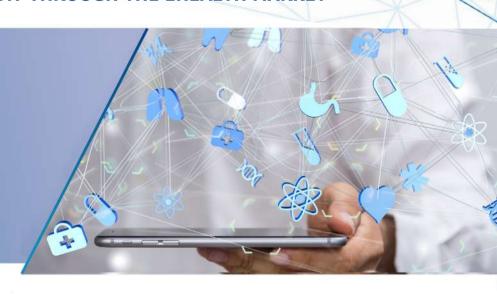
## **eHealth HUB Smart Guides**

FIND YOUR WAY THROUGH THE EHEALTH MARKET

## **Solution Match Report**

"Artificial Intelligence Solutions"







The eHealth Hub project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreement No727683











### "EUROPEAN OBSERVATORY ON THE USE OF ARTIFICIAL INTELLIGENCE IN HEALTHCARE"

**SOLUTION MATCH REPORT** 







## Index





#### We are here to support European eHealth businesses

eHealth HUB - European eHealth business support is the new EU-funded initiative, cross-border and focused on the digital health vertical. eHealth HUB's goal is to provide high-quality business-oriented services tailored to the needs of European eHealth startups, SMEs and stakeholders. We use a demand-driven approach to promote new business and collaboration opportunities for SMEs and key ecosystem stakeholders including healthcare provider organizations, investors, insurers, pharma and MedTech.



info@ehealth-hub.eu www.ehealth-hub.eu

#### From Business Modelling to Regulatory advice: exploit our services

eHealth HUB offers FREE services to support European eHealth SMEs, healthcare providers and ecosystem stakeholders on the following key areas:

#### **Business modelling**



Business model clinic One-on-one Support

The Business Model Clinic supports the best promising entrepreneurs and startups offering personalized coaching on business proposition, customers and go-to-market strategies.



Lean Startup Academy Learn to be Lean

The Lean Startup Academy provides eHealth SMEs with the opportunity to mature their business by systematically testing their ideas against the market.

#### Access to private finance



Investment readiness training & pitch Make eHealth SMEs ready to make their business

eHealth Hub Investment Readiness prepares European early-stage startups and SMEs to approach and collaborate with investors.



eHealth Hub Platform
The place to be for eHealth SMEs and Investors

The eHealth Hub Platform features SMEs, investors, healthcare organizations, legal and regulatory service providers. By registering, health stakeholders can get easily in touch with each other.

#### Commercialization



Solution Match
Start form your need, ask European SMEs for a Solution

Solution Match supports healthcare providers, insurers, pharma or medtech companies looking for a concrete digital health solution to be implemented in their organization.



eHealth Roadshow Pitch your solution, Jump into European market

eHealth Roadshow offers an opportunity for selected eHealth SMEs to expose their digital health solutions in front of a Committee of key stakeholders in the eHealth European market.

#### Legal issues & Regulatory and reimbursement guidance



Legal Support
A compass to navigate legal services through Europe

eHealth Hub Legal Network offers good quality, affordable legal advice for eHealth SMEs as well as free workshops detailing current legal issues of eHealth SMEs interest.



Regulatory Guidance Regulatory and Reimbursement Guidance for eHealth SMEs

eHealth Hub Regulatory Network helps European eHealth SMEs to be compliant with regulatory requirements and develop reimbursement strategies across the European Union.

#### Let's find the best way to work together



**Sylvie Donnasson**, eHealth Hub partner and eHealth Hub team

"Most healthcare providers are looking to implement digital health solutions. However, the market is constantly evolving and finding the perfect match to a concrete and very specific need is challenging. Solution Match is the eHealth Hub personalized service for health care providers interested and ready to implement a digital health solution, linking the economy to innovation. More generally, our role is to best serve entrepreneurs on their business journey by creating a value chain and proposing a combination of services.

Your business is in digital health? Contact us, we will find the best way to work together".



#### **Solution Match**

One of the services offered by eHealth Hub is called Solution Match. It specifically focuses on:

a

Engaging healthcare providers, insurers, pharma and Medtech companies looking for a concrete ehealth solution and ready to implement it.

eHealth Hub helps them clarify their requirements, research the offering and connect with the most relevant SME solutions on the market.



Accelerating commercialization by outsourcing for free the filtering for fit of relevant digital health solutions in a rapidly moving ecosystem.



eHealth Hub organized a Solution Match service for Pierre Fabre and major players in the market such as Keyrus and Microsoft to set up a **European Observatory on the Use of Artificial Intelligence in Healthcare**. They were looking for SME partners and solutions to accelerate the use and development of a dynamic market for AI in healthcare. We did a public call for applications and received 116 answers. The following report displays the results of that call for applications, presenting in a synthetic way all the companies that applied and their main features.

#### Who is that report for?

SME's looking at promoting one or more Artificial Intelligence solution(s)

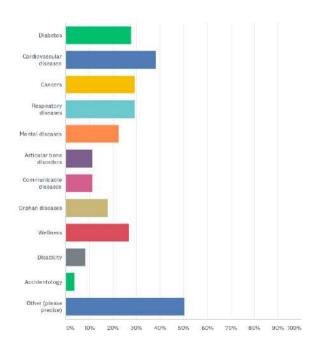




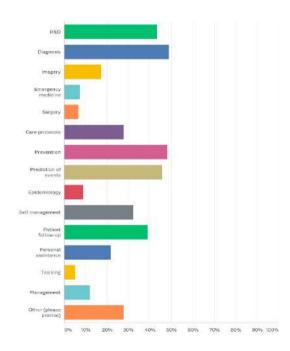




The bar charts below summarize the companies' main areas of the solution and its scope of application







The scope of application



http://www.healthcardionexion.com/

## FOUNDED 2015 COUNTRY France CONTACT

Pierre Paul Goiffon General Manager

ppgoiffon@helathcardionexion.com

#### THE TECHNOLOGIES ASSOCIATED

- IoT
- · Visual recognition
- NLP (natural language processing)
- AI
- DATA
- · Deep learning management

**VIDEO** 



Notre mission: contribuer activement à l'amélioration des conditions de santé humaine en proposant une détection de l'apparition de pathologies bien en amont de la manifestation de leurs premiers symptômes. Le but de notre démarche est de répondre aux besoins croissants de l'élaboration de pré-diagnostics ainsi qu'à la mise en œuvre de politiques de prévention de masse. La prestation Cardionexion proposée par la société @Health réunit un Iot de très haute technologie, un outil numérique de très haute convergence muni d'un algorithme semi managé et du traitement des data ainsi générés.

#### The main area(s) of the solution

- · Cardiovascular diseases
- · Respiratory diseases
- · Articular bone disorders

- Diagnosis
- Imagery
- · Emergency medicine
- Prevention
- · Prediction of events
- · Personal assistance

### **ADD** N acs

www.addon-acs.com

FOUNDED 2016
COUNTRY France
CONTACT

Thibault ALLOUARD Co-founder, General Manager

thibault.allouard@addon-acs.com

### THE TECHNOLOGIES ASSOCIATED

- IA
- Data
- Machine learning
- Screening Data analysis
- Predictive

#### **VIDEO**



The purpose of the ADDON-acs project is to improve the patient / insured client's experience during their care journey. For this, ADDON-acs has designed a platform that works in three stages: - The collection of all the data related to care pathways. This data comes from health professionals, suppliers (optics, prosthetists, etc.), mobile applications for appointments, Mutuals or Health Insurance themselves, etc. These data are added to unstructured data from the behavior of the insured persons themselves (social networks, etc.) - Aggregation and qualification of these data in real time to build a profile of the insured that integrates medical-social and behavioral data - The provision of warning messages to Mutuals and Health insurances so that they offer solutions to insureds who not only are the most adapted to their needs but also consist of effective and personalized guidance and prevention actions Thus, ADDON-acs allows its customers to benefit from relevant information repositioning them at the center of the care path, while offering patients / insured value-added services significantly improving their experiences during their care journey.

#### ■ The main area(s) of the solution

- · Care path
- Maternity journey
- Optical path
- · Dental path
- Auditory path

- Prevention
- · Prediction of events
- · Self management
- · Patient follow-up
- Management
- · Care path
- User Experience



#### www.admetsys.com

FOUNDED 2005
COUNTRY Denmark
CONTACT

Jeff Valk, CEO media@admetsys.com

## THE TECHNOLOGIES ASSOCIATED

- Robot
- IoT



Admetsys has developed the first artificial pancreas system specifically for the needs of hospital and surgical care. The system attaches to a patient's intravenous line, and automatically measures blood glucose concentration in real time and with no blood loss. From this, it creates an adaptive, computational model of each patient's metabolism, evolving as patient condition does, and delivers precisely-optimized, treatment – insulin to reduce high glycemic levels and glucose to raise and support falling levels.

#### ● The main area(s) of the solution

- Diabetes
- · Cardiovascular diseases

- Diagnosis
- Emergency medicine
- Surgery
- Care protocols
- Prevention
- · Prediction of events



https://aidence.com

FOUNDED 2015
COUNTRY Netherlands
CONTACT

Jeroen van Duffelen, COO jeroen@aidence.com

## THE TECHNOLOGIES ASSOCIATED

Visual recognition



Aidence brings together radiologists, developers, scientists and hospitals to build Veye Chest, an intuitive and highly accurate AI solution for pulmonary nodule management.

Veye Chest supports you in laborious tasks by automatically detecting, classifying and tracking the growth of pulmonary nodules on Chest CT scans. Veye Chest is a vendor neutral platform.

#### ● The main area(s) of the solution

- Cancers
- · Respiratory diseases

- Diagnosis
- Imagery
- Patient follow-up



www.aiintense.eu

## FOUNDED 2018 COUNTRY France CONTACT

Daniel Duhautbout, CEO daniel@aiintense.eu

### THE TECHNOLOGIES ASSOCIATED

- Chatbot
- Vocal recognition
- NLP (natural language processing)
- · Cognitive assistants

# Solution Description

AIITENSE was created to meet the challenges of resuscitation of precision:

- by facilitating the request of the requiring doctor and the work of the expert doctor by the extraction and the structuring of the data sources and the access for the medical and scientific data of the literature:
- by assuring the traceability of the exempt notices, thus to judge the quality, the relevance and the efficiency.
- with for purpose to establish a gradual diagnostic help, going off answer algorithmics in the opinion of international experts;
- but without forgetting to integrate the local solutions because sometimes the expertise is within the hospital of the requiring
  doctor, and the direct exchange which is a reliable source between doctors.

#### ● The main area(s) of the solution

- · Cardiovascular diseases
- · Respiratory diseases
- · Mental diseases
- Intensive Care Units

- Time saving
- · Relevance of care
- · Errors reduction
- Reduction of practices variability
- Effectiveness of treatment
- · Improved adherence
- · Change of behavior
- Cost saving
- · Patient satisfaction
- Human learning



aivision.health

FOUNDED 2017
COUNTRY France
CONTACT

Arnaud LAMBERT, CEO <a href="mailto:arnaud.lambert@aivision.health">arnaud.lambert@aivision.health</a>

## THE TECHNOLOGIES ASSOCIATED

· Visual recognition



aiVision solution is AI based Remote Ophthalmologic Diagnostic solution committed to eliminating avoidable retinal causes of blindness.

aiVision has developed several Pathology specific diagnostics algorithm that are Medical Device agnostic.

aiVision is currently delivering remote AI based Ophthalmologic Diagnostics around the world to accelerate Diabetic Retinopathy screenings, the Leading cause for Blindness

#### ■ The main area(s) of the solution

- Diabetes
- Ophthalmology

- R&D
- Diagnosis
- Imagery
- Prevention
- · Patient follow-up
- Telemedicine

### **Clphanosos**

#### www.alphanosos.com

FOUNDED 2014
COUNTRY France
CONTACT

Pascal Mayer, CEO pascal.mayer@alphanosos.com

## THE TECHNOLOGIES ASSOCIATED

Screening data analysis and experiment design

## Solution Description

Alphanosos solution is a proprietary data analysis engine based on Alphanosos' proprietary algorithms and software which takes as an input compound/plant extract information and experimental data obtained from experiments with the mixes of compounds or plant extracts (or nutrients), and generates as an output improved compositions of mixes of compounds or plant extracts (or nutrients). It is also adaptable to chemical structures in order to generate improved molecular designs.

#### ● The main area(s) of the solution

- · Dermatological conditions and diseases
- Antimicrobials
- · Cosmetic ingredients
- · Functional foods, food additives
- Wellness
- · Communicable diseases
- Cancers
- · Respiratory diseases
- · Articular bone disorders
- Cardiovascular diseases
- Mental diseases
- · Orphan diseases

- Bioactive discovery
- · Drug discovery
- R&D
- Diagnosis
- · Prediction of events



#### www.anamnese.me

FOUNDED 2017
COUNTRY France
CONTACT

Jérôme BOURREAU, Co-founder jerome@anamnese.me

## THE TECHNOLOGIES ASSOCIATED

- Chathot
- Medical Decision Graph (self learning)

#### **VIDEO**

# Solution Description

Anamnese aims at bringing productivity and quality to medical consultations. The Artificial Intelligence reproduces a doctor's reasoning to prepare the consultation beforehand by questioning the patient on her medical history and symptoms (this phase is beside named the "anamnesis of a patient"). ANAMNESE asks the right questions to a patient, in her language, at her own convenience, before the medical consultation. By doing so, we capture an exhaustive description of the patient's medical history, without any cognitive bias. It is said that this piece of information makes 80% of the diagnosis, and that's why we expect ANAMNESE will drive the doctor to the right diagnosis, faster, thus saving time for more human exchange with the patient (which is a request from both Patients and Doctors). Questionnaires for medical consultation already exist. However, they are rarely dynamic (adaptive to each patient) nor maintainable (generally based on decision tree) Anamnese solution revolves on 3 components:

- MKG (Medical Knowledge Graph). where the structure medical knowledge structured around the W.H.O.'s 8000 syndromes/ illnesses (ICD-10).
- GTA (Graph Traversal algorithms), which uses the above MKG to deduct the right question to ask depending on the situation (a standard checkup, an urgency, a cardiologist consultation...).
- GUI: the interfaces (Web or Voice), that allows the exchanges between patients and our software

#### ■ The main area(s) of the solution

- · Cardiovascular diseases
- · Respiratory diseases
- · Orphan diseases
- · General medicine

- Diagnosis
- Prevention
- Epidemiology
- · Patient follow-up



https://anapix-medical.com

## FOUNDED 2016 COUNTRY France CONTACT

Bernard FERTIL, CEO bernard.fertil@anapix-medical.com

### THE TECHNOLOGIES ASSOCIATED

- Artificial intelligence (AI)
- Machine learning
- Dermoscopy
- Smartphone
- SAAS model

#### VIDEO

# Solution Description

ANAPIX medical, specialised in skin imaging, has developed two offers:

SkinApp: Real-time imaging of the skin for health professionals. It is an outsourced service platform (located on a secure health server, SaaS mode) on which photographs of the skin, acquired via a smartphone connected or not to a dermoscope, are transferred, and, via a web- application, managed and analyzed in real time. Depending on the installed modules, this platform provides practitioners with a second opinion (diagnosis of melanoma) and/or a therapeutic decision (for small lesions of the skin) based on the analysis of photographs performed by machine learning algorithms. A chat allows connected practitioners to exchange opinions and advice around interesting cases encountered during their daily activities.

SkinShot: The useful selfie. Running on a smartphone (iPhone or Android), this application for individuals is part of an awareness framework for a personalized examination of moles for early detection of melanoma. It allows everyone to make an inventory of his (her) moles and can reveal by means of a unique algorithm, the original ones (the ugly ducklings) leading to the setting-up of some specific follow-up. SkinShot can be used in preparation for a consultation with a dermatologist and/or as a screening tool. All ANAPIX products and services fit with the tele-expertise paradigm since they heavily rely on data transfer via the Internet.

#### ● The main area(s) of the solution

• Skin cancers, melanoma

- Diagnosis
- Skin imagery
- Prevention
- Patient follow-up
- Tele-expertise



https://www.athento.com

FOUNDED 2005 COUNTRY Spain CONTACT

Jose Luis de la Rosa, Manager jlr@athento.com

## THE TECHNOLOGIES ASSOCIATED

• NLP (natural language processing)

# Solution Description

Athento solution works in real time analyzing the information from analytics, prescriptions, microbiology and HIS of each patient and generates alerts for the physicians and pharmacists to do interventions in case an adverse drug event may happen.

This solution improves patient security and efficiency by avoiding adverse drug events. It has been proved to save more than 600.000€/year in a hospital with 1300 beds.

The solution counts with more than 400 clinical rules reviewed by the Service of Pharmacy of the Hospital Gregorio Maranon of Madrid.

#### ● The main area(s) of the solution

- Diabetes
- · Cardiovascular diseases
- Cancers
- Respiratory diseases
- Wellness

- R&D
- Prevention
- · Prediction of adverse drug events



#### www.aurarobotix.com

FOUNDED 2015 COUNTRY Spain CONTACT

Cecilia García Cena, Co-founder cecilia@aurarobotix.com

### THE TECHNOLOGIES ASSOCIATED

 Artificial Intelligence and Artificial Vision

#### **VIDEO**

# Solution Description

OSCANN desk is a non-invasive technology developed the startup AURA Innovative Robotics - which, through a simple and rapid test to be performed in the neurologist consultation, offers data about the functioning of the brain by way of the measurement of ocular movements. This new robotic assistant is currently undergoing the clinical trial phase, authorized by AEMPS (Agencia Española del Medicamento y Producto Sanitario, Spanish Agency of Medicines and Medical Devices), in 6 hospitals in Spain, and thanks to image processing techniques and machine learning, the results are allowing physicians to diagnose precociously neurodegenerative pathologies as well as performing a prognosis that allows customization of the treatment. Thanks to this new tool, the doctor has objective data on the functioning of the brain so that, together with other clinical data, it can perform an accurate diagnosis and in early stages of the disease. The test is performed in the consultation room, without the need to re-book the patient, and it is simple and fast to perform. The staff performing the assessment selects the adequate tests to be performed from a battery of eye tests. The patient sits comfortably in a chair and adapts the device to his/her anatomy to be able to accurately measure eye movement. Each test lasts one minute during which the patient must look at the stimulus that appears on the monitor placed on their direct eyesight. Once the test is complete, the robotic assistant processes the images obtained, analyzes the results and compares them with the pathological models that have been developed in the clinical trials to finally generate the medical report.

#### ● The main area(s) of the solution

Neurodegenerative disease

- R&D
- Diagnosis



#### www.babylonhealth.com

FOUNDED 2013
COUNTRY United Kingdom
CONTACT

Umang Patel, Clinical Director umang.patel@babylonhealth.com

### THE TECHNOLOGIES ASSOCIATED

- Chatbot
- · Visual recognition
- Vocal recognition
- NLP (natural language processing)
- PGM Probabilistic Graphical Modelling

## Solution Description

Babylon uses AI through a chatbot available on mobile phones and the web in combination with telemedicine to provide care that helps people get healthy and stay healthy. Babylon is home to the largest collection of scientists, clinicians, mathematicians and engineers. Our team has been recruited from over 60 different countries and is working on making healthcare delivery affordable and accessible. By combining the ever-growing power of AI with the best medical expertise of humans, Babylon can deliver unparalleled access to healthcare, including personalized health assessments, treatment advice and face-to-face appointments with a doctor 24/7.

#### ■ The main area(s) of the solution

- Diabetes
- Cardiovascular diseases
- · Respiratory diseases
- Mental diseases
- · Communicable diseases
- Wellness

- Diagnosis
- Care protocols
- Prevention
- Prediction of events
- Epidemiology
- · Self management
- · Patient follow-up
- · Personal assistance
- Training
- Management



#### http://www.bioeye.com

FOUNDED 2017 COUNTRY Israel CONTACT

Eran Ferri, CEO eran.ferri@bioeye.com

### THE TECHNOLOGIES ASSOCIATED

- Machine learning
- Computer vision
- · Cloud computing
- · Big data
- · Mobile platforms

#### **VIDEO**



BioEye is a mobile eye-tracking application for monitoring cognitive states. BioEye provides early detection of cognitive decline, enabling effective intervention.

BioEye provides seamless continuous monitoring of cognitive states using high quality eye biomarkers, such as eye movement, blink rate, and pupil size. During routine use of the smartphone, we capture a short video of the eyes, we use Machine Learning and Computer Vision to extract the eye biomarkers, and send them to our big-data repository on the cloud, where we monitor cognitive states and perform early detection of abnormal trends using Machine Learning algorithms.

- BioEye has 2 patents:
   platform and technology
- early detection of cognitive decline.

BioEye is engaged in two clinical trials in leading hospitals in Israel, with promising intermediate results, and additional global trials planned for coming year.

The BioEye platform can power many eye-tracking applications, which can be developed through partnerships and licensing.

#### ■ The main area(s) of the solution

- Eye tracking
- · Eye biomarkers
- · Cognitive states
- · Neurological diseases
- Neurodegeneration

- Early detection of neurodegeneration
- Monitoring cognitive states
- Intervention effectiveness
- · Personalized medicine
- Adherence



#### www.bioxplor.com

FOUNDED 2018
COUNTRY Germany
CONTACT

Mark Rogers, CEO mrogers@bioxplor.com

### THE TECHNOLOGIES ASSOCIATED

• NLP (natural language processing)

# Solution Description

BioXplor is an intelligent natural language, image and genomics processing platform that uniquely combines data from public and private research and clinical data. We have accelerated novel discoveries and insights by 5x-25x in life science R&D projects, with up to 70% in cost savings. Our capabilities include: indication expansion, target ID, super-responder ID and biomarker discovery, and have a particular interest in inflammation in neurodegeneration, immuno-oncology, rheumatology and dermatology. Our technology encompasses the application of high-performance computing to structure life science data, as well as AI tools such as distant supervision, feature engineering, association rule mining, and word-2-vec. We are currently working with many Top 10 Pharmaceutical and Life Science organizations. We have a multidisciplinary team of over 20 highly experienced experts in computer science, software engineering, biomedicine, and pharmaceutical R&D. Our full platform can be accessed via secure, federated cloud integration, or separately via individual software modules and via API. We also engage in R&D collaborations and partnerships.

#### ■ The main area(s) of the solution

- · Orphan diseases
- · Computational Drug repositioning and Companion diagnostics

- R&D
- Diagnosis
- Imagery
- Epidemiology
- · Patient follow-up
- Computational Drug repositioning and Companion diagnostics

#### **MBLOCK**MEDX

#### Blockmedx.com

FOUNDED 2017
COUNTRY United States
CONTACT

Alexander Antoniou, Founder and Chief Medical Officer Alexander@blockmedx.com

## THE TECHNOLOGIES ASSOCIATED

• ML predictive analytics and AI



BlockMedx is a blockchain based AI platform aimed at preventing prescription fraud, abuse, and non-adherence.

#### ● The main area(s) of the solution

Chronic disease and Substance Use Disorder

- R&D
- Prevention
- · Prediction of events



#### bloomizon.com

FOUNDED 2013
COUNTRY France
CONTACT

Benoit Jonniaux, CEO benoit@bloomizon.com

## THE TECHNOLOGIES ASSOCIATED

- Robot
- Chatbot

# Solution Description

DISRUPTING THE PERSONAL CARE INDUSTRY: For so long we've looked at health, wellness and beauty as separated dimensions, but they are connected and are merging with digital and technological breakthroughs. The Personal Care Revolution allows you to look after your body and mind in a more holistic way with your own needs. Bloomizon produces tailor-made personal care products according to your own physical and functional needs.

#### ■ The main area(s) of the solution

Wellness

- Diagnosis
- Prevention
- · Personal assistance

### ArtiQ

#### artiq.eu

FOUNDED 2018
COUNTRY Belgium
CONTACT

Marko Topalovic, CEO marko.topalovic@artiq.eu

## THE TECHNOLOGIES ASSOCIATED

· Machine learning

## Solution Description

ArtiQ is artificial intelligence (AI)-based software that automatically interprets PFT data and generates a report for clinicians. Such report contains 3 key features:

- Automated protocol: interpretation of the lung function pattern
- A suggestion of the most probable diagnosis, based on the input data
- · Appropriate next testing suggestions, to create diagnostic optimization and guidance.

Our technology allows cloud-based coupling and synchronization with electronic patient records (EPRs), or alternatively, it can be coupled directly to the PFT machines. It is compatible with servicing different customers segments and working with multiple partners in the ecosystem.

#### ● The main area(s) of the solution

· Respiratory diseases

- Diagnosis
- Care protocols
- · Personal assistance

#### Calmedica

#### www.calmedica.com

FOUNDED 2013
COUNTRY France
CONTACT

Corinne Segalen, CEO corinne.segalen@calmedica.com

## THE TECHNOLOGIES ASSOCIATED

- Chathot
- NLP (natural language processing)

#### **VIDEO**

## Solution Description

Calmedica has developed its own machine learning algorithms, securely hosted according to the regulation on Health Data Protection. This chatbot uses algorithms and/or machine learning. It is able to dialog through SMS or as a widget hosted on a website. It is already widely used by hospitals in the management of patients undergoing day surgery. It can be adapted to any situation where a health provider wants to dialog with an home-based patient. The solution includes a surveillance system coupled with an alerting system and a BI solution for data analysis.

#### ■ The main area(s) of the solution

- Diabetes
- Cardiovascular diseases
- Cancers
- · Respiratory diseases
- Mental diseases
- · Articular bone disorders
- · Communicable diseases
- · Orphan diseases
- · Ambulatory surgery and medicine

- Surgery
- · Care protocols
- Follow up of home-based patients



#### www.cardiomo.com

FOUNDED 2016 COUNTRY Ukraine CONTACT

Ksenia Belkina, CEO k.belkina@cardiomo.com

## THE TECHNOLOGIES ASSOCIATED

IoT

**VIDEO** 

## Solution Description

Cardiomo provides wearable remote cardiac monitoring with AI engine to deliver real-time, actionable insights to enable early warning for heart diseases.

Cardiomo's solution provides:

- · low-cost vital signs monitor for more frequent cardiac examinations as preventive care
- vital signs monitoring for chronic care, geriatrics
- remote monitoring of critical CVD patients to reduce hospital readmission cases
- · Monitoring workplace environmental and stress hazards impacting worker health

#### ■ The main area(s) of the solution

- · Cardiovascular diseases
- Wellness

- Prevention
- · Prediction of events
- · Personal assistance



#### www.carenity.com

#### FOUNDED 2011 COUNTRY France CONTACT

Michael Chekroun, President michael.chekroun@carenity.com

## THE TECHNOLOGIES ASSOCIATED

• NLP (natural language processing)

#### **VIDEO**

# Solution Description

Carenity provides the healthcare industry with unique access to real-world patient insights, custom studies, digital services and AI solutions. Carenity has developed state-of-the-art NLP solutions to analyze structured and unstructured data in closed, multi-lingual patient communities.

#### The main area(s) of the solution

- Diabetes
- · Cardiovascular diseases
- Cancers
- · Respiratory diseases
- Mental diseases
- Articular bone disorders
- · Communicable diseases
- · Orphan diseases
- Wellness
- Disability
- Accidentology

- R&D
- Patient follow-up



#### www.codovia.com

FOUNDED 2018
COUNTRY Germany
CONTACT

Moustafa Ali, Student Moustafa.ali@stud.th-deg.de

## THE TECHNOLOGIES ASSOCIATED

- IoT
- Chatbot
- NLP (natural language processing)

## Solution Description

Codovia is an AI Driven NEMT solution utilizing the available care professionals and vehicles owned by them in the transportation of the patients.

The challenges that Codovia is addressing are multiple:

- cost of care
- · mobility as a source of income for facilities
- · utilization of resources
- · home health care
- human capital expenses

#### ■ The main area(s) of the solution

• Administration of mobility services

- Management
- Mobility
- NEMT
- Home care



https://cellari.io

FOUNDED 2018
COUNTRY Denmark
CONTACT

Erik Poulsen, CEO eriksp@gmail.com

## THE TECHNOLOGIES ASSOCIATED

· Visual recognition



Recent groundbreaking advances in artificial intelligence allow clinicians and researchers to easily teach the machine how to carry out even complex tasks. Results are robust to reproduction and safely stored in the cloud.

Cellari enables researchers and non-specialists to take full advantage of recent developments in artificial intelligence by providing state of the art AI models for bioimage segmentation in combination with an easy and intuitive user interface.

#### ● The main area(s) of the solution

- Cancers
- · Pathology, histology and stereology

- R&D
- Diagnosis
- Imagery



#### www.chronomics.co.uk

FOUNDED 2017
COUNTRY United Kingdom
CONTACT

Toby Call, Co-founder and CBDO toby@chronomics.co.uk

## THE TECHNOLOGIES ASSOCIATED

- · Deep learning
- Next generation sequencing

## Solution Description

DNA methylation is the ultimate actionable -omic to probe long term effects of lifestyle and environment, as well as the effect on our underlying health, mental wellbeing, and biological age. We combine the latest in AI, epigenetics research, and next-generation sequencing. The Chronomics Epigenetics Test provides access to the future of preventative healthcare, where prevention is not an afterthought, but the unthinking norm.

#### The main area(s) of the solution

- Wellness
- · Non-communicable diseases

- R&D
- Diagnosis
- Prevention
- · Prediction of events
- Self management
- Patient follow-up
- Management

#### CISIAD

#### www.cisiad.uned.es

FOUNDED 2006 COUNTRY Spain CONTACT

Francisco Javier Diez, Professor fidiez@dia.uned.es

## THE TECHNOLOGIES ASSOCIATED

· Decision analysis software



The Research Centre for Intelligent Decision-Support Systems (CISIAD) involves several members of the Department of Artificial Intelligent (AI) of the Spanish National University for Distance Education (UNED). Currently, probabilistic graphical models are one of the main techniques in AI. We first built several Bayesian networks for medical diagnosis and influence diagrams for medical decision making. Then we have developed new types of probabilistic graphical models, such as decision analysis networks (DANs), Markov influence diagrams and dynamic limited memory influence diagrams (DLIMIDs), and new algorithms for cost-effectiveness analysis, sensitivity analysis and explanation of reasoning. Using these models it is possible to solve with relative ease much larger problems than when using traditional techniques, such as decision trees and spreadsheets. We have implemented these models and algorithms in OpenMarkov, an open-source software tool for building and evaluating probabilistic graphical models, especially for medicine. It has been used in more than 30 countries in Europe, America, Asia and Africa. We have participated in three EU projects and are interested in collaborating with clinical research centres, pharmaceutical laboratories and medical devices manufacturers in new projects. We intend to create a spin-off for offering consultancy about medical decision analysis, including cost-effectiveness analysis, with AI techniques.

#### The main area(s) of the solution

- Cardiovascular diseases
- Cancers
- · Respiratory diseases
- Disability
- Ophthalmology

- R&D
- Diagnosis
- Prevention
- Epidemiology
- Economic evaluation of health technologies



#### www.citizendoc.fr

## FOUNDED 2015 COUNTRY France CONTACT

Arthur André, CEO arthur@citizendoc.fr

### THE TECHNOLOGIES ASSOCIATED

- Robot
- Chatbot
- AT
- Tensor flow
- NLP

## Solution Description

CitizenDoc, launched in 2015, develops smartphone and web applications designed to accompany the patient in his daily illnesses, starting from his symptoms to medical advice, OTC medication prescription, an e-consultation or a specialized clinics. The aim is to avoid unnecessary consultations and participate in therapeutic education of the population. The service is based on an algorithm allowing the user to auto-diagnose his syndrome, and drive him to the appropriate management, either with a digital prescription if possible, or a further real examination if needed. We are the first French actor to provide digital solution starting from the symptom to a medical solution for the user. This is a new service for the patient who can be oriented to the appropriate e-health service. CitizenDoc aims to expand and customize its offering with an app that guides users not only from her small daily ills but also through broader categories of symptoms encountered in life: medicine travel and menopause are such sections already in place. We are presently developing a fast-recovery surgical platform, which provides qualitative and quantitative tracking of activity in post-operative care to create a mobile and interactive aid to rehabilitation, with practical advice, dialogue with the user, live measurement of physical activity. We implement these innovations in partnership with clinicians and French hospitals. We also strongly believe in our international development, as medicine is a universal knowledge and expertise, including emerging countries. In the future, one objective is to define a dedicated course according to the existing conditions of the user, especially considering chronic diseases. CitizenDoc wishes to be involved in an easier accessible care pathway, including tele-counseling.

#### The main area(s) of the solution

- Spine surgery
- Fast Recovery
- Disability
- Wellness

- R&D
- Diagnosis
- Emergency medicine
- Surgery
- Care protocols
- Self management
- Patient follow-up
- · Personal assistance



www.coalalife.com

FOUNDED 2014 COUNTRY Sweden CONTACT

Philip Siberg, CEO philip@coalalife.com

## THE TECHNOLOGIES ASSOCIATED

- IoT
- Analytics

**VIDEO** 

# Solution Description

The Coala Heart Monitor is a medical system that records heart sounds and ECG in just a minute. Smart, cloud-based algorithms analyze in real-time and detect for Atrial Fibrillation, 9 other arrhythmias and the ability to help detect murmurs. Results presented in the Coala App and Coala Care Cloud Portal within seconds. Connect doctors to the Coala Care portal for smart remote assessments.

#### ■ The main area(s) of the solution

· Cardiovascular diseases

- R&D
- Diagnosis
- Prevention
- Prediction of events
- Self management
- Patient follow-up



ctcue.com

FOUNDED 2013
COUNTRY Netherlands
CONTACT

Roel Lakmaker, Founder roel@ctcue.com

## THE TECHNOLOGIES ASSOCIATED

• NLP (natural language processing)



CTcue developed a software tool, that extracts data from existing EMR-systems and makes them searchable through an intuitive interface. The system is powered by the latest technology such as artificial intelligence and machine learning to parse, structure and interpret data. It is validated in hospitals and evaluated as more precise and extremely fast compared with current methods.

#### ● The main area(s) of the solution

- Diabetes
- · Cardiovascular diseases
- Cancers
- · Respiratory diseases
- · Mental diseases
- · Articular bone disorders
- · Communicable diseases
- Orphan diseases
- Wellness
- Disability
- Accidentology

- Diagnosis
- · Care protocols
- Prevention
- Patient follow-up
- Management



#### cyntegrity.com

FOUNDED 2014
COUNTRY Germany
CONTACT

Artem Andrianov, CEO artem.andrianov@cyntegrity.com

## THE TECHNOLOGIES ASSOCIATED

- NLP (natural language processing)
- Clustering
- Predictive analytics

#### **VIDEO**



Cyntegrity's EarlyBird® System is a technology platform that aggregates data from all possible clinical recording systems (EDC, CTMS, lab data, etc.), and subsequently evaluates clinical trial risk from numerous standpoints. The system incorporates a variety of statistical analyses and algorithms to gauge clinical trial performance, data quality, and risk evaluation.

#### ■ The main area(s) of the solution

Clinical trials in:

- Diabetes
- Oncology
- Respiratory diseases
- · Mental disorders
- · Orphan diseases
- Medical devices

- R&D
- Event Prediction
- · Risk based monitoring
- · Risk based quality management
- Fraud detection



#### www.decisionanalyticsystems.com

FOUNDED 2017 COUNTRY Italy CONTACT

Lorenzo Rossano, Managing Director and Chief Science Officer

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### THE TECHNOLOGIES ASSOCIATED

IoT



The Healthcare Interventional Decision Support System (HIDSS) has three components: a microprocessor-based device for real-time collection of patient vital signs (FORMYHEART), artificial intelligence-based predictive analytic software (PARETO), and a mobile phone-based high-resolution video platform for remote engagement of the patient based upon actionable clinical information generated by the platform (telmedx). FORMYHEART is a microprocessor-based wireless system that enables integration of analytical data into the healthcare delivery process. FORMYHEART can be variously configured to collect and process available transducers such as electrocardiogram amplitude, frequency, and segment elevations ST, vascular Doppler, peripheral pulse, phonocardiography, blood pressure, glucose, saturated oxygen, or any other transducer signal. Pre-processing software allows "computer ECG analysis" by highlighting 44 cardiovascular diseases (readable from ECG) PARETO is a tool for automatic analysis, management and control of healthcare processes based on a schematic of care delivery functionalities that are represented by mathematical transfer functions that link input variables and outputs. The model is enriched by "expert systems" such as FORMYHEART. Typically, an analytic hierarchy process (AHP) is used to compare system attributes. The integration of PARETO, FORMYHEART and the telmedx platform is used for continuous supervision of the delivery of patient care.

#### The main area(s) of the solution

- · Cardiovascular diseases
- The scope of application
- Diagnosis
- · Prediction of events
- · Patient follow-up
- Personal assistance



https://www.dexstr.io/

FOUNDED 2014
COUNTRY France
CONTACT

Erwan David, CTO erwan.david@dexstr.io

## THE TECHNOLOGIES ASSOCIATED

- Visual recognition
- NLP (natural language processing)
- Various Machine Learning algorithms linked to NLP

#### **VIDEO**

## Solution Description

Inquiro is a Knowledge Management System, providing an easy way for scientists, project leads and department heads to visualise all their research data:

- 1. Store and organize your unstructured data: Inquiro uses a Big Data storage engine that is scalable, resilient and secure, and centralizes the storage of all types and sizes of files. Thanks to the technical metadata automatically captured by Inquiro and to the scientific metadata, data organization and searching are facilitated.
- 2. Capture the scientific context: Unlike traditional file systems and databases, Inquiro natively integrates tools for manual and AI powered curation of your data. This will decrease the risk of data loss and promote re-use.
- 3. Expand large scale collaboration: Inquiro goes beyond the file/folder paradigm by using your metadata to dynamically reorganize your files according to scientific criteria. This mechanism makes it possible to construct a 360° view of the scientific knowledge in your organization.
- 4. Identify your data and connect them: Inquiro offers a search engine that is specifically designed for scientific data, to reveal correlations between your data. It indexes the contents of the files and the associated metadata to provide more relevant results, particularly through the semantic properties of the metadata.
- 5. Integrate your instrumentation and applications: Inquiro helps you use the data trapped on your network drives, robotic platforms or in applications with an API and existing connectors that can integrate any data source. Thus Inquiro is present alongside researchers in all their tools.

#### ● The main area(s) of the solution

- Diabetes
- · Cardiovascular diseases
- Cancers
- · Respiratory diseases
- · Mental diseases
- · Communicable diseases
- · Orphan diseases
- Cross therapeutic area

- R&D
- · Prediction of events
- Epidemiology
- Clinical

## +WoundDesk

https://wounddesk.com

FOUNDED 2012
COUNTRY Switzerland
CONTACT

Patricia Sigam, CEO ps@digitalmedlab.com

## THE TECHNOLOGIES ASSOCIATED

· Visual recognition



The +WoundDesk mobile solution is used for the assessment and the documentation of wound healing. With a mobile application, at the bedside, an image of the wound is taken and the evolution documented. These data are shared in real-time among all stakeholders involved. The data shared are not available in a crude form, they are already analyzed and presented in an actionable war to the stakeholder. For each stakeholders the form of the data sharing is adapted to the practice: wound report for sharing with external providers, an online dashboard for internal sharing and data analytics for decision-makers. The data collected are automatically and systematically pseudonymized. Access to high-quality structured data gives us the opportunity to apply machine learning to standardized the assessment and improve wound care.

#### ● The main area(s) of the solution

- Diabetes
- Wound care

- Surgery
- · Care protocols
- · Patient follow-up
- Management



www.direktio.com

FOUNDED 2011
COUNTRY Colombia
CONTACT

Juan David Escobar, CEO juand.escobar@direktio.com

## THE TECHNOLOGIES ASSOCIATED

• ML algorithms in structure data



Direktio has developed a methodology to operationalize models of individual risk management supported by machine learning, identifying the population at cardiovascular risk, prioritizing based on the likelihood of having an outcome of MI or Stroke, and delivering tools that support the management of these patients to have a greater adherence to the program and clinical indicators, to finally evaluate the results of each of the patients.

#### ■ The main area(s) of the solution

- Diabetes
- · Cardiovascular diseases

- Diagnosis
- Prevention
- Prediction of events
- Patient follow-up



#### www.dnalytics.com

FOUNDED 2012 COUNTRY Belgium CONTACT

Damien BERTRAND, Business Development Officer

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## THE TECHNOLOGIES ASSOCIATED

- Data science
- Machine learning techniques

#### **VIDEO**



DNAlytics proposes Data Science expertise towards the bio-pharmaceutical industry and healthcare actors. The company's technology platform proves attractive for applications such as the selection of influencing parameters, the identification and validation of biomarkers, the stratification of patients, in particular when the context calls for multi-source data integration and multi-markers combinations. As a representative example, DNAlytics is developing Rheumakit (www.rheumakit.com), a precision medicine platform in rheumatology which proposes early differential diagnosis and treatment guidance for rheumatoid arthritis patients. In operational contexts, the Data Science techniques may also be used in the context of bio-manufacturing, for retrospective analyses as well as prospective monitoring and enhancements of production processes.

#### ■ The main area(s) of the solution

 Multiple healthcare areas: specific focus/ expertise in rheumatology

- R&D
- Diagnosis
- Prevention
- · Prediction of events
- Epidemiology

## drfocused

#### drfocused.com

FOUNDED 2015
COUNTRY United Kingdom
CONTACT

Kit Latham, CEO kit@drfocused.com

## THE TECHNOLOGIES ASSOCIATED

- · Visual recognition
- NLP (natural language processing)
- Machine Learning

# Solution Description

Healthcare administration costs have increased by 3500% since 1970. To help providers reduce these costs, we have created automated hiring, verification, and on-boarding platform, that uses computer vision to automatically process employment documents for new medical and nursing staff, build them an employment profile, onboard them and keep them up to date with compliance reminders.

#### ■ The main area(s) of the solution

- Healthcare Management
- Automated Human Resources

#### ■ The scope of application

• Management



#### www.ehealthline.com

FOUNDED 1999 COUNTRY Ireland CONTACT

Sorin Stircu, Regional Life Sciences and Healthcare Strategist

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## THE TECHNOLOGIES ASSOCIATED

- Machine Learning (ML)
- Deep Learning (DL) library of algorithms
- Natural language processing (NLP)



E\*HealthLine's Artificial Intelligence (AI) aims to mimic human cognitive functions. This will be achieved by means of bringing about a paradigm shift to healthcare, powered by increasing availability of healthcare data and rapid progress of analytical techniques.

E\*HealthLine's AI is applied to various types of healthcare data (structured and unstructured). Our AI platform includes Deep Learning Algorithms and methods for structured data, as well as natural language processing for unstructured data. Our AI platform support disease areas include involving measurable outcomes for cancer, neurology and cardiology.

E\*HealthLine's big Data and Artificial intelligence approach enables aggregation of a variety of new and existing data sources; such as medical records, wearable, sensors, devices, registries, social platforms and other environmental, physiological and behavioral data.

E\*HealthLine's main advantages of Big Data infrastructure is the ability to maintain very large, heterogeneous and linked data sets that are highly available, where they can be queried and statistically processed rapidly and then used in visualizations on a near real-time basis.

E\*HealthLine's Deep Learning (DL) Library of algorithms facilitate and scour over large volumes of data to accurately and efficiently learn relationships found in recorded examples. E\*HealthLine Deep Learning technology has introduced the capability to effectively automate the generation of predictive features in various types of inference problems and thereby achieving breakthrough performances in applications such as image processing of (X rays, and MRIs). The key applications of Deep Learning are being pursued for reading radiology exams or pathology slides.

#### The main area(s) of the solution

Major Disease Areas That Use AI Tools Include:

- Oncology
- Neurodegenerative Diseases
- · Cardiovascular Diseases
- · Chronic diseases such as Diabetes, Asthma, COPD
- · Nervous System
- Central Nervous System
- Rare Diseases

#### The scope of application

E\*HealthLine's AI focuses on drug discovery and therapeutic efficacy and safely. The AI is also used for early detection, symptoms tracking, monitoring, and the progression of the diseases. Major disease areas that use AI tools include cancer, neurology and cardiology. We then review in more details the AI applications in strokes, and in the three major areas of early detection, diagnosis, and treatment, as well as outcome predictions and prognosis evaluations.



#### efelya.com

FOUNDED 2018
COUNTRY France
CONTACT

Florine Duplessis, CEO florine.duplessis@efelya.com

## THE TECHNOLOGIES ASSOCIATED

- Chatbot
- AI

# Solution Description

The medical innovation of Efelya is the management of obstetrical risk during pregnancy. We set up predictive monitoring of the risk's evolution thanks to the use of an algorithm associated with a connected "pregnancy passport". The pathologies involved in screening are: - Hypertension and Pre-eclampsia - Gestational Diabetes - Premature Childbirth - Hemorrhagic risk - Fetal growth restriction EFELYA's algorithm is scalable and assesses the risk level of the patient throughout pregnancy. The pregnant patient actively participates in the enrichment of her "pregnancy passport", alone or accompanied by the practitioner in charge of her follow-up. EFELYA wants an international deployment by actively engaging with emerging countries and those subject to strong medical deserts. The support will be multilingual to be available to the largest number of women and practitioners. The medical benefits of Efelya: - Optimized obstetric prevention - Promote education of women to the most common pathologies - Accessibility of a quality obstetric medicine for large geographical areas / emerging countries with few medical resources - Development of care in perinatal networks - Decrease in maternal-fetal morbidity and mortality. We would like to add that for emerging countries Efelya is a reliable source of large-scale epidemiological data retrieval. These data are essential for the creation of public health projects. Efelva, e-health start-up engaged.

#### The main area(s) of the solution

- Diabetes
- · Cardiovascular diseases
- Obstetrics

- R&D
- Diagnosis
- · Emergency medicine
- Care protocols
- Prevention
- · Prediction of events
- Epidemiology
- Self management
- Patient follow-up

## GNONY

#### enovap.com

FOUNDED 2015
COUNTRY France
CONTACT

Marie Harang-Eltz, Chief Scientific Officer

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## THE TECHNOLOGIES ASSOCIATED

IoT

**VIDEO** 



Enovap is a personal vaporiser, based on a breakthrough patented double tank technology (patent WO2015150699) to help smokers quit tobacco. The technology allows to manually or automatically dose an active substance in an aerosol (in this case nicotine) by adjusting the power sent to each tank. The nicotine dosage feature allows user to instantaneously adjust their nicotine concentration in each puff to better satisfy their cravings. The device is connected to the "Enov'app" mobile application that allows the recording and visualisation of users' consumption patterns over time. The users can track their vaping and smoking patterns for additional motivational support. A Smart Step Down Program, a proprietary advanced algorithm developed in partnership with the CNRS will analyse those vaping patterns and based on them, suggests to the user a gradual, personalised and automated decrease of their nicotine consumption.

With both those nicotine dosage and diminution features, Enovap is the only personal vaporiser addressing both tobacco and nicotine addictions.

#### ● The main area(s) of the solution

- · Cardiovascular diseases
- Cancers
- · Respiratory diseases

- Prevention
- · Self management
- · Smoking-cessation



#### www.ergobyte.gr

FOUNDED 2002 COUNTRY Greece CONTACT

Martha Zachariadou, Product Manager

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## THE TECHNOLOGIES ASSOCIATED

- · Machine learning
- · Bayesian inference
- · Business rule engines

# Solution Description

Ergobyte developed the Galen Reasoner, a novel medical decision support system (DSS) able to check drug-to-drug and drug-to-disease interactions and produce personalized medication recommendations. In order to get accurate and reliable results, the system reuses case-specific information readily available within interoperable electronic health records (EHRs) such as symptoms, allergies, somatometric characteristics etc. By having physicians use the Galen Reasoner on a day-to-day basis, we have recorded: measurably improved patient outcomes (better decisions and fewer errors), lower treatment costs (fewer rehospitalizations, better-suited medications), and improved physician productivity (less time spent on searching information). From a technical standpoint, the Reasoner is a combination of two technologies: business rule engines and semantic frameworks. It works on a knowledge base where all useful information is stored. Medical rules are created taking into account recent literature and official Summary of Product Characteristics (SmPC) documents. Applicable medication treatments are selected by active ingredient and the adapted to each market's brand names and specific package concentrations.

#### ■ The main area(s) of the solution

- Diabetes
- Cardiovascular diseases
- Cancers
- · Respiratory diseases
- · Mental diseases
- · Articular bone disorders
- · Communicable diseases

- Care protocols
- Self management
- Pharmacology



#### www.exactcure.com

## FOUNDED 2018 COUNTRY France CONTACT

Frédéric Dayan, Co-founder and CEO frederic.dayan@exactcure.com

## THE TECHNOLOGIES ASSOCIATED

- · Personalised bio-modelling
- NLP (natural language processing)
- Neuronal networks for auto-learning models

#### **VIDEO**

# Solution Description

Our Digital Twin simulates the efficacy and interactions of medicines in the body of a patient based on his/her personal characteristics. We help the patient to avoid under-doses, overdoses, and drug interactions. Our solution results from years of fundamental research in bio-modeling with Inria, a tier-1 French fundamental research institute. It will be certified as a Medical Device.

- Personalized bio-modeling: simulation engine. Our simulation engine runs sets of mathematical equations that can predict in
  silico the effects of specific drugs in the body of a patient. The patient's characteristics (age, weight...) are co-variables that
  are factored into the equations.
- Mobile App The UX is key to make the patient use the app regularly, that is why we work with specialized UX designers.
- Web-based dashboard: Health professionals will be able to access their patients' profiles from their phone, tablet or PC.
- Drug models: In parallel to the app development, we will integrate a growing number of drug models in our database. They will feed our simulation engine. Hence we propose a unique double innovation:
  - 1. Usage innovation: The patient can predict and visualize the activity of his or her medication; and is thus empowered.
  - Technological innovation: our solution based on Artificial Intelligence aims at personalizing the bio-models of drugs and their effectiveness.

#### ■ The main area(s) of the solution

- · Chronic diseases
- Cardiovascular diseases
- Cancers
- · Respiratory diseases
- · Mental diseases
- Articular hone disorders
- · Orphan diseases

- Personalised medicine
- Care protocols
- Prevention
- · Prediction of events
- Self management
- · Patient follow-up
- Personal assistance

## OvuSense<sup>™</sup>

#### www.ovusense.com

FOUNDED 2005
COUNTRY United Kingdom
CONTACT

Robert Milnes, CEO robert.milnes@fertility-focus.com

## THE TECHNOLOGIES ASSOCIATED

- IoT
- Various algorithmic techniques

#### **VIDEO**

# Solution Description

An estimated 12 million women in North America and Europe start out newly trying to conceive each year, constantly renewing the estimated pool of 120 million in those regions who are trying to conceive. With the US, EU and even China reporting over 50% of women trying to conceive aged 30 or more, it is not surprising that increasing numbers of women are struggling to conceive. Around 1/3rd of those that set out newly on their journey to pregnancy each year (4 million) end up trying to conceive for six months or more, and clinical studies show over 75% of them have an ovulatory issue which can cause variation in the timing of ovulation and/ or cycles which makes it hard for those women to use traditional "calendar" based apps and other temperature methods to time conception. There is the added drawback that these ovulatory issues produce false positives and negatives using urine based ovulation predictor kits.

OvuSenseTM solves this problem by predicting ovulation 24 hours in advance for all women including those with ovulatory issues, doubling the chance of pregnancy for each reproductive cycle. OvuSense comprises a vaginal Sensor and smartphone app for data upload. It is sold direct to the consumer using a Software as a Service. OvuSense measures Core Temperature - a direct indicator of the level of progesterone, additionally enabling diagnosis of ovulatory issues and monitoring of treatment.

#### ● The main area(s) of the solution

Fertility

- Diagnosis
- · Prediction of events
- · Self management



#### www.firstderm.com/ai-dermatology

FOUNDED 2014 COUNTRY Sweden CONTACT

Alexander Börve, Doctor, Founder and CEO

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## THE TECHNOLOGIES ASSOCIATED

Visual recognition

#### **VIDEO**

## Solution Description

First Derm mission is to increase the availability of expert skin information. Our service breaks down the barriers between you and quick, trustworthy dermatology. With our app or website, we connect you to a dermatologist in under 24 hours who will give you information about your skin problem. We put a dermatologist in your pocket.

The demands on public healthcare increase as populations age. At the same time, higher quality care can be made possible through medical and technological innovation with smartphones.

Mobile solutions, called "mHealth", bring about new possibilities for the individual to access healthcare services. In the US and EU, mHeath is beginning to change the healthcare landscape for the better. First Derm's accessible, safe, and effective platform is at the forefront of the mHealth revolution.

Our board-certified dermatologists give accurate information regarding the possible identity of your problem, the possible treatment options to consider, and if or when you should see your doctor in person. The service should not be considered as a substitute to your in-person doctor visit, but rather as a high-quality information service from experts, which serves as a complement to existing healthcare information and healthcare providers.

#### The main area(s) of the solution

Dermatology

- R&D
- Diagnosis
- Imagery
- · Emergency medicine
- Prevention
- · Self management
- · Personal assistance
- Training



#### http://www.GenerationsE.com

FOUNDED 2014
COUNTRY Canada
CONTACT

Jean Su, CEO jean.su@generationse.com

## THE TECHNOLOGIES ASSOCIATED

· Visual recognition



Machine Learning (ML) and Artificial Intelligence (AI) have progressed rapidly in recent years. Techniques of ML and AI have played important role in the medical field like medical image processing, computer-aided diagnosis, image interpretation, image fusion, image registration, image segmentation, image-guided therapy, image retrieval, and analysis. Deep learning is one of the most effective and supervised machine learning approaches. This approach uses models of the deep neural network which is a variation of Neural Network but with a large approximation to human brain using advance mechanism as compared to a simple neural network. It becomes extensively applied method due to its recent unparalleled result for several applications such as object detection, speech recognition, face recognition, and medical imaging. In 2013, it has been termed in 10 breakthrough technologies. GenerationsE applies Artificial Intelligence (AI) in resolving healthcare challenges such that the quality of care provided to, as well as the ensuing quality of life experienced by, patients may be advanced. GenerationsE believes that, through the application of DL technology, Pathologists can be assisted greatly by completely automating the segmentation of cancer cells on biopsy-slides. Such assistance would save Pathologists time in the repetitive routine of segmenting cancer cells on biopsy-slides before the segmented cells may be extracted to perform the desired research procedures incorporating genome sequencing.

#### ■ The main area(s) of the solution

Cancers

- Time saving
- · Errors reduction
- Reduction of practices variability
- · Effectiveness of treatment
- Cost saving



http://www.hajime-ai.fr

FOUNDED 2019
COUNTRY France
CONTACT

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## THE TECHNOLOGIES ASSOCIATED

- Chathot
- NLP
- Data Science

#### **VIDEO**

# Solution Description

Hajime is a chatbot specialized in the patient experience. While talking to the patient, Hajime collects many relevant data: including both quantitative (scientific measurement scales based on psychometric validity), as well as qualitative (feelings and treatment feedbacks). Depending on the patient's quality of life and psychosociological models (Theory of Planned Behavior, Self Efficacy Theory, Health Belief Model and Transtheoretical Model of Behavior Change), Hajime can then understand why the patient is non-adherent and help him to improve it. Indeed, the communication between the chatbot and the patient is the key to success. That's why Hajime focuses both on engagement theory and gamification. The chatbot has the power to change patients behavior by proposing them many goals to achieve, activities, levels to complete and rewards to win, at any time.

#### • The main area(s) of the solution

- Obesity
- · Chronic diseases
- Wellness

- · Patients behavior
- Prevention
- · Prediction of events
- Patient follow-up



#### www.hce-med.com

FOUNDED 2014
COUNTRY Kosovo
CONTACT

Neshad Asllani, CEO neshad.asllani@hce-med.com

## THE TECHNOLOGIES ASSOCIATED

- IoT
- Chatbot
- NLP (natural language processing)

#### **VIDEO**



HCE is a global health platform for cross border cooperation between doctors and health institutions worldwide. We speak here specifically of medical diagnostic, remote health care and treatment skills and training through knowledge sharing, second opinion without undue concern for distance/local institutional resource.

#### ■ The main area(s) of the solution

The development of HCE is more focused on how to organize cooperation and use existing technology in a most user-friendly and create "User Habit" for online health services. HCE experts are working to introduce new services.

- Integrated Health Services
- Transferring image not the patient
- · Real Time consultation
- Image transfer and Second Opinion
- Personalized Electronic Medical Record PEMR
- · Security and Privacy of Health Data



https://healthnavigator.com

FOUNDED 2014
COUNTRY USA
CONTACT

David Thompson MD, Founder and CEO david.thompson@healthnavigator.com

## THE TECHNOLOGIES ASSOCIATED

- Chatbot
- NLP (natural language processing)
- · Decision support

#### **VIDEO**



The Health Navigator platform is a comprehensive clinical vocabulary and decision-support system designed to support digital health and telemedicine encounters – from the presenting chief complaint to the final diagnosis. The platform includes a broad range of tools for capturing the chief complaint through natural language processing, presenting a documentation checklist to consumers and healthcare providers, generating a list of possible causes, and making recommendations for seeking care. These tools can be used to develop artificial intelligence, symptom checker, health bot, consumer engagement, and telehealth applications. All content is delivered via a well-documented application programming interface (API; RESTful web service). Health Navigator can provide solutions for eHealth, telemedicine, insurers, medical call centers, electronic health record companies, answering services, and healthcare systems.

#### ■ The main area(s) of the solution

- Accidentology
- Acute care: ilness, symptoms and injuries

- Diagnosis
- Care protocols
- · Self management
- · Patient follow-up
- Natural Language Processing
- Triage Symptom Checker
- Diagnosis Symptom Checker
- Care Advice



https://healthmode.co/

FOUNDED 2017 COUNTRY USA CONTACT

Lucia Kvapilova, Product Manager lucia.kvapilova@healthmode.co

## THE TECHNOLOGIES ASSOCIATED

- IoT
- NLP (natural language processing)
- · Time series modelling
- Mobile technology mHealth



HealthMode delivers AI-enabled digital measurement methods for the \$50B clinical trials market. Using digital outcome measures, HealthMode increases the precision and speed of pharmaceutical trials and helps bring novel therapeutics to patients faster.

#### ● The main area(s) of the solution

- Cancers
- Respiratory diseases
- Mental diseases

- R&D
- Diagnosis
- Methods for real-world data collection



#### www.igeaweb.it

FOUNDED 2015 COUNTRY Italy CONTACT

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## THE TECHNOLOGIES ASSOCIATED

- IoT
- Vocal recognition
- NLP (natural language processing)

# Solution Description

#healthig solution represents the new frontier to manage the disease by health stakeholders and by the other way by older and chronic disease affected. Vocal interface and user-friendly devices to monitor health and disease and are made to respect pharmacy protocol and for prevention of damage of users.

#### ■ The main area(s) of the solution

- Diabetes
- · Cardiovascular diseases
- Respiratory diseases

- R&D
- Care protocols
- Prevention
- · Prediction of events
- Patient follow-up



#### www.iktos.ai

FOUNDED 2016
COUNTRY France
CONTACT

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## THE TECHNOLOGIES ASSOCIATED

· Deep generative models

#### **VIDEO**



Our deep generative model technology is able to automatically design new molecules with optimized predicted properties with regard to the target product profile. The suggested compounds have a high probability to meet all the desired characteristics. Our solution is available through services and software.

We aim to accelerate and reduce the cost of new drug discovery through the automated design of optimal molecules.

#### ● The main area(s) of the solution

· Drug design for small molecules

#### The scope of application

R&D

## :implicity

#### www.implicity.fr

FOUNDED 2016
COUNTRY France
CONTACT

Arnaud Rosier, CEO arnaud.rosier@implicity.fr

## THE TECHNOLOGIES ASSOCIATED

- IoT
- NLP (natural language processing)
- · Machine learning
- · Semantic web

# Solution Description

Our remote monitoring platform integrates implanted cardiac devices from all major manufacturers, provides smart alert detection and filtering based on AI (CE mark pending) and collaboration features to help cardiologists and their team do remote monitoring efficiently. We're tackling the following customer pain points:

- Healthcare professionals or technicians have to connect to all the manufacturer-specific platforms to monitor their entire
  pool of patients (Vs one platform with Implicity). Alerts and data nomenclature, as well as access to information, varies from
  one to the other
- Low signal/noise ratio: there are too many alerts to sort through, 85% of which are actually benign
- · Collaboration and remote monitoring workflows are inefficient with existing tools
- Limited or inefficient access to raw data for research We launched commercially in France in September 2017, we already
  have >5000 patients followed on our platform.

Our goals are to attain >40% of market share in France by the end of the year, at least one paying customer in another European country and a pilot in North America. We are also seeking CE mark for our A.I based alert filter.

#### ● The main area(s) of the solution

Cardiovascular diseases

- R&D
- Prevention
- Prediction of events
- · Patient follow-up



#### www.benergyapp.com

FOUNDED 2018
COUNTRY Spain
CONTACT

Anna Sort, CEO annasort@playbenefit.com

## THE TECHNOLOGIES ASSOCIATED

IoT



B.ENERGY is a mobile app for iOS and Android that aims to solve the challenge of chronic condition prevention. Typically, individuals know what is required for a healthy lifestyle, but they lack the motivation and resources to become truly empowered and in charge of their wellbeing. The value proposition of B.ENERGY is an app that motivates users to adopt behavior changes through personalized, gamified and medically backed content and a holistic view of the health of the user. The app covers six key health factors (food, exercise, sleep, mind, digestion and environment) proven to impact health and wellbeing, and differentiates itself from other mHealth apps through the inclusion of artificial intelligence (AI), gamification and engagement design. It is unique because it uses AI and gamification techniques, proven to enhance learning, keep users engaged and deliver long-term changes. B.ENERGY engages individuals with their health, provides them with scientifically-proven advice and helps them make permanent changes to their lifestyle. The app targets smartphone users aged 30-50 (video teaser here) and focuses on six factors that affect energy levels: food, exercise, sleep, mind, digestion and environment. In B.ENERGY, the user spends 3 to 5 minutes every day learning a scientifically-backed health fact and is given the challenge to put it into practice in a fun way. After 21 days, which is the period of time needed to create new habits, the user moves on to the 100-day challenge, which offers more daily information and activities. At the end of the 100 days, the user has access to all content as well as exclusive resources and games to help them stay on track and reinforce their learnings.

#### The main area(s) of the solution

- Wellness
- · At-risk pre-chronic

#### The scope of application

Prevention

### ■ Infermedica

#### infermedica.com

FOUNDED 2012 COUNTRY Poland CONTACT

Piotr Orzechowski, CEO office@infermedica.com

## THE TECHNOLOGIES ASSOCIATED

- Chatbot
- Vocal recognition
- NLP (natural language processing)

# Solution Description

Infermedica is a health AI company that improves the diagnostic process using the most advanced reasoning technology for preliminary medical diagnosis. Our goal is to increase healthcare accessibility, minimize the rate of misdiagnosis and streamline costs of providing quality care. Our products have been used by over 3 million users worldwide and our technology is offered as a white-label solution to health insurance companies and health systems.

#### ■ The main area(s) of the solution

- · General medicine
- Acute care

- Diagnosis
- Emergency medicine
- Self management
- · Personal assistance

### **Infoseg**

http://www.infoseg.com/

FOUNDED 1989 COUNTRY Spain CONTACT

José M. Guerrero, CEO jm@infoseg.com

## THE TECHNOLOGIES ASSOCIATED

- Chatbot
- NLP (natural language processing)
- Visualization of any complex information generated by AI software
- Mind mapping automation



To visualize complex information generated by any AI application. AI generates complex information that can not be visualized properly using linear text, web pages or traditional applications based on hyperlinks. This is due to the limitations of the working memory of human brain. Productivity is low and error rates high. We generated mind maps that don't have those limitations. Any complex information generated by AI software is converted into mind maps. Sample application using IBM Watson Natural Language Understanding.

- The main area(s) of the solution
- Several applications
- The scope of application
- · Visualization of complex information

**VIDEO** 



https://iomed.health

FOUNDED 2016 COUNTRY Spain CONTACT

Gabriel de Maeztu, CTO gabriel.maeztu@iomed.es

## THE TECHNOLOGIES ASSOCIATED

• NLP (natural language processing



We license the tools necessaries to provide proactive care by predicting medical events. The reuse of the historical data obtained from electronic health records holds a massive opportunity for healthcare system sustainability. Advancing a need for treatment, predicting an urgency or readmission among others, has already proved that reduces costs.

Thanks to structuring information from medical records, we are able to create a wide range of predictive algorithms for medical events. Natural language processing is a key technology to extract the necessary information from the historical data to create the features for the machine learning algorithms that will create the predictions.

We provide this collection of predictive algorithms to our clients, that thanks their to output, can take a proactive approach to the treatment of patients, saving costs and providing a better experience to their users.

#### ● The main area(s) of the solution

· Prediction of events

- Prevention
- · Prediction of events
- Epidemiology
- Management



www.jerichons.com

FOUNDED 2012
COUNTRY Russia and Germany
CONTACT

Ekaterina Fomicheva, CEO and co-founder

katerina.fomicheva@jerichons.com

## THE TECHNOLOGIES ASSOCIATED

IoT



Our solution is the new AI-driven platform which can improve predictability by a combination of the deterministic drug test with monitoring live oximetry data and an algorithm based on patient-specific genomics data. We are taking into account individual tissue plasticity response which highly depended on the presence or absence of the proprietary genomics markers. There are several big players in the area including IBM-Watson, GSK, Roche, Pfizer.

#### ■ The main area(s) of the solution

- Diabetes
- · Cardiovascular diseases
- · Orphan diseases

- R&D
- Diagnosis
- Prevention
- · Prediction of events
- Patient follow-up
- · Personal assistance



http://www.kapcode.fr/en/

FOUNDED 2016
COUNTRY France
CONTACT

Adel Mebarki, Deputy general manager adel.mebarki@kapcode.fr

## THE TECHNOLOGIES ASSOCIATED

NLP (natural language processing)



Detec't proposes to address this crucial need by using natural language processing to identify health signals through automated social networks exchanges analysis. Patients' experiences in dealing with their pathologies and treatments are crucial for understanding disease management. Analyzing data from social networks provides qualitative information untainted by measuring biases typically seen in studies and surveys. Kap-Code provides an innovative epidemiological analysis solution for use with social networks. Through a mathematical, semantic, and numerical approach, our algorithms extract high-quality information about medicines. When it comes to identifying secondary effects, the sensitivity of these algorithms exceeds 80%. Our methods make it possible to scientifically synthesize information by going beyond sentiment and opinion analysis, which is not well suited to analyzing medicine-related issues on social networks.

#### The main area(s) of the solution

- Diahetes
- Cardiovascular diseases
- Cancers
- Respiratory diseases
- Mental diseases
- · Orphan diseases

- R&D
- Prevention
- Epidemiology



#### Kokoon.io

FOUNDED 2013
COUNTRY United Kingdom
CONTACT

Timothy Antos , CEO Tim.Antos@kokoontech.com

## THE TECHNOLOGIES ASSOCIATED

IoT



Personalized 'bite-sized' CBT for consumers delivered via ergonomic, sensor-enabled products:

- Integrated EEG Sensors: Kokoon uses movement and EEG data to understand your relaxation and sleep.
- Sleepguard: Kokoon's Sleepguard technology alters your audio if you fall asleep to ensure you're not disturbed.
- Smart Monitoring: our smartphone app monitors your data to see how you respond to our audio, and learns what works for you.
- Analyze what works: Kokoon learns as you listen and over time delivers personalized recommendations that work for you.

#### ■ The main area(s) of the solution

- Wellness
- · Insomnia & mental health

#### The scope of application

· Self management



https://lifedata.ai

FOUNDED 2017
COUNTRY Switzerland
CONTACT

Omar Fogliadini, CEO info@lifedata.ai

### THE TECHNOLOGIES ASSOCIATED

- IoT
- Chatbot
- Visual recognition
- Vocal recognition
- NLP (natural language processing)
- · Deep and federated learning

## Solution Description

Less than three decades ago, wellness was about solving baseline health and wellness conditions (disease-centric). Now people are redefining food culture, exercising and wellbeing as a whole (health-centric). Self-care and behavioral health are the main strategies for an aging population. LIFEdata PersonalHEALTH is a patient targeted engagement and behavioral health personal coaching technology that combines the best of preventative medicine, technology, and design, translating clinical research into simple, effective web and mobile programs that empower people with the data-driven tools to improve their physical and emotional health at a fraction of the cost of face-to-face therapy.

#### ■ The main area(s) of the solution

- Diabetes
- Cardiovascular diseases
- Wellness
- Lifestyle, epigenetics and genomic medicine

- Care protocols
- Prevention
- · Prediction of events
- Self management
- Patient follow-up
- · Personal assistance

### Lightscience.Al

FOUNDED 2019
COUNTRY Switzerland
CONTACT

Marco Vismara, MD marco@lightscience.ai

## THE TECHNOLOGIES ASSOCIATED

IoT

# Solution Description

IoT based molecular sensing in association with cloud-based chemometrical engines.

#### ● The main area(s) of the solution

- Diabetes
- Cancers
- Orphan diseases

- R&D
- Diagnosis
- Care protocols
- · Prediction of events
- Self management
- Patient follow-up



#### www.medclinik.com

## FOUNDED 2015 COUNTRY Canada CONTACT

Claire Kamoun, Director of Scientific and Patient Programs claire@360medlink.com

### THE TECHNOLOGIES ASSOCIATED

- IoT
- Vocal recognition
- Coaching Algorythms
- Behavioural modelling through machine learning

#### **VIDEO**



Tavie helps patients adopt healthier behaviors by learning the skills to manage their health condition. Tavie is: - A behavioral coaching with the VirtualNurse with personalized interactions to help patients develop self-efficacy to adhere and persist with treatment and lifestyle recommendations. - A patient progress monitoring and self-assessment through multiple data sources, including wearables, medical devices, psychometrics assessments and continuous motivational feedback. - Virtual assistant features powered by an AI to support patients by profiling their needs and offering tailored real-time interactions. Behavioral modeling allows to detect behavioral predictors and in order to anticipate on patients needs and further population understanding. Our technology is based on: - Interoperability Our platform easily integrates with standard EHR, EMR and Healthcare Systems. With our proprietary interface, data in real-time can be shared with care providers, and payers. TAVIERXRX is interoperable with most connected device such as iHealth, Fitbit and others. - Cloud-based Our technology is developed with a high-performance scalable architecture designed for a high volume of users, data and analytics. It can be hosted on-premise or cloud-based. - Data security and privacy Compliant to leading data security and privacy regulations in the USA (HIPAA), Europe and Canada, all health data is encrypted with the latest and most secure algorithms.

#### ● The main area(s) of the solution

- Diahetes
- · Cardiovascular diseases
- Cancers
- Mental diseases
- Communicable diseases
- Wellness
- Dermatology
- Woman health
- Transplantation
- ITalisplantation
- Post-op recovery

- · Care protocols
- Prevention
- · Self management
- Patient follow-up
- · Personal assistance
- · Digital therapeutic education and coaching
- · Behavioral predictions

## médecindirect

#### https://www.medecindirect.fr/

## FOUNDED 2010 COUNTRY France CONTACT

Juan Sebastián Suarez Valencia, Project Manager in Artificial Intelligence

jsv@medecindirect.ff

## THE TECHNOLOGIES ASSOCIATED

- Chatbot
- NLP (natural language processing)
- · Medical expert systems

## Solution Description

MedecinDirect is addressing many challenges:

- · Identification of patient complain
- · Precision of his/her symptoms
- Bring guidelines to the physician
- Pre-create prescription based on the guidelines
- Follow best protocols of care
- Follow-up patient condition
- Analyze the UX of the experience

The system is composed of 2 components:

- NLP to detect patient complain
- Inference Engine to create a recommendation engine to help the physician to follow the best standards of care

#### ● The main area(s) of the solution

- Diahetes
- · Cardiovascular diseases
- Cancers
- Respiratory diseases
- Mental diseases
- · Articular bone disorders
- · Communicable diseases
- · Orphan diseases

- R&D
- Diagnosis
- Care protocols
- · Prediction of events
- Patient follow-up
- Management



#### www.medicsen.com

#### FOUNDED 2016 COUNTRY Spain CONTACT

Sara García-Doncel, Head of Business Development and Marketing

#### sara@medicsen.com

## THE TECHNOLOGIES ASSOCIATED

- · Needle-Free Drug Delivery
- Smart Dose Calculator
- Chatbot App
- Personalization through AI
- Preventive and Predictive algorithms
   (AI)
- · Machine and Deep Learning
- Deep Learning
- NLP, voice Recognition
- Gamification
- Big Data
- Multivariable Analysis
- Wearables, IoT

## **Solution Description**

MEDICSEN provides a closed loop system for the intelligent management and treatment of diabetes and other chronic diseases and healthy lifestyle promotion through digitalization and the use of artificial intelligence and technological innovation. The first project in which Medicsen is involved the first Non-invasive Artificial Pancreas, a closed circuit system for the smart management and treatment of diabetes, by interconnecting our innovative Non-invasive Drug Delivery Device (Smartpatch), with our Software, namely, a Chatbot based App with predictable and personalized AI allowing suitable access to relevant individual personalised data (disease and lifestyle related) and a predictive and preventive automatic algorithms (AI) creating a lifestyle coach based on future glucose prediction and individual behavior intervention. Our cloud-based algorithm gets info from 30 party wearables showing predicted glucose levels providing personalized advice through ChatbotApp, completing the treatment with an needle-less Smartpatch, able administer the right insulin dose automatically or manually. Through this methodology, we seek to promote the necessary change in the treatment structure of chronic diseases, leading the transformation movement towards personalized intelligent digital medicine, complementing it with self-care educative and gamified tools shaping so the future of digital health by standardizing our diabetes management methods for other chronic diseases and therefore, improving disease and lifestyle control and quality of life while reducing spending on common chronic diseases such as diabetes, obesity or cardiovascular diseases.

#### ■ The main area(s) of the solution

- Diabetes
- · Chronic Diseases
- Obesity
- Wellness
- Lifestyle

#### The scope of application

- Monitoring
- Treatment
- Disease Self- Management and Education
- Self-Care
- Prevention
- · Prediction of events/diseases
- Patient follow-up
- · Carers and professional access and support

#### **VIDEO**



#### www.mediktor.com

FOUNDED 2011 COUNTRY Spain CONTACT

Natalia Sargiotti, Communication natalia@mediktor.com

## THE TECHNOLOGIES ASSOCIATED

- Chatbot
- NLP (natural language processing)
- · Machine learning

**VIDEO** 



Mediktor is the most advanced and accurate symptom checker for pre-diagnosis, triage and decision-making support, the only one in the world that's clinically validated. We use artificial intelligence, machine learning techniques, and natural language recognition to drive the interview to the user, just like a physician would, and give a recommendation, a list of possible conditions and a level of urgency. We ensure patients access the right level of care anytime. When you feel symptoms, Mediktor give you the best advice on what to do next in less than 3 minutes. First you input how you feel in your own words, with no need of any medical language. Then the system starts the interview just like a physician would. With a very plain language and a very easy to use interface you answer the questions and finally get the result. The main result is a recommendation on what to do next, based on the level of urgency associated with your specific case. More than that Mediktor offers a list of possible conditions you could be suffering ranked from most probable to less probable.

#### The main area(s) of the solution

• Common Emergency Conditions

#### The scope of application

Diagnosis



#### www.medimsight.com

FOUNDED 2013
COUNTRY United Kingdom
CONTACT

Javier Gonzalez-Zabaleta, CEO javier.gonzalez@medimsight.com

### THE TECHNOLOGIES ASSOCIATED

- Visual recognition
- NLP (natural language processing)



Medimsight created the first platform for medical image analysis with a marketplace of image analysis services built directly into the cloud. A platform where developers and researchers around the world can provide access to their algorithms. A place where medical specialists find all of their needs for data analysis, with a single account and storage space for all of their data. The system is based on a pay-per-use service that allows fast analysis without large investments. Apart from allowing any healthcare professional to analyze his medical imaging data anytime, anywhere, the concept of a single cloud for different methods and a great amount of users can lead to other possibilities such as the design of multicentric clinical trials, biomarkers clustering or meta-studies by the collaboration of several Medimsight users in a very simple way.

#### The main area(s) of the solution

- · Cardiovascular diseases
- Cancers
- · Respiratory diseases
- Mental diseases
- · Articular bone disorders
- · Communicable diseases
- Orphan diseases
- Wellness

- Time saving
- Relevance of care
- Errors reduction
- · Reduction of practices variability
- Effectiveness of treatment
- · Improved adherence
- · Change of behavior
- Cost saving



https://www.medigaid.eu

FOUNDED 2017 COUNTRY Belgium CONTACT

Robert Kloots, CxO rob.kloots@mediqaid.eu

### THE TECHNOLOGIES ASSOCIATED

- Chatbot
- NLP (natural language processing)



The MediqAid MVP will look like an online chatbox, combining natural language with visual aids to determine medical pain or needs to maximize the User Experience. It will assist in the determination of the pathology and map the chosen pain situation to relevant diagnoses using both natural language and Internationally recognized medical terminology to support Health care providers with their validate/reject decision. Some AI and machine recognition mechanisms will be deployed to optimize recommendations.

#### ● The main area(s) of the solution

- Diabetes
- Cardiovascular diseases
- · Respiratory diseases
- Wellness
- Migraine

- Diagnosis
- Self management
- Personal assistance
- Training



#### www.medit.online

FOUNDED 2016
COUNTRY Ireland
CONTACT

Julie O'Donnell, Co-Founder & CEO julie@medit.online

### THE TECHNOLOGIES ASSOCIATED

- Machine Learning
- · Artificial Intelligence

**VIDEO** 



Medical professionals are 'drinking from the fire hose' in a constant battle between information overload and keeping up-to-date with what's most important. This is where Medit helps.

Medit curates the web for healthcare professionals (HCPs) – using our proprietary database and algorithms, we filter through thousands of sources...all the best journals, blogs, medical news, podcasts and more. We use machine learning to personalise the content to each healthcare professional's special interests to save them time and hassle in discovering the best medical content. HCPs can discover new content, share resources with their peers and tap into peer-curated content and recommendations.

We use content categorisation, recommendation & discovery algorithms to create experiences most HCPs associate with Netflix, Spotify or Amazon, to medicine for the first time.

Our secure private group messaging allows people to get practical, clinically-relevant advice and context on topics of interest and to share content and resources in their network.

95% of Medit users report they are loving the experience - this drives retention and deeper engagement.

Medit was listed in the Global Digital Health 100 list from the Journal of mHealth in 2017 and 2018 – the list recognises and supports "health technology companies that are demonstrating the greatest potential to change the way that healthcare is delivered.

#### The main area(s) of the solution

 Medical content curation and content recommendation across specialties and topics of interest for HCPs and clinical researchers.

#### The scope of application

• Content curation & peer-to-peer knowledge sharing platform for healthcare professionals.

### MediTuner

#### www.medituner.se

FOUNDED 2014 COUNTRY Sweden CONTACT

Eric Alhanko, CEO eric.alhanko@medituner.se

### THE TECHNOLOGIES ASSOCIATED

· Visual recognition

#### **VIDEO**



Digital diagnosis and self-management decision support for patients with asthma. Our AsthmaTuner solution provides patients with an instant treatment recommendation on the optimal medication based on the patients current status. The patients measure their lung function with the AsthmaTuner spirometer and register symptoms in the app. The app then instantly provides feedback to the patient on what medication (picture of inhaler/combination of inhalers) that is optimal.

#### ■ The main area(s) of the solution

· Respiratory diseases

- Diagnosis
- Self management



#### medivizor.com

FOUNDED 2012 COUNTRY Israel CONTACT

Tal Givoly, CEO & Co-Founder tal@medivizor.com

### THE TECHNOLOGIES ASSOCIATED

NLP (natural language processing)
Various

**VIDEO** 



Medivizor personalizes health information. When people are diagnosed with an illness, they rush to the Internet for answers only to be overwhelmed by repetitive, irrelevant, outdated, unreliable, and incomprehensible health information. Medivizor makes sense of it all! Medivizor scans the medical literature, clinical trials, and more, and figures out what matters to whom and delivers it to them in a way they can understand. In effect, Medivizor is a personalized, AI-powered, "GPS" to navigate chronic illness. Medivizor is already trusted by over 100,000 subscribers and endorsed and distributed by dozens of healthcare providers (e.g. NewYork-Presbyterian Hospital) and non-profit organizations (e.g. The Leukemia & Lymphoma Society). Medivizor helps educate patients, but also bring cutting-edge health information to providers, empowering informed decision-making. Medivizor helps biopharma reach hard to find patients to inform them about their recruiting clinical trials and novel therapies.

#### ● The main area(s) of the solution

- Diahetes
- · Cardiovascular diseases
- Cancers
- · Respiratory diseases
- Mental diseases
- · Any covered serious/chronic medical condition.

- · Self management
- Patient follow-up
- Personal assistance
- Matching relevant medical/health information (e.g. clinical trials)

### medopad

#### www.medopad.com

FOUNDED 2011
COUNTRY United Kingdom
CONTACT

Alexander Gilbert, Partnerships alex.gilbert@medopad.com

### THE TECHNOLOGIES ASSOCIATED

- IoT
- Modular remote patient monitoring app technology, customisable to each individual care cohort.

#### **VIDFO**



#### Mission Statement:

At Medopad, we want to create a world where people can live longer. A world where the best minds continue doing their best work. A world where we can spend more time with our loved ones.

#### Problem:

We recognise that patients with rare and chronic diseases spend as much as 95% of their time outside of the hospital and, in many cases, die of complications rather than their diagnosed disease itself. At Medopad, we want to change the healthcare system's lack of visibility over their patient's progress. We work with Key Opinion Leaders from top teaching hospitals in the world and have one of the strongest clinical advisory boards in digital health. Our remote patient monitoring solution can be deployed to immediately deliver actionable insights and outcomes.

#### Solution:

Our technology takes a modular approach which means we cover a wide variety of disease areas to deliver better and more personalised care by transforming the way patients and data interact with clinicians. Our Artificial Intelligence division uses data collected through our platform to generate predictive insights which will be able to detect life threatening medical conditions. We partner closely with the world's largest healthcare systems, pharma companies, research institutes, insurers and technology companies like Apple and Tencent to solve some of the biggest problems in rare, chronic and complex disease monitoring.

#### The main area(s) of the solution

- Diabetes
- Cardiovascular diseases
- Cancers
- · Respiratory diseases
- · Orphan diseases
- Wellness

- R&D
- Diagnosis
- Care protocols
- · Prediction of events
- Epidemiology
- Self management
- Patient follow-up



https://meersens.com

FOUNDED 2017
COUNTRY France
CONTACT

Louis Stockreisser, Co-founder & CIO louis@meersens.com

### THE TECHNOLOGIES ASSOCIATED

- IoT
- Visual recognition
- NLP (natural language processing)



Meersens is at the crossroads between Digital Health, IoT, Environmental Sensors & Artificial Intelligence. We aim at combining these fields in order to help consumers regain control over their environment and the quality of their lives. That's why we are developing a solution to help them check quickly - and in a reliable way - whether they are exposed to a particular hazard in their close environment. Based on environmental sensors (PM 2.5, EM waves, UV index, gluten, mercury, ...) and IoT device (activating and enabling the sensors), this solution will allow them to regain transparency over their environment thanks to the use of rapid-testing methods. In less than 10 seconds, they will get an easy-to-read result, materialized by the Meersens Risk Index. At Meersens we strongly believe that individuals with unique and different characteristics have to be taken into account in order to compute a relevant risk factor for a given person. That's why our algorithms take numerous factors into account in order to compute the tailored risk factor for each one of our users. Once the risk computed, users will also have access to customized scientific content and solutions in order to understand the risk and try to reduce it. Scientific content will adapt to the user's condition and characteristics in order to best fit their needs and interests. Solutions are published, rated and commented by the Meersens community. Once enough popular/trending, our Meersens' scientific teams will benchmark this solution in order to certify it has a positive impact on health. In conclusion, Meersens is using IoT & environmental sensors in order to build an environmental-aware artificial intelligence, customized for each one of our users. This with the permanent objective of making the world a healthier place.

#### ■ The main area(s) of the solution

- Wellness
- Environmental threats/risks for users' health

- R&D
- Prevention
- · Prediction of events
- · Personal assistance



#### http://www.micar21.com

FOUNDED 2016
COUNTRY Bulgaria
CONTACT

Dimitar Dimitrov, Co-founder & CEO

dimitar@micar21.com

### THE TECHNOLOGIES ASSOCIATED

AI



Micar Innovation is a drug discovery factory. The company has found a niche where it is able to create a large societal impact by improving the quality of life through new blockbuster drug molecules for a large class of diseases. Micar Innovation focuses on non-clinical Proofs-of-Concept (POC) in preclinical R&D and Hit-to-Lead (H2L) achievements in areas such as neuroscience, oncology, cardio-vascularity, dermatology, rare diseases. Micar21 is our drug discovery platform for small molecule drug candidates. The business model is based on licensing our intellectual property to commercial partners and on the creation of new spin-out companies.

#### ■ The main area(s) of the solution

- Cardiovascular diseases
- Cancers
- · Mental diseases
- Orphan diseases

- R&D
- Drug Discovery



#### mobiltron.com

## FOUNDED 2014 COUNTRY Greece CONTACT

Vassilis Papakonstantinou, Co-founder & CEO vpap@mobiltron.com

### THE TECHNOLOGIES ASSOCIATED

- ML on big data from smartphone sensors
- Implicit authentication techniques using behavioral biometrics.

# Solution Description

In areas ranging from digital advertising, to financial, to insurance and health services, an increasing number of AI-powered applications are driven by data that individuals produce during their daily activities. In such cases applications require their users to collect and upload their own data, such as the number of steps taken, the distance walked, the average speed, the calories burned, the heartbeat measured, and many more. Users are compelled to deliver their data in exchange for access to services or other benefits. We call these, the "Bring Your Own Data" or BYODa applications.

Currently BYODa application owners can be fairly confident that users are uploading their own data and not data belonging to somebody else or engineered in such a way to produce favorable results. However, the incentives for users to fake data will increase as the value exchanged between the applications and the users increases.

The Mobiltron Implicit Authentication (MIA) platform empowers the owners of BYODa applications to address the issue of user-generated data attribution with high level of confidence, and without having to sacrifice the user experience. Using MIA they can tell if the data uploaded to their applications belongs to the reporting individual and if it was generated in the context claimed. MIA implements an implicit authentication engine that uses behavioral biometrics, such as gait analysis, context, keystroke dynamics and more, to continuously and seamlessly authenticate the individuals and validate the data they produce. Any BYODa application can easily incorporate our patent pending technology, and be confident about the user-generated data it gets.

#### ■ The main area(s) of the solution

- Wellness
- Health insurance
- · Health services

- Implicit authentication methods to improve identity resolution
- User-generated data attribution in data-driven applications



#### moodscope.com

FOUNDED 2009
COUNTRY United Kingdom
CONTACT

Adrian Hosford, Chairman adrian@adrianhosford.com

### THE TECHNOLOGIES ASSOCIATED

- IoT
- Algorithm

**VIDEO** 



Adapting a proven scientific mood test (PANAS) which provides an uncannily accurate picture of their mood and an algorithm commentary suggesting appropriate helpful comments on their score pattern and providing an automatic graph of their score pattern with a daily comment box to record affecting factors as perceived by users. Automatic email with daily scores can be sent to nominated buddies. Also, analytical tools such as pictograms andwordals can be applied by users to their data to give a fuller picture. Daily reminders are emailed to users who can share experiences in a blog. Other features allow users to capture their favorite blogs and connect with an empathic supportive network.

#### ■ The main area(s) of the solution

Mental diseases

- Prevention
- · Prediction of events
- Self management
- · Management of positive mental health



#### www.mtatva.com

FOUNDED 2013 COUNTRY India CONTACT

Baljit Singh, CEO baljit@mtatva.com

### THE TECHNOLOGIES ASSOCIATED

- Chatbot
- Visual recognition
- NLP (natural language processing)
- · Deep Learning, Statistical ML

#### **VIDEO**

# Solution Description

Health-PIE Digital Nurse: Post visits patient care via a pure tech platform FOR INDIA. The Android App is very powerful but works only with 3% of Urban population on a sustained basis. For the remaining 97% India, the digital nurse works with 2-way SMS text in local languages ensuring optimal care. The care is personalized and adaptive to each patient needs. AI Powered analytics for Hospitals:

- Full understanding of funnel. Hospital track leakages and root causes using AI.
- AI-powered patient segmentation and identification. Know things like predict patients needing admission in near future, prioritized maternity care.
- Clinical quality, feedback, revenue predictions and much more. Data at hospitals in India is unstructured. We MADE IT FOR
  INDIA by creating technologies to convert unstructured data to structured data without burdening Doctor's a second of extra
  time.

#### ● The main area(s) of the solution

• Disease agnostic - all diseases

- Prevention
- · Prediction of events
- · Self management
- Patient follow-up



#### www.mujofitness.com

FOUNDED 2011
COUNTRY United Kingdom
CONTACT

Douglas Higgins, Founder & CEO doug@mujomechanics.com

### THE TECHNOLOGIES ASSOCIATED

- Robot
- IoT

**VIDEO** 



Smart devices and intelligent cloud platform. Users receive real-time feedback on movement performed via an integrated iPad. Progress and adherence remotely monitored by the therapist. Analytics and predictive model for accurately triaging patients and prescribing optimal, personalized exercise protocols.

#### ■ The main area(s) of the solution

- Articular bone disorders
- Wellness
- Orthopedics
- Musculoskeletal
- Physical therapy
- Neuro-rehab

- Diagnosis
- Care protocols
- · Prediction of events
- Self management



#### www.nabtahealth.com

FOUNDED 2017
COUNTRY United Arab Emirates
CONTACT

Sophie Smith, CEO sophie@nabtahealth.com

### THE TECHNOLOGIES ASSOCIATED

- Robot
- IoT
- Chatbot
- NLP (natural language processing)

#### **VIDEO**



Nabta is a hybrid healthcare platform for women, empowering the 500 million women in MEASA (Middle East, Africa, South Asia) to effectively manage their health by seamlessly integrating virtual care components such as mobile apps, smart medical devices, smart tests, virtual consultations, and machine learning, with traditional care.

Nabta seeks to change the model of healthcare delivery from episodic and reactive interventions to one that is proactive, personalised and driven both by best practice and personal preferences. The data collected from users allows us to develop predictive models that associate particular health statuses with likely outcomes, in order to design effective interventions. Nabta also programs context into the models that represents the variations in real-world patients helping us move away from more general and inflexible rules.

Nabta is able to model informativeness and associations between measures of health that help us identify exactly which information is useful to collect from patients. Collecting the right data at the right time minimises cost and inconvenience to users whilst maximising the benefits they receive.

#### ● The main area(s) of the solution

· Womens Health

- Diagnosis
- Prevention
- · Patient follow-up



#### www.navandu.com

FOUNDED 2010 COUNTRY Spain CONTACT

Fernando Rojas, CEO fernando@navandu.com

### THE TECHNOLOGIES ASSOCIATED

- Chatbot
- NLP (natural language processing)

# Solution Description

The problem: Improving adherence of patients can have a greater impact on the health of the population than any other specific improvement of treatments. Digital assistants in the form of chatbots can be designed and programmed with specific protocols for different chronic diseases, empower patients for self-control, and provide them with continued care and guidance through a convenient conversation. Chatbot interactions are not only more intuitive and natural but also help fill the gap to gain the adherence of patients to be effective

The solution: Following our experience with chatbots and chronic patients, we have our own infrastructure, named "Lucy", that provides the software components that are needed to build digital assistants with customized protocols for chronic patients and connection to electronic health records. And far beyond helping patients, services built with Lucy can improve Real World Evidence project with PROs collection on a daily basis.

"Lucy" is a cost-effective approach for building digital assistant experts in different diseases with unbeatable time-to-market and a rational approach.

"Lucy" is engineered with chatbot and machine learning technologies. It includes:

Natural Language Processing;

- Web framework to design medical protocols, supporting push notifications and pull dialogues, control of therapeutic objectives, reminders and recommendations to patients;
- Chatbot framework to design push conversations with patients;
- Native mobile app components for both iOS and Android smartphones; and
- Integration with health records database for health care professionals to follow-up of patients and research.

#### The main area(s) of the solution

- Diabetes
- Cardiovascular diseases
- Cancers
- · Respiratory diseases
- · Mental diseases
- · Articular bone disorders
- Wellness
- Any chronic disease or condition while patient can interact with a chatbot

- Care protocols
- Prevention
- · Self management
- · Patient follow-up
- Personal assistance
- Real world evidence
- Patient Reported Outcomes (PROs)



www.neuropsycad.com

FOUNDED 2017 COUNTRY Portugal CONTACT

Diana Prata, CSO (Scientific) & Co-founder

diana@neuropsycad.com

### THE TECHNOLOGIES ASSOCIATED

 Pattern recognition in 3D magnetic resonance imaging brain scans



We combine AI and neuroscience to revolutionize mental healthcare. NeuroPsyCAD AI-based tool is able to detect the "signature" of a disease in new patient brain scan - long before it would visible to the clinician's human eye. Thus, NeuroPsyCAD, with a report produced in a few hours, at less than \$1, can significantly reduce the number of exams, time and considerable healthcare costs a patient would need to succumb to in order to get a confirmed diagnosis, preventing a delay in time-to-treatment or inpatient care that can result in symptom aggravation. We have developed solutions for Alzheimer's and Parkinson's diseases, the 2 most common neurodegenerative illnesses. We envision a future where every neurologist, psychiatrist and radiologist uses NeuroPsyCAD when they suspect the presence of a neurological or psychiatric disorder and need to make an accurate diagnosis in order to initiate treatment; or when the clinician wishes to track the disease progress after they prescribe the treatment.

#### ■ The main area(s) of the solution

- Mental diseases
- Disability

#### The scope of application

Diagnosis

#### <u>VIDEO</u>



#### nimblr.ai

FOUNDED 2016 COUNTRY USA CONTACT

Juan Vera, CEO juan@nimblr.ai

### THE TECHNOLOGIES ASSOCIATED

- Chatbot
- Vocal recognition
- NLP (natural language processing),
- Machine Learning

#### **VIDEO**



Nimblr is helping healthcare institutions grow revenues with Holly, an AI assistant that manages healthcare appointments via texting/talking with patients in natural language. Holly is the first virtual assistant that enables patients to book and reschedule medical appointments. Holly reminds, confirms, cancels, schedules and reschedules appointments, updating the doctor's calendar automatically. There are no downloads or apps to install. With two clicks, a provider enables Holly to access their calendar, and she starts working behind the scenes. Holly chats with the patients in their preferred language, including English, Spanish, French and Italian.

#### ● The main area(s) of the solution

· Appointments life cycle

- · Patient follow-up
- · Personal assistance
- · Front desk automation



#### www.noon.care

#### FOUNDED 2016 COUNTRY Italy CONTACT

Adam James Cavallari, General manager adam@noon.care

### THE TECHNOLOGIES ASSOCIATED

- IoT
- · Artificial intelligence
- · Machine learning
- Smarthome integration
- Cloud computing

#### **VIDEO**



Noon Care is the digital platform for those social enterprises that offer assistance' services to non-self-sufficient people.

Thanks to Noon Care, a social enterprise can easily develop cutting-edge digital solutions that improve the way they assist the person.

Noon Care receives directly from operators and devices the data useful for monitoring the condition of a patient; it analyse the data, comparing them with his profile; it transforms the data into information which it's delivered to all the different caregivers involved.

#### ■ The main area(s) of the solution

- · Assistance for the elderly and chronic patients
- Provide advanced tools to operators for better assistance

- · Prediction of events
- Patient follow-up
- · Personal assistance
- · Enable digital innovation in the social sector



#### www.novadiscovery.com

FOUNDED 2010
COUNTRY France
CONTACT

Dave Duverle, Chief Scientific Officer

dave.duverle@novadiscovery.com

### THE TECHNOLOGIES ASSOCIATED

- NLP (natural language processing)
- Machine learning driven calibration of models



Translate heterogenous knowledge into parameterized simulation models. We use NLP to facilitate human curation of knowledge extracted from scientific literature, then build mechanistic models that are calibrated through machine learning techniques.

#### ● The main area(s) of the solution

- Diabetes
- · Cardiovascular diseases
- Cancers
- Respiratory diseases
- · Orphan diseases

#### The scope of application

- R&D
- · Prediction of events

#### **VIDEO**



#### www.nuritas.com

## FOUNDED 2014 COUNTRY Ireland CONTACT

Chantelle Kiernan, Director of Lifesciences

kiernan.chantelle@nuritas.com

### THE TECHNOLOGIES ASSOCIATED

- NLP (natural language processing)
- Machine learning

#### **VIDEO**



Nuritas has two main Discovery Divisions - Consumer and Pharmaceutical.

The Nuritas Approach is Unique for 3 main reasons:

- 1) the data we use to shape our AI is globally unique.
- 2) we deliver across the entire value chain- from in silico predictions to in vivo validation (fully integrated) and
- 3) our starting point for discovery is "natural and safe sources", which until now was a significantly untapped repository of potential novel bioactives.
- 1. Unique Selling Point 1: Unique Data: Our AI is shaped through two unique inputs, in house generated phenotypic data and global data interrogated through natural language processing, machine learning and other such methodologies.
- 2. Unique Selling Point 2: We deploy a fully integrated approach to discovery, laboratory validation & scale up. Our multi-dimensional in silico models discover bioactives with a range of desired characteristics including but not limited to bioactivity, optimization, toxicity and scalability. Integration of our in-silico capabilities with synthetic peptide capacity allows us to explore new peptide configurations with optimized and improved characteristics.
- 3. Unique Selling Point 3: We start from molecular combinations with an inherent reduced tox profile.

Nuritas Collaboration with Pharma: Based on our proven track record of success within the Food for Health and Ingredients sector, Nuritas now seek Pharmaceutical discovery and development partners that share a common mission and objective, namely to improve the lives of billions of people worldwide through the joint discovery and development of safe, affordable and efficacious new drugs.

In 2019, Nuritas was the first AI company in the world to commercially launch an AI discovered bioactive via our industry partner BASF.

#### The main area(s) of the solution

- Diabetes
- Cardiovascular diseases
- Wellness
- The platform can be turned to any disease area, in addition we are in already defined areas above

- R&D
- Use of AI for accelerate drug discovery in the following disease areas:
- Glucose / Metabolism
- · Skeletal / Muscle
- Anti-aging
- Anti-microbial
- Microbiome
- Blood pressure



#### www.aerohealth.ai

FOUNDED 2017
COUNTRY France
CONTACT

Jacques Durand, CEO dr.durand.jacques@pastelhealth.com

### THE TECHNOLOGIES ASSOCIATED

- Chatbot
- Data Analytics



We provide a 360 AI services to address the needs of human beings on board.

HUMAN FACTORS A.I.: Specialised physiological and behavioural assessments with lifestyle behaviours' analytics. The computation of multiple parameters generates physiological scores, patterns recognition, automated alerts and at scale predictions

CONNECTED SEAT A.I.: Interconnected hardware and software analytics to provide highly personalised passengers' profiles and preferences required to effectively deliver precise and qualified services for passengers' wellbeing and experience's augmentations.

FLIGHTS AND ROUTES A.I.: Allows crews and managers access to unprecedented analytical capabilities relative to flights and routes features in relation to crew fatigue, operations and dispatch, layover, incidents reports and roster management issues HEALTH AND WELLBEING A.I.: Aviation Crews, passengers'-centric analytics to assess pre-flight status, upgrade on-board experiences, personalise services and solutions at destination.

#### ■ The main area(s) of the solution

Wellness

- Prevention
- · Prediction of events



#### patientmpower.com

FOUNDED 2015 COUNTRY Ireland CONTACT

Eamonn Costello, CEO eamonn@patientmpower.com

### THE TECHNOLOGIES ASSOCIATED

- IoT
- NLP (natural language processing)



In pulmonary disease patientMpower provides solutions in fibrosis and transplant, helping patients monitor their condition at home. We stratify patients based on treatment adherence and those at risk of acute exacerbations, enabling providers to better care for those in need while reducing the cost of care.

#### ● The main area(s) of the solution

Respiratory diseases

#### The scope of application

- · Care protocols
- · Prediction of events
- Patient follow-up

<u>VIDEO</u>



#### www.allerad.com

FOUNDED 1992 COUNTRY Poland CONTACT

Jakub Musialek, Co-founder j.musialek@pixel.com.pl

### THE TECHNOLOGIES ASSOCIATED

- Visual recognition
- NLP (natural language processing)



MammoAi is artificial radiologist which support radiologist. The main idea is to detect cancer.

#### ● The main area(s) of the solution

- Mammography
- Neurology
- e-learning three different solutions

- R&D
- Diagnosis
- Imagery



pixylmedical.com

FOUNDED 2015
COUNTRY France
CONTACT

Senan Doyle, CEO senan.doyle@pixyl.io

### THE TECHNOLOGIES ASSOCIATED

Visual recognition



Pixyl facilitates data-driven and value-based patient care by making decision-critical neuroimaging information accessible to clinicians, when it matters. Pixyl leverages AI to optimize the treatment of neurological disorders. Our advanced technology automatically analyses brain images to quantify lesions and structures of interest in patient care.

#### ■ The main area(s) of the solution

- Mental diseases
- Stroke
- TBI
- MS
- Neurodegenerative Diseases

- R&D
- Diagnosis
- Imagery
- Patient follow-up



https://www.posos.fr

FOUNDED 2017
COUNTRY France
CONTACT

Emmanuel Bilbault, Co-founder & CEO

emmanuel@posos.fr

### THE TECHNOLOGIES ASSOCIATED

- NLP (natural language processing)
- · Specific in NLP: Information retrieval

**VIDEO** 



Posos is developing an artificial intelligence based decision support solution, capable of understanding and contextualizing drugrelated questions that immediately provides healthcare professionals and patients personalized and reliable answers, by crossing official data sources. Sources such as European Medicines Agency (EMA), medical scholarly associations, PubMed from National Center for Biotechnology Information. Posos is building the natural language processing foundation for modern healthcare systems. We also enable health actors to observe and understand real-world medical trends in a more nuanced, comprehensive and practical way. By applying automatic learning and natural language processing to unstructured data from drug questions, Posos can reveal information about how drugs are prescribed, dispensed and consumed. Our technologies unlock the value of medications data and drive decisions that improve health outcomes. Posos makes this possible by using machine learning and natural language processing applied to medical reliable sources to reveal information about posology, side effects, associated risks. These insights, often buried in unstructured data, are otherwise difficult to get and far too labor-intensive to extract with current tools. Our technology allows you to ask questions regardless of how you write, regardless of the language.

- The main area(s) of the solution
- Medications
- The scope of application
- · Decision-making assistance



http://apimedic.com

FOUNDED 2012
COUNTRY Switzerland
CONTACT

Oender Boyman, CEO oender.boyman@priaid.com

### THE TECHNOLOGIES ASSOCIATED

• Application Programming Interface

**VIDEO** 



Priaid offers a digital service, which takes a person's medical symptoms as an input and instantly provides possible diseases including their urgency as an output. The patient receives a fast and reliable answer regarding his medical condition and what he needs to do next. The service is offered via a technical interface known as an Application Programming Interface (API). It is powered by a unique and proprietary Medical Artificial Intelligence Engine providing Differential Diagnosis, which is the process of distinguishing between two or more diseases with similar symptoms. This API contains all the medical logic and can easily be integrated into any software connected to the internet. Healthcare players, which are Priaid's customers, are integrating the API and its Differential Diagnosis functionality into their custom-made web or mobile application. It serves there, as of today, as a solid Triage and, in future, Diagnosis tool. Meaning currently, it is reliably determining if the medical condition is urgent and which medical specialist is suitable to analyze it further. In future, it will serve as a tool which can reliably recognize the disease that the affected patient has.

#### The main area(s) of the solution

· General medicine

- Diagnosis
- · Self management
- Triage

### **QMENTA**

https://www.gmenta.com/

FOUNDED 2013 COUNTRY Spain CONTACT

Alara Alkin, Business Developer alara@gmenta.com

### THE TECHNOLOGIES ASSOCIATED

- · Machine learning
- Deep learning
- · Artificial intelligence
- Advanced image processing & recognition

#### **VIDEO**



QMENTA, headquartered in Boston with European offices in Barcelona, accelerates and improves the chances of successful drug development and clinical care for brain diseases. Our team, composed of 25 international neuroimaging and IT experts, designed a cloud-based platform using unique AI and machine learning techniques and large amounts of MRI and CT brain images drawn from an extensive database. The QMENTA platform is the perfect environment to store, share and analyze multisite medical imaging data over the course of clinical studies and trials. It allows experts to save valuable time and money in drug development and empowers their objective decision-making based on imaging data insights.

#### ● The main area(s) of the solution

Mental diseases

- R&D
- Diagnosis
- Imagery
- Neuroimaging
- · Imaging biomarkers
- · Medical data management



#### www.qubiotech.com

FOUNDED 2014 COUNTRY Spain CONTACT

Daniel Fernandez Mosquera, CEO daniel@qubiotech.com

### THE TECHNOLOGIES ASSOCIATED

- Advanced image processing and recognition
- · Deep learning

#### **VIDEO**



Neurocloud is a cloud environment of fully automatic and clinically validated image processing algorithms that bring to the daily clinical routine state of the art quantification techniques. Our current solution can quantify in few minutes brain PET SPECT and MRI images, identifying abnormal brain areas and quantifying differences by ROIs and voxel by voxel techniques against large databases of healthy controls, providing high sensitivity to enable early diagnostic of neurodegenerative diseases. Multimodal imaging PET/CT or PET/MRI, automatic SISCOM procedure for precise epileptogenic focus localization and grey matter atrophy quantification can be obtained in minutes just by drag&drop raw images into our cloud platform. An advanced online brain viewer allows further exploration of abnormal brain areas and the results can be composed in a customized pdf report to be included in the patient's clinical history.

#### ■ The main area(s) of the solution

Mental diseases

- Neuroimaging
- Imagery
- · Imaging biomarkers
- Early diagnostics
- · Data standarization for clinical trials



#### www.rescontechnologies.com

FOUNDED 2010
COUNTRY United Kingdom
CONTACT

Tom Dawson, Managing and Clinical Director

tom@rescon.eu

### THE TECHNOLOGIES ASSOCIATED

- IoT
- Chatbot
- · Vocal recognition
- NLP (natural language processing)
- · Semantic analysis



Our solution, Lincus, is an AI augmented digital health and care tool for the monitoring and management of health and wellbeing. It helps deliver best practice care provision, providing an evidence driven platform that can be used by individuals, and/or their support network. Connectivity is a feature of Lincus with person to person to group connections through multiway video and chat. Lincus uses Open Standards and connects with any system supporting these standards for efficient and secure sharing of data. Lincus also connects to multiple IoT enabled devices and platforms including FitBit, Apple Health and Google Fit. Lincus has multiple UK and EU certifications, accreditations and endorsements.

We have strong capability in decision support and predictive analytics along with the visualisation of the outputs for health and social care applications.

Through our partnership programme our Lincus server can been utilised as a base for launching AI widgets, chatbots, translation and semantic analysis services to remote websites or apps.

A public version of Lincus is freely available for end users online (www.lincus.eu) and as a Companion or Maternity App for individuals on iOS and Android devices.

#### ■ The main area(s) of the solution

- Diabetes
- Cardiovascular diseases
- · Respiratory diseases
- Wellness
- Maternity
- · Learning Disabilities
- Integrated Health and Social Care

- R&D
- Care protocols
- Prevention
- · Prediction of events
- · Self management
- Personal assistance



www.rgi-informatics.ie

FOUNDED 1999
COUNTRY Ireland
CONTACT

Richard Goldstein, CEO rgoldstein@rgi-informatics.ie

### THE TECHNOLOGIES ASSOCIATED

- Streaming analytics
- Data acquisition and aggregation
- Machine learning platforms

**VIDEO** 



RGI's clinical analytics software acquires and integrates existing electronic data from diverse sources: electronic medical records, prescribing systems, laboratory systems and medical devices. RGI's software provides a platform to deploy AI or machine learning based algorithms and communicates the results to clinicians in real-time employing browser-based contextual clinical views pinpointing emerging patient safety issues at the individual patient or hospital department level.

#### ■ The main area(s) of the solution

 Broad application not limited to specific area / conditions

- R&D
- Diagnosis
- Imagery
- · Emergency medicine
- Surgery
- · Care protocols
- Prevention
- · Prediction of events
- Epidemiology
- Management
- · Patient safety



#### www.riatlas.it

FOUNDED 2017 COUNTRY Italy CONTACT

Luca Romanelli, Business development

luca.romanelli@riatlas.it

### THE TECHNOLOGIES ASSOCIATED

- · Machine learning
- · Reinforcement learning
- IoT
- · Small and Big data



RIATLAS offers data analytics applications for Clinical Value-Based Solutions for remote patient monitoring. Our solutions are powered by proprietary Artificial Intelligence (AI) tools, using machine learning and predictive analytic models, based on "validated" clinical dataset and supported by talented data scientists. The AI-based tool provides an automatic classification of the patient's health status, adopting reference taxonomies and universal scales, in compliance with industry standards (HL7, FHIR, etc.). The tool uses classification indexes as "biomarkers" for the evaluation/monitoring of the patient's care pathway and provides personalized suggestions, alerts, and recommendations based on predictive models and techniques.

#### ■ The main area(s) of the solution

- Cancers
- Mental diseases
- Wellness

- · Care protocols
- Prevention
- · Prediction of events
- Self management
- Patient follow-up



www.sensodetect.com

FOUNDED 2010 COUNTRY Sweden CONTACT

Johan Olson, CEO jo@sensodetect.com

### THE TECHNOLOGIES ASSOCIATED

- · Vocal recognition
- · Brain steam evoked auditory response

**VIDEO** 



SensoDetect BERA (Brainstem Evoked Response Audiometry) is the first objective diagnostic aid for healthcare professionals (HCP) within psychiatric care. BERA technology helps reducing costs and to improve the life for people with mental illness. More than 30 years of research has proven that the brainstem among people with ADHD, schizophrenia and autism responds differently to stimuli from sound in comparison to healthy people. Based on these scientific results, we have developed a unique and precise method of stimuli and measurement of the brainstem activity. With BERA as a diagnostic aid and supplementary factors considered, the HCP can set an accurate diagnosis and begin the treatment. By arriving to care and medication quickly, patients will find their quality of life improving. SensoDetect BERA works as a tool for measuring the effects of the treatment, shortening time and suffering for the patients as a result. In a long-term perspective, this will lead to reduced absence and hospitalization for patients, and increased productivity for healthcare professionals. Our technology provides a complete audiogram for the brain, helping healthcare professionals set psychiatric diagnoses objectively and cost effectively. This unique technology improves the patient's quality of life and reduces the economic impact on the healthcare system and society.

#### ● The main area(s) of the solution

Mental diseases

- R&D
- Diagnosis
- · Patient follow-up

### <u>sentiance</u>

#### www.sentiance.com

FOUNDED 2014
COUNTRY Belgium
CONTACT

Bert Brans, VP Business Development EMEA

bert.brans@sentiance.com

### THE TECHNOLOGIES ASSOCIATED

- IoT
- Smartphone sensors
- · Wearables and in-home sensors

## Solution Description

Sentiance is a data science company turning IOT sensor data into rich insights about people's behavior and real-time context. These insights enable companies to understand how customers go through their everyday lives, discover and anticipate the moments that matter most, and adapt their engagement to real-world behavior and real-time context. Sentiance context intelligence enables solutions for lifestyle-based insurance, contextual marketing & commerce, smart mobility, connected health, smart home, smart city and connected car.

#### ■ The main area(s) of the solution

- Diabetes
- Mental diseases
- Wellness
- Disability

- R&D
- Prevention
- · Prediction of events
- Self management
- · Patient follow-up
- · Personal assistance
- Training



#### www.seqone.fr

FOUNDED 2017
COUNTRY France
CONTACT

Jean-Marc Holder, COO jm.holder@segone.fr

### THE TECHNOLOGIES ASSOCIATED

· Genomic medicine



SeqOne makes it possible to efficiently analyze "high resolution" NGS data clinical routine applications. The system is built around three key technology pillars:

- 1. A proprietary machine-learning-based variant prioritization engine that identifies medically relevant mutations specific to each patient and condition. This dramatically reduces the time and cost of genomic interpretation making the use of NGS data in clinical routine a realistic and cost-effective option.
- 2. An app-store-like catalog of genomic interpretation tools, each optimized for a specific medical problem. This allows SeqOne to optimize each aspect of the process, from error checking to the machine learning models used, thus ensuring the most accurate identification of causal mutations. SeqOne includes applications from external developers which allows it to leverage the expertise of leading bioinformatics experts in the community to provide even better solutions.
- 3. The platform also addresses the operational challenges of performing NGS analysis at scale including, secure data storage, management of process quality and traceability needed for certification. The platform dramatically reduces time, cost and resources needed to interpret NGS data in clinical routine. Its high-performance architecture coupled with the app-store approach also makes it possible to do sophisticated cohort analysis to identify patterns that may reveal new biomarkers.

#### The main area(s) of the solution

- Cancers
- · Orphan diseases
- Precision Medicine
- · Personalised Medicine

- Diagnosis
- Prevention
- Prediction of events
- Personalised Medicine



#### babyndex.eu

FOUNDED 2016
COUNTRY Hungary
CONTACT

Zajzon Bodó, Founder zajzon.bodo@sinfonic.hu

### THE TECHNOLOGIES ASSOCIATED

- Visual recognition
- AI
- Data
- IoT

#### **VIDEO**



Saliva test is a non-invasive, real-time and reusable method for ovulation prediction from dried saliva samples. Users need an ovulation microscope - available in pharmacies - to detect the presence of crystals, which appear during the fertile days. Experts can easily evaluate the test but it is difficult for an untrained eye.

Babyndex is the first application that can recognise the crystals using computer vision and can determine the current fertility level. Users take images by a smartphone through a microscope and send them to a cloud service for analysis. The results appear immediately in a calendar on the user's smartphone showing the fertile days.

Moreover, users may assume early-stage pregnancy if crystals appear during missing menses and may assume PCOS if crystals constantly appear during the whole cycle. These findings are scientifically not validated yet but are part of the pending PCT patent application.

Data management and storage is fully in compliance with the EU GDPR, ensuring the user has control over all data.

#### ■ The main area(s) of the solution

- Women health
- · Fertility monitoring
- · Pregnancy Testing
- PCOS detection

- Diagnosis
- Imagery
- · Prediction of events
- Self management
- Patient follow-up

### snaq

#### www.snaq.io

FOUNDED 2017
COUNTRY Switzerland
CONTACT

Aurelian Briner, CEO aurelian@snaq.io

### THE TECHNOLOGIES ASSOCIATED

· Visual recognition



**SNAQ reveals the impact of food on health.** With our patent pending nutrition analysis solution we aim to provide the most convenient and accurate way to capture nutritional intake and explain how it affects different parameters such as weight, activity, glucose or blood pressure. Those capabilities are leveraged inside the SNAQ Platform which accelerates the development of custom health solutions through prebuilt components. SNAQ GmbH offers their technology and platform for licensing to health companies which aim to increase customer engagement or reduce costs.

#### ■ The main area(s) of the solution

- Diabetes
- Wellness

- Imagery
- Prevention
- · Self management



#### www.sombiotech.com

FOUNDED 2009 COUNTRY Spain CONTACT

Miel Dayrit, Business Development Associate

dayrit@sombiotech.com

### THE TECHNOLOGIES ASSOCIATED

- · Artificial Intelligence
- · Evolutionary algorithms



The discovery of new molecules for the treatment of diseases is a very expensive and time-consuming process, estimated to reach 14 years and 800 million US dollars from lead identification through clinical trials. With this, the development of computer-aided drug design is becoming more and more interesting in order to obtain faster and cheaper results. SOM's technology, being a ligand-based technology that uses computer-aided drug design, addresses the challenge of time and cost in drug development. The technology identifies compounds from its database built from already approved and phase I, II and III drugs (drugs that are or have been in the market) with established safety profiles, for the purpose of re-innovating for another indication. For this reason, the development of these repurposed drugs consumes a shorter amount of time at lower costs.

- The main area(s) of the solution
- · Orphan diseases
- The scope of application
- R&D



#### www.surgig.com

FOUNDED 2016 COUNTRY Italy CONTACT

Ivan Porro, CEO ivan.porro@surgig.com

# THE TECHNOLOGIES ASSOCIATED

AI & deep learning for planning & prediction



SurgiQ is a web-based platform that uses Artificial Intelligence to provide capacity planning tools for healthcare providers in order to prevent inefficiency, avoid last-minute disruptions and manage the crisis.

We use AI technologies to help users taking data-driven decisions in the shortest possible time. SurgiQ helps them prioritize healthcare, driving improvements that make their organizations scalable enough to provide the best possible experience of care to a larger population at a reduced cost.

Our platform is able to allocate resources (operating theatre, beds, ...) to optimize waiting times and the delivery of care in general, and we can estimate and predict key variables such as length of stay and length of surgery.

SurgiQ reduces waiting times and improves both quality of care and productivity. We measured savings of 12-15% in terms of reduced administrative work and a 20% increase in theatre productivity.

### ■ The main area(s) of the solution

· Elective care

- Surgery
- Care protocols
- · Prediction of events
- Patient follow-up
- Management
- Operational capacity planning



http://synapse-medicine.com/

FOUNDED 2017 COUNTRY France CONTACT

Clément Goehrs, CEO clement@synapse-medicine.com

# THE TECHNOLOGIES ASSOCIATED

- Chatbot
- Visual recognition
- Vocal recognition
- NLP (natural language processing)



Synapse is the first virtual assistant for health professionals, fully focusing on therapeutics.

Synapse's mission is to make health information universally accessible. We are fighting one of the key issues in healthcare: medical errors, that are currently ranked #3 cause of mortality.

# ● The main area(s) of the solution

Pharmacology

- R&D
- Care protocols
- Prevention
- · Prediction of events
- · Personal assistance



www.synsight.net

FOUNDED 2013
COUNTRY France
CONTACT

Cyril Bauvais, CEO cyril.bauvais@synsight.net

# THE TECHNOLOGIES ASSOCIATED

· Molecules properties prediction



Synsight aims to accelerate Early-Stage Drug Discovery in key therapeutic areas by combining state-of-the-art approaches in Chemoinformatics, Bioinformatics and Artificial Intelligence. Our proprietary Computer-Aided Drug Discovery (CADD) platform harnesses the power of Machine Learning to generate new, viable drug candidates culled from massive chemical space, screened against targets and filtered for drug-like properties. Through iterative cycles of in-silico modeling, wet chemistry, in vitro testing and Machine Learning, we rapidly generate novel, patentable, drug-like molecules as viable candidates for Preclinical Development. Our work encompasses Virtual Screening (Target or Hit Identification); Hits-to-Leads & Lead Optimization; Predictive ADME-Tox; and Drug Repositioning. The results of laboratory experiments are reincorporated into our platform for Supervised Learning of biological and chemical properties. Our pipeline includes Early-Stage candidates against targets in RNA Splicing and Immuno-Oncology. We are currently pursuing alliances with Biotech and Pharma companies with novel biological targets to explore and with the capacity to undertake Preclinical Development of our existing and future assets.

## ● The main area(s) of the solution

- Cancers
- Mental diseases
- · Orphan diseases

### The scope of application

R&D



http://taniwa.es

FOUNDED 2012 COUNTRY Spain CONTACT

Joselu Marina, CEO jlmarina@taniwa.es

# THE TECHNOLOGIES ASSOCIATED

- IoT
- Chatbot
- NLP (natural language processing)

#### **VIDEO**



Intelligent bot to monitor groups of people with common characteristics and objectives. Mementum can send questions and tests on a regular basis and with a friendly interface. Mementum connects to 3rd party devices to gather information from the user/patient. Trends and alarms are analyzed in real time. Mementum has been already used on more than 1000 persons with neurological issues and a scientific paper has been published. The user can connect to the question manager, can get reminders, be informed about self-progress and she can talk to a bot with several pieces of knowledge bases. Mementum is a group adherence monitoring tool for organizations such as hospitals and a self-monitoring tool.

## ● The main area(s) of the solution

- Diabetes
- Cardiovascular diseases
- Neurological disorders

- R&D
- Diagnosis
- Prevention
- · Prediction of events
- · Self management
- Patient follow-up



#### www.tedcas.com

FOUNDED 2011 COUNTRY Spain CONTACT

Jesus Perez, CEO jpl@tedcas.com

# THE TECHNOLOGIES ASSOCIATED

- Chatbot
- · Vocal recognition
- NLP (natural language processing)
- Data mining

### **VIDEO**



TedCas is the personal assistant for the Operating Room and beyond. You can have Alexa or Siri at home. You have TedCas at the OR.

Our vendor-independent platform allows getting data through a simple interface (voice, gestures, or touchscreen are available). All of the data collected is analyzed in real time, sending alarms to the personal involved. One of the advantages of our patented platform is that it can voice control third-party equipment in a plug&play basis. It means that if a CRO has computers from third-party vendors and they want to voice control them and collect the data, they don't need to install SW, just plug our system to a USB/ethernet port and our system allows the voice control. It's specially interesting inside the OR where you cannot install any SW in the OR equipment (for example surgical navigators).

## ■ The main area(s) of the solution

• It's focused on surgery, so any specialty will find it useful

- Surgery
- · Prediction of events
- · Self management
- · Personal assistance



#### www.tellspec.com

FOUNDED 2015
COUNTRY United Kingdom
CONTACT

Isabel Hoffmann, CEO <a href="mailto:isabel@tellspec.com">isabel@tellspec.com</a>

# THE TECHNOLOGIES ASSOCIATED

IoT



Tellspec is a big data analytics software company that has developed HMScan, the first portable, reliable and affordable real-time breastmilk testing system. HMScan is based on a unique blend of Near-Infrared (NIR) spectroscopy and a proprietary milk analysis engine based on Artificial Intelligence (AI) algorithms in the cloud. HMScan will allow healthcare professionals and breastfeeding mothers to easily measure milk components, without any technical expertise, nor complex operating procedures, and ensure maximum accuracy, since the protocol followed for collecting, correlating and analysing milk samples' data is designed around the specific features of human milk.

# ■ The main area(s) of the solution

- Wellness
- Disability
- · Infant Care

- Care protocols
- Prevention
- · Prediction of events
- Self management
- · Patient follow-up
- Management



https://tendertec.co.uk

FOUNDED 2017
COUNTRY United Kingdom
CONTACT

Afroditi Konidari, Director afroditi.konidari@tendertec.co.uk

# THE TECHNOLOGIES ASSOCIATED

IoT



Tendertec is developing a personalised wall-mounted sensor for seniors to automatically their carers in an emergency. Our sensor detects, in real-time, falls and fall risk factors connecting families & carers to the senior's home through our app.

## ■ The main area(s) of the solution

- Wellness
- Disability

- R&D
- Care protocols
- Prevention
- · Prediction of events



#### www.patienthandoff.com

# FOUNDED 2017 COUNTRY USA CONTACT

Vivek Kaliraman, Co-founder & CEO

vivek@caringly.io

# THE TECHNOLOGIES ASSOCIATED

- Vocal recognition
- NLP (natural language processing)
- Predictive Analytics



Caringly is a cloud-based multi-tenant web application (SaaS) that integrates with hospital electronic medical records (EMR) systems to create a patient handoff solution for nurses. The innovation in Caringly is derived from multiple elements –

- 1. Eliminating medical errors due to transmission of incorrect information and omission of relevant information during the patient handoff
- 2. A step-by-step standardized yet customizable handoff process
- 3. Assisting the outgoing nurse with what to tell the incoming nurse
- 4. 1ssisting the incoming nurse to completely synthesize the information received about the patient
- 5. The real-time capture of information exchanged between nurses about a patient handoff
- 6. Delightful user experience with a modern sophisticated usability in contrast to current frustrating usability of EMR systems
- 7. The development of Caringly Index the first of its kind measurement tool for handoff efficacy to quantify nurse handoffs across a unit and hospital
- 8. Leveraging natural language processing to summarize and/or extract critical information from the EMR system The benefits of Caringly include cost saving arising from reduction in preventable patient complications, , improved patient safety and satisfaction, better way to track patient handoffs, and improved nurse satisfaction and productivity (reduced overtime and turnover).

## The main area(s) of the solution

- · Patient safety
- · Clinician QOL
- · Operational efficiency

- · Care protocols
- · Prediction of events
- Patient handoff between healthcare providers and institutions



https://topdatascience.com/

FOUNDED 2016
COUNTRY Finland
CONTACT

Oguzhan Gencoglu, Head of AI oquzhan.gencoglu@topdatascience.com

# THE TECHNOLOGIES ASSOCIATED

- · Visual recognition
- NLP (natural language processing)

#### **VIDEO**



Automatic Detection of Cancerous Cells from Prostate Histopathology Images With Artificial Intelligence: Our solution employs state-of-the-art AI algorithms to detect cancerous regions in gigapixel resolution prostate histopathology images with high precision. The solution has been developed by AI researchers and engineers of Top Data Science with the clinical help of clinical pathologists from Helsinki University Hospital (largest hospital complex in Finland). Our results can identify cancerous regions in the image with outstanding accuracy. The algorithms have been trained with tens of millions of patches of tissue images from hundreds of patients and have been validated with several patient cases.

### ■ The main area(s) of the solution

Cancers

- R&D
- Diagnosis
- Imagery



#### www.traaser.com

FOUNDED 2016
COUNTRY France
CONTACT

François Artiguenave, General-Manager

francois.artiquenave@traaser.com

# THE TECHNOLOGIES ASSOCIATED

- Genomic
- Clinical databases
- Cloud computing
- AI



TRAASER is providing clinicians high quality analytical services to rapidly and securely diagnose genetic and cancer diseases in order to establish the best therapeutic orientation. Services is based on two major assets:

- DIAGEN™: comprehensive, scalable, medical-grade Expert System based on an industry-leading proprietary methodology, to rapidly interpret genomic data.
- CANCER PROPRIETARY DATABASE: Through a strategic alliance with PRAXEA Diagnostic, major pathology laboratory, TRAASER collects and integrates transversal data from patient to genomic.

### ● The main area(s) of the solution

- · Pathology, molecular diagnosis
- · Genetic testing
- Cancers

- · Personalized medicine
- Transform data into understandable results.
- · Ease the dialog between doctors
- Reduce time for diagnosis
- · Improved quality by permanent integration of data
- · Standardized process



#### www.u-carehealth.com

# FOUNDED 2017 COUNTRY Spain CONTACT

Federico Rodrigo, CEO federico.rodrigo@u-carehealth.com

# THE TECHNOLOGIES ASSOCIATED

- Artificial Intelligence Techniques: Grammatical Evolution, Deep Learning, Natural Language Processing, Natural Language Understanding, Reinforcement Learning
- Web, Mobile, Cloud, IoT(health devices and wearables)

### **VIDEO**



ROMY is the first PREDICTIVE conversational agent for better managing of chronic diseases, an easy-to-use web/mobile digital health platform based on the most innovative Artificial Intelligence techniques, that combines a conversational agent with high accuracy predictive models. ROMY platform also has an effective gamification adherence system based on rewards, and a complete eConsultation functionality that allows patient-doctor communication at any time and anywhere from the smartphone through video, chat and voice.

## ■ The main area(s) of the solution

 Managing of chronic diseases: Diabetes, Cardiovascular, etc.

- · R&D Care protocols
- Prevention and Prediction of health events and crisis
- · Personalized health
- Health self management
- · Participative health
- · Patient follow-up
- Adherence Improvement
- · Personal assistance Management
- Healthcare costs saving
- Physician Time saving



#### www.nexsourceintl.com

FOUNDED 2005 COUNTRY Pakistan CONTACT

Nazir Vaid, CEO nazir.vaid@gmail.com

# THE TECHNOLOGIES ASSOCIATED

- IoT
- CDSS (TECHNOLOGICAL Clinical Decision Support System)

### **VIDEO**



We have Clinical Assessment Gadgets, Special Visual Recorders and Pathological Solutions to collect complete clinical data of the rural patients and transfer the same real-time to the Doctors in Metropolitan Areas. Software helps the Rural trained Para-Medics to collect data with help of technology and act as a bridge between the Doctor and the Rural Patient. Medicines are stocked at the Rural Location to ensure timely available of medicines to the patients. The Patients get Primary care at their door-steps and in case they need secondary or tertiary care then they are transferred to Metropolitan Area. Timely help and early detection of diseases by qualified professionals saves lives and reduces the trauma of the patients.

## ■ The main area(s) of the solution

- Diabetes
- Cardiovascular diseases
- · Respiratory diseases
- · Communicable diseases
- Wellness

- Diagnosis
- Care protocols
- Prevention
- Patient follow-up
- Training



#### http://medal.ctb.upm.es/

# FOUNDED 2012 COUNTRY Spain CONTACT

Alejandro Rodríguez González, Associate Professor

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# THE TECHNOLOGIES ASSOCIATED

- Data analytics
- · Data science
- Natural language processing
- Image processing and analytics
- · Knowledge representation
- Knowledge acquisition
- · Social media analysis



MEDAL (Medical Data Analytics) is a laboratory located at Centro de Tecnología Biomédica (CTB), a research center associated with Universidad Politécnica de Madrid (UPM). The laboratory has deep experience in research in the field of biomedical information. Our current solutions include a pipeline for the analysis of multilingual Electronic Health Records (mainly Spanish and English), as well as different technologies developed for the analysis and annotation of different medical images. In term of diseases, we have been focused in several pathologies, including apnoea, lung cancer, dementia, and stroke, but we have expertise in several other domains. We have been also focused on the extraction and analysis of information from social media as well as scientific publications. Finally, our laboratory has more than 20 years of experience in applying data mining/machine learning approaches to several domains, mainly in the biomedical domain. Our laboratory has been included in several research projects from national and international (H2020) projects.

## The main area(s) of the solution

- Cancer (primarily: lung cancer)
- Apnoea
- Stroke
- Dementia
- · Disease understanding
- · Genetic diseases

- · Decision support systems
- Diagnosis systems
- Patient profiling
- · Public health
- Prevention



## www.variowell-development.com

FOUNDED 2008
COUNTRY Germany
CONTACT

Tobias Kirchhoff, Executive Director

tk@variowell-development.com

# THE TECHNOLOGIES ASSOCIATED

IoT



Variowell Development has an extensive patent portfolio in dynamic foams and is developing software-controlled mattresses and beds. Based on algorithms sleep can be impacted by gently adapting the firmness of a bed without waking up the sleeper. Artificial intelligence will be used to identify biological patterns within the sleep period, and firmness changes of a bed impacting them.

## ● The main area(s) of the solution

- Sleep
- The scope of application
- R&D
- Prevention
- Self management



#### www.vitadx.com

FOUNDED 2015
COUNTRY France
CONTACT

Allan Rodriguez, CEO <u>allan@vitadx.com</u>

# THE TECHNOLOGIES ASSOCIATED

- · Visual recognition
- · Machine learning and deep learning

### **VIDEO**



VitaDX is developing a non-invasive solution for the early detection of bladder cancer, based on patented technology and requiring only a simple urine sample. VisioCyt® is based on a cytology staining technique which allows cellular observation in white light and fluorescence. White light observation is required to detect morphological alterations of urothelial cells. Observation in fluorescence allows urothelial cell metabolism evaluation to detect tumor cells even at an early stage. White light and fluorescence digital cytology slides are then processed using an image processing software, based on algorithms developed using machine learning and deep learning techniques. Using an algorithmic approach ensures that the test is fully automated and reproducible. In order to further optimize the laboratory's workflow and reduce time-consuming manual actions, VisioCyt® will run on the laboratory's network or on the cloud. More importantly, with the accumulation of data, the diagnostic performance can be improved over time. VisioCyt® aims to be a diagnostic aid solution that meets the expectations of both pathologists and urologists, without altering their current practice and requiring no specific training to carry out or interpret the analysis. VisioCyt® will be dedicated to primary diagnosis and monitoring of bladder cancer.

# ● The main area(s) of the solution

Cancers

- Diagnosis
- Imagery
- Prevention
- · Prediction of events
- · Patient follow-up



### www.meallogger.com

FOUNDED 2010
COUNTRY Finland
CONTACT

Michael Quarshie, CEO michael@meallogger.com

# THE TECHNOLOGIES ASSOCIATED

- Chatbot
- Visual recognition



MealLogger utilizes deep neural networks to analyze food journals based on images of meals. The analysis is available to health professionals such as dietitians and diabetes nurses who can use the platform to provide AI-based nutrition coaching.

## ● The main area(s) of the solution

- Diabetes
- · Cardiovascular diseases
- Wellness

- Prevention
- · Nutrition counseling



https://xoresearch.com/#/products

FOUNDED 2015 COUNTRY Latvia CONTACT

Maksym Diachenko, CEO md@xoresearch.com

# THE TECHNOLOGIES ASSOCIATED

- Deep Learning
- · Machine learning

**VIDEO** 



Cardio.AI - AI-powered platform for high accuracy automatic annotation and interpretation of electrocardiograms, long and short ECG/EKG records and detects more than 100 beat and rhythm abnormalities, annotated according to the HL7® aECG standard.

- · Automatic interpretation of long (Holter monitoring) and short ECG/EKG records in the form of a professional medical report.
- Automatic statistics and record's severity rating for 24/7 continuous ECG/EKG monitoring.
- Web-based ECG/EKG validation and visualization tool for professional use.
- Businesses, like Holter service and production companies, can use the platform as off-the-shelf software to transform raw records into highly detailed reports.
- Solutions can use the provided API, with servers located in their designated area, to solve their business needs while keeping compliance with local legislation for personal and medical data security.
- Cardio AI aims at 90+% accuracy of automatic recognition of cardiac event comparing to common 70-80% of the accuracy of manual annotation of long records.
- Dataset consists of about 1.5 million hours of annotated ECG.

# ● The main area(s) of the solution

Cardiovascular diseases

- R&D
- · Prediction of events
- Patient follow-up



https://zana.com

FOUNDED 2018
COUNTRY Germany
CONTACT

Julia Hoxha, Dr. -Ing. julia.hoxha@zana.com

# THE TECHNOLOGIES ASSOCIATED

- IoT
- Chatbot
- NLP (natural language processing)
- Machine learning
- · Semantic technologies

**VIDEO** 



Zana converses with users via an interface that mimics communication with a human medical assistant. Users can express their symptoms and health concerns in natural conversational language. The assistant responds in real-time with the right follow-up questions about symptoms, then reasons about the most probable medical condition(s). The interface allows a specificity and ease of communication. Zana provides actionable knowledge with detailed information about the filtered medical conditions which is personalized based on user health profile (symptoms, age, gender, location). Based on the dialogue context, Zana further recommends personal health products as part of a consumer-oriented monetization service we refer to as Zana Marketplace. These products include, among others, health-monitoring devices for home care, activity trackers, wearable devices, and mobile apps.

## ● The main area(s) of the solution

- Cardiovascular diseases
- · Sexually transmitted diseases

- Care protocols
- Prevention
- · Self management
- · Patient follow-up























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