatchery, with capacity 5 million of fingerlings/year. **CANNES AQUACULTURE**, FRANCE



- Project study for an hatchery of cobia (*Rachycentron canadum*) with capacity 200,000 fingerlings. **CARRIBEAN INVESTMENT**, CUBA
- Detailed engineering studies for red drum (*Sciaenops ocellata*) and cobia (*Rachycentron canadum*) hatchery with capacity 1 million fingerlings per year. Start-up in 2007. Trade association for aquaculture development in Mayotte. **AQUAMAY**, MAYOTTE
- Detailed project study for the construction of a farm, a hatchery and a packing unit for meagre (*Argyrosomus regius*). Capacity 300 tons per year and 350,000 fingerlings per year. **AQUASOLE**, ALGERIA
- Project study and implementation of both a grouper (*Epinephelus fuscoguttatus*) hatchery with 1 million of juveniles per year and a barramundi (*Lates calcarifer*) hatchery with 2 million of juveniles per year. **Bilateral program between Indonesian Ministry of Fisheries and French Treasury. Marine Culture Development Project**, INDONESIA
- Preliminary study and project study for setting up a hatchery nursery unit for tropical fishes: grouper (*Cromileptes altivelis*) and lutjans (*Lutjanus sebae*) with capacity 20 T per year. **ADECAL**, NEW CALEDONIA

## 2004

- Preliminary studies for the setting up of an hatchery and on growing farm producing rabbit fish (*Siganus lineatus*), 100 tons per year. **AQUALAGON**, NEW CALEDONIA
- Feasibility study and conception for a pilot hatchery and on growing farm producing groupers (*Cromileptes altivelis*), snappers (*Lutjanus sebae*), orange spotted grouper (*Epinephelus coioides*), (*Epinephelus malabaricus*), red mullet (*Lutjanus argentimaculatus*). **ADECAL, Regional Authorities**, NEW CALEDONIA
- Pre-feasibility study on meagre (*Argyrosomus regius*) and seabream (*Sparus aurata*) project in Algeria, 300T per year. **Private Client**, ALGERIA
- Environmental impact study for a tuna (*Thunnus thynnus*) fattening project, collaboration with Créocéan, 200 tons per year. **BDS**, FRANCE

## 2003

- Survey on a groupers hatchery (*Cromileptes altivelis*, *Epinephelus lanceolatus*, *Epinephelus fuscoguttatus*) and tropical seabass (*Lates calcarifer*), sand seabass and pompano. **Ministry of Fisheries**, INDONESIA
- Pre-feasibility study for live cod (*Gadus morhua*) transportation unit with recirculating system. **MARFLOAT**, NORWAY
- Technical survey for a marine fish hatchery and on-growing farm in Cuba. **GRANMAR**, CUBA
- Conception and detailed engineering studies for a marine fish hatchery/nursery, producing tropical seabream (*Sciaenops ocellata*) and cobia (*Rachycentron canadum*). **AQUAMAY**, MAYOTTE
- Feasibility study for a tuna (*Thunnus thynnus*) fish farm. **BDS**, FRANCE

- Study and technical survey for the optimization of a tropical fish farm with recirculating systems. **AQUA FISH TECHNOLOGY**, FRANCE
- Feasibility study for the design of a digestibility station for freshwater and marine fishes. **INZO**, FRANCE

## 2002

- Collaboration on construction supervision of a tropical seabream (*Rhabdosargus sarba*) and red drum (*Sciaenops ocellata*) on growing cages farm with capacity 1,000 tons per year. **FERME MARINE DE MAHÉBOURG**, MAURITIUS
- Technical survey for a marine fish hatchery on seabass (*Dicentrarchus labrax*) and meagre (*Argyrosomus regius*). **LES POISSONS DU SOLEIL**, FRANCE
- Engineering studies and construction supervision for improvement of incubation and larval units. **FERME MARINE DU DOUHET**, FRANCE
- Conception and detailed engineering studies for a turbot (*Scophthalmus maximus*) on-growing farm with recirculating systems for capacity 150 tons per year. **Société Aquacole de l'île de Ré**, FRANCE

## 2001

- Design and engineering studies for a seabream (*Sparus aurata*) nursery with recirculating systems for 20 million fingerlings/year. **FERME MARINE DU DOUHET**, FRANCE
- Definition and design studies for the construction of a fish industrial hatchery for marine cold water fishes. **COD CULTURE NORWAY (CCN)**, NORWAY
- Conception and design studies for a hatchery/nursery, with capacity 1,5 million fingerlings/year. **FERME MARINE DE MAHÉBOURG**, MAURITIUS
- Impact study for a land based recirculated farm for seabass (*Dicentrarchus labrax*) and seabream (*Sparus aurata*) on-growing with capacity 3,000 T/year. **AQUANORD**, FRANCE

## 2000

- Studies for building design and construction supervision - (5 engineering companies) for the setting up of an innovative fish farming project. **AQUASTREAM**, Perello, FRANCE
- Feasibility study for a red-drum (*Sciaenops ocellata*) integrated farm, hatchery and on-growing floating cages, with capacity 1,000 tons per year. **FERME MARINE DE MAHÉBOURG**, MAURITIUS
- Feasibility study for a fish packing unit achievement. **Private client**, GUINEA

## 1999

- Design and construction studies for a seabass (*Dicentrarchus labrax*) and seabream (*Sparus aurata*) hatchery/nursery for 3 million fingerlings per year. **ARGOSARONIKOS**, GREECE

- Engineering, construction supervision and technical collaboration for the modernization of a seabream (*Sparus aurata*) hatchery producing 20 million fingerlings per year. **FERME MARINE DU DOUHET**, FRANCE
- Design and construction studies for recirculating systems for an ecotoxicology laboratory. **ECOLE VÉTÉRINAIRE DE NANTES**, FRANCE
- Impact studies for a seabass (*Dicentrarchus labrax*) and seabream (*Sparus aurata*) on-growing farm, with capacity 600 tons per year. **FMC**, FRANCE
- Pre-feasibility study for a seabass (*Dicentrarchus labrax*) and seabream (*Sparus aurata*) on-growing farm, with capacity 200 tons per year. **SEDEMAP**, SPAIN
- Feasibility study of a seabass (*Dicentrarchus labrax*) on-growing farm for a capacity of 100 tons per year with recirculating systems. **MAKI**, ICELAND

### 1998

- Definition study of a seabream (*Sparus aurata*) hatchery for a capacity of 6 million of fingerlings/year. **SONAQUA**, SPAIN
- Conception and technical definition, tender management and construction supervision for the achievement of two recirculating systems (400m<sup>3</sup>/h and 600m<sup>3</sup>/h) for seals and penguin tanks. **SAFARI-PARC DE PEAUGRES**, FRANCE
- Conception of a seabass (*Dicentrarchus labrax*) hatchery for 1 million fingerlings per year. **Ministry of Agriculture and Fisheries**, EGYPT
- Technical survey of a seabream (*Sparus aurata*) hatchery producing 6 million fingerlings per year. **PESCA NOVA INSUINA**, SPAIN
- Studies and site survey for a seabass (*Dicentrarchus labrax*) and seabream (*Sparus aurata*) on-growing farm, with capacity 200 tons per year. **SERH**, MOROCCO
- Feasibility study for the setting up of a seabass (*Dicentrarchus labrax*) and seabream (*Sparus aurata*) hatchery for 6 million fingerlings per year. **Private Client**, PORTUGAL

### 1997

- Conception studies for a hatchery and a raceway seabass (*Dicentrarchus labrax*) farm for 300 tons per year. **AL BAHR**, LEBANON
- Collaboration on design and construction supervision of recirculating systems of the "Genetic Unit" for the marine fish department. **IFREMER Palavas**, FRANCE
- Definition and design studies for recirculating systems in a seabream (*Sparus aurata*) hatchery. **FERME MARINE DU DOUHET**, FRANCE
- Definition and conception of a processing workshop for an intensive seabass (*Dicentrarchus labrax*) farm with capacity 200 tons per year. **MÉDITERRANÉE PISCICULTURE**, FRANCE
- Definition and design studies for recirculating system in a fish physiology laboratory. **University of Bordeaux**, FRANCE

### 1996

- Conception of a seabass (*Dicentrarchus labrax*) and seabream (*Sparus aurata*) farm for 300 tons per year. **Private client**, TURKEY

#### 1995

- Expertise mission for a fish farm on Boughrara's lagoon. **DJERBA FISHERIES**, TUNISIA

#### 1994

- Conception of a seabass (*Dicentrarchus labrax*) and seabream (*Sparus aurata*) farm, 400 T/year, with hatchery. **AL BAHR**, LEBANON
- Technical assistance for a seabass (*Dicentrarchus labrax*) and seabream (*Sparus aurata*) farm producing 100 tons per year. **FRIGOSUD**, ITALY
- Feasibility study of a semi-intensive seabass (*Dicentrarchus labrax*) and seabream (*Sparus aurata*) farm on *oued* Boureghreg. **Client privé**, MOROCCO

#### 1993

- Complete technical assistance for a 110 ha land based farm for seabream (*Sparus aurata*) and shrimp (*Penaeus* sp.). **SAM**, MOROCCO
- Conception, construction and management of a marine hatchery for seabass (*Dicentrarchus labrax*), seabream (*Sparus aurata*) and Penaeid shrimps (*Penaeus* sp.). 600,000 fingerlings per year + 10 million of PL 20 per year. **SAM**, MOROCCO

#### 1992

- Conception of a breeding unit for shrimp (*Penaeus* sp.) and tropical seabream (*Rhabdosargus sarba*). **Private client**, MARTINIQUE

## FRESHWATER FISH FARMING

### 2018-2019

- Conception of cherry salmon and grayling fish hatchery and on-growing units, capacity of 10 tons per year in recirculation system. **EDELKREBS**, SUISSE
- Conception and technical assistance of European perch production unit in RAS, annual capacity of 300 tons. **MICARNA**, SUISSE
- Conception and technical assistance of red drum hatchery and nursery in Mayotte. **Coopérative aquacole de Mayotte**, MAYOTTE, FRANCE
- Feasibility study for European perch and pike-perch on-growing units in RAS. **Private client**, FRANCE

### 2017-2018

- Technical assistance (APD, PRO, DCE, VISA and DET) for the design and construction of a Pike Perch (*Sander lucioperca*) industrial farm with an annual capacity of 1000 tonnes (nursery, pre-growing and growing). **BASIS57**, SWITZERLAND
- Technical assistance (APD, PRO, DCE, VISA and DET) for the design and construction of a Pike Perch (*Sander lucioperca*) hatchery/nursery with an annual capacity of 600 000 fingerlings of 10g. **BASIS57**, SWITZERLAND
- Presentation report of a fish farming project (tilapia, clarias) in the Bauchi sector in Nigeria. **BRETAGNE FILIERES**, FRANCE

### 2017

- Framework report of a fish farming project in MATAM, 100 tons of tilapia per year. **ANA**, SENEGAL
- Construction supervision of an R&D trout experimental platform using recirculated water. **INRA SIZUN**, FRANCE
- Feasibility study of the freshwater fish culture part of an aquaponics project in Paris, annual capacity of 5tons. **GREEN'ELLE**, FRANCE

### 2016-2017

- Feasibility study for a fish farming activity in Poullaouen. Capacity between 500 to 1200 tons/year. **MARINE HARVEST**, FRANCE
- Feasibility study to develop an organic fish farm in parallel with ferti-irrigation and aquaponics. **FERME DE LA SOURCE**, FRANCE
- Feasibility study for an industrial RAS farm of European perch (*Perca fluviatilis*), Pike Perch (*Sander lucioperca*) and Pangasius (*Pangasianodon hypophthalmus*) with a capacity of 600 ton/year. **BASIS57**, SWITZERLAND

## 2015-2016

- Engineering study for the conception of a trout hatchery unit of 250 000 fingerlings annual capacity. **TRUITES DE BANKA**, FRANCE

## 2013-2015

- Preliminary (APS) and Detailed (APD) project designs, final design (PRO), Tender documents (DCE), plan validation (VISA) and work supervision (DET) for the process part of an aquaculture CRO (Contract Research Optimization) laboratory. **ICTYOPHARMA**, FRANCE

## 2015

- Feasibility study and technical program setting up for a fish farming project of tilapia, carp and clarias. **Private Client**, CAMEROUN
- Feasibility study and technical program setting up for an industrial fish farming project of tilapia and clarias. Capacity of 1000 tons per year. **DS CONSULTING**, MALI

## 2014-2015

- Assistance to the Contractor on aquaculture process for the MEDITERA project, the IFREMER experimental aquaculture platform in Palavas. **IFREMER**, FRANCE
- Feasibility study on the construction of a fish farm with recirculating system and effluent water treatment system. Sizun site. **INRA**, FRANCE

## 2014

- Technical survey and recommendations on seawater pumping and seawater primary filtration systems in fish farming. **AGROCAMPUS OUEST**, FRANCE

## 2012-2013

- Construction supervision for the technical experimentation center extension in Saint Seurin sur l'Isle within the framework of the European sturgeon (*Acipenser sturio*) restoration plan. **CEMAGREF**, FRANCE
- Engineering study for the setting-up of a double ring bassin for a salmon (*Salmo salar*) grow-out unit of 50T annual capacity. **PISCICULTURE BDV**, FRANCE

## 2011-2012

- Construction supervision for the technical installations of a pedagogical fish farm. **Lycée Bréhoulou, Conseil Régional of Brittany**, FRANCE
- Construction supervision and water treatment systems setting up in 3 fish farms. Comparative study within the framework of the PROPRES program. **CIPA and ITAVI**, FRANCE

## 2011

- Feasibility study for the setting-up of a salmon (*Salmo salar*) grow-out unit in recirculating system (double ring basins) of 500T capacity in Boulogne-Sur-Mer. **Coopérative Maritime Etaploise**, FRANCE
- Feasibility study and technical program setting up to renovate fish farming installations of LEGTA in Morvan. Château Chinon. **Conseil Régional de Bourgogne**, FRANCE

## 2010

- Engineering studies and construction supervision for the extension of the technical experimentation center in Saint Seurin sur l'Isle within the framework of the European sturgeon (*Acipenser sturio*) restoration plan. **CEMAGREF**, FRANCE
- Construction supervision of the technical installations at a research fish laboratory. **INRA RENNES**, FRANCE

## 2009

- Construction supervision of the pedagogical fish farm in Lyon (« Canal de Jonage »). **Association Pêche et Environnement**, FRANCE
- Engineering study on the process of experimental fish farming installations. **INRA RENNES**, FRANCE
- Technical survey for the setting up of a Drum Filter. **PISCICULTURE DE RIVES**, FRANCE

## 2008

- Expertise of a trout farm (*Salmo trutta fario*, *Salmo gairdneri*), annual capacity of 500 tons. **BELLET**, FRANCE

## 2007-2008

- Technical support and engineering study for the construction of sturgeon (*Acipenser sturio*) hatchery and pre-growing unit. **L'ESTURGEONNIÈRE**, FRANCE

## 2006

- Technical survey for the construction of an experimental fish farm with recirculating systems. **DSM PRODUCTS**, FRANCE

## 2005

- Feasibility study and impact study for the setting up of a sturgeon (*Acipenser sturio*) farm (6 tons per year of caviar and 25 tons per year of sturgeon) in Courthézon (financing by PACA region). **Private client**, FRANCE

## 2003

- Technical and economic feasibility study for the freshwater fish farm of Chazey-Bons. **Fishing federation of Ain**, FRANCE
- Technical survey of a freshwater fish farm. **EXTRAMER**, FRANCE



- Feasibility study for a digestibility station on freshwater and seawater fishes. **INZO**, FRANCE
- Technical study for ensuring fish farming site safety of a river barrage downstream. **EDF Industry Department**, FRANCE

## 2002

- Study for a trout (*Salmo trutta*) on-growing farm with recirculating systems for capacity 100 tons per year. **Private client**, IRAN
- Design and construction supervision of a freshwater fish farm for aquaculture training school. **Vocational high school of La Canourgue**, FRANCE

## 2001

- Feasibility study for the achievement of a pilot hatchery / nursery of perch (*Perca fluviatilis*). **SMARD - GROUPE GABRIEL**, FRANCE

## 2000

- Design and construction studies for an eel (*Anguilla anguilla*) transformation and packing unit, including storage unit in recirculating systems. **ANGUIL**, FRANCE

## 1999

- Conception and design of a recirculating system for salmon (*Salmo salar*) nursery and pre-growing, annual capacity of 1 million fingerlings. **ASP**, IRELAND

## 1998

- Conception and construction supervision of an incubation/nursery recirculating system for 2 million fingerlings per year (*Salmo trutta fario*). **Fishing federation of Pyrénées Atlantiques**, FRANCE
- Technical studies for the construction of a hatchery and salmon (*Salmo salar*) farm (500 tons per year) nearby the nuclear power plant of Pierrelatte. **SMARD - GROUPE GABRIEL**, FRANCE
- Feasibility study for the rehabilitation of a salmon (*Salmo salar*) farm with 500 tons per year. **MAKI**, ICELAND
- Feasibility study for a hatchery and fish farm (Vocational high school of La Canourgue). **Region Languedoc-Roussillon**, FRANCE

## 1996

- Collaboration on project management for a salmon (*Salmo salar*) hatchery for a capacity of 300,000 smolts per year with 3 recirculating systems. **SMAT**, FRANCE
- Technical assistance for a nursery with recirculating system on catfish (*Silurus glanis*) and blackbass (*Micropterus salmoides*) 500,000 fingerlings per year. **Private client**, FRANCE



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**1995**

- Conception, achievement and technical assistance on an incubation and nursery recirculating system for a capacity of 3 million fingerlings per year (*Salmo trutta fario*). **Fishing federation of Lot**, FRANCE

**1994**

- Feasibility study for a shrimp (*Penaeus* sp.) and silurid (*Silurus glanis*) farm (300 tons per year). **SAFEN**, GABON

## SHRIMP FARMING

### 2018-2019

- Conception of a shrimp farm in Faratea, annual capacity of 120 tons. **AQUAPAC**, TAHITI, FRANCE

### 2002-2019

- Permanent technical support for the management of a semi-intensive organic shrimp (*P. monodon*) farm on 407 Ha with a natural mode of production. **LES GAMBAS DE L'ANKARANA**, MADAGASCAR

### 2017

- Plans at design stage for the installation of a shrimp growing unit on the Fatarea aquaculture zone. **AQUAPAC**, TAHITI

### 2011-2017

- Technical survey and tendering package for the realization of a shrimp hatchery (*Penaeus sp.*). *AFRC Public Work Authority*. **GEIC**, QATAR

### 2011-2016

- Feasibility study for the conception of experimental basin for an innovative on-shore super-intensive shrimp production system, projected budget for a pilote of 60 T of tropical shrimp a year, Final design (PRO) and Tender documents (DCE). **CREACH ANTON**, FRANCE.

### 2011-2015

- Restructuring, construction supervision and technical support for three shrimp (*L. stylirostris*) on-growing intensive farms in Tahiti. **AQUAPAC**, FRENCH POLYNESIA

### 2013

- Hatchery extension study before construction. **LES GAMBAS DE L'ANKARANA - OSO**, MADAGASCAR

### 2012

- Tendering package and tender analysis for the realization of a 30ha pilot farm and a hatchery (*Penaeus sp.*). **RIDGE SOLUTIONS**, ANGOLA

### 2010

- Financial studies for a shrimp pilot farm on 30 Ha and a shrimp semi-intensive farm on 1,000 Ha. **RIDGE SOLUTIONS**, ANGOLA.

- Conception and detailed engineering studies for shrimp hatchery and pilot farm setting up on 30 Ha. **RIDGE SOLUTIONS**, ANGOLA

### 2009-2011

- Engineering studies and construction supervision of a shrimp (*L. stylirostris*) hatchery in Vairao. **Ministry of Sea Resources**, FRENCH POLYNESIA

### 2006

- Organization of an international symposium based on the potentialities and the development of sustainable shrimp farming in West Africa. **OCDE**, FRANCE
- Setting up of a pilot shrimp farm construction (first phase). **RIDGE SOLUTIONS**, ANGOLA
- Organization of a symposium based on the possibilities of industrial aquaculture in Senegal, integrating fish farming. Sites survey for European Commission on behalf of the Ministry for Fisheries of Senegal. **European Commission DG XIV**, SENEGAL
- Involvement in the thought and the setting up of the specifications for organic shrimp farming. **Ministry of Agriculture**, FRANCE

### 2005

- Audit and quality control on packing units: **SEATECH CONSULTANTS**, FRANCE
 

Mozambique:	20 T/day capacity
Seychelles:	10 T/day capacity
Brazil:	10, 20 and 30 T/day capacity
Guatemala:	40 T/day capacity
Belize:	10 T/day capacity
Ecuador:	20 and 30 T/day capacity
- Identification study of industrial aquaculture possibilities in Senegal. **European Commission DG XIV**, SENEGAL

### 2004

- Pre-feasibility study for a shrimp farm, 300 tons per year. **Private client**, MAURITANIA
- Technical and financial feasibility study for Penaeid shrimp semi-intensive farm, 1,000 hectares. **AMBRIZ PROJECT**, ANGOLA
- Technical assistance on hatchery and on growing shrimp farm, 100 million of PL per year and 1,200 tons per year. **LES GAMBAS DE L'ANKARANA**, MADAGASCAR

### 2003

- Design, engineering studies and construction supervision for supplementary *P.monodon* semi-intensive farm on 220 ha. **LES GAMBAS DE L'ANKARANA**, MADAGASCAR
- Technical and financial feasibility study for semi-intensive farm, 600 tons per year. **Private client**, SAUDI ARABIA

- SAIDP Program: Preparation of the setting up of a brood stock center and a pilot farm of *P.monodon*. **Ministry of Fisheries**, BANGLADESH

## 2002

- Updating of feasibility study for a Penaeid shrimp intensive farm including a nursery / hatchery unit. **SAFEN**, GABON
- Collaboration on start-up of 220 ha industrial shrimp ponds (packing plant 10 tons per day - hatchery 60 million PL). Target production 2003: 700 Tons. **LES GAMBAS DE L'ANKARANA**, MADAGASCAR
- Conception of Geographical Information System as an assistance tool for the management of a pond farm on 1,040 ha, with collaboration of Créocéan. **LES GAMBAS DE L'ANKARANA**, MADAGASCAR

## 2001

- Engineering studies for a 200 Ha shrimp hatchery (first phase with a capacity of 100 million of PL). Collaboration and supervision on start-up of logistic platform and freezing unit (10 tons per day). **LES GAMBAS DE L'ANKARANA**, MADAGASCAR

## 2000

- Sites survey, assessment of aquaculture potentialities, civil work expertise and farm management supervision for the Shrimp Aquaculture Improvement and Development Program (SAIDP) in collaboration with Oceanic Développement, ID Mer, BRLi and Sepia. **Ministry of Economy**, BANGLADESH
- Sites survey (3 for on growing and 1 for hatchery) and environmental impact studies for a *P.monodon* farm. **LES GAMBAS DE L'ANKARANA**, MADAGASCAR
- Management of the tender procedure for a *P.monodon* farm on 1040 ha ponds with an hatchery for 350 million PL/year and a packing unit for 4,000 tons per year. **LES GAMBAS DE L'ANKARANA**, MADAGASCAR
- Feasibility study for a *P.monodon* intensive farm. **FMM**, RODRIGUES ISLAND

## 1999

- Evaluation of the construction conditions and site survey for the construction of a breeding industrial farm for *P.monodon* on 600 ha with hatchery. **LES GAMBAS DE L'ANKARANA**, MADAGASCAR
- Technical expertise for *P.monodon* farm on 20 ha with hatchery + 100 ha under construction. **AQUAPESCA**, MOZAMBIQUE
- Technical and financial expertise on a shrimp farm on 400 ha ponds, hatchery with capacity 120 million PL/year. **SAKOBA**, GUINEA CONAKRY
- Technical survey for a *P.monodon* farm. 180 ha of semi-intensive shrimp ponds. Hatchery and packing unit. **AQUAMEN**, MADAGASCAR
- Technical and financial feasibility study for a *P.monodon* semi-intensive farm and hatchery. **Private client**, MADAGASCAR

- Technical expertise on a shrimp farm: 10 T/ha/year on 20 ha ponds, hatchery with capacity 15 million PL/year. **AQUACULTURE BLOHORN**, IVORY COAST

## 1998

- Site survey for setting up a semi-intensive *P.monodon* farm. **Ministry of Agriculture**, VIETNAM
- Technical assistance for the management of a *P.japonicus* farm on 20 ha extensive ponds. **EAU MÉDOC**, FRANCE
- Collaboration on the definition of the master plan for national shrimp farming activity in Bangladesh (135,000 ha) and the construction and management of a pilot shrimp farm in collaboration with Oceanic Developpement, ID Mer, BRLi and Sepia. **Ministry of Foreign Affairs**, FRANCE

## 1997

- Studies for the construction of a fish and shrimp farm (*P.orientalis* and *P.japonicus*). **Private client**, LEBANON
- Design and construction of a shrimp hatchery: 5 million PL /year (*P.japonicus*). **CURUMA**, FRANCE
- Expertise on shrimp farming activity for *Penaeus monodon* in Bangladesh: hatcheries, on-growing farms and processing plants in collaboration with Sepia and Cofrepêche. **Ministry of Finance**, FRANCE

## 1996

- Technical assistance for starting up a *P.monodon* semi-intensive farm (3-4 T/ha/year) on 100 ha + hatchery with capacity 20 million PL / year. **SAFEN**, GABON
- Studies for 3 on-growing farms for semi-intensive production of *P.monodon*. **Private client**, SAUDI ARABIA
- Technical assistance for a *P.japonicus* farm including hatchery with capacity 10 million PL/year, and pre-growing unit on 60 ha. **EAU MÉDOC**, FRANCE
- Feasibility study for a *P. monodon* semi-intensive farm (3-4 T/ha/year) on 100 ha + hatchery with capacity 20 million PL / year. Local and international market. **SAFEN**, GABON

## 1995

- Techno-economic feasibility study for a semi-intensive seabream shrimps (*P.japonicus*) and clams farm in Larache. **Private Client**, MOROCCO
- Technical assistance for a *P.japonicus* farm with hatchery and on-growing ponds on 10 ha. **AQUADELT**, SPAIN

## 1993

- Technical assistance for a 110 ha farm (*Sparus aurata* and *P.japonicus*). **SAM**, MOROCCO

- Expertise of an on-growing *P.japonicus* farm on 8 ha. **FRIGO SUD**, ITALY

## 1992

- Conception and general management of a fish and shrimp farm (*Sparus aurata* and *P.japonicus*). **SAM**, MOROCCO

## 1991

- Conception of a semi-intensive farm *P.stylirostris* and *P.monodon* (3 - 4 T/year) on 12 ha. **Private client**, MARTINIQUE
- Conception of an hyper-intensive unit for Penaeid shrimp production 60 T/year (*P.monodon* and *P.vannamei*). **BRL**, GUADELOUPE
- Conception and construction supervision of a 25 ha shrimp farm with hatchery. **SOCIÉTÉ AQUACOLE DU PONANT**, FRANCE
- Definition studies for the modernization of 50 ha shrimp farming ponds. **BRL**, VIETNAM

## 1989

- Conception of an extensive farm on 45 ha (*P.japonicus*) (Haut Médoc). **Private client**, FRANCE

## 1988

- Technical management on intensive production of *P.stylirostris*, *P.vannamei*, *P.monodon* (20 T/ha) on 1 ha. Hatchery for 2 million PL/year. **Private client**, FRENCH POLYNESIA

## 1986

- Study on the semi-intensive on-growing potentialities of the Indian coasts for *P.monodon* and *P.indicus*. **Ministry of Foreign Affairs**, INDIA
- Optimization of semi-intensive production of *P.stylirostris*. **IFREMER**, NEW CALEDONIA

## 1982

- Studies on nutrition, on-growing and reproduction of *P.vannamei*, *P.stylirostris*, *P.monodon*. **IFREMER**, FRENCH POLYNESIA

## SHELLFISH FARMING

### 2019

- Technical economic feasibility study for an oyster farm in Aveiro Bay, Portugal. **Private client**, SPAIN
- Aquaculture audit on water quality in a shellfish purification and storage unit. **Private client**, FRANCE

### 2016-2019

- Conception and technical assistance for a research unit in shellfish hatchery. Drawings for the aquaculture process pipeworks of the existing shellfish hatchery. Feasibility study, conception and technical assistance for aquaculture process pipeworks in oyster nurseries. Feasibility study for effluent treatment system in oyster hatchery. **MARINOVE**, FRANCE
- Feasibility study for new oyster nurseries. **MARINOVE**, FRANCE

### 2016-2018

- Conception and construction supervision of a building and a shellfish exploitation process for 1 000 tons/year in the port of Frontignan. **MARNOSTRA**, FRANCE
- Technical studies for the supply of sea water security for shellfish farming and aquaculture zones in the port of Frontignan. **Languedoc Roussillon Agence de Développement**, FRANCE

### 2016

- Design of three shellfish purification systems. **POLYWAY**, FRANCE

### 2015-2016

- Construction supervision for the setting up of a pearl mussel production unit. **Parc Régional Périgord-Limousin**, FRANCE

### 2013-2014

- Feasibility study for a shellfish and fish farming creation site on the Sète Lido in Frontignan. **THAU AGGLOMERATION**, FRANCE
- Feasibility study for the creation of a fish and shellfish hatchery. In collaboration with Cofrepêche Maroc. **ANDA**, MAROC

### 2009-2014

- Optimization of a water treatment unit, improvement of water management and optimization of producing units in an oyster nursery-hatchery (*Crassostrea gigas*). Annual capacity of 500 million of spat per year. **FRANCE TURBOT**, FRANCE

## 2011

- Feasibility study for an oyster hatchery in Arcachon Bay, in collaboration with Via-Aqua. **CRC Arcachon-Aquitaine**, FRANCE

## 2010

- Feasibility study for a scallop (*Pecten maximus*) hatchery setting up. Capacity 2 million of 3mm spat spawn. **FERME MARINE DU DOUHET**, FRANCE
- Impact study on production and possibilities for the restarting of the production in Noirmoutier after the storm Xynthia in February 2010. **FRANCE TURBOT**, FRANCE

## 2009-2010

- Assistance for the strategic management of the company (2,000 tons per year in shellfish production and trade) – Assistance for the management of the development project – Preparation of the grant and bank files – Construction supervision of the extension. **COQUILLAGES MER MÉDITERRANÉE**, Thau Lagoon, FRANCE

## 2009

- Technical and costs analysis about data relating to shellfish farming production with recirculated systems, before expedition. **IFREMER BREST**, FRANCE
- Study for the development of marine farming in the department of Somme (in collaboration with Créocéan). **Section Régionale Conchylicole de Normandie Mer du Nord**, FRANCE
- Study to define the terms of water use from sinking in shellfish farms. **Ministry of Agriculture and Fisheries, Food General Management**, FRANCE

## 2008

- Technical support for the modernization of a shellfish unit (capacity of 400 tons per year). Conception - Building permit - Preparation of the grant files - Construction supervision. **SCEA BELLOCQ**, Arcachon, FRANCE
- Assistance for the reorganization of the company (1,500 tons per year in shellfish production and trade) - Preparation of the ASTREA file – Conception of the extension. **COQUILLAGES MER MÉDITERRANÉE**, Thau Lagoon, FRANCE
- Engineering studies and construction supervision for the setting up of an oyster nursery-hatchery. **NOVOSTREA**, Etel, FRANCE

## 2007

- Technical, economic and financial survey of the company. **COQUILLAGES MER MÉDITERRANÉE**, Thau Lagoon, FRANCE



- Technical support for the conception and the setting up of an oyster nursery-hatchery. **NOVOSTREA**, Etel, FRANCE
- Feasibility study for the setting up of a shellfish storage pond for shellfish farm organization. **Association des Ostréiculteurs de Buch**, FRANCE
- Study for the development of a Maritime Activities Area in Cherrueix / Saint-Broladre. **Communauté de Communes du Pays de Dol de Bretagne et de la baie du Mont-Saint-Michel**, FRANCE

## 2006

- Development of a guide of shellfish conditions in Southern France with Mediaqua and CER. **CEPRALMAR Montpellier**, FRANCE
- Comparative study between two technical solutions for the development of a shellfish zone in French Brittany. **Section Régionale Conchylicole of North Brittany**, FRANCE
- Study for the reorganization of the oyster district of the port of West Meyran, Gujan-Mestras, in the Basin of Arcachon. **GIE MEYRAN OUEST**, FRANCE

## 2005

- Start up after the project study and construction supervision of a shellfish purification station of 2,000 tons per year. **THALASSINA**, FRANCE
- Impact study for the setting up of a shellfish unit in Paimpol Bay. Study of the conditions of exploitation and modernization. **Section Régionale Conchylicole de North Brittany**, FRANCE
- Setting up of a shellfish packing and purification unit of 3 tons per day in Fos-sur-Mer. **RIBEIRO**, FRANCE
- Conception and supervision of the setting up of a shellfish wharf for 10 units. **Association Conchylicole de CARTEAU**, FRANCE

## 2004

- Design and construction supervision of an abalone hatchery and growing farm. **Private client**, FRANCE
- Studies for design, EC agreement and construction supervision of 7 shellfish units (*Mytilus galloprovincialis*) for storage and purification. **Private client**, FRANCE
- Feasibility study for an offshore mussel line concession in Dunkerque. **Comité Local des Pêches Maritimes de Dunkerque**, FRANCE

## 2003

- Design and construction supervision of a shellfish farms harbour with 9 workshops for Saint Louis du Rhône fisherman's association. **Association Conchylicole de Carteau**, FRANCE

## 2002

- Studies for active and passive struggle against seabream predation on the shellfish farm in open sea. **ASA**, FRANCE
- Impact study updating for the construction of a shellfish farm harbour (additional study). **Commune de Charron**, FRANCE

## 2001

- Construction supervision of a recirculating system for storage and purification of mussels with capacity 200 tons per year in Palavas les Flots. **MARTY**, FRANCE
- Conception and construction supervision of a mussel purification and packing unit in recirculating systems with temperature control for 7 tons per day. **DURIVAUD**, FRANCE

## 2000

- Design and construction supervision of a recirculating system with temperature control for an oyster farm, purification and packing plant in Arcachon. **DEGRAVE**, FRANCE
- Design and construction studies for a recirculating system with temperature control and for a packing and trading workshop for shellfish in Aiguillon sur Mer. **NICOU**, FRANCE
- Impact studies for the construction of a shellfish farms harbour in collaboration with Créocéan. **Commune de Charron**, FRANCE
- Definition and construction studies for a workshop supplying services for the cleaning of the Arcachon Bay. **ATELIER HOTRAVAIL**, FRANCE

## 1999

- Feasibility study for wild oyster eradication in Arcachon Lagoon. In collaboration with BCEOM. **Conseil Général de Gironde**, FRANCE
- Studies and management of authorization files and grant files for 2 shellfish farms in Palavas les Flots for storage, purification and trading. **Private clients (2 companies)**, FRANCE
- Definition and construction studies for a recirculating system with temperature control for storage/purification of 300 tons per year of oysters in Gujan Mestras. **CANAL**, FRANCE

## 1998

- Feasibility study for a shellfish harbour and global harbour development scheme in Charron (in collaboration with Créocéan). **SEMDAS**, FRANCE
- Feasibility study for the construction of a trading/purification plant at l'Aiguillon sur Mer. **Private client**, FRANCE
- Collaboration on construction supervision for the dredging of shellfish harbour in Loupian in the Thau Lagoon, in collaboration with BCEOM. **Conseil Général de l'Hérault**, FRANCE

## 1997

- Conception and technical support for shellfish storing unit with recirculating system. **Private client**, FRANCE
- Study of the waste water outlet on the shellfish harbour in Frontignan. **Region Languedoc-Roussillon**, FRANCE
- Feasibility study for the setting up of a shellfish plant in Port de Saint Louis du Rhône. **Association des Pêcheurs de Port St Louis**, FRANCE
- Study and technical assistance for the start-up of the hydraulic network of a shellfish farm. **Private client**, FRANCE

## 1996

- Conception, construction supervision and technical assistance of a shellfish purification plant with recirculating systems, with capacity 250 tons per year. **Private client**, FRANCE
- Conception, construction supervision and technical assistance of a shellfish storage plant with recirculating systems on Thau Lagoon, with capacity 500 tons per year. **Private client**, FRANCE
- Impact studies for the development of the shellfish farms site in Loupian, Thau Lagoon. **Conseil Général de l'Hérault**, FRANCE
- Study for the improvement of the hydraulic network of Polder des Champs. **Commune de Bouin**, FRANCE
- Conception of a shellfish farms harbour in Verdon sur Mer. **Association de conchyliculteurs**, FRANCE

## 1995

- Modernization of a shellfish farm on Thau Lagoon - 300 tons per year. **Private client**, FRANCE
- Modernization of six oyster farms in Gujan-Mestras. **Private client**, FRANCE
- Definition of the main hydraulic scheme adapted to the European sanitary regulations for the oyster-harbours of Gujan-Mestras and Le Rocher. **Conseil Général de Gironde**, FRANCE
- Hydraulic expertise of the shellfish harbour in Gujan-Mestras. **Conseil Général de Gironde**, FRANCE

## 1994

- Definition studies for shellfish farms on Thau Lagoon adapted to the European sanitary regulations. **Private clients (12 farms)**, FRANCE
- Conception and construction of purification/trading workshop for a capacity of 300 tons per year in Port Saint Louis du Rhône. **Private client**, FRANCE

## 1993

- Conception of the shellfish unit hydraulic network in Marseillan for the purification and packing of shellfish. **Private client**, FRANCE

#### 1992

- Modernization studies for shellfish farms on Thau Lagoon adapted to the European sanitary regulations. **Private clients (3 farms)**, FRANCE

#### 1991

- Study of conception and adaptation to European sanitary regulations for shellfish farms on Thau Lagoon. **Private clients (2 farms)**, FRANCE

## TECHNICAL SUPPORT AND PRODUCTION MANAGEMENT SUPPORT

### 2019-2020

- Scientific and technical assistance, governmental aquaculture research center of QATAR. **GEIC**, QATAR
- Aquaculture audit on water quality and electrical audit in trout reproduction unit. **VIVIERS DE SARRANCE**, FRANCE

### 2018-2019

- Technical assistance using Redox and detection of electrical disturbances. **SODACAL**, NOUVELLE CALEDONIE
- Technical assistance for the production of rotifers using RAS (ROTIRAS). **Private clients**, TURKEY, SPAIN, FRANCE, INDIA, SRI LANKA
- Detection of electrical disturbances and definition of technical improvements. **Pisciculture Murgat**, FRANCE
- Technical assistance using Redox and detection of electrical disturbances. **BIOREA**, FRANCE

### 2017-2019

- Technical assistance using Vortex®. **MARA**, NOUVELLE CALEDONIE
- Technical assistance using Vortex®. **FRANCE TURBOT ICHTUS**, FRANCE

### 2015-2019

- ORP survey for shrimp hatchery using Vortex, then technical assistance using Vortex®. **ADECAL**, NEW CALEDONIA

### 2014-2019

- Technical assistance using Vortex, an ORP monitoring software (“redox” in French stands for ORP). **L'ÉCLOSERIE MARINE DE GRAVELINES ICHTUS**, FRANCE
- Technical assistance using Vortex, an ORP monitoring software. **AQUANORD ICHTUS**, FRANCE

### 2005-2019

- Optimization of the farming management and water quality protocols by using redox and the software *Vortex* in a semi-intensive organic shrimp (*P.monodon*) farm on 407 Ha (1,600 tons/year) with a natural mode of production. **OSO FARMING**, MADAGASCAR

### 2017

- RAS optimisation of a crustacean purification and stocking system. **EMYG**, France

#### 2016-2017

- Technical assistance using the Redox (Software Vortex). **HUITRE DORE**, FRANCE

#### 2016

- Redox survey (Software Vortex) on an ecotox room at the IFREMER Palavas site. **INRA**, FRANCE

#### 2015-2016

- Technical assistance using Vortex. **AQUASTREAM**, FRANCE

#### 2012-2016

- Technical assistance to sturgeon farm (*Acipenser sturio*, *Acipenser gueldenstaedtii*) through redox (ORP) monitoring (Vortex software). **PICTON**, FRANCE

#### 2015

- Technical assistance using Vortex. **FRANCE TURBOT** FRANCE
- ORP and electrical survey for a shrimpe hatchery (*Penaeus japonicus*). **HUÎTRES IMPÉRIALES** FRANCE
- Technical assistance using Vortex, an ORP monitoring software. **GLORIA MARIS**, CORSICA

#### 2011-2015

- Technical assistance to an intensive shrimp production (*L. stylirostris*). **AQUAPAC**, FRENCH POLYNESIA

#### 2014

- Technical survey and recommendations to set up a water treatment system. **CCDTAM**, NEW CALEDONIA

#### 2010-2013

- Technical support for the oyster nursery-hatchery, Development of water treatments adapted to the needs of each unit, Technical support for the water quality management, Production optimization by redox potential (ORP) monitoring for an oyster nursery – hatchery (*C. gigas*) and for turbot hatchery – on-growing unit (*P. maxima*), Technical support for the management of a hatchery and two turbot (*Scophthalmus maximus*) on-growing sites with recirculating systems. Aquaculture products sourcing. **FRANCE TURBOT**, FRANCE
- Technical support for the water quality management by redox (ORP) monitoring of a seabass (*Dicentrarchus labrax*) and meagre (*Argyrosomus regius*) hatchery. **LES POISSONS DU SOLEIL (Sites Balaruc et Salses)**, FRANCE

**2011-2012**

- Support for the optimization of the water quality management of 4 trout (*Salmo trutta*) fish farms. **AQUALANDE GROUP**, FRANCE

**2004-2012**

- Permanent technical support for the water quality management by redox monitoring of a seabass (*Dicentrarchus labrax*) and seabream (*Sparus aurata*) hatchery. **FERME MARINE DU DOUHET**, FRANCE

**2011**

- Survey and modernization of a shrimp (*L.stylirostris*) farm in Tahiti. **AQUAPAC**, FRENCH POLYNESIA

**2010**

- Optimization of production and water quality management protocols. On-growing of Atlantic salmon (*Salmo salar*) with recirculated systems. **PISCICULTURE BDV**, FRANCE
- Optimization of the water quality management in 4 fish farms. **AQUALANDE**, FRANCE

**2009**

- Analysis of the problematic of eggs quality in the fish farm of Casteljaloux. **AQUALANDE**, FRANCE
- Technical survey of the existing installations, production protocol analysis and optimization propositions – Technical support to the engineering studies for the pilot hatchery. **ARDAG**, ISRAEL
- Analysis of the problematic and propositions of the methodology to define the possible improvements for water quality. **AQUASTREAM**, FRANCE

**2008**

- Technical support for the conception of the hydraulic networks to develop the production capacities for meagre (*Argyrosomus regius*) and seabass (*Dicentrarchus labrax*) and the water quality analysis protocol. **LES POISSONS DU SOLEIL**, FRANCE
- Definition and conception of the hydraulic networks and engineering studies to verify requirements and size. **PISCICULTURE BDV**, FRANCE

**2007**

- Setting up of a hatchery and on growing farm for grouper (*Epinephelus fuscoguttatus*, 1 million juveniles per year) and barramundi (*Lates calcarifer*, 2 million juveniles per year). Master plan for the marine aquaculture development in Riau islands (Indonesia). **Marine Culture Development Project**, INDONESIA

**2003-2006**

- Research and development audit, Feasibility study and permanent technical support for a meagre (*Argyrosomus regius*) hatchery with recirculated systems. Capacity 2 million fingerlings per year. **LES POISSONS DU SOLEIL**, FRANCE

## 2003

- Technical optimization of an experimental freshwater fish farm with well water. **INRA**, FRANCE



## GENERAL STUDIES FOR THE AQUACULTURE DEVELOPMENT AND AUDITS

### 2019

- Aquaculture audit for the project of seawater supply. Toul Car Bras, Treffragat (29). **Communauté de Communes du Pays Bigouden Sud**, France
- Pre-feasibility study for the seawater supply and effluent pipeworks. Technopôle Brest-Iroise, Vernis. **SEMPI**, FRANCE

### 2017

- Technical expertise to develop an aquaculture area. **AQUIMER**, FRANCE
- Feasibility study of an aquaculture integrated industrial freshwater and a marine aquaculture farm. **PNUD**, SENEGAL
- Audit for an aquaculture project in Crimea. **RUSSIAN SHRIMP**, RUSSIE
- Foresight economical studies for a macroalgae production unit and a salmon RAS in Saudi Arabia. **Private Client**, SAUDI ARABIA

### 2016-2017

- Study "accès Mer": cartography and identification of maritime sites for aquaculture production in Finistère, French Brittany. **INVESTIR EN FINISTÈRE**, FRANCE
- Development study of the selffish port in Frontignan. **PORT SUD DE FRANCE**, FRANCE
- Study on the identification of the adequate conditions to develop an aquaculture area in Boulogne-sur-Mer. In collaboration with AQUIMER and Nouvelles Vagues. **Communauté d'agglomération du Boulonnais (CAB)**, FRANCE

### 2016

- Technical feasibility study for a seawater supply process to a selffish and fish farming zone located in the port of Frontignan. **Languedoc Roussillon Agence de Développement**, FRANCE

### 2015

- Feasibility study for the setting up of a biological decontamination and disinfection system. **ANSES**, FRANCE
- Technical assistance to develop shrimp production in Mozambique, in the white spot context. **APCM**, MOZAMBIQUE

- Technical audit of Vendée Aquaculture units. **VENDEE AQUACULTURE**, FRANCE

#### 2014-2015

- Technical and economical feasibility study for the commercial development of aquaculture projects in Mouanko, Mbalmayo, Ebolowa, Gounouko /Ladgo, Bambalang and Mape. **Ministry of farming, fishing and animal industries**, CAMEROUN
- Setting up of the compensation plan of aquaculture in Guyane for 2014-2020 periods. **Regional Council**, FRENCH GUYANA

#### 2007-2015

- Accompanying the Corsican Aquaculture Trade Union for a quality framework setting-up for the "Label Rouge" certification, validation of specifications and control plan by INAO for the certification of 3 locally farmed species: seabass (*Dicentrarchus labrax*), seabream (*Sparus aurata*) and meagre (*Argyrosomus regius*). **Syndicat Aquacole Corse**, FRANCE

#### 2014

- Technical assistance to the contractor for the setting up of a technical audit at an experimental station in Soucoumou. **Regional Council**, FRENCH GUYANA
- Project analysis submitted in the frame of the call for interest following to the master plan on marine and freshwater aquaculture development potentialities in French Guyana. **Regional Council**, FRENCH GUYANA
- Label Rouge audit on the grow-out and packing units of the Palmo D'Oro marine fish farm. **GLORIA MARIS**, CORSICA

#### 2013-2014

- Microalgae study in PACA region – Technical and economical study. In collaboration with CEVA and CEA Cadarache. **Competitiveness clusters: Mer Méditerranée & Trimatec**, FRANCE

#### 2012-2014

- Design study and construction supervision for the setting up of an R&D station of microalgae production in New Caledonia (AMICAL project - LTMA). In collaboration with IFREMER. **ADECAL**, NEW CALEDONIA

#### 2013

- Technical support for the definition of the marine and freshwater aquaculture development in Guyane. **Regional Council**, FRENCH GUYANA
- Label Rouge framework audit for the Valle Ca Zulliani hatchery. **GLORIA MARIS**, CORSICA
- Marine aquaculture development master plan in Guadeloupe. In collaboration with Créocéan Caraïbes. **La SRDAM**, Guadeloupe, FRANCE
- Deep water valorisation study in the CINOR strategic development context. In collaboration with Egis Eau. **CINOR**, La Réunion, FRANCE

- Preliminary study for a microalgae laboratory (AMICAL Project – LEMA). In collaboration with Ifremer. **ADECAL**, NEW-CALEDONIA

### 2012-2013

- Regional Development Plan of Aquaculture in French Guyana (in collaboration with Via-Aqua). **Conseil Régional**, FRENCH GUYANA

### 2006-2013

- Survey of the water processing station through natural water ponds for treatment of waste water of pet food factory. Capacity 50 m<sup>3</sup>/day. **ROYAL CANIN**, FRANCE

### 2012

- Preliminary study before fish and shellfish farming technical center in Aquitaine region. **Région Aquitaine**, FRANCE
- Marine Aquaculture Regional Development master plan in Guadeloupe (SRDAM). In collaboration with Créocéan. **Conseil Régional de Guadeloupe**, FRANCE

### 2011

- Study on aquaculture development opportunities at Boubyan island. **EGIS**, KOWEIT
- Prospective study on the welcoming of aquaculture investments in the Boulonnaise area. In collaboration with Via-Aqua and Alvi Management. **Communauté d'agglomération du Boulonnais**, FRANCE
- Project management for seawater pumping, master plan of evolution and construction work supervision in partnership with the Merlin firm. **Observatoire Océanologique de Villefranche sur Mer - Université Pierre et Marie Curie**, FRANCE

### 2010

- Prospective study, in collaboration with Via-Aqua for the Marketing part, on the development of an aquaculture business plan in the Region Nord-Pas de Calais. **Région Nord-Pas de Calais**, FRANCE
- Shellfishermen and fishermen survey in the framework of the territorial coherence scheme. In collaboration with Créocéan and SCE. **Syndicat mixte du bassin de Thau**, FRANCE

### 2009

- Contractor assistance for the quality control of seawater, drawing deep water (600 à 1 000m) and water supply. Search of national and international partners in Aquaculture or Biotechnology. **Etablissement d'Aménagement et de Développement**, FRENCH POLYNESIA
- Preparation of atlas for suitable sites for development of aquaculture in Oman. In collaboration with Créocéan. **Ministry of Fisheries**, OMAN
- Development of the Wallis and Futuna strategy planner. **South Pacific Committee**, WALLIS AND FUTUNA

**2008**

- Comparative feasibility study between two technical solutions for planning the salt pond area. **COMPAGNIE DES SALINS DU MIDI**, FRANCE
- Identification study on the potentialities of economic development based on aquaculture in the Giraud Salt marshes. **COMPAGNIE DES SALINS DU MIDI**, FRANCE

**2007-2008**

- Masterplan on the development of marine aquaculture in Batam in Indonesia for grouper (*Epinephelus fuscoguttatus*) and barramundi (*Lates calcarifer*). **Bilateral program between Indonesian Ministry of Fisheries and French Treasury. Marine Culture Development Project**, INDONESIA

**2007**

- Expertise for the feasibility of a new fingerlings and juveniles production structure as a way to develop aquaculture in French Polynesia. **Ministry of Agriculture and Fisheries**, FRENCH POLYNESIA
- Identification study on the potentialities of aquaculture within the context of aquaculture development in Mauritius. **Board of Investment**, MAURITIUS
- Preparation of files for the administrative authorizations for the creation of a pedagogical pisciculture in Lyon ("Canal de Jonage"). **Association Pêche et Environnement**, FRANCE

**2006**

- Feasibility study for the development of the mangrove crab aquaculture (*Scylla serrata*) in New Caledonia. **ADECAL**, NEW CALEDONIA
- Identification study on the possibilities of industrial aquaculture in Senegal, integrating fish farming. Reconnaissance of sites. European Commission on behalf of the Ministry for Fisheries of Senegal. **European Commission DG XIV**, SENEGAL
- Installation of a quality sign for fish breeding in Corsica. **Syndicat Aquacole Corse**, FRANCE
- Preparation of grant files for the construction of a packing unit. **SANTA MANZA FARM**, FRANCE

**2005**

- Committee member for National authorities on homologation of food products. **Organic products department**, Ministry of Agriculture, FRANCE
- Potential Study of the aquaculture cobia (*Rachycentron canadum*) in Europe for an importation from Brazil. **TWB**, BRAZIL

**2002**

- Study of regional fishing practices in PACA region. **Comité Régional des Pêches**, FRANCE

**2000**

- Survey of the regional shellfish farming activities in Poitou Charentes for defining the opportunities for sustainable marine activities. **Région Poitou-Charentes**, FRANCE
- Sites survey and assessment of aquaculture potentialities for the Shrimp Aquaculture improvement and Development Program (135,000 ha). **Ministry of Economy**, BANGLADESH

**1999**

- Feasibility study for the eradication of wild oysters in the Arcachon Bay in collaboration with BCEOM. **Conseil Général de Gironde**, FRANCE

**1998**

- Feasibility study for a shellfish harbour and global harbour development scheme in Charron (in collaboration with Créocéan). **SEMDAS**, FRANCE

**1997**

- Definition study for the modernization of the shellfish harbour in Gujan-Mestras and La Teste de Buch on Arcachon Bay. **Conseil Général de Gironde**, FRANCE
- Expertise of the shrimp farming situation in partnership with Sépia and Cofrepêche: breeding and transformation of *P. monodon*. **Ministry of Economy**, BANGLADESH
- Expertise for the development of aquaculture activities. **SAMADHY**, LAOS
- Expertise of the management of the fishermen auction in the fishing harbour of Agde. **Conseil Général de l'Hérault**, FRANCE

**1996**

- Impact study for the development of the shellfish farms site in Loupian in Thau Lagoon with collaboration with Créocéan. **Conseil Général de l'Hérault**, FRANCE
- Development charter of Sète harbor. **Services Maritimes Languedoc-Roussillon**, FRANCE

**1993**

- Feasibility study for a seaweed and mussel farm in the peninsula of Guérande (subcontracting for BRL). **SMIDAP**, FRANCE

**1992**

- Development studies of a coastal lagoon (lagoon of Solimane) with marine fish farming activities (shrimp, marine fishes and clams). **BIOMAR**, TUNISIA

## AQUARIOLOGY

### 2019

- Aquaculture audit on different options for the transfer and stabling of 3 aquarium populations before renovation. **Aquarium des Lagons**, NOUVELLE CALEDONIE

### 2018

- Philosophy design for the expansion project of the Seaquarium. **Grau du Roi**, FRANCE

### 2016-2017

- Technical, economic, administrative and environmental feasibility study for the construction of the Embiez aquarium. In collaboration with Francois d'Ardailhon architect. **Institut océanographique PAUL RICARD**, FRANCE

### 2015-2016

- Selection at a tender for the conception and construction of touristic equipment in Canet en Roussillon. **Société publique locale sillages**, FRANCE

### 2012-2014

- Selection at a tender for the National Center of the Sea (Boulogne-sur-mer) extention, in collaboration with the architects Terry Farrells, Norpac consortium. **NAUSICAA – Urbavileo**, FRANCE

### 2012

- Diagnostic and development program for the seawater pumping device for experimental aquaria and thermoregulation of the Oceanological Observatory of Villefranche-sur-Mer. **Université Pierre et Marie Curie**, FRANCE
- Pre-dimensioning study of the pumping station for the Marine Station project in l'Estaque (Marseille). **Institut de Recherche pour le Développement (IRD) de Marseille**, FRANCE

### 2011

- Selection at the tender for the design of otter's exhibition basins in Oceanopolis (Brest), in collaboration with the Liard & Tanguy architects. **OCEANOPOLIS, BMO**, FRANCE
- Shortlisted at the tender for the setting-up of an aquarium in Banyuls in collaboration with the architects Terradas. **University Pierre et Marie Curie**, Paris, FRANCE

### 2010 - 2011

- Construction supervision in collaboration with the architect Chambre&Vibert, of a public aquarium (150 m<sup>3</sup>). **Courseulles city council**, FRANCE

- Optimization and adaptation of the marine water pumping station of the laboratory ARAGO and the future aquarium. **Pierre and Marie Curie University**, Paris, FRANCE

## 2010

- Construction supervision of the process of the "Bay house". **Maison de la Baie, St Brieuc**, FRANCE
- Preparation of ICPE file in the framework of the aquarium construction. **Courseulles city council**, FRANCE

## 2009

- Survey of the Marine Museum. **AQUARIUM OF BIARRITZ**, FRANCE
- Survey of the "Sea House". **Courseulles city council**, FRANCE

## 2008

- Technical support for the extension of the museographic part and for the refitting of the premises of the "Bay house" – **Maison de la Baie, St Brieuc**, FRANCE

## 2006

- Shortlisted for the tender for the conception of the Caribbean sea center. **Communauté de communes du Nord**, MARTINIQUE
- Support for enhancement of waste water treatment system, diagnostic and WFD. **AQUARIUM DE SAINT MALO**, FRANCE

## 2005

- Feasibility study (technical and economic) for the setting up of a marine pedagogical aquarium. **Communauté de communes de La Ciotat**, FRANCE

## 2004

- Second place of the tender for the construction of a public aquarium in Montpellier. **ODYSSEUM MONTPELLIER**, FRANCE

## MICROALGAE & SEAWEED CULTURE

*Thanks to our experience in conception and implementation of microalgae culture unit for shrimp and fish food, IDEE has multiplied microalgae missions over the last years.*

### 2017-2019

- Pond design and construction supervision for seaweed (*ulva*) culture system for bioplastics production in Fos-sur-Mer. **ERANOVA**, FRANCE
- Pre-feasibility study for the adaptation of fish ponds to seaweed production incorporated in an IMTA project. **ALGAPLUS**, PORTUGAL

### 2015-2016

- Preliminary study for the construction of an ulva industrial production pilot. **BRET ALG**, FRANCE
- Technical and economical feasibility study and detailed design for the conception of an innovative indoor seaweed production pilot, and a 13000 m<sup>2</sup> production extension. **CREACH ANTON**, FRANCE

### 2012-2015

Design study and construction supervision for the installation of R&D center for microalgae production (AMICAL project - LTMA). In collaboration with IFREMER. **ADECAL**, NEW CALEDONIA

### 2014

- Preliminary study for the construction of a spirulina industrial production pilot. **Private client**, SPAIN
- Feasibility study on spiruline production. **Private client**, FRANCE

### 2013-2014

- Microalgae study in PACA region – Technical and economical study. In collaboration with CEVA and CEA Cadarache. **Competitiveness clusters : Mer Méditerranée & Trimatec**, FRANCE

### 2013

- Preliminary study for a microalgae laboratory (AMICAL Project – LEMA). In collaboration with Ifremer. **ADECAL**, NEW CALEDONIA
- Feasibility study for using redox (ORP) monitoring approach for microalgae culture (*Dunaliella Salina*). **LA COMPAGNIE DU VENT**, FRANCE



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## 2010-2014

- Salinalgue project: Engineering studies and project management for the design of the pilot area: master culture lab and 1000m<sup>2</sup> of innovative raceways. Bioenergies and bioproducts from microalgae. FUI 2009, 7.4 M€. **Private and public consortium** including: La Compagnie du Vent, Air liquide, Naskéo, Ifremer, CEA, diverses universités, INSA Toulouse, FRANCE

## RESEARCH & DEVELOPMENT

### 2019

- Conception and technical assistance for the construction of a research laboratory on tilapia (*Oreochromis* spp.). **Private client**, THAILANDE

### 2018-2019

- Conception and technical assistance on aquaculture process for the renovation of CREC in Luc-sur-Mer, **UNIVERSITE DE CAEN**, FRANCE

### 2016-2017

- Subcontractor for the following steps : Diagnosis (DIAG), Detailed project designs (APD), final design (PRO), work supervision (ACT & DET) of a research platform using aquatic models for pharmacological and physiopathologic screening studies. PEMAV. **Université de NICE SOPHIA ANTIPOLIS**, FRANCE
- Feasibility study for the development of a marine R&D laboratory (CRO - contract Research Organisation) in Deneuilles-les-Mines. **ICTYOPHARMA**, FRANCE

### 2015

- R&D study on copepods production, *lutjanide* larva and technical definition of a tropical intensive recirculating system. **HYDROREUNION**, REUNION ISLAND

### 2013-2014

- Feasibility study and full conception for « SC2E » production project: design, implementation and farming of an innovative on-shore super-intensive shrimp production system. **MARTROP**, FRANCE
- APPI: Region and OSEO financial support for going further with our redox monitoring project. **IDEE**, FRANCE

### 2010-2014

- Salinalgue project: Engineering studies and project management for the design of the pilot area: 1000m<sup>2</sup> of innovating raceways. Bioenergies and bioproducts from microalgae. FUI 2009, 7.4 M€. **Private and public consortium** including: La Compagnie du Vent, Air liquide, Naskéo, Ifremer, CEA, diverses universités, INSA Toulouse, FRANCE

### 2012

- Improvement of Redox monitoring techniques for water quality management in aquaculture. **IDEE**, FRANCE
- « Vortex » Software creation to easier analyse redox data in order to monitor fish farming. **IDEE**, FRANCE

**2007-2011**

- Development of a water quality monitoring tool: the VORTEX software, based on redox settings, for analysis and interpretation of the redox datas in aquaculture. **IDEE**, FRANCE

**2002**

- Development of a generic approach to sustainable integrated marine aquaculture for European environments and markets. In collaboration with IFREMER, SEAOR, IOLR, CREA, University of Stirling. **European Program GENESIS**, ISRAEL - UK - FRANCE

**2001**

- Definition and design studies for a seabass (*Dicentrarchus labrax*) on-growing recirculating system, with capacity 800 tons per year, heated by geothermal energy. **European Program MISTRALMAR**, ICELAND - FRANCE

**1998**

- Engineering studies on recirculating systems for two on-growing seabass (*Dicentrarchus labrax*) farms. **European Program MARITECH**, ICELAND - FRANCE

**1997**

- Conception and construction supervision of two pilot seabass (*Dicentrarchus labrax*) farms with recirculating system in collaboration with IFREMER. **European Program MARITECH**, ICELAND - FRANCE

**1995**

- Conception and general management of an intensive farm (brood stock, larval and pre-growing units with recirculating systems) for blackbass (*Micropterus salmoides*). Research and development program supported by ANVAR, CSP and Ministry of Agriculture. **P2B**, FRANCE

## AQUAPONIC

### 2018-2019

- Technical assistance for the construction of an aquaculture building in Lycée de la Mer et du Littoral, Bourcefranc. **Région Nouvelle Aquitaine**, FRANCE

### 2017-2019

- Technical assistance for the construction of an experimental building dedicated to research on trout in RAS. **INRA SIZUN**, FRANCE

### 2017

- Feasibility study for a fish farm of 5 tons per year, aquaponic project in Paris. **GREEN'ELLE**, FRANCE

### 2016-2017

- Technical economic feasibility study for the construction of an organic fish farm with aquaponic and fertirrigation. **FERME DE LA SOURCE**, FRANCE