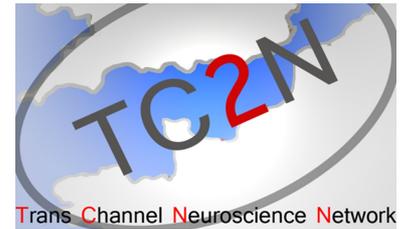
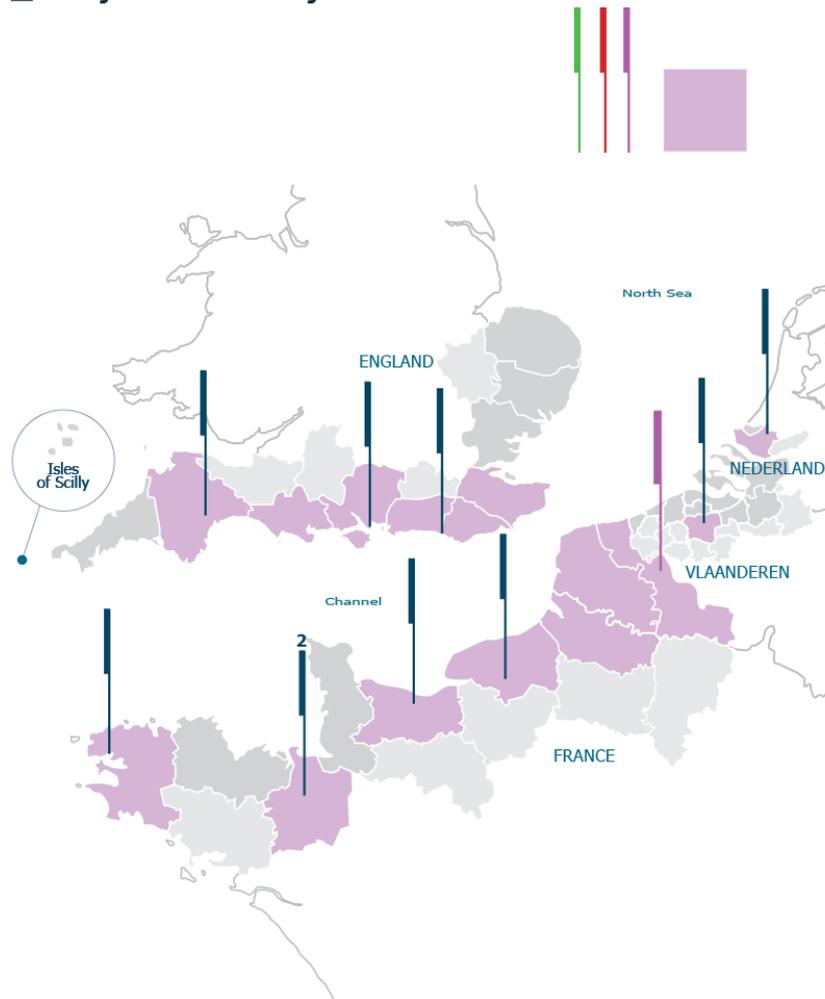


TC2N

Trans Channel Neuroscience Network



■ Project summary



The TC2N project is managed by a federation of 40 laboratories from Nijmegen to Brest, via Portsmouth called the LARC-Neuroscience Network. The project will focus on 5 main research topics: cerebrovascular accident (CVA), eating disorders, tumors, neurodevelopmental diseases and (neuro)endocrine disruptives. The main objectives of the project are: - to boost, widen and develop the LARC-Neuroscience network with 5 new research teams - share infrastructure and skills to develop new protocols, establish collaborative research projects and exchange staff among the laboratories - develop training, scientific understanding and facilitate collaboration through scientific partner meetings and develop student exchange programmes - broadcast new developments and new results to

the Scientific Community, SMEs and the general public. The complementarity of the research teams in the project is very important and will give access to new expertise and the development of innovative methodologies. Also, by helping to access hi-tech tools in the field of Neurosciences, the project will facilitate the creation and development of companies in this field.

■ Activities

What was the project trying to achieve?

yes. The aim of the TC2N project was to develop cooperation in the Neuroscience field in the 2

Seas area by federating 17 Research Teams and 5 complementary Technological Infrastructures. The 4 main objectives of the project were: 1) to boost, widen and develop the LARC-Neuroscience network: we have organised 3 annual meetings including 1 in UK with a significant increase in the number of participants; we have established a new dynamic website; we have set up a database with more than 4000 contacts; 8 new teams have joined the LARC Neuroscience network over the 4 last years... 2) to share infrastructures and skills to develop collaborative research in the Neuroscience field: some people exchanges have taken place; we have published joint high quality publications; we have established protocols that contributed to further exchanges... 3) to develop trainings, scientific understanding and facilitate collaboration through scientific meetings involving partners from each zone of the joint program: we have organised 2 summer schools, we have trained over 100 people including many master students (27 trainings), which we could not have done without the INTERREG support. 4) to broadcast our developments and our results to the scientists, SMEs and lay public: we have given 102 conferences for scientists, 91 conferences for lay public and organised 43 visits of companies or research teams.

What were the activities implemented?

We have developed a database used to communicate through the LARC Neuroscience website, we have implemented operating procedures and protocols within the Technological Infrastructures, research teams have developed protocols, we have recruited young people to give them a first job opportunity. With the INTERREG support, we have developed five themes of cross-border collaborative research in the field of Neuroscience, which will contribute to establish long-term bilateral relationships between the different institutions involved in the TC2N project. These research themes have focused on 1) stroke, the third leading cause of death in our countries and the first cause of acquired handicap in adults, 2) eating disorders (obesity and anorexia), which affect more than 25% of the population in Europe and become epidemic, 3) brain tumors, for which presently there are few perspectives on treatment, and with no significant therapeutic improvement over the last 50 years, 4) neurodevelopmental hereditary diseases, the mechanisms of which often remain to be clarified before envisaging treatments, and 5) endocrine disruptors, a theme which has become a major public health concern in industrial nations. These activities involved staff exchange, exchange of students, joint publications and publications at congresses.

■ Results

What were the key results of the project?

Development of new technical skills. To improve the efficacy of the cooperation, we have created a database for sample storage. We were able to set up 20 operating procedures (100% of our objectives) and 28 infrastructure protocols (94.4%). We were able to set up 64 protocols (142%). More than 25 people were recruited. At least 5 of them get permanent jobs at the end of the project. We have conducted 12 (100%) Meetings of the Research Teams (2.1), Staff exchanges for research activities (2.2), Exchange of students for their training (2.3) and Presentation of our research findings at congresses in the 2 Seas area (2.5). Research aspects that have been addressed have focused on 1) stroke, the third leading cause of death in our countries and the first cause of acquired handicap in adults, 2) eating disorders, which affect

more than 25% of the population in Europe and become epidemic, 3) brain tumors, for which presently there are few perspectives on treatment, 4) neurodevelopment hereditary diseases, the mechanisms of which often remain to be clarified before envisaging treatments, and 5) endocrine disruptors, a theme which has become a major public health concern in industrial nations. We have organized 3 annual meetings of the LARC-Neuroscience network. We have organized 102 conferences (204%) for PhD students, post PhD fellows and junior or senior scientists. We have set up 2 summer schools on cerebral vascular accidents and Microscopy in Caen and Gent respectively. The SMEs and the lay public, we have developed the LARC-Neuroscience network web site to promote the Neurosciences and our activities in the 2 Seas area. We have created new features to the web site such as a mailing list for the researchers and create an English version of the site. For the specific information of the TC2N project, we have developed a dedicated Web site with progress reports, meetings schedules, document exchange platform, online database to manage sample storage.

Did all partners and territories benefit from the results?

The target groups were scientists (from both academia and Industries) working in the field of Neurosciences and lay public from the 2 sea area. We have organised conferences for scientists and lay public conferences on each territories where teams associated to the project were present. We have organised some events outside of our Universities to facilitate contact with the lay public and we have invited researchers from SMEs and other laboratories to visit us in order to facilitate exchanges. One final beneficiary will be the students that have received a high level of training in Neurosciences. Another final beneficiary will be population in general as the aim of our research is to treat diseases such as eating disorders, brain tumors or stroke. We also focus on endocrine disorders which related environmental issues to health. Some conferences provided information regarding the risk of some compounds regarding the endocrine system. We have also alerted people of the symptoms of a stroke attack and the necessity to consult immediately when such symptoms happen. The results from our research have also potentially identified some new molecules which will be useful for the treatment of stroke, cancers and obesity. For our territories, the TC2N project has contributed to develop a network of researchers working in the field of neuroscience and to establish new long lasting collaborations. The project has also contributed to provide permanent job to at least 5 people. The communication toward the lay public has been very important to increase their awareness of brain related diseases and to promote neuroscience research to the younger populations.

What were the effects / outcomes for the territories involved?

The TC2N project has contributed to improve the training of young people in the 4 countries involved in the project. The project has provided a first working experience to more than 25 people, at least 18 of them have then find a permanent job in our institutions or elsewhere. We were told that the training they get in our laboratories and core facilities was excellent. The TC2N project has contributed to promote neuroscience toward the lay public through participation to various events such as the science festival or the brain awareness week. Each of the territories taken on its own has limited potential in Neuroscience research. Through this network, we were able to share expertise and equipments to conduct ambitious projects. We could send some students and staff from each territory for training to other laboratories to increase their skill. Sharing expensive equipments was useful to avoid the dispersion of means in each territories. We were also contacted by companies (biocodex, VFP therapies\$...)

interested by our research which we would certainly not have heard of us without the communication done by the project through for instance our newsletter.

■ Distinctiveness

What was the real added-value of doing this cross-border project?

The research teams working in the field of Neuroscience are spread over the different cities of the 2 seas area and it is essential for those researchers to establish collaborations to continue their research. In particular the network has contributed to give access for some research teams to core facilities that they would not have had access to. The added value was also observed by the collaborations that have been established. The project was establishing links to send students for trainings abroad.

Have any synergies been developed with other projects or networks?

No, but the TC2N project gave a visibility to the teams involved and some of them were included in some FP7 and horizon 2020 applications because of this.

What are the key messages , key lessons learned you would like to share?

The TC2N project was a great adventure which has contributed to the development of the LARC-Neuroscience network and has supported activities in the field of Neuroscience. I only regret that the administration of such network in particular in regards of the financial aspects took so much time that in some case, it could overshadow our activities.

■ Project Information

Title	Trans Channel Neuroscience Network
Total project budget	€ 7 572 728
ERDF	€ 3 786 364
Priority & objective	Priority 4 b. Develop the capitalisation and sharing of good practice, and favour networking activities between the projects implemented under each OP and this based on the strategic themes for the geographical area
Timeframe	2009-09-01 - 2014-09-30
Lead partner	Institut National de la Santé et de la Recherche Médicale (INSERM)
Project Coordinator	Virginie CHAMEROY(sophie.charlet@inserm.fr)

