PRESS RELEASE

The M4P consortium launches the Diatabase project, the first diabetes database in France, to improve knowledge of the disease and its management.

Paris, 12 July 2018 - The M4P consortium, led by Altran, with the participation of diabetology stakeholders in France, the companies OpenHealth and Ant’inno, as well as Institut Mines-Telecom and CEA List, got the green light from Bpifrance to implement its project to establish a clinical database on diabetes, for the purpose of improving care, study and research on this pathology that affects 3.7 million people in France. The M4P project has been validated by the General Directorate of Enterprises of the French Ministry of Economy and Finance as part of the Investments for the Future Programme - National Fund for the Digital Society.

In France, 3.7 million people are treated for type 1 or type 2 diabetes, representing more than 5% of the population. The prevalence of these diseases continues to increase, and their complications are a major concern for public health and economic sustainability. Modern health systems produce huge amounts of health data about the disease, both in the city and in the hospital; other data is generated outside these systems, by the patients themselves or via connected objects. The potential for using this massive data from multiple sources is far-reaching, including advancing knowledge of diabetes, promoting the health and well-being of people with diabetes, and improving care (for instance, by identifying risk factors, helping with diagnosis, and monitoring the effectiveness of treatments).

Led by a consortium of multidisciplinary experts, and supported by the General Directorate of Enterprises of the French Ministry of Economy and Finance, the M4P project aims to build and industrialize a multi-source database on diabetes, the “Diatabase”, fed by data from the hospital, family medical practices, research centres, objects connected and interrelated with data from the medical and economic databases of the National Health Data System (Système National des Données de Santé1, SNDS).

The project aims to “improve the living conditions and care of people with diabetes through the improvement of knowledge and information sharing between different hospital care providers and between the expert centres and family medical practices”, says Dr. Charpentier, President of CERITD (Centre for Study and Research for Improvement of the Treatment of Diabetes) and a proponent of the project. “With M4P and the Diatabase, we aim to promote consistency in providing assistance to the same person in the framework of monitoring by a multidisciplinary team of healthcare professionals, and to increase knowledge among professionals in order to provide better care”, adds

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1 SNDS: created by the French law of January 2016, on modernisation of the health system, the National Health Data System gathers data, in particular, from SNIIRAM (data on reimbursement of insured persons), from the PMSI (monitoring of hospital activity), and data from CepiDC (monitoring of deaths).
Dr. Brigitte Delemer, Head of the Diabetology Department at the University Hospital of Reims and Vice President of the CARéDIAB network, also involved in the M4P project.

“The analysis of massive volumes of ‘real life’ data collected requires overcoming technical hurdles, particularly in terms of interoperability, and will facilitate understanding of the disease while providing health authorities and manufacturers with tools for monitoring the drugs and medical devices used”, adds Dr. Jean-Yves Robin, General Manager of OpenHealth, a company specialising in the analysis of health data and a stakeholder in the M4P project.

The M4P project is supported by an expert consortium comprising: associations of health professionals invested in diabetes, such as CERITD, the CARéDIAB network, the company Nutritoring; private and public structures specialising in digital technologies with Altran, data analysis with OpenHealth as well as ANT’Inno, associated with CEA List for the semantic analysis of unstructured data and their use, and finally, Institut Mines Telecom, which provides its Teralab platform, a secure accelerator for research projects in AI and Data, its disruptive techniques in the fight against leakage, misappropriation and falsification of data, based on data tattoo technology and methods of processing natural language to reveal new correlations and to facilitate prediction and prevention.

“Thanks to the complementarity of skills mobilised on the project and its business-oriented approach and professional practices, M4P is the first French example of structuring and industrialisation of health data used to serve the public interest”, welcomes Fabrice Mariaud, Director of Programmes, Research and Expertise Centers France at Altran.

The consortium took 3 years to build the Diatabase and start its operation, serving health professionals and patients.

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The partners of the M4P consortium

About Altran
Altran is the undisputed world leader in engineering and R&D (ER&D) services since the acquisition of Aricent. The group offers its customers a unique value proposition to meet the challenges of transformation and innovation. Altran supports its customers, from concept to industrialisation, to develop the products and services of tomorrow. For over 30 years, Altran has been involved with major players in many sectors: aerospace, automotive, defence, energy, rail, finance, life sciences, telecommunications, etc. The acquisition of Aricent expands the group’s portfolio of expertise in semiconductors, digital and design. Together, Altran and Aricent generated 2.9 billion euros in revenue in 2017, with nearly 45,000 employees in more than 30 countries. For more information, visit www.altran.com

About OpenHealth
OpenHealth Company is a leading French SME in the collection and processing of real-time health data. The company markets essentially on-line data analytics services based on real-life data to meet the needs of the health products and public health industry. This expertise is based in particular on the collection of large volumes of health data from various sources: data on health product consumption in pharmacies (panel of 10,700 French pharmacies), diagnosis and prescription data from computerised medical records, longitudinal patient data, European data. The company also has the ability to aggregate any other type of data, including data from public sources. In 2017, OpenHealth launched Le Hub, the first full-web analytics tool for real-time monitoring of health data. For more information, visit www.openhealth.fr

About ANT’inno
ANT’inno is a collaborative Document and Knowledge Management solution editor created in 2009 and directed by Pascal Seï. It is an innovative company whose founders have worked together for many years on data management and on related topics such as the syntactic search engine and semantic technologies. CEA, through its subsidiary CEA Investissement, is a stakeholder of ANT’inno. In addition to the “disruptive” approach to document management, through the use of a linguistic search engine in its ANT’box solution and other functions that facilitate collaboration, ANT’inno devotes a significant portion of its resources to R&D, enabling it, with the support of CEA, to be at the forefront of technological developments on the processing of unstructured multilingual information, and, ultimately, on the use of multimedia information (analysis of still and moving images). For more information, visit www.antinno.net

About CERITD
CERITD (Centre for Studies and Research) is a non-profit organisation, governed by the law of 1 July 1901, recognised as being of public interest. As a centre for research and innovation for the benefit of diabetics, in the field of diabetic care (as an out-patient structure of the hospital), for assisting diabetic patients (insulin pumps, telemedicine, severe diabetic foot ulcers, etc.), CERITD is also a clinical and
technological translational research centre in the fields of telemedicine for diabetic patients, diabetes genetics, innovative tools and technologies for diabetics. CERITD is notably the inventor of the online application DIABEO and the DIABELOOP artificial pancreas. For more information, visit www.ceritd.fr

About CARéDIAB

CAREDIAB is a health network supported by the association of support for health professionals, based in Reims. The objective of CAREDIAB is to promote networking among health professionals for the monitoring of people with diabetes, which entails:
- Promoting consistency in providing assistance to the same person within the framework of monitoring the same problem by a multidisciplinary team of healthcare professionals, strengthening and improving the quality of communication between professionals;
- Increasing knowledge among professionals so that they may provide better care;
- Developing projects that improve access to care, based on 3 criteria: a problem described and observed by professionals in the field; on a territory and an identified population; with the participation of the local stakeholders (1st and 2nd responders).
Among its activities, CAREDIAB has developed a patient file solution shared with health professionals to enable them to exchange and coordinate around their mutual patients.

About Nutritoring

NUTRITORING Medical Systems is a start-up that develops the concept of nutritional monitoring. Nutritoring ™ is the top service for managing the nutrition of people with chronic diseases. Nutritoring is an innovative service that breaks away from current monitoring: a professional online nutrition platform with related personalised services, a dietary call centre, and specialised support services for the early detection, diagnosis and management of nutritional diseases. Nutritoring addresses the nutritional causes of the main chronic diseases, diabetes, obesity, malnutrition, cardiovascular diseases, cancer, hypertension, etc. Nutritoring makes it possible to monitor people on their path of care and their daily lives by involving caregivers and health professionals. Knowledge of all the physiological and biological, psychological and environmental data, nutritional and food traceability data allows NUTRITORING MS to work today on creating a personalised predictive engine on the nutritional factor in the evolution of diabetes. Based on a nutritional solution connected to all the elements of the ecosystem, the goal of NUTRITORING MS is to ensure increased effectiveness of the care while reducing the costs. Nutritoring is part of the same group as the company FSI, which contributes its expertise. In 1980, FSI created WINREST ™, enabling the computerised management of meals and nutrition in hospitals worldwide. FSI currently processes more than 90 million hospital meals a year and the nutrition of 15 million hospital patients in Europe.

About IMT

The researchers involved in M4P come from three IMT entities and provide complementary expertise:

IMT Atlantique Bretagne Pays-de-la-Loire / LaTIM Inserm UMR1101 develops tattoo-based health data protection approaches, a recent technology that allows access to data while keeping it protected by a message hidden in the data itself. Developed in the areas of mass health data, telemedicine and cloud
computing in medical imaging, this protection makes it possible, for example, to identify the source of a data leak or to know that the data has been modified.

**TSP (Telecom Sud Paris)** develops natural language processing methods for building a spatio-temporal representation of the patient file, which summarizes the patient’s medical situation, reveals new correlations and especially facilitates forecasting and prediction.

The **IMT (Innovation Department)** with TeraLab, the first Big Data & Artificial Intelligence (IA) platform sponsored by the French government, resulting from the Investment in the Future Plan (PIA) in 2012, operational since early 2014, and certified by Cap Digital. Its goal is to accelerate the adoption of Big Data and AI technologies and algorithms by manufacturers, SMEs and startups by offering different levels of security, neutrality and partner support. TeraLab will allow M4P’s different partners to access data and have access to support and tools at their disposal.

### About CEA

**CEA** is a public research organisation that operates in four areas: defence and security, carbon-free energy (nuclear and renewable), technological research for industry and basic research. Drawing on its recognised expertise, CEA participates in the implementation of collaborative projects with numerous academic and industrial partners. With 16,000 researchers and collaborators, it is a major player in the European Research Area (ERA) and has a growing presence internationally. List, a CEA Tech institute, the technological research division of CEA, focuses its research on intelligent digital systems. With major socio-economic stakeholders, its R&D programmes bring together more than 800 researchers around advanced manufacturing, cyberphysics systems, artificial intelligence and digital health. By developing state-of-the-art technologies, List contributes to the industrial competitiveness of its partners through innovation and technology transfer. [www-list.cea.fr](http://www-list.cea.fr) | [@CEA_List](https://twitter.com/CEA_List) | [LinkedIn](https://www.linkedin.com/) | [YouTube](https://www.youtube.com/).