

FRANSK-NORSK STIFTELSE FOR VITENSKAPELIG OG TEKNISK  
FORSKNING OG INDUSTRIELL UTVIKLING (FNS)

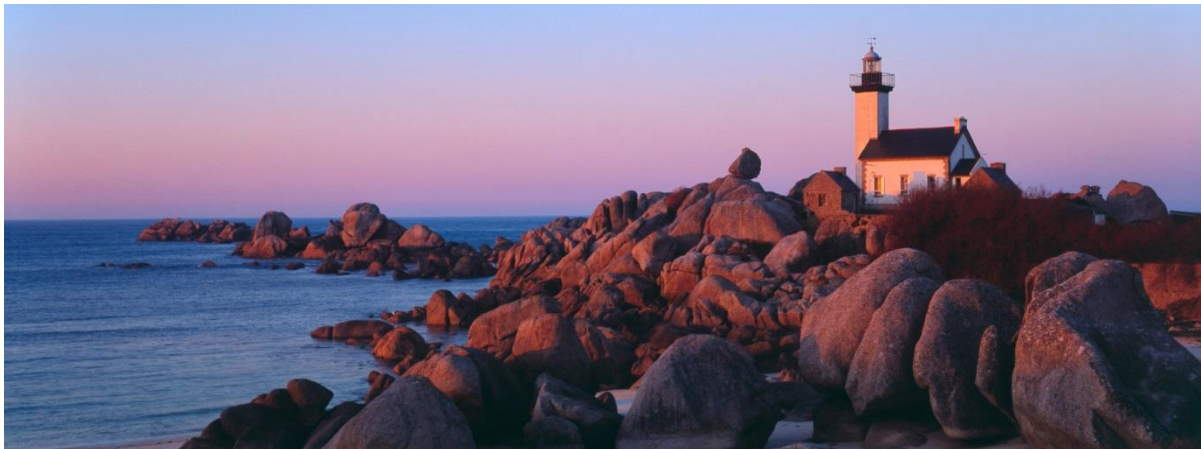
FONDATION FRANCO-NORVEGIENNE POUR LA RECHERCHE  
SCIENTIFIQUE ET TECHNIQUE ET LE DEVELOPPEMENT INDUSTRIEL  
(FFN)



## FRENCH-NORWEGIAN FOUNDATION ANNUAL REPORT 2015



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## ANNUAL REPORT 2015

### THE BOARD OF THE FOUNDATION

The Board of Directors of the Foundation consists of twelve voting members. Both French and Norwegian members of the Boards are from 2011 registered in the Brønnøysund Register Centre. The Board elects its Chairman for a period of 3 years. Chairmanship alternates between France and Norway every third year. From January 1<sup>st</sup> 2012 to December 31<sup>st</sup> 2014, the Board has been chaired by Jan Erik Strand. Olivier Appert was chairman of the Board in 2015. Didier Houssin has succeeded him in 2016. As of 31/12/2015, the Board of Directors had the following composition:

#### France:

Olivier Appert, President and CEO of  
IFP Energies Nouvelles  
Chairman

Pascal Le Deunff\*  
Ministry of Foreign and European Affairs

Elisabeth Legrand \*  
Ministry of Higher Education and Research

G rard Momplot  
GEP-AFTP

St phane Riou  
P le Mer Bretagne Atlantique

J r me S quier  
Ministry of Economy and Finance

Nathalie Trannois  
Bpifrance

Nakita Vodjdani  
French National Research Agency

#### Norway:

Jan Erik Strand  
Vice-Chairman

Inga Elizabeth Bruskeland  
Norwegian Research Council

Kristin Danielsen  
Norwegian Research Council

Sigrid Fossheim  
IC Targets AS

Martin Hennem  
Innovation Norway

Kari Rossum  
Ministry of Trade, Fisheries and Industry

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\* The members representing the three French Ministries have one vote only.

The Board of FFN/FNS held two meetings in 2015, June 12 in Paris and November 27 in Oslo.

Changes in the Board during 2015:

\* **Arne Fredheim**, SINTEF Fisheries and Aquaculture, left the Board.

\* **Inga Elizabeth Bruskeland**, Research Council of Norway, became member of the Board.

## **MEMBERS OF THE FOUNDATION**

At the end of 2015 the Foundation had 31 members: 22 members in Norway and 9 members in France.

## **THE SECRETARIAT OF THE FOUNDATION**

The secretariat of FNS/FFN is located at the Research Council of Norway in Oslo and at IFP Energies nouvelles in Rueil Malmaison.

In Norway the head of secretariat is Randi Aarekol Basmadjian. Isabelle Morelon is the head of the French Secretariat. The secretariats work in cooperation with the Embassies:

Svein Hullstein, Norwegian Embassy in Paris

Francois-Xavier Lannuzel, French Embassy in Oslo, until June 2015. He was replaced by Jean-Michel Portefaix in August 2015.

## **FUNDING OF THE FOUNDATION**

From 2016, the Foundation will no longer grant support to new projects. Since 1998 the French-Norwegian Foundation has received an annual grant of three million crowns from The Norwegian Ministry of Trade, Industry and Fisheries. In France funding is provided from other sources such as the Ministries (Research and Industry), and research funding agencies (Bpifrance, ANR, Ademe etc.) or programmes or networks entitled to back R&D activities. Beginning in 2016, the Norwegian funding will gradually be reduced. Therefore FNS will from 2016 no longer grant support to new projects. Commitments to ongoing projects will be continued until completion. The future role of FNS will be assessed during 2016.

## **GOAL AND ROLE OF THE FOUNDATION**

### **Goal**

- Promoting long-term French/Norwegian co-operation through joint R&D projects.

### **Main objectives**

- Support joint R & D projects where French and Norwegian industrial firms are main partners
- R & D projects have to lead to processes and products with industrial applications
- Connect French and Norwegian industry partners
- Organize and support workshops and seminars
- Promote cooperation between French and Norwegian researchers and industrialists

### **Research priorities**

- aquaculture and food industry
- biotechnology and biomedical industry
- informatics and information technology
- environmental technologies and energy
- marine science and technology
- material science and technology
- oil and gas exploration and production

## Requirements for proposal and project funding

The French-Norwegian Foundation promotes long-lasting French/Norwegian cooperation through the financing of joint R&D projects in which both industry and research institutes/universities are involved with the aim of creating cooperation lasting beyond the project-period.

- At least one French and one Norwegian industrial company should be partner. Preference is given to small and medium enterprises (as defined by the EU standards). A subsidiary of a foreign company having only manufacturing or commercial activities in France does not qualify for support on the French side.
- Applicants (at least one on each side) are required to be members of FFN/FNS. The applicants can become members at the time of submitting the proposal.
- The proposals shall demonstrate that the project is of interest for all participants in the project and contribute to the goals of FFN/FNS, including enhancing French-Norwegian industry cooperation.
- The scientific, technical, industrial and economic aspects of the project shall be clearly identified and the planned R & D activities shall identify the technological solutions having potential for industrial applications and marketing. The proposal (application form and project description) shall include a business plan dealing with the exploitation of the results.
- The proposal shall give a short description including the type of organisation for each partner.
- When large enterprises and research organisations are partners, exchange of research scientists, either post-doctoral fellows or graduate students, should be considered. If possible, the project shall also provide for such educational exchange.
- The maximum level of funding from the Norwegian or programs (including FFN/FNS) cannot exceed 50% of the projects costs. The level of funding from the French research funding agencies adheres to their rules.
- Project support can be obtained for a maximum of 3 years. FFN/FNS usually approves the project for one year, stating an intention of funding the subsequent year(s), subject to FFN/FNS having enough funds and the project reaching the milestones agreed to upon signature of the contract.
- "High risk" projects and projects with long term horizon qualify for funding. FFN/FNS funding is usually limited to the first phase of such long-term research.
- A consortium agreement governing the relationship between the project participants must be drawn up and signed before the parties enter into a contract with the Foundation. This agreement shall state that the parties agree on the ownership and sharing of any rights and products resulting from the project. The intention of this principle is to ensure that the collaborative parties have clarified all questions and issues related to implementation of the results of the project. The agreement should also cover the relationship to researchers participating in or working for the project.
- The Foundation also supports pilot studies and feasibility studies, including finding new and suitable partners, establishing agreements and working out joint R&D program and pilot studies for future EU or EUREKA programs.

- The Foundation can also support workshops and seminars contributing to the main objectives of the Foundation.
- An annual report must be submitted. A final report including three slides with results achieved must be submitted within three months after the project is finished.

## MAIN ACTIVITIES IN 2015

### 1. FUNDING OF PROJECTS

Eleven projects were approved for funding in 2015. Three of them are approved by EUREKA/Eurostars.

Five new project proposals were submitted to the Board for approval in 2015. Two proposals were rejected. Three of them were approved for funding, but are still pending. These are the proposals received in 2015:

- 15-01 SUBSEA SPARO Subsea Space Robotics  
(**approved, but pending**)
- 15-02 VB-FTIR Validation of Biomarkers discovered by FTIR spectroscopy  
(**rejected**)
- 15-03 BIOWATCH Biometric Authentication on SmartWatch  
(**rejected**)
- 15-04 EMOS Eat and Meet on the Street  
(**approved, but pending**)
- 15-05 AEON Archiving E-cONTent  
(**approved, but pending**)

More information about projects completed in 2015 is available in Appendix 1.



## ONGOING PROJECTS BY FIELD OF ACTIVITY IN 2015

*Definition of "ongoing projects": ongoing projects or projects still waiting for funding payment or projects whose final report has not been sent to the FFN/FNS*

### BIOMEDICINE AND BIOMEDICAL INSTRUMENTATION

*3 BUS 3band ultrasound probes for improving imaging and treatment of cancer (E!9132)*

Ref: 13-01

Vernon (Etienne Flesch)

SURF Technology (Bjørn Angelsen)

Duration: 2013-2015

*ComPack – A compact come assay for versatile genotoxicity testing and environmental monitoring*

Ref: 13-03

NorGenoTech AS (Sergey Shaposhnikov)

Saint Gobain Centre de Recherche et d'Etude Européen (Benoît Watremetz)

Duration: 2014-2017

*Dual Frequency Piezoelectric/Micromachined Hybrid Ultrasound Transducer*

Ref: 13-09

GE Vingmed Ultrasound (Trym Eggen)

Parallel Design SAS (Jean-Francois Gelly)

Duration: 2014 – 2017

### OIL AND GAS EXPLORATION AND PRODUCTION

*SSPD – Salinity Scan with Prototype Development (E! 7646)*

Ref: 12-01

Tool-Tech AS (Magne Rød)

Euro Techniques Industrielles – ETI- (Laurent Saint-Michel)

Duration: 2012 – 2015 (Terminated)

*TT Turbines (E! 8218)*

Ref: 13-05

Tool-Tech AS (Magne Rød)

Euro Techniques Industrielles – ETI- (Laurent Saint-Michel)

Duration: 2013 – 2016

*Wireless Downhole Monitoring (WDM)*

Ref: 14-12 (funding from Innovation Norway)

Techni AS (Andreas Larsson)

Tronico (Benoit Courel)

Duration: 2015

### INFORMATION TECHNOLOGY

*Standard Interoperability PLM (SIP)*

Ref. 14-09

Jotne EPM Technology (Kjell Bengtsson)

IRT-SystemsX, Airbus Group Boost Conseil Datakit (Nicolas Figay)

Duration : 2015-2017

## **MATERIALS**

*HotSiC Development of new formulas for hot-pressing and spark plasma sintering of Silicon Carbide*

Ref: 14-02

Saint Gobain Ceramics Materials AS (Pål Runde)

Saint Gobain Centre de Recherche et d'Etude Européen (Benoît Watremetz)

Duration: 2014-2017

*Stressguard@Sea Integrity Management System for Marine Structures*

Ref: 15-01 (funded with SkatteFunn on the Norwegian side)

Olav Olsen AS (Erik B. Holm)

Principia (Guillaume Babin)

Duration: 2015-2017

## **ENERGY SAVING**

*Wind Turbine Simulator*

Ref 14-07

Ericsson AS (Erling Jenssen)

Lun'tech (Pascal Gerbaud)

Duration: 2015-2017

*Wood-based air heating system for energy-efficient dwellings - Wood-Air*

Ref: 14-10

SINTEF Building and Infrastructure (Axel Cablé)

Poujoulat SA, Laboratoire CERIC (Pierre Peigné)

Duration: 2015 (Terminated)

## 2. FUNDING OF SEMINARS

The Foundation supports bilateral seminars. The main objectives are:

- Bring together French and Norwegian key actors in priority fields,
- Stimulate private-public and research-industry collaborations,
- Initiate cooperation projects in the R&D sectors, including demonstration projects

The Foundation received and approved five new applications for funding in 2015. **Appendix 4** contains a list of the 56 seminars funded by the Foundation since 1984.

### SEMINARS FUNDED IN 2015

- **French-Norwegian Ocean Industry Symposium (WKS 15/01)**

Oslo, 14 October 2015

Organizers: (F) Chambre de Commerce Franco-Norvégienne, French Institute  
(N) Innovation Norway,

Thematic: Meetings and matchmaking between innovative French and Norwegian "Ocean Industries" (fish farming, seafood, maritime renewable energy, defense, offshore)

Participants: Approx 100 participants from private companies and public institutions from both countries.

- **Conference on Marine Operations and Subsea Systems (WKS 15-02)**

Paris, May 28, 2015

Organizers: (F) GEP AFTP  
(N) INTSOK

Thematic: Marine Operations and subsea systems, solutions for cleaner production

Participants: 200 participants from the private and public sector in both countries

### NEW SEMINAR DECISIONS IN 2015 (ORGANIZED IN 2016)

- **Nordic-French H2020 Brokerage Event on Rare Diseases (WKS 15-03)**

Oslo, May 12 – 13, 2016

Organizers: (F) French Institute, French Embassies in the Nordic countries, National contact Points for H2020 in the Nordic countries  
(N) Research Council of Norway – NCP for Health, French-Norwegian Foundation

Thematic: Promote participation in upcoming H2020 Health - Rare diseases proposals!

Participants: Private and public actors

- **Seminar in Pau for French and Norwegian SME's: Clean Energy Solutions (WKS 15-04)**

Pau, June 7, 2016

Organizers: (F) French-Norwegian Chamber of Commerce, GEP AFTP, Avenia Cluster  
(N) INTSOK

Thematic: B2B-meetings between French and Norwegian innovative companies working within geosciences and subsurface engineering

- **Nordic-French Conference on conversion of Biomass (WKS 15-05)**

Paris, March 10 – 11, 2016,

Organizers: (F) French Institute in Oslo, French Embassies in the Nordic countries  
(N) Norwegian Embassy in Paris

Thematic: Promote project participation within Conversion of Biomass: Green Chemistry and Innovative Processes

Participants: Private and public actors

- **French-Norwegian workshop on bioeconomy (WKS 15-05)**

Paris, April 14, 2016

Organizers: (F) Bpifrance  
(N) Innovation Norway

Objective: Help French and Norwegian companies working in the bioeconomy sector to develop collaborative partnerships and apply for funding from relevant national or european sources



Participants: Private companies, research institutions

### 3. THE ÅSGARD PROGRAMME: contributes to build research and innovation networks between France and Norway

In 2006 the Scientific mission of the French Embassy in Norway and the Foundation launched the programme Åsgard. The initial objective was to invite French researchers to Norway, but gradually the program has also been opened for Norwegian researchers going to France. Åsgard replaced the earlier exchange programme operated by the National Academies of Science (1990 – 2003), and is open to all researchers, with emphasis on those 35 to 45 years old, whose scientific work is internationally recognized and who have leading positions in their home institutions.

**Scientists from France** are invited for a one-week visit to Norway to meet specialists working within their field of interest. The goal of the visit is to create links between French and Norwegian researchers and research institutions, to exchange scientific knowledge and skills and to establish new networks and projects. The 82 candidates selected since 2006 are listed in Annexe 5.

**Scientists from Norway** can apply for a short stay in France with the same objective, which is to create new networks and explore possibilities for common research projects. Applications can be submitted continuously to the Norwegian secretariat of the Foundation. Travel grants are limited to 15 000 NOK per person. The 23 candidates selected since 2007 are listed in Annexe 5.

	<b>Researchers from France</b> 	<b>Researchers from Norway</b> 
<b>General objective</b>	Stimulate exchanges of scientific knowledge and skills between Norway and France, create new networks, establish common research projects, in particular in the frame of H2020	
<b>Thematic fields</b>	All thematic fields covered by the Foundation	
<b>Deadline</b>	December 15th every year	Open-ended
<b>Where to apply</b>	The French Embassy in Oslo	Norwegian Secretariat of the Foundation
<b>Grant</b>	The grant covers a one week stay in Norway for the selected candidate	Travel grant of 15 000 NOK per person
<b>Grants per year</b>	8 grants per year	5 grants per year
<b>Organization of visits</b>	Detailed visiting program in Norway established by the French Embassy in Norway.  The candidates are invited to give lectures and courses during their stay in Norway.	No visiting program is proposed for the visit in France, but assistance can be provided upon request.  The application has to include a plan for the visit in France.

**Selected candidates in 2015, France to Norway:**

Out of 50 applications received for 2015, the following 8 French candidates were selected to spend one week in Norway in order to visit private and public research institutions:

1. Omar BENZAKOUR, Cell Biology, Université de Poitiers
2. Sabine BOUCHE-PILLON, Urban Ecology, École de la Nature et du Paysage, Blois
3. Yves CANAC, Catalysis, CNRS, Laboratoire de Chimie de Coordination, Saint-Étienne
4. Marian CHATENET, Electrochemistry, Grenoble-INP
5. Ahmed CHEMORI, Automatic Control, CNRS, Laboratoire d'Informatique, de Robotique et de Microélectronique de Montpellier
6. David MUÑOZ-ROJAS, Material Science, CNRS, Laboratoire des Matériaux et du Génie Physique, Grenoble
7. Antoine ROUILLY, Processing of Natural Polymers, École nationale supérieure des ingénieurs en arts chimiques et technologiques, Toulouse
8. Éric SCHMIDT, Cerebral Ageing, Département de Neurochirurgie, CHU Toulouse

**Selected candidates in 2015, Norway to France.**

Four scientists from Norway have received support from the Foundation in 2015 for a short stay in France.

1. Karl Lindqvist, SINTEF Energy AS, visiting Laboratoire de la Réaction et Génie des Procédés à Nancy (Eric Favre)
2. Simon Roussanaly, SINTEF Energy AS, visiting Laboratoire de la Réaction et Génie des Procédés à Nancy (Eric Favre)
3. Jan Poplsteinova Jakobsen, SINTEF Energy AS, visiting Laboratoire de la Réaction et Génie des Procédés à Nancy (Eric Favre)
4. Even H. Jørgensen, Department of Arctic and Marine Biology, University of Tromsø, visiting Laboratoire Arago, Observatoire Océanologique de Banyuls/Mer (Eloïde Magnanou)

#### **4. BILATERAL AGREEMENT ON RESEARCH BETWEEN FRANCE AND NORWAY**

The committee following up the the bilateral agreement on research signed in 2008 by the Ministers of Research in the two countries, meets every second year. France is the only European country with which Norway has a bilateral agreement devoted to research cooperation. The last meeting of the Committee was in Paris, in April 2014, the next one will take place in Oslo in May 2016. The French-Norwegian Foundation implements some of the actions decided by this Committee. For example, the Committee suggested in 2014 to organize a seminar on Health gathering participants from France and the Nordic countries. This seminar will take place in Oslo, May 12 - 13, 2016. The objective is to create more applications with French and Norwegian participation targeting calls on Rare Diseases in Horizont 2020.

## **5. OTHER ACTIVITIES**

During the year 2015, the Foundation has followed up requests from companies and researchers looking for partners and funding possibilities for bilateral research projects. As the Foundation will no longer offer project funding from 2016, information has been given about other National and European funding schemes.

Both Secretariats work in close contact with the Embassies in the two countries and the French Chamber of Commerce located in Oslo. The Foundation has been involved in the following events in 2015:

### **Bioeconomy**

Innovation Norway and Bpifrance have initiated a cooperation within bioeconomy. The Foundation has supported this action by offering travel grants to participants at the bioeconomy seminar organized in Paris in April 2016.

### **Conference in Paris, May 28, 2015 on Marine Operations and Subsea Systems.**

Innovation Norway, INTSOK (Norwegian Oil and Gas Partners), GEP-AFTP, the French-Norwegian Chamber of Commerce, Technip, GDF Suez and Total arranged this conference, together with the Foundation, that gathered 200 participants from both countries. Renown speakers gave presentations of high quality. The conference was sponsored by the Foundation.

### **Meeting in Paris, June 3<sup>rd</sup>, 2015: cooperation between Clusters**

On June 3<sup>rd</sup>, 2015, the Foundation and the two French Pôles Mer invited the French competitiveness clusters to an information meeting dedicated to opportunities for French-Norwegian research cooperation. The meeting held in Maison de la Norvège gathered 12 participants from 6 clusters. Presentations have been made by the FFN, Pôles Mer, Bpifrance, Innovation Norway, and on H2020 by the French Ministry of Research. This meeting has been followed by a large diffusion of the presentations to French clusters and research institutes.

### **French-Norwegian Day, Oslo, October 14, 2015**

This annual event organized by the French Chamber of Commerce was in 2015 devoted to the Ocean Industry. 100 participants attended the plenary session in the morning. B2B-meetings were organized in the afternoon. Stéphane Riou was among the speakers. The conference was sponsored by the Foundation.

### **Health Mission to Norway, November 2015**

A French-Norwegian mission on ICT and Health was organized in Norway from 23 to 25 of November 2015 by Business France. Several French companies and Pôles participated at the mission to Oslo and Tromsø. Information about available research and innovation funding programmes at the national and European level was presented by Nathalie Trannois, Inga E. Bruskeland and Randi A. Basmadjian.

## FIGURES AND FACTS

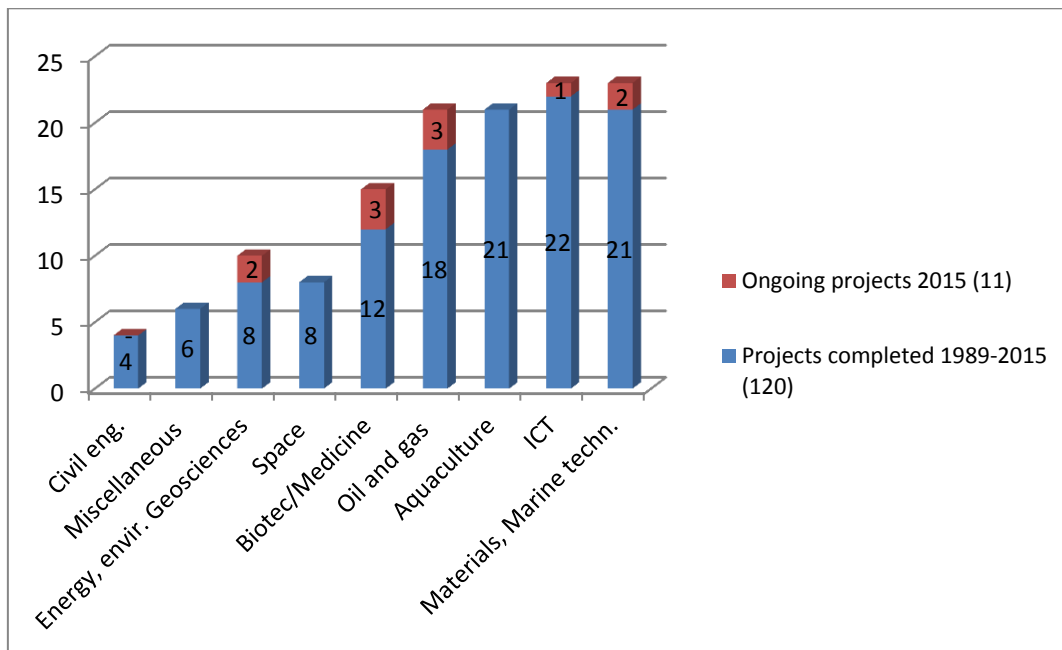
### PROJECT FUNDING 1988 – 2015

Up to mid-nineties oil, gas and offshore technology dominated the areas of activity. This has changed since and the fields of material sciences and technology, information technology and aquaculture have been dominant from 1999. Over the period 1988 – 2015 the number of projects within material science and technology have prevailed oil/gas. Number and funding of completed and ongoing projects according to fields of activity are shown in the two figures below.

### FUNDING OF THE FOUNDATION FROM 2016

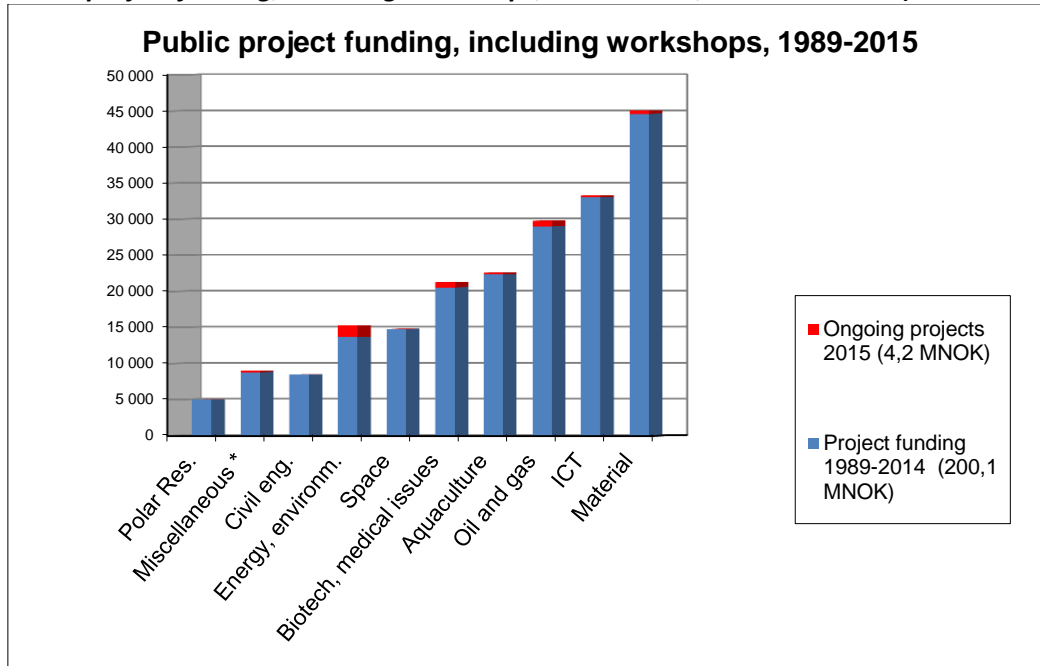
From 2016, the Foundation will no longer grant support to new projects. Since 1998 the French-Norwegian Foundation has received an annual grant of three million crowns from The Norwegian Ministry of Trade, Industry and Fisheries. In France funding is provided from other sources such as the Ministries (Research and Industry), research funding agencies (Bpifrance, ANR, Ademe etc.) or programmes or networks entitled to back R&D activities. Beginning in 2016, the Norwegian funding will gradually be reduced. Therefore FNS will from 2016 no longer grant support to new projects. Commitments to ongoing projects will be continued until completion.

### *Number of projects funded according to thematic fields (1989 – 2015)*





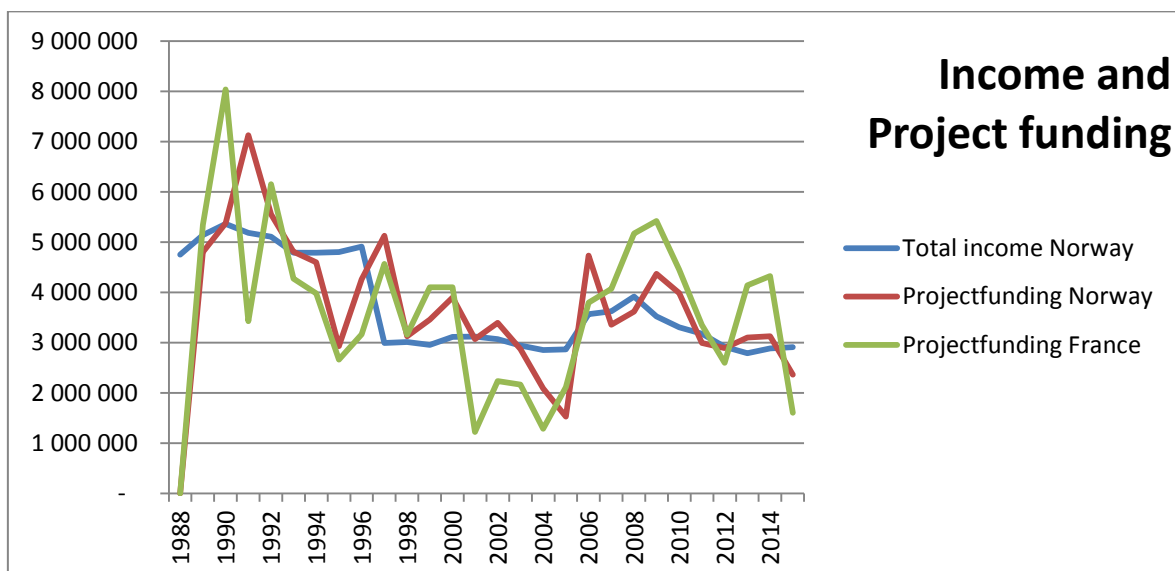
**Public project funding, including workshops, 1989 – 2015, thematic areas (in 1000 NOK)**



Of the total of 131 projects, more than half (60%) have been awarded to Small and Medium-sized Enterprises (SMEs), 20% to Research institutes and 20% to Large Scale Enterprises (LSEs). Earlier, when the funding from the Foundation was more important per project, both LSE and Research institutes were strongly encouraged to include doctoral students in the projects. More than 50 doctoral theses have been performed through FFN/FNS projects.

**Project funding – income and expenditure**

The figure below shows the income and project allocations from 1988 to 2015. In Norway, the Ministry of Trade and Industry (through the Research Council of Norway) allocate an annual amount. The total income includes Eureka support and member fees. In France the income and project funding are the same amount as there is no allocation from the Ministries to the French part of the Foundation, except a grant to one of the projects. Seminar funding is not included. The allocation from the Norwegian Ministry of Trade and Industry started in 1988 but project funding started in 1989.

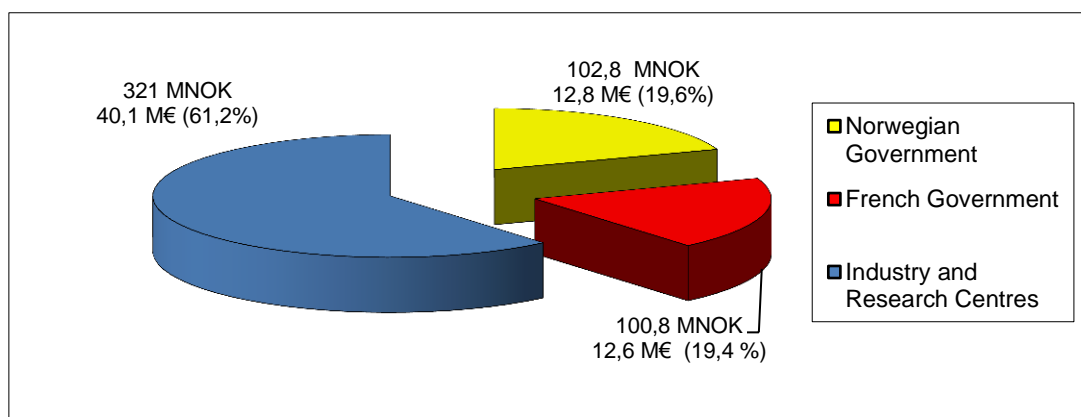


## REVIEW OF THE FUNDING OF THE FOUNDATION

Since its establishment in 1983, the Foundation has been an important tool for the development of bilateral co-operation for scientific and technical research and industrial development between France and Norway. Until 1988 the Foundation mainly served as a catalyst for the technical co-operation between the two countries. After the Troll agreement was signed in 1986, the two parties agreed to use the Foundation to actively promote and co-ordinate bilateral research and development projects. Each country agreed to support the Foundation with up to 50 mill NOK over a period of 10 years (1989-1999). A substantial industry involvement of at least 50 percent financing was set as a requirement. The intention of funding FFN/FNS over a 10-year period with a total of 100 mill NOK on a 50/50 basis has been fulfilled and the industry has in fact covered 60 percent of the total costs.

Since 1989 more than 131 projects and more than 56 workshops/seminars have been supported. As shown in the figure below, the total R&D budget (1989-2015) is 525 mill NOK of which the industry has covered 60 percent while the Norwegian and French governments have granted the remaining 40 percent.

### *Government and industry support 1988 – 2015 (524,8 mill NOK)*



## FFN/FNS' BASIC CAPITAL

The Foundation's capital is NOK 1 000 000, NOK 500 000 has been paid from each country. In 2015 the total income including interests and member fees was 4 974 837 NOK, while the total expenditures ended up with 5 873 103 MNOK. The net loss of the year was -839 398 NOK. This amount is transferred to the equity.

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### Appendix:

1. Results of ongoing projects completed in 2015
2. Projects completed: 1988 – 2015
3. Workshops and seminars: 1984 – 2015
4. Exchanges of scientists 1990 – 2015
5. Account report 2015

The Board approves the annual report for 2015.  
May 10, 2016, Oslo, Norway

Olivier Appert (s)  
Chairman

Jan Erik Strand (s)  
Vice-Chairman

Pascal Le Deunff (s)  
Board member

Inga E. Bruskeland(s)  
Board member

Elisabeth Legrand (s)  
Board member

Kristin Danielsen (s)  
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G rard Momplot  
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Sigrid Fossheim (s)  
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St phane Riou (s)  
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Martin Hennem (s)  
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J r me S quier (s)  
Board member

P l Gretland (s)  
Board member

Nathalie Trannois (s)  
Board member

Nakita Vodjdani (s)  
Board member

Isabelle Morelon (s)  
Secretariat leader (France)

Randi Aarekol Basmadjian (s)  
Secretariat leader (Norway)



## APPENDIX 1: RESULTS FROM PROJECT COMPLETED IN 2015

**TOOL-TECH AS** (Magne Rød)

**EURO TECHNIQUES INDUSTRIES** (Laurent St. Michel)

Ref: 12-01

### **SSPD Salinity Scan with Prototype Development**

FNS Norway:	1 200 000 NOK	Total Industry/other sources:	1 580 000 NOK
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FFN France:	240 000 €	Industry/other sources:	44 000 €
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Duration: 2012 – 2015 (39 months)

#### **Results (summary)**

We have successfully shown that a test chamber can be built for the purpose of measuring salinity of oil well fluid. The crude separation with the in-built coalescer works. However, the instrumentation solutions require more work. It is intended to replace the current well fluid mixing solution with pre-mix tanks and continue testing to get a better basis for the qualification of the selected level instrument.

It has been concluded that it will be better to separate the coalescence, level monitoring and salinity reading features into separate functions, rather than continue with the multi-purpose functionality of the level instrument. The current level instrument shall be compared with an alternative solution before it is concluded to proceed with the selected level monitoring solution in an industrial application of the technology.

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**SINTEF Building and Infrastructure** (Axel Cablé)

**POUJOLAT** (Pierre Peigné)

Ref: 14-10

### **WOODAIR Wood-based air heating system for energy-efficient dwellings**

Duration: 2015

FNS Norway:	200 000 NOK	Total Industry/other sources:	200 000 NOK
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FFN France:	40 000 €	Industry/other sources:	60 000 €
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#### **Results (summary):**

The relevance of a flue gas heat exchanger (FGHE) located at the exit of a wood-logs or a wood-pellet stove are coupled to a balanced ventilation system has been evaluated in terms of operative temperature increase and energy use compared to houses without the system.

Dynamic energy simulations (TRNSTS coupled with TRNFlow) have been used for this purpose, on both a Norwegian house typology (TEK15) and a French house typology (RT2012), taking into account 7 different climatic locations.

The tested system allows for a minimum operative temperature increase (Atop 5%) in the bedroom furthest away from the stove of 2,1 degrees C to 9.5 degrees compared to the same house without the system.

Energy savings of up to 20% are reported over the heating season compared to the same house without the system.

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## APPENDIX 2: FFN/FNS PROJECTS COMPLETED: 1988 – 2015

### AQUACULTURE, AGRICULTURE AND FOOD INDUSTRY

- Developing system Biofish – Sea Bass, Sea Bream in Mediterranean (Project A and B)  
Oppdrett Service AS, Norway (Geirulv)  
Scorsa, France (van Obbergen and Guy Lebrun)  
Duration 1989 - 1991
- Study of Inter-relations Carotenoides-Vitamines A at salmon  
Akvaforsk, Sunndalsøra, Norway (Storebakken)  
INRA, Ascain, France (Coubert)  
Duration 1989 - 1990
- Air transportation – Norwegian Aquaculture – by ATR 72  
Air West A/S, Norway (Wågsæther)  
Avions de Transport Régional (ATR), France (Valerio)  
Duration 1990 - 1991
- Turbot grower feed. Protein requirement Feed production technology  
Norsk Bioakva A/S, Norway (Einar Wathne)  
UCAAB, France (Antoine Bon)  
Duration 1994 - 1997
- Scallop production – plan for co-operation  
Centre for Studies of Environment and Resources, UiB, Norway (Thorolf Magnesen)  
IFREMER-Brest-Drv, France (Jean-Claude Dao)  
Duration 1994 - 1997
- Control and management of quality with nutrition and feeding regime  
Domstein Salmon AS, Norway (Ola Sveen)  
Labeyrie SA, France (Laurent de Baynast)  
Duration 1995 - 1997
- Bioactive compounds in fish and shellfish waste  
Institute for Fisheries and Aquaculture, Norway (Asbjørn Gildberg)  
Collège de France, Marine Biology Laboratory, France (Yves Le Gal)  
Duration 1995 - 1997
- Cellular immune system in salmoned fish  
University of Bergen, Fisheries and Marine Biology, Bergen, Norway (Curt Endresen)  
Université Pierre et Marie Curie, CNRS and INRA, Paris, France (Jacques Charlemagne)  
Duration 1996 - 1998
- Oral use of Propionibacterium acnes to improve health and growth in fish  
Nutreco ARC, Norway, (Alex Obach)  
Vétoquinol S.A., France (A. Rigoulot)  
Duration 1998 – 1999

- Alternative to antibiotic treatments in marine aquaculture. Application to bivalve larvae  
Centre for studies of environment and resources, UiB / Scalpro AS, Norway (T. Magnesen)  
UBO-IEUM-UMR CNRS, France (Christine Paillard)  
Duration 1999 - 2000
- New quality assessment methods for the Norwegian salmon industry  
SINTEF Fiskeri og havbruk and Norway Royal Salmon, Trondheim, Norway (Marit Aursand)  
Eurofins Laboratories and Laiem, Nantes, France (Michèle Lees)  
Duration: 1998-2001
- Substitution of fish meal by plant protein in diet of Atlantic Salmon and Rainbow Trout  
EWOS Innovation AS (NorAqua Innovation AS), Dirdal, Norway (Jan Vidar Jakobsen)  
UNCAA DPA UCAAB, Chateau-Thierry, France (Christine Azam)  
Duration: 1999 – 2002
- High-energy diets in aquaculture: Effects on salmonid quality  
Nutreco ARC AS, Stavanger, Norway (Wolfgang Koppe)  
National Institute for Agronomic Research (INRA), France (Geneviève Corraze)  
Duration: 2000 - 2003
- Structure, formation and daily growth of the scallop *Pecten maximus* shell  
Institute of Marine Research, Bergen (Øyvind Strand)  
Institut Universitaire Européen de la Mer (Laurent Chauvaud)  
Duration: 2001-2003
- Adaptation of French sea bream technology for cod fingerling production  
Bergen Aqua AS, Bergen (Grethe Adoff)  
Ferme Marine de Douhet (Frédéric Cachelou)  
Duration 2001 - 2003
- Nutraceuticals from fish and shellfish hydrolysates  
BioHenk AS, Tromsø (Even Stenberg)  
Station de Biologie Marine du Muséum National d'Histoire Naturelle (Yves Le Gal)  
Duration: 2002 – 2004
- Blue mussel bio-energetics in aquaculture as modelled with DEB (Dynamic Energy Budget) theory  
IMR (Havforskningsinstituttet) (Øyvind Strand)  
IFREMER (Marianne Alunno-Bruscia)  
Duration: 2009 – 2010
- Molecular markers to estimate algal diets of molluscs (KLEM)  
UNI MILJØ (Christofer Troedsson)  
IFREMER (Marianne Alunno-Bruscia)  
Duration: 2010 – 2011
- Spatial Information System for aquaculture in Normandy and in Norway (SISQUONOR)  
Havforskningsinstituttet, (Øyvind Strand)  
IFREMER (Aline GANGNERY)  
Duration: 2013 – 2014



- PIES FPI Enriched Salmon  
DUE Miljø AS (Eddy Torp)  
Labeyrie AS (Francois Aguer)  
Duration: 2012 – 2014
- Environment-monitoring buoy for the aquaculture industry (ENVI-BUOY)  
NORTEK AS (Jardar Maatje)  
NortekMED AS  
Duration: 2012 – 2014

### **BIOTECHNOLOGY / BIO-MEDICINE / BIOCHEMISTRY / BIOMEDICAL INSTRUMENTATION**

- Development of 99-Tc-labelled drugs based upon Biological Substances  
Axix Research A/S, Oslo, Norway (Heggli)  
Compagnie ORIS Industrie, Gif-sur-Yvette, France (J.C. Saccavini)  
Duration 1989 – 1990
- Purification of marine oils by supercritical fluid fractionation  
Pronova Biocare, Norway (H. Breivik)  
Separex, France (M. Perrut)  
Duration 1991 - 1993
- Modelling of molecular recognition – a semi automatic approach  
MR Center, Norway (Steffen Petersen)  
Biostructure, France (Stéphane Boudon)  
Duration 1992 – 1993
- Detection and counting of residual leukocytes  
Dynal, Norway (Erik Ruud)  
Biocytex, France (Philippe Poncelet)  
Duration 1993 - 1994
- Repair of lesions induced in DNA by industrial compounds and drugs  
University of Bergen Department of molecular Biology, Bergen, Norway (Niels Aarsæther)  
Institut Gustave Roussy, Villejuif, France (Jacques Laval)  
Duration: 1998-2001
- The immune system in scallop, Doctoral studies at SARS Centre in Bergen  
Doctoral student Armaury Herpin, Laboratoire de Biologie et Biotechnologies Marine, Caen  
Duration: 2000-2002
- Development of biochemical procedures and read out platforms for manipulating and analysing nucleic acids  
LingVitae, Norway (Preben Lexow)  
Pasteur Institut, France (Aaron Bensimon)  
Duration: 2001-2003
- The Effect of Bioactive Fatty Acids on Atherosclerosis and Restenosis Development  
Thia Medica AS / Clinical Biochemistry Haukeland Hospital, UiB, Norway (Rolf K. Berge)  
Institut Pasteur de Lille, France (Bart Staels)  
Duration: 2002 – 2004

- Developing genetic tools for real time non-invasive imaging of tumorigenesis in living mice  
Cgene AS (Harald Karlsen) / University of Oslo (Joel Glover)  
ENS Paris / IPSOGEN (Christo Goridis / Fabienne Hermitte)  
Duration: 2005 – 2007
- Novel sonosensitive liposomes and systems for targeted ultrasound mediated drug delivery  
Epitarget Therapeutica (former CancerCure AS) (Esben A. Nilssen)  
EDAP-TMS SA (Emmanuel Blanc)  
Duration: 2007 – 2011 (Σ!4056)
- Monitoring of physiological pressure by implantable MEMS-MOPP-MEMS  
SINTEF ICT (Ingelin Clausen, Fabrice Lapique)  
Tronics S.A. (Stephane Renard)  
Duration: 2010 – 2012
- Pain Monitor to predict development of chronic pain  
Med-Storm Innovation AS (Hanne Storm)  
Hôpital Foch (Marc Fischler)  
Duration: 2012 – 2014

### **CIVIL ENGINEERING**

- Prediction creep settlements for foundations in permafrost  
Norwegian Geotechnical Institute, Oslo, Norway (Tom Lunne)  
GEOCEAN, Marseille, France (Alain Puech)  
Duration 1991
- Submarine Slides  
Norwegian Geotechnical Institute, Oslo, Norway (Harald Norem)  
CEMAGREF, Division Nivologie, St. Martin D’Heres, France (Gerard Brugnot)  
Duration 1991 - 1992
- Geosynthetics for innovative sustainable solutions in Arctic climate  
Store Norske Spitsbergen Grubekompan / SINTEF (Arnstein Watn)  
TenCate Geosynthetics France (Philippe Delmas)  
Duration: 3 years 2006 – 2009 (Σ! 3702)
- TEMASI System (Σ! 4572)  
Saint-Gobain Byggevarer AS (former Maxit AS) (Oddvar Hyrve)  
MDB Texinov (Jacques Tankere)  
Duration: 2009 – 2012

### **ENERGY SAVING AND ENVIRONMENTAL TECHNOLOGY**

- Technology transfer in water technology  
Aquateam, Norway (Schanke Eikum)  
Verseau, France (Lagarrique)  
Duration 1990 – 1991
- Integration of a gas turbine in a high speed vessel  
Ulstein International AS, Norway (Harald Nordal)  
Turbomeca, France (Watier)  
Duration 1991 - 1992

- Anode gas cleaning. Installation and operation of a Pilot Plant  
Elkem Aluminium ANS, Norway (Arne G. Berg)  
Procedair SA, France (Serge Commenges)  
Duration 1997
- Wet Air Oxidation by Catalytic Membrane Contactor  
SINTEF Material Technology / Due Miljø, Norway (Henrik Ræder)  
Institut de Recherches sur la Catalyse (IRC)-CNRS, France (P. Gallezot)  
Duration 1998 – 2000
- Current forecasting in the North Sea and the Gulf of Lion  
Terra Orbit AS (Laurent Bertino)  
Actimar SA (Raymond Nerzic)  
Duration: 3 years 2006 - 2008
- Stabilisation of top of the line corrosion rate  
Institutt for energiteknikk (IFE) / Total Norge / Norske Conoco Phillips ( Arne Dugstad)  
Total S.A / ENSEE Grenoble (Yves Gunaltun)  
Duration: 3 years 2006 – 2008
- Industrialisation of the Watercatox process for waste water treatment and liquid oxidation  
Due miljø (Eddy Torp and Partow Henriksen)  
Tredi (Sylvain Durecu)  
Duration: 2008 – 2010
- WOODAIR Wood-based air heating system for energy-efficient dwellings  
SINTEF Building and Infrastructure (Axel Cablé)  
POUJOLAT (Pierre Peigné)  
Duration: 2015

### **INFORMATION / TELECOMMUNICATION TECHNOLOGIES / ROBOTICS**

- Fibre Optic Technology  
Alcatel STK, Norway (Flaarønning)  
Lab. de Marcoussis, France (Torchin)  
Duration 1989 – 1990
- Computer aided navigation of mobile robots using animated synthetic images  
SINTEF, Norway (V. Kallevik)  
CYBERNETIX, France (P. Baraona, D. Sangouard)  
Duration 1990 - 1991
- ACM, Advanced Configuration Management (NOMADE + EPOS)  
Norwegian Institut of Technology, Trondheim, Norway (Conradi)  
LGI, Nomade Team, Grenoble, France (Estublier)  
Duration 1991 - 1992
- Interactive home support systems for protected housing  
Man Machine Technology AS, Norway (Anderson)  
Pierron SA, France (Viala, Legrand)  
Duration 1992 - 1993

- Eviacsim – An interactive evacuation simulation system tool  
A/S Quasar Consultants, Norway (K. Harald Drager)  
Simulog, France (Bruno Arbaud)  
Duration 1992 - 1993
- High performance safety and security detector field bus  
Autronica AS, Trondheim, Norway (Gunnar Haveland)  
Automatismes Sicly, Le Blanc-Mesnil, France (Thierry Chabot)  
Duration 1994 - 1997
- TRICAD – Triangulation of CAD geometries  
ViewTech, Norway (Tor Helge Hansen)  
Transvalor, France (Etienne Wey)  
Duration 1999 - 2000
- Secure software distribution and payment over Internet  
Sospita AS (Protective Technology), Mandal, Norway (Ulf Carlsen)  
Gemplus, Gémenos, France (Pierre Girard)  
Duration: 1999-2001
- HP-Sim: High Performance Seismic Imaging)  
Para//ab / Norsk Hydro, Bergen, Norway (Tor Sørøvik)  
Armines-Geophysique, Fontainebleau, France (Philippe Thierry)  
Duration: 2000-2001
- 3D Geometry System integrated with haptic and kinaesthetic solutions  
Compu Touch AS, Norway (Frank Robert Berg)  
Atomic Energy Commission, France (CEA) (Guy Le Bras)  
Duration: 2001-2002
- Software Components for Building Complex 3D Geological Models (2001-2003)  
GeoCap AS, Norway (Olav Egeland)  
Armines / IFP, France (Jean-François Rainaud)
- Medical Device Software Assessment for Certification  
Det Norske Veritas AS, Oslo, Norway (Torbjørn Skramstad)  
ISOSCOPE, Toulouse, France (Christian Rouve)  
Duration: 2000 - 2004
- Simulation and planning for Robotic Education and Distant Surgery  
Sim Surgery AS, Norway (Jan Sigurd Røtnes)  
IRCAD, France (Luc Soler)  
Duration: 2003-2004
- Development of innovative IT solutions for Shipbrokers  
Unified Messaging Systems, Norway (UMS) (Harald Lindbäck)  
AXS Marine SA, France (Fabrice Demichel)  
Duration: 2003-2004

- Modelling electricity prices in European markets with an emphasis on risk analyses  
Kjell Magnus Maribu – postdoctoral studies at École des Mines de Paris  
Duration : Six months 2006
- Localisation of drifting objects and decision aid system for maritime search and rescue (SAR)  
CMR Computing / Met.no (Kjell Røang)  
ACTIMAR / IFREMER (Raymond Nerzic)  
Duration: 2006 – 2008 (Σ! 3652)
- STERIPROBE – Development and industrialization of ultrasound probes for sterile processing  
Sonowand AS (Atle Kleven)  
Vermon S.A. (Philippe Auclair)  
Duration: 2009 – 2010 (Σ! 4980)
- NextGenFSI: Next generation numerical code for fluid-structure interaction  
Impetus Afea (Arve Grønsund Hanssen)  
SARL Impetus Afea (Jean Luc Lacomme)  
Duration: 2010
- AcousticNose - Compact Photo-Acoustic Mid-Infrared Spectroscopy Sensor for Extended Range of Chemical Agents (Euripides project)  
Norsk Elektro Optikk AS (Peter Kaspersen)  
Alcatel Thales III-V Lab (Xavier Marcadet/Dominique Pons)  
Duration: 2010 – 2012
- LUCIDMAN Local User-Centric Identity Management (Σ! 7161), Ref: 10-06  
Vallvi AS (Petter Taugbøl)  
CEV SA (Cedric Ouvry)  
Duration: 2011 – 2013
- Bullet Impact on Tissue Simulant – BITS Σ! 7594  
IMPETUS Afea AS (Arve Grønsund Hanssen)  
IMPETUS Afea SAS (Jean Luc Lacomme)  
Duration: 2012 – 2014
- Smart Autofocus – SmartAF Σ! 6808  
poLight AS (Jon H. Ulvensøen)  
DxO (Melana Kali)  
Duration: 2013 - 2014

### **MATERIAL SCIENCE AND TECHNOLOGY / MARINE TECHNOLOGY**

- Advanced light metals for car engines  
Hydro Aluminium, Sunndalsøra, Norway (L. Auran)  
PSA Velizy, France (R. Moore)  
Duration 1988-1992
- Postal container for ATR  
Hydro Aluminium, Norway  
Avions de Transport Regional (ATR), France  
Duration 1990 - 1991

- Microstructurally based modelling of plastic anisotropy  
Hydro Aluminium, Metallurgical R&D Center, Sunndalsøra, Norway (A. Aafлот)  
Pechiney Recherche, Voreppe, France (B. Marandet)  
Duration 1991 -1992
- Recovery of Aluminium Alloys  
Hydro Aluminium, R&D Materials Technology, Norway (Trond Furu)  
Pechiney CRV, France (D. Duly)  
Duration 1993 - 1996
- Modelling and improved cooling of aluminium extruded sections  
Hydro Aluminium, R&D Materials Technology, Norway (Antonie Oosterkamp)  
Bertin & Cie, France (J. Street)  
Duration 1994 - 1997
- Electrophoretic and sol-gel methods for anticorrosive mineral coatings  
SINTEF Materials Technology, Norway (Christian Simon)  
Institut Français du Petrole, France (Benjamin Cabot)  
Duration 1994 – 1997
- Piezo-composites in underwater transducers  
Simrad Norge AS, Horten, Norway (Helge Bodholt)  
Imasonic, Besançon, France (Gerard Fleury)  
Duration 1996 - 1998
- Carbon particle upgrading by plasma  
SINTEF/NTNU, Norway (Jon Arne Bakken)  
ARMINES, Centre d’Energétique, Sophia Antipolis, France (Laurent Fulcheri)  
Duration 1998
- Development of high performance and safety improved work clothing for the oil industry  
SINTEF Unimed, Øglænd Pioner, Norway (Arvid Påsche)  
Pinatel et Chapuis Textiles, France (Pierre Baleix)  
Duration 1998 - 1999
- Inductive plasma purification of metallurgical silicon using inductive plasma in order to obtain silicon with purity suitable for solar cell manufacturing  
Elkem ASA, Kristiansand, Norway (Pål Runde)  
PREMIS Technologies, Ascoux, France (N. Perrodin)  
Duration: 1999 – 2001
- High temperature pressure sensor (2000 - 2001 )  
PreSens, Oslo, Norway (Frode Meringdal)  
Cea Leti, Grenoble, France (Bernard Diem)  
Duration: 2000 - 2001
- Aluminium components subjected to impact loading conditions  
SIMlab, NTNU / SINTEF / Hydro Aluminium, Norway (Magnus Langseth)  
LMT-Cachan / Renault, France (Ahmed Benallal)  
Duration: 2003-2005

- Novel silicon feedstock by agglomeration of silicon powder and further refining by thermal treatment and reactive metallurgy  
Silicon Technologies AS, Norway (Bruno Ceccaroli)  
EMIX SA, France (Didier Landaud)  
Duration: 2005
- Up-scaling of advanced ceramic membrane processes for fish oil separation  
Due Miljø and SINTEF Materia, Norway (Eddy Torp and Bente G. Tilset)  
CTPP / IFREMER, France (Charles Delannoy) and NOVASEP Orelis  
Duration 2004
- Up-scaling of advanced ceramic membrane processes for fish oil separation  
Due Miljø/SINTEF, Norway (Eddy Torp and Bente G. Tilset)  
CTPP / Novasep Orelis, France (Charles Delannoy)  
Duration: 3 years 2005 - 2007 (Σ! 3198)
- New process for solar silicon. Refining by thermal treatment and reactive metallurgy  
Rec Silicon AS, Norway (Bruno Ceccaroli / Erik Saunar)  
EMIX S.A, France. (Didier Landaud)  
Duration: 3 years 2006 – 2008 (Σ! 3314)
- Intercepting HISC by ultrasonic residual stress measurements  
Det Norske Veritas (Majid Anvari)  
Ultra RS (Siamack Atiabi)  
Duration: 1 year - 2006/07 (Finish in September 2009)
- Conception, development and testing of new aluminium casting alloys for elevated temperature applications in automobile engines  
Hydro Aluminium (Petter Åsholt)  
Montupet (Bruno Barlas)  
Duration: 3 years 1.7.2006 – 30.6.2009 (Σ! 3698)
- Evaluation of Ready To Use crucibles for the crystallization of multi crystallised silicon ingot  
NTNU, Material Science (Lars Arneberg)  
Vesuvius France (Christian Martin)  
Duration: 1 year 2008/09
- Isotope separation of silicon for use in the photovoltaic industry  
Isosilicon AS (Dag Øistein Eriksen)  
Novasep Process SAS (Pierre Hilaireau)  
Duration: 2008 – 2010
- Spark plasma sintering of ceramic ion conductors for solid oxide fuel cells  
SINTEF Material and Chemistry (Marie-Laure Fontaine)  
CIRIMAT, PNF2, EDF (Calude Estournes)  
Duration : 2009 – 2012

**OIL AND GAS INDUSTRY, OFFSHORE TECHNOLOGY**

- Feasibility Study on Natural Gas Distribution in North Rogaland  
Gasmet A/S, Forus, Norway (Rolf Rønningen)  
Sofregaz, Paris, France (Saillard)  
Duration 1989
- Deep Diver External Monitoring  
SINTEF, Trondheim, Norway (Arvid Påsche)  
COMEX SA, Marseille, France (Imbert)  
Duration 1989 - 1990
- Drilling and production operation for offshore field on Norwegian waters with the Jack-up TPG 500  
Wiltech Production System (WPS), Oslo, Norway (Robert Reed)  
Technip Geoproduction, Paris, France (Pierre-Armand Thomas)  
Duration 1989 - 1990
- Vertical resonant motions of tension leg platforms  
Norwegian Institute of Technology, Trondheim, Norway (Geir Moe)  
IFP, Rueil Malmaison, France (B. Molin)  
Duration 1989 - 1990
- Diver survival equipment  
SINTEF, Trondheim (Arvid Påsche) and Statoil/Norsk Hydro/OD, Norway  
COMEX S.A., Marseille, France (Jean Pierre Imbert)  
Duration 1989 - 1990
- Concrete semi-submersible production platform with rigid well risers  
Oddfjell Drilling and Consulting Co. A/S, Kokstad, Norway (A.K. Nilsen)  
Doris Engineering, Paris, France (J. Martin)  
Duration 1991 – 1992
- Offshore loading system for LNG and LPG  
Seanor Engineering a.s., Norway (Oddvar Bøyeseu)  
FMC EUROPE S.A, France. (Chris Pashalis)  
Duration 1992 - 1994
- Gas leak detection (GLD) system for pipelines  
Simrad Marine, Norway (Kjell Dalland)  
Metravib, France (Pierre Schindler)  
Duration 1993 - 1994
- Development of methods for inspection of steel layers in flexible pipes  
Robit, Norway (Morten Eriksen)  
Coflexip, France (Barthelemy Laurant)  
Duration 1993 - 1994
- New Multilevel downhole seismic acquisition system  
READ Well Services AS, Norway (Karl A. Berteussen)  
IFP, Rueil Malmaison, France (Jean Laurent)  
Duration 1994 - 1996



- A new generation of zeolite catalyst for hydrocracking  
Statoil Research Centre, Norway (Bente Bøe)  
Institut Français du Pétrole, France (Eric Benazzi)  
Duration 1997 - 2000
- Travel support in connection with the establishment of possible co-operation between NTNU and IFP  
Professor Gudmundsson, NTNU, Trondheim, Norway  
Duration 1998
- Fatigue behaviour of offshore loading hoses  
Advanced Production and Loading (APL) AS, Norway (Jan V. Aarsnes)  
Trelleborg Kleber Industries, France (Jacques Cognard)  
Duration 1999 – 2000
- Increased Field Profitability by Improved Uncertainty Management  
Det Norske Veritas (DNV), Norway (Øivind Johnsen)  
Institut Français du Pétrole (IFP), France (Daniel Averbuch)  
Duration 2002 - 2003
- Application of a new encapsulation process in petrochemistry  
KeraNor/SINTEF Materials Technology, Norway (Christian Simon)  
Institut Français du Pétrole/Université de Franche-Comté, France (Alain Fossy)  
Duration: 2002 – 2004 (Extended to a EU project (NANOCAPS) in March 2004)
- Stabilisation of the top of the gas lines corrosion rate  
Institutt for energiteknikk (IFE) / Total Norge / Norske Conoco Phillips, Norway (Arne Dugstad)  
Total S.A / ENSEE Grenoble, France (Yves Gunaltun)  
Duration: 3 years 2006 – 2008
- New Solution for Deck Installation and Decommissioning: Dect Structure Installation Vessel (Eurogia EOG-0604)  
Det Norske Veritas (Henning Carlsen)  
Technip (Marc Cahay)  
Duration: 2009 – 2011
- SSPD – Salinity Scan with Prototype Development (E! 7646)  
Tool-Tech AS (Magne Rød)  
Euro Techniques Industrielles – ETI- (Laurent Saint-Michel)  
Duration: 2012 – 2015

#### **SPACE TECHNOLOGY**

- Aerospace Vehicle Numerical Flow Simulation and Wind Tunnel Test  
CFD, Trondheim, Norway (Helge Nørstrud)  
Aerospatiale, Toulouse, France (Corinne Rey)  
Duration 1990 - 1992

- Technology Program – Thermal Protection Materials for Propulsion Systems  
Raufoss, Norway (Haugen)  
SNPE Paris, France (Faure)  
Duration 1992 – 1993
- Zeolite Synthesis under Microgravity  
SINTEF (SI), Norway (Stöcker)  
Université de Paris VI+VII, France (Robert)  
Duration 1991 - 1992
- Save filter bank for flexible multi beam payload  
Ame Space, Norway (Øivind Andreasen)  
Alcatel Espace, France (Herve Snorre)  
Duration 1993 - 1995
- French / Norwegian study of increased space technology industrial co-operation  
Europavia Norge A/S, Norway (J.C. Width)  
CNES, France (Yves Rebillard)  
Duration 1993
- Development of adaptive mesh for space propulsion systems  
CDF Norway AS, Norway (Helge Nørstrud)  
SNECMA, France  
Duration 1994 - 1996
- Development of a bi-propellant flow control valve for satellite propulsion  
Raufoss Technology AS, Raufoss, Norway (Per Eger)  
Aerospatiale Espace Défense, Les Mureaux, France (J. Astier)  
Duration 1996 – 1998
- Introduction to the French Aerospace Industry  
Einar Sørensen, Norway  
Duration 1999

### MISCELLANEOUS

- Olympic winter games – Albertville 1992 / Lillehammer 1994  
Potential fields of industrial co-operation  
NIA, Norway(Per Axel Prydz)  
COJO/LOOC. France  
Duration 1991 – 1992
- Creative project – 1<sup>st</sup> step marketing study  
Statoil, Norway (EUREKA support)  
CETIM, France (FNS support)  
Duration 1993
- Development of a new generation self-contained closed circuit breathing apparatus  
Thelma AS, Norway (Arvid Påsche)  
Fenzy S.A, France (Robert Michel)  
Duration: 2001 – 2002

- Developing an Intangible Asset Valuation Tool  
InSpire Invest AS (Jan-Olaf Willums)  
Integral Development Asset Management (Antoine Dehen)  
Duration: 2005/06
- Consumer conceptions of local food  
SIFO (Virgenie Amilien)  
INRA and UMR MOISA (Fatiha Fort)  
Duration: 2005 - 2007
- Sedimentary basin and North Pyrenean foreland fold and thrust belt formation PYR-FTB  
Total Norge (Ritske S. Huisman)  
Total France (Mary Ford)  
Duration: 2014



### APPENDIX 3: WORKSHOPS AND SEMINARS 1984 - 2015

The Foundation supports bilateral seminars. The main objectives are:

- Bring together French and Norwegian key actors in priority fields,
- Stimulate private-public and research-industry collaborations,
- Initiate cooperation projects in the R&D sectors, including demonstration projects

To date, the following **56** seminars have been organized or supported by the Foundation

Oslo, 1984:	Materials
Brest, 1984:	Aquaculture
Paris, 1985:	Offshore technologies
Paris, 1986:	Artificial intelligence
Trondheim, 1987:	Studies and research for marine technologies
Oslo, 1989:	Materials
La Rochelle, 1989:	Aquaculture
Caen, 1989:	Smart cards
Rueil-Malmaison, 1991:	Major risks
Paris, 1991:	Space technologies
Oslo, 1992:	Robotics and subsea operations
Paris, 1992:	Polar research at Svalbard
Paris, 1993:	INSROP presentation
Oslo, 1994:	Prevention and treatment of nuclear and chemical pollution
Tromsø, 1995:	Telemedicine
Rueil-Malmaison, 1998:	Water treatment in oil and gas production
Nantes, 2000:	Agriculture business and Information technology
Ås, 2001:	Management of water quality
Stjørdal, 2004:	Knowledge Management in integrated Drilling Operations
Brest, 2004:	Technologies for Search Assistance and Rescue
Paris, 2005:	Workshop for planning collaboration between INRA and Aquaforsk within aquaculture research
Bergen, 2005:	Workshop on operational oceanography
Montpellier / Palavas 2005:	Workshop on Recirculation water technology
Oslo, 2005:	Seminar on Hydrogen and transport
Brest, 2006:	Workshop on Technologies for Search and Rescue and other Emergency Marine Operations
Grenoble, March 2007	Micro and nano optics (MINAO), CEA, FFI
Oslo, November 2007	Carbon Capture and Storage, French Embassy, Alsthom Norway
Brest, 2008	Third international workshop on technologies for search and rescue and other emergency marine operations IFREMER
Paris, November 2008	Networking seminar for cancer and brain sciences clusters, Norwegian Embassy
Rennes and Trondheim, 2009	Request for network building in technology for automatic quality control and processing in fish-food SINTEF Fisheries and INRA

Bergen, August 2009	Nano and micro frontiers in biology and medicine University of Bergen
Trondheim, October 2009	Request for networking in marine biological resources SINTEF, Pôle Mer Bretagne
Toulouse, September 2009	European Cancer Cluster Partnering (1 <sup>st</sup> edition) Oslo Cancer Cluster, Toulouse Cancer-BioSanté, Canceropole
Le Havre, December 2009	Student Seminar on Capture, transport and storage of CO <sub>2</sub> Norwegian University of Science and Technology (NTNU), Capture, Transport and Storage Industrial Chair of MINES ParisTech
Oslo, June 2010	Seminar on Marine Renewable Energy Research Council of Norway, Norcowe, Nowitech, Det Norske Veritas (DNV), NVE, SINTEF, Ademe, Pôle Mer Bretagne, Ifremer, Saipem, Technip, Secrétariat Général de la Mer, Ambassade de France en Norvège, FFN/FNS
Trondheim, June 2010	Seminar on Materials and Chemistry SINTEF
Oslo, September 2010	European Cancer Cluster Partnering (2 <sup>nd</sup> edition) Oslo Cancer Cluster, Cancer-Bio-Santé, Toulouse
Trondheim, December 2010	Student Seminar on Carbon Capture and Sequestration (CCS), Norwegian University of Science and Technology (NTNU) Capture, Transport and Storage Industrial Chair of MINES ParisTech
Montpellier, February 2011	Workshop "Sustainable Culture of Marine Micro-Algae" (F) Greensea (N) Sintef Fisheries and Aquaculture
Dijon, March 2011	Taste-Nutrition and Health: Networking Dijon (F) French cluster Vitagora (N) Nofima Mat
Trondheim, April 2011	Seminar on Water Resource Management (N) Sintef Energy Research (F) Cemagref Lyon
Brest, May 2011	Fourth International Workshop – Technologies for Search and Rescue (SAR) and other Emergency Marine Operations (F) Ifremer (N) The Norwegian Meteorological Institute (US) The US Coast Guards
Paris, June 2011	Seminar on Nanotechnologies FFN/FNS (F) Ministry of Higher Education and Research, French Embassy in Norway (N) Research Council of Norway
Tours, September 2012	Workshop on Batteries (F) MAPROPEE (N) SINTEF Materials and Chemistry

Toulouse, November 2012	<p>Workshop "Strengthening of SFI-FACE and University of Toulouse research collaboration through common workshop series "</p> <p>(F) Université de Toulouse, et Institut de Mécanique des Fluides (IMF, Toulouse)</p> <p>(N) Norwegian Centre for Research-based Innovation FACE</p>
Bergen, June 2013	<p>Marine Seminar : Sensors in the marine environment (physical sensors, biosensors), sustainable harvest, seafood safety and processing technology</p> <p>(F) The Foundation, Pôle Mer, IUEM</p> <p>(N) The Foundation, IMR, IRIS</p>
Toulouse and Oslo, 2012/2013	<p>1<sup>st</sup> and 2<sup>nd</sup> Forums between French Aeronautics and Norwegian Oil&amp;Gas Industries</p> <p>(F) UBIFRANCE, French-Norwegian Chamber of Commerce, French Embassy in Oslo</p> <p>(N) Innovation Norway, Foundation</p>
Stavanger and Lyon, 2013	<p>Workshops on Culinology</p> <p>(F) Institut Paul Bocuse</p> <p>(N) University of Stavanger</p>
Toulouse, 2013	<p>3<sup>rd</sup> Forum between between French Aeronautics and Norwegian Oil&amp;Gas Industries</p> <p>(F) French-Norwegian Chamber of Commerce, French Embassy in Oslo</p> <p>(N) Innovation Norway, Foundation</p>
Oslo, October 2014	<p>Eco-Innovation Day Cleaner solutions for the Oil &amp; Gas industry, Smart city: energy efficiency / Smart buildings / public transports</p> <p>(F) French-Norwegian Chamber of Commerce, French Embassy in Oslo</p> <p>(N) Innovation Norway, Foundation</p>
Oslo, October 2015	<p>French-Norwegian Ocean Industry Symposium</p> <p>Meetings and matchmaking between innovative French and Norwegian "Ocean Industries" (fish farming, seafood, maritime renewable energy, defense, offshore)</p> <p>Chambre de Commerce Franco-Norvégienne, French Institute,</p> <p>(N) Innovation Norway</p>
Paris, May 28, 2015	<p>Conference on Marine Operations and Subsea Systems</p> <p>(F) GEP AFTP</p> <p>(N) INTSOK</p>
Paris, March 10 – 11, 2016	<p>Nordic-French Conference on conversion of Biomass</p> <p>(F) French Institute in Oslo, French Embassies in the Nordic countries</p> <p>(N) Norwegian Embassy in Paris</p>

Paris, April 14, 2016	French-Norwegian workshop on bioeconomy (F) Bpifrance (N) Innovation Norway
Oslo, May 12 – 13, 2016	Nordic-French H2020 Brokerage Event on Rare Diseases (F) French Institute, French Embassies in the Nordic countries, National contact Points for H2020 in the Nordic countries (N) Research Council of Norway – NCP for Health, French-Norwegian Foundation
Pau, June 7, 2016	Seminar for French and Norwegian SME's: Clean Energy Solutions B2B-meetings between French and Norwegian innovative companies working within geosciences and subsurface engineering (F) French-Norwegian Chamber of Commerce, GEP AFTP, Avenia Cluster (N) INTSOK



**APPENDIX 4: EXCHANGE PROGRAMMES  
NATIONAL ACADEMIES OF SCIENCE 1990 - 2003  
ÅSGARD PROGRAMME 2006 - 2015**

## NATIONAL ACADEMIES OF SCIENCE 1990 – 2003

### 1990

Prof. Paul Malliavin (mathematics), 10, rue Saint Louis en l'Isle, 75004 Paris

Prof. Johannes Dale (chemistry), Universitetet i Oslo, Kjemisk institutt, Oslo  
(Coopération avec M. Julia)

### 1991

Nicole Le Douarin (biology), Institut d'Embryologie Cellulaire et Moléculaire du CNRS et du Collège de France, 49 bis, avenue de la Belle Gabrielle, 94736 Nogent-sur-Marne Cedex

Prof. Tom Andersen (geology), Universitetet i Oslo, Mineralogisk-Geologisk Museum, Oslo

Prof. Per Enger (zoology), Universitetet i Oslo, Biologisk institutt, Genetisk fysiologi, Oslo

Prof. Olav A. Laudal (mathematics), Universitetet i Oslo, Matematisk institutt, Oslo

### 1992

Prof. Marc Julia (chemistry), Ecole Normale Supérieure, Laboratoire de Chimie  
57, rue Geoffroy-Sant-Hilaire, 75005 Paris  
(Coopération avec M. Dale)

Prof. Jaques Dixmier (mathematics),  
(Coopération avec M.O.A. Laudal)

Prof. Pierre Buser (medicine), Université Pierre et Marie Curie, Institut des Neurosciences  
9, Quai Sant-Bernard, 75005 Paris

Prof. Jacqueline Tjøtta (mathematics), Universitetet i Bergen, Matmeatisk institutt, 5007 Bergen  
(Coopération avec Mme Lévy)

### 1993

Prof. Thérèse Lévy (physics), Université de Paris VI, Modélisation en Mécanique URA 229  
(Coopération avec Mme Tjøtta)

Prof. Paul Ozenda (biology), Université Joseph Fourier, Laboratoire de biologie alpine, Saint-Martin d'Hères  
(Coopération avec M. Holten)

### 1994

Prof. Øyvind Andersen (chemistry), Norsk institutt for Naturforskning (NINA), Trondheim  
(Coopération avec M. Ozenda)

Prof. Michel Rohmer (chemistry), Université de Haute Alsace, Ecole Nationale Supérieure de chimie de Mulhouse  
(Coopération avec M. Skattebøl, Univ. i Oslo, Kjemisk institutt)

**1995**

Prof. Øyvind Andersen (chemistry), Universitetet i Bergen, Kjemisk institutt, Bergen

Prof. Robert Naquet (medicine), Institut Alfred Fessard, Avenue de la Terrasse, Gif-sur-Yvette Cedex

*(Coopération avec Mr. O. Ottersen)*

**1996**

Prof. Andrée Marquet (bio-organic chemistry), Université Pierre et Marie Curie, Lab de chimie organique biologique, URA CNRS 493, 4, Place Jussieu, 75252 Paris Cedex 05

Prof. Ole Petter Ottersen, Universitetet i Oslo, Institutt for medisinske basalfag, Oslo

**1997**

Prof. Yvonne Choquet-Bruhat, Université Pierre et Marie Curie, 4, Place Jussieu, 75252 Paris Cedex 05

*(Cooperation avec Mr. A. Lauvdal)*

**1998**

Prof. Olav Arnfinn Laudal, Universitetet i Oslo, Matematisk institutt, Oslo

*(Cooperation avec Ms. Y. Choquet-Bruhat)*

**2001**

Prof. Ragni Piene, Universitetet i Oslo, Matematisk institutt, Oslo

*(Cooperation avec Prof. Marie-Lise Chanin)*

**2003**

Prof. Pacal Estrailier, Université de la Rochelle, Laboratoire Informatique/Image/Interaction  
*(Norwegian Mapping Authority, the Norwegian Space Center and SINTEF - geographic data processing)*

## ÅSGARD PROGRAMME 2006 – 2015

### FRENCH CANDIDATES COMING TO NORWAY

#### 2006

- 1) **Céline NAUGES**, (Economics for Development), INRA Toulouse – Oslo and Ås
- 2) **Laurent DOUCE**, (Inorganic chemistry, liquid crystals), IPCMS, Ecole de chimie de Strasbourg – Oslo and Bergen
- 3) **Emmanuel HADJI** (Materials, nanotechnologies), CEA Grenoble – Oslo and Trondheim
- 4) **Mohammed EL GANAOUI** (Physics, numerical modelling), Université de Limoges – Oslo, Trondheim and Ås
- 5) **Claude TOUZET**, (Medicine, neurobiology, memory), Université de Marseille – Oslo and Trondheim
- 6) **Pierre VILLENEUVE**, (Biology, lipids), CIRAD, Montpellier – Oslo and Ålesund
- 7) **Claude ESTOURNES**, (Chemistry, hydrogen), CNRS, Université de Toulouse, Visit within the framework of the follow-up actions of the French-Norwegian Seminar on Hydrogen organised in Oslo in December 2005
- 8) **Fabrice MAUVY**, (Condensed matter), Université de Bordeaux, Visit within the framework of the follow-up actions of the French-Norwegian Seminar on Hydrogen organized in Oslo in December 2005

#### 2007

- 9) **Denis GAUTHIER**, (Research for development), CIRAD, Montpellier/Mali, Visit within the framework of the follow-up actions of the French-Norwegian Seminar on Development organized in May 2006
- 10) **Anne-Marie CAMINADE**, (Chemistry), Université de Toulouse – Trondheim, Oslo
- 11) **Benoît DUGUE**, (Sport sciences), Université de Poitiers – Oslo
- 12) **Emmanuel PICAUVET**, (Political philosophy), Université Panthéon-Sorbonne (Paris I) – Oslo
- 13) **Eric BRANGIER**, (Cognition and interaction studies, psychology), Université de Metz – Trondheim, Oslo
- 14) **Attar AL-NAWAR**, (Cardiac surgery, cell therapy), Hôpital Bichat – Oslo
- 15) **Agnès MICHELOT**, (Environmental law), Université de La Rochelle – Bergen, Oslo
- 16) **Catherine PICART**, (Biophysics), Université Montpellier II – Bergen, Oslo, Trondheim
- 17) **Jocelyn CHANUSSOT**, (Signal and image processing), Institute of technology Grenoble – Trondheim, Bergen, Oslo

#### 2008

- 18) **Ludovic ESCOUBAS**, (Photovoltaics, Optoelectronics), Université Paul Cézanne, Aix-Marseille III – Trondheim, Oslo
- 19) **Pierre MILLET**, (Hydrogen), Université Paris XI, Institut de Chimie Moléculaire et des Matériaux d'Orsay – Trondheim, Oslo
- 20) **Alessandro TONELLO**, (Optics, Photonics, Telecommunication), Institut XLIM, Université de Limoges – Trondheim, Oslo
- 21) **Yann BUGEAUD**, (Mathematics), Université Louis Pasteur Strasbourg – Bergen, Trondheim, Oslo
- 22) **Stéphane OLIET**, (Neuroscience), Centre de Recherche INSERM U862, Université Bordeaux – Trondheim, Oslo
- 23) **Stéphane BELLEMIN**, (Chemistry, Catalysis), Université Louis Pasteur Strasbourg – Oslo, Bergen

- 24) **Desdemona FRICKER**, (Neuroscience), Université Paris XIII, CHU Pitié-Salpêtrière – Oslo, Trondheim
- 25) **Lydie DU BOUSQUET**, (Software engineering), Laboratoire d'Informatique de Grenoble, Université J. Fourier Grenoble I – Trondheim, Oslo
- 26) **Luc MASSOU**, (STIC), Université Paul Verlaine, Metz – Oslo, Kristiansand
- 27) **Sylvie NEYERTZ** (Chemistry), Université de Savoie, Chambéry – Trondheim, Oslo, Bergen

## 2009

- 28) **Jean SCIARE**, CEA-LSCE – Tromsø, Oslo
- 29) **Yvette VEYRET**, Université Paris X – Nanterre – Oslo, Stavanger
- 30) **Brian RUDKIN**, ENS Lyon – Oslo, Bergen
- 31) **Pierre-Xavier THIVEL**, Université de Grenoble – Bergen, Oslo Trondheim
- 32) **Alain PONTON**, Université Paris Diderot – Trondheim, Oslo, Ås
- 33) **Christine CONTINO-PEPIN**, Université d'Avignon – Bergen, Oslo
- 34) **Laurent BILLONNET**, Université de Limoges – Stavanger, Oslo Trondheim
- 35) **Farid CHEMAT**, Université d'Avignon – Oslo, Tromsø, Ås

## 2010

- 36) **Fabrice BALANCHE**, Human Sciences – development in Middle East, Université Lyon II visiting Oslo, Bergen
- 37) **Sophia BELGHITI-MAHUT**, Social Sciences – Gender equality, Université de Montpellier visiting Oslo
- 38) **François RENARD**, Geophysics – CCS, Université Joseph Fourier de Grenoble, visiting Oslo, Trondheim
- 39) **Pascal DUFOUR**, Automatism, Université Claude Bernard Lyon I, visiting Trondheim, Oslo, Porsgrunn
- 40) **Olivier CUVILLIER**, Biochemistry cancer, Université de Toulouse visiting Oslo
- 41) **Claude DESCORME**, Environment Energy – Catalysis, Institut de Recherche sur la Catalyse et l'Environnement Lyon, visiting Oslo, Trondheim
- 42) **Marc LE BORGNE**, Pharmacology, Université Claude Bernard Lyon I, visiting Bergen, Oslo
- 43) **Armelle DECAULNE**, Physical geography – Polar geomorphology, Université Blaise Pascal Clermont Ferrand II, visiting Oslo, Trondheim

## 2011

- 44) **Christophe ROSENBERGER**, Computing sciences - Biometrics, University of Caen - GREYC
- 45) **Alexandre DE BREVERN**, Bioinformatics and computational biology, University of Paris 7 Diderot - DSIMB
- 46) **Christel VAN BESIEN**, Neurosciences and neurodegenerative disorders, University of Lille 1 – Early stages of Parkinson's disease
- 47) **Catherine GAUTHIER**, Polymers and heterogeneous materials, INSA Lyon - GEMPPM
- 48) **Jean-Louis BOBET**, Renewable energies: hydrogen storage and fuel cells, University of Bordeaux 1 - ICMB
- 49) **Pascale JOLINAT**, Optoelectronics, University of Paul Sabatier Toulouse – LAPLACE
- 50) **Valérie MICARD**, Biochemistry - Health and nutrition, Montpellier SupAgro - IATE

**2012**

- 51) **Vincent KERYVIN**, Materials, University of Bretagne Sud – LIMATB
- 52) **Bertrand POURRUT**, Phytoremediation, University of Lille – LGCgE
- 53) **Belén ALBELA**, Mesoporous solids, ENS Lyon
- 54) **Philippe POGGI**, Renewable energy, University of Corsica – SPE
- 55) **Benoît VERON**, Marine biology, University of Caen – IFREMER
- 56) **David BENHAIM**, Aquafarming, INTECHMER
- 57) **Eric ESTEVE**, Medicine - Muscles physiology, University of Grenoble – INSERM
- 58) **Benoît LOUIS**, Chemistry, University of Strasbourg / CNRS – LASYROC

**2013**

- 59) **Bénédicte CHARRIER**, Macroalgua, Biological station of Roscoff
- 60) **Adnan IBRAHIMBEGOVIC**, Mechanics, Ecole Normale Supérieure (Cachan)
- 61) **David BIRON**, Biologogy and environment, Université Blaise Pascal – LMGE
- 62) **Marie-Laure BARON**, Logistics, Institute for Logistics, Le Havre
- 63) **Stéphane BACH**, Biomedicine, Biological station of Roscoff and CNRS
- 64) **Olivier LEZORAY**, Computer sciences, University of Caen
- 65) **Christophe LAVELLE**, Biophysics, National Life Science Museum and CNRS
- 66) **Sophie BROUARD**, Immunology, INSERM (Unit UMR 1064)

**2014**

- 67) **Fabrice ANIZON**, Organic Chemistry, Université Blaise Pascal de Clermont-Ferrand
- 68) **Stéphane HÉRITIER**, Geography, Université Jean Monnet de Saint-Étienne
- 69) **Pierre JANNIN**, Medicine, INSERM, Université de Rennes
- 70) **Jumbeum KIM**, Environment, Laboratoire CREIDD à l'Université Technologique de Troyes
- 71) **David MENIER**, Geosciences, Université Technologique PETRONAS, Malaisie
- 72) **Frédéric PITOUT**, Astronomy, Institut d'Astrophysique et de Planétologie de l'Université Paul Sabatier, Toulouse
- 73) **Marc POCARD**, Medecine, Université Paris 7, INSERM
- 74) **Olivier WATHELET**, Anthropology, Groupe SEB, and LAPCOS, Université Nice-Sophia Antipolis

**2015**

- 75) **Omar BENZAKOUR**, Cell Biology, Université de Poitiers
- 76) **Sabine BOUCHE-PILLON**, Urban Ecology, École de la Nature et du Paysage, Blois
- 77) **Yves CANAC**, Catalysis, CNRS, Laboratoire de Chimie de Coordination, Saint-Étienne
- 78) **Marian CHATENET**, Electrochemistry, Grenoble-INP
- 79) **Ahmed CHEMORI**, Automatic Control, CNRS, Laboratoire d'Informatique, de Robotique et de Microélectronique de Montpellier
- 80) **David MUÑOZ-ROJAS**, Material Science, CNRS, Laboratoire des Matériaux et du Génie Physique, Grenoble
- 81) **Antoine ROUILLY**, Processing of Natural Polymers, École nationale supérieure des ingénieurs en arts chimiques et technologiques, Toulouse
- 82) **Éric SCHMIDT**, Cerebral Ageing, Département de Neurochirurgie, CHU Toulouse

## ÅSGARD PROGRAMME 2006 – 2015

### NORWEGIAN CANDIDATES COMING TO FRANCE

#### FROM 2007

- 1) **Tor A. BENJAMINSEN**, Norwegian University of Life Sciences,
- 2) **Reiner ANWANDER**, University of Bergen
- 3) **Mahmood AMIRY-MOGHADDAM**, Centre for Molecular Biology and Neuroscience, University of Oslo
- 4) **Eystein HODDEVIK**, Centre for Molecular Biology and Neuroscience, University of Oslo
- 5) **Geir ERSLAND**, Department of Physics and Technology, University of Bergen
- 6) **Knut Arne BIRKEDAL**, Department of Physics and Technology, University of Bergen
- 7) **Eric CAYEUX**, IRIS, Stavanger
- 8) **Sverre HOLM**, Department of Informatics, University of Oslo
- 9) **Sven Peter NASHOLM**, Department of Informatics, University of Oslo
- 10) **Yuan ZENG FENG**, Department of Pharmaceutical Biosciences, University of Oslo
- 11) **Hanne DIGRE**, SINTEF Fisheries and Aquaculture
- 12) **Harry WESTAVIK**, SINTEF Fisheries and Aquaculture
- 13) **John Reidar MATHIASSEN**, SINTEF Fisheries and Aquaculture
- 14) **Kyrre GLETTE**, Department of Informatics, University of Oslo
- 15) **Øyvind ØVERLI**, Dep. of Animal/Aquaculture Sciences, Norwegian University of Life Sciences
- 16) **Rhythm SUREN WADHWA**, Gjøvik University College
- 17) **Tormod SELBEKK**, SINTEF Technology and Society, Medical Technology
- 18) **Ingerid REINERTSEN**, SINTEF Technology and Society, Medical Technology
- 19) **Nataliia KASIAN**, Innovative Natural Gas Processes and Products, University of Oslo
- 20) **Even JØRGENSEN**, Department of Arctic and Marine Technology, University of Tromsø
- 21) **Rahul ANANTHARAMAN**, SINTEF Energy
- 22) **Simon ROUSSANALLY**, SINTEF Energy
- 23) **Jana POPLSTEINKOVA JAKOBSEN**, SINTEF Energy

## APPENDIX 5: ACCOUNT REPORT 2015

<b>FNS / FFN (France and Norway)</b>						
<b>Income and expenditure account (NOK)</b>						
<b>1.1. - 31.12.2015</b>						
	<b>2015</b>			<b>2014</b>		
	<b>France</b>	<b>Norway</b>	<b>Total</b>	<b>France</b>	<b>Norway</b>	<b>Total</b>
<b>Income :</b>						
Governmental funding Secretariat	170 107	0	170 107	158 715	0	158 715
Gouvernemental funding Projects	0	3 000 000	3 000 000	4 510 836	3 000 000	7 510 836
Governmental project funding (through FFN)	1 600 000	0	1 600 000	208 835	0	208 835
Eureka / The Research Council of Norway**		0	0	0	0	0
Seminars	0	55 000	55 000	0	251 586	251 586
Member fees	89 530	60 200	149 730	73 510	39 600	113 110
<b>Total Income</b>	<b>1 859 637</b>	<b>3 115 200</b>	<b>4 974 837</b>	<b>4 951 896</b>	<b>3 291 186</b>	<b>8 243 082</b>
<b>Expenditures:</b>						
Administration and Board meetings	91 336	194 364	285 700	55 889	271 755	327 644
Governmental project funding *	1 600 000	3 823 243	5 423 243	4 510 836	3 976 555	8 487 391
Governmental project funding (through FFN)	111 913	0	111 913	104 418	0	104 418
Seminars	52 247	0	52 247	232 851	0	232 851
<b>Total Expenditures</b>	<b>1 855 496</b>	<b>4 017 607</b>	<b>5 873 103</b>	<b>4 903 994</b>	<b>4 248 310</b>	<b>9 152 303</b>
<b>Finance:</b>						
Plus values SICAV BNP - Paris	202	0	202	1 387	0	1 387
Bank interest		61 044	61 044	0	105 455	105 455
Bank interest paid to France***	13 266	-12 919	347	15 437	-15 504	-67
Bank costs	-2 468	-258	-2 726	-2 349		-2 349
<b>Total</b>	<b>11 000</b>	<b>47 867</b>	<b>58 867</b>	<b>14 475</b>	<b>89 951</b>	<b>104 426</b>
<b>Result</b>	<b>15 141</b>	<b>-854 540</b>	<b>-839 399</b>	<b>62 377</b>	<b>-867 173</b>	<b>-804 795</b>
<b>Exchange rate: 1€ = 8,9530</b>						
*In France Governmental funding is, more often than not, paid directly to project partners						
** Eureka-approved projects approved before 2009 get 30% funded from the Research Council as an additional income						
***Accumulated interest on capital reserve paid to France						

**FNS / FFN (France and Norway)**  
**Balance sheet as per 31.12.2015 (NOK)**

	2015			2014		
	France	Norway	Total	France	Norway	Total
<b>Assets:</b>						
Bank deposit BNP Paris (Secretariat)	997 536	0	997 536	921 788	0	921 788
SICAV (BNP - Paris Secretariat)	1 402 527	0	1 402 527	1 317 010	0	1 317 010
Accounts receivable	0	0	0	0	0	0
Bank deposit Norway	0	3 845 966	3 845 966	0	3 450 383	3 450 383
<b>Total Assets</b>	<b>2 400 063</b>	<b>3 845 966</b>	<b>6 246 029</b>	<b>2 238 798</b>	<b>3 450 383</b>	<b>5 689 181</b>
<b>Liabilities</b>						
Secretariat reserve**	2 383 800	*	2 383 800	2 171 363	*	2 171 363
Fixed Capital (France and Norway)		1 000 000	1 000 000	0	1 000 000	1 000 000
Retained Equity		1 593 983	1 593 983	0	2 461 156	2 461 156
Result	16 262	-854 540	-838 278	67 435	-867 173	-799 738
Short term liability	0	2 106 523	2 106 523	0	856 400	856 400
<b>Total Liabilities</b>	<b>2 400 062</b>	<b>3 845 966</b>	<b>6 246 029</b>	<b>2 238 798</b>	<b>3 450 383</b>	<b>5 689 181</b>

Exchange rate in 2012: 1€ = 7,3410 NOK

Exchange rate in 2013: 1€ = 8,3825 NOK

Exchange rate in 2014: 1€ = 9,0307 NOK

Exchange rate in 2015: 1€ = 9,6156 NOK

\* included in Retained Equity