

# SymbIASIS

## 40 STARTUPs συναντούν νοσοκομεία



ΕΘΝΙΚΟ ΚΕΝΤΡΟ ΤΕΚΜΗΡΙΩΣΗΣ &  
ΗΛΕΚΤΡΟΝΙΚΟΥ ΠΕΡΙΧΟΜΕΝΟΥ



ΑΡΧΙΜΗΔΗΣ  
ΚΕΝΤΡΟ ΚΑΙΝΟΤΟΜΙΑΣ  
& ΕΠΙΧΕΙΡΗΜΑΤΙΚΟΤΗΤΑΣ



ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ  
Εθνικόν και Καποδιστριακόν  
Πανεπιστήμιον Αθηνών  
— ΙΔΡΥΘΕΝ ΤΟ 1837 —



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# MAGOS

TECH KEYWORDS: VR, Robotics, IoT

MEDICAL KEYWORDS: Virtual Reality surgery, Medical Training, Surgery, Gynecological/ Medical Training

VALUE PROPOSITION: *Magos Gloves: touching the intangible*

[www.themagos.com](http://www.themagos.com)



## MAGOS Solution Description

- **Magos** smashes the benchmark for highest finger interaction quality in virtual training and simulation applications, enabling lifelike interactions with the digital world via human fingers. Being the only solution that changes the whole experience, as it moves training from an unrealistic or even negative event to a real experience! An integral part of its design is its proprietary technology.
- In parallel, the coming of the Metaverse age opened up new horizons for the further development of the Human Machine Interface in uncharted shores of the immersive world. With the increasing interest of high profile private actors and the upcoming disruption of the traditional XR industry, the time has now arrived for Magos to become the essential equipment for the main interface between the physical and digital world.
- The company has been working with large corporations in aerospace and defense and healthcare in the North America and EU (SIEMENS, THALES, Blue Origin, Flight Safety, FairBanksMorse), showing impressive interest and potential. Of high importance (for side products) is the generation of (reliable and highly accurate) motion data that can be utilized to deploy applications either in XR (training validation, knowledge or in other markets (robotics, healthcare other).



## RespiBit

TECH KEYWORDS: Management System

MEDICAL KEYWORDS: Asthma

VALUE PROPOSITION: ***AsthmaFit***: A system for intelligent monitoring and management of asthma.

***TBscan***: Real-time detection of TB dispersed in air.



## RespiBit Solution Description

**AsthmaFit:** A system for intelligent monitoring and management of asthma.

- Current solutions do not improve respiratory health to any significant degree - they are more monitoring solutions instead of management.
- The key segment is parents of children with severe asthma who wish to provide safe and active living avoiding asthma attacks.
- The key market need is thus a management system that leads to improved respiratory health and fewer asthma attacks

**TBscan:** Real-time detection of TB dispersed in air.

- Lack of a reliable way to rapidly diagnose people for TB.
- Lack of a bio-monitoring air quality solution.

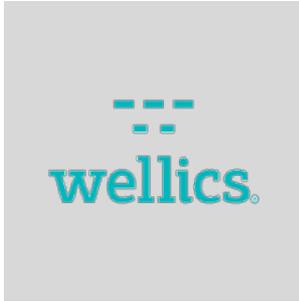


## WELRICS

TECH KEYWORDS: SaaS, Web, Mobile, Wearables

MEDICAL KEYWORDS: Employee and corporate wellbeing, Mental health, nutrition, Physical activity, Sleep, Micro-coaching, Wearables

VALUE PROPOSITION: *SaaS for the management of people's wellbeing.*



## WELLICS Solution Description

**WELLICS** delivers a SaaS for the management of people's wellbeing. WELLICS makes use of a web-based platform, a mobile application and wearables to monitor aspects around:

- Mental Health
- Nutrition
- Physical Activity
- Sleep etc.

# Hermes

## HealthCare



## Hermes Healthcare Greece

TECH KEYWORDS: Cloud, Web, Mobile, Algorithms, IoMT, XR, AI

MEDICAL KEYWORDS: Precision medicine, Preventive medicine, Interdisciplinary collaboration platform, Chronic Disease Management, Supported self-management

VALUE PROPOSITION: **myAlgos** cloud-based platform  
-Interdisciplinary chronic disease management  
-On-line shared treatment plan  
-Virtually supported self management for patients  
-Decision support system



## Hermes Healthcare Greece Solution Description

**myAlgos** is a precision medicine and virtually supported self-management platform..

- It uses contemporary technologies (cloud, web, mobile, algorithms, internet of medical things, virtual/augmented reality, machine learning) to offer healthcare professionals, patients and caregivers an integrated electronic environment for advanced remote collaboration and communication.
- The platform enables healthcare organizations/providers to create their own interdisciplinary medical team consisting of variable specialties and roles in order to collaborate and treat chronic patients who suffer from one or multiple chronic diseases. Additionally, the medical team can invite in the platform and create their own network of referring doctors and to configure their access in the platform's features and operation. The platform provides to all users (medical team/patients/caregivers) a shared treatment plan which can be updated by the patients' one or more medical care groups ( a different care group for each diagnosis of a patient can be created).
- Patients are continuously monitored and assisted by a mobile virtual assistant that executes customized monitoring and self-management plans that have been created by their medical team, by just using simple graphical tools for clinical algorithmic plans creation and emulation.
- Moreover, myAlgos interdisciplinary health management platform is integrated with the myAlgos VR-assisted behavior training platform, providing patients/individuals with an immersive education tool aiming to change their behavior towards a healthy lifestyle adoption. The platform enables the interdisciplinary team to administer virtual reality-based, cognitive behavioral therapy to address aspects of healthy living and nutrition. The platform allows therapists to manage their patient exposure levels within VR scenes providing personalized treatment. Therapists can log in to the platform to add patients, create assignments, and monitor progress. Patients can then use the myAlgos mobile app to complete action plans, including simulations, educational material, and guided group sessions, to change behavior.



# EMBIodiagnostics

TECH KEYWORDS: Genetics, Biomarkers

MEDICAL KEYWORDS: Nutrigenetics, Nutrition, Lifestyle

VALUE PROPOSITION: **Genosophy®**: *A comprehensive Nutrigenetics-based service*

 EMBIodiagnostics

## EMBIodiagnostics Solution Description

**EMBIodiagnostics** markets a comprehensive Nutrigenetics-based service with the brand name Genosophy® that enables personalized nutritional and lifestyle recommendations. It offers an innovative solution to healthy living that tackles global risks to health and could thus gain a major share of an expanding market of health products and services.

# metab.io

unlocking the value of human biosamples

## metab.io P.C.

**TECH KEYWORDS:** BigData, Computer Science

**MEDICAL KEYWORDS:** Biosamples, Biospecimens, Precision med, Biobanking, e-consent, digital re-consent

**VALUE PROPOSITION:** ***e-MetaBio:** IT solution that collects, stores and distributes data associated with human biosamples, providing a streamlined efficient service*

***CORONABIO:** A proposed Dynamic, on-Demand data processing, data mining and hypothesis-driven decision-making system*

[www.metab.io](http://www.metab.io)



## e-MetaBio Solution Description

**Metab.io** innovates biosample annotation, optimizes basic research of drug developmental cycles, provides personalized medicine tools; by connecting all members of the biosample usage chain; enriching biosample data. In Metabio's IT solution, e-MetaBio, patients are the focal point of the IT architecture and the system's value proposition. This patient-centric approach sets Metabio in a mission to democratize the Biobanking sector and research upon biosamples. e-MetaBio, utilizes patients and donor's consensus in the biosamples usage chain thus promoting a more proactive approach upon donation. e-MetaBio acts as an umbrella solution unifying existing systems, harmonizing and standardizing data, through an interoperable action mode. e-MetaBio collects, stores and distributes data associated with human biosamples, providing a streamlined efficient service. Data are collected from four separate sources, the patient, the healthcare provider (hospital), the biobank and the researcher and can either be stored locally or in the cloud depending on the need of the end user. Preanalytical data and health records from healthcare facilities (EMRs, EHRs), patient-pushed health status data, research data annotated to biosamples and biosample management and analyses data are collected.

Researchers can locate specimens with specific profiles from a broad spectrum of data (clinical, environmental, disorder-progression, analyses) real time, without compromising patient rights or IP issues.

Metabio provides data cohort-information, including total sample availability. Due to lack of standardized industry protocols for data exchange, e-MetaBio harmonizes data from every source to FHIR server, HL7, SNOMED and LOINC standards - essentially fixing one of the major challenges faced by researchers, and increasing the efficiency in biosample and data sourcing and procurement.

Patients use the dynamic real time tiered e-consent and have the ability to monitor and manage their consent status in a real-time manner. e-MetaBio distributes the access rights across the platform and provides a streamlined response to any future regulatory or legislative developments. Total donation control across the usage chain is the key to onboarding patients and aligning institutions and hospitals with future trends in personalized medicine and patient-privacy.



## Coronabio Solution Description

**CORONABIO** is a proposed Dynamic, on-Demand data processing, data mining and hypothesis-driven decision-making system that supports a real-time management, mining, analysis, transformation and visualisation of “COVID-19” data from non-hospitalised covid-positive individuals and discharged patients. Our researcher-accessible and exploration-friendly for data collected longitudinally, online platform collects stores and provides valuable epidemiological and real-world data, providing a streamlined efficient service. CORONA-BIO acts as a data procurement facilitator with added value services, for the patient communities, such as an early warning mechanism, dependent on the symptom severity, and reporting authorities and hospitals to act, without the need for patients to actively communicate with the hospital or the appropriate authority (e.g. ΕΟΔΥ).



mokaal  
SEARCH, LOCATE, DISCOVER  
www.mokaal.com

## mokaal

**TECH KEYWORDS:** Algorithms, AI, IoMT, Remote Patient Monitoring, m-health

**MEDICAL KEYWORDS:** RPM, Cardiovascular Disease, COPD

**VALUE PROPOSITION:** *An integrated digital platform for the end-to-end seamless support of the Remote Patient Monitoring (RPM) medical service*



## mokaal Solution Description

**MOKAAL pc** aims to provide the Health Care Providers community, with an integrated digital platform for the end-to-end seamless support of the Remote Patient Monitoring (RPM) medical service, which will also include a set of algorithms, capable of predicting an upcoming "health event" that could potentially occur to an RPM session participant, within a foreseeable period.

Forecasting forthcoming "health events" is an extremely challenging task for the RPM systems sector, which relies in real time information and communication technologies. RPM is a medical service which includes the constant monitoring of patients that are not in the same location with their health care provider. In its first attempt with the RPM sector, MOKAAL developed the IFS\_RPM service (Integrated Facilitation Services for Remote Patient Monitoring) which provides the healthcare providers with the full range of ICT infrastructure (H/W & S/W apps), necessary for offering the RPM service to their outpatients, in real time. Following the successful completion of IFS\_RPM project, MOKAAL launched a research project under the code name "PROPHET". PROPHET main objective was to investigate the possibilities of introducing a real time predicting model based on remotely collected vital signs, that would utilize time series of metric data in conjunction with the information stored in the Electronic Health Records (EHR) of the "bearer", attempting to predict in real time, the probability of a "health event" occurring in the near future. In parallel with the evolution of PROPHET project, MOKAAL introduced another R&D project under the code name "PRECURSOR". The core objective of PRECURSOR concept was to deliver an effective case management tool that would introduce an innovative "health event forecast engine" for patients suffer from COPD.

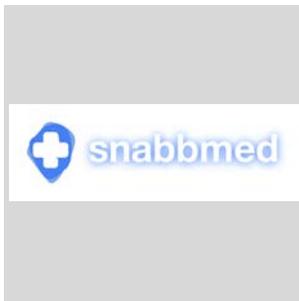
# snabbmed



TECH KEYWORDS: Mobile, Browser App, Consulting, SaaS, Chat Room, Cloud Services, Data Storage

MEDICAL KEYWORDS: EHR, Digital Medical Office, IVF data management

VALUE PROPOSITION: *Brief & advice your patients remotely, operate efficiently & legally, save time.*



## snabbmed Solution Description

**SnabbMed** is a smartphone application, introducing a digital medical office enhanced with a chat room. The app facilitates patients access personal data and healthcare providers build medical records.

**L.I.V.O.** is a complementary service of SnabbMed that aims in the organizing, storing and communicating sensitive IVF data.



# Ergobyte

TECH KEYWORDS: Clinical Decision Support, EHR, EMR

MEDICAL KEYWORDS: Medication Recommendations

VALUE PROPOSITION: ***RxReasoner:*** A novel clinical decision support tool that provides explainable, legally sound medication recommendations in real time



## Ergobyte Solution Description

**RxReasoner** is a novel decision support tool that provides personalised, explainable, legally sound medication recommendations in real time. It uses patient specific information, such as gender, age, chronic diseases, allergies, somatometric characteristics etc, to produce a list of indicated pharmaceutical treatments and regimens.

From a technical standpoint, **RxReasoner** is a unique combination of expert systems with semantic inference. Its medical knowledge base contains 2.100 active ingredients that are described completely in terms of executable medical rules.

RxReasoner's Greek version, known as Galinos.gr, is currently integrated into the hospital information system of all hospitals of the 7th Health Region in Crete, 3 private psychiatric hospitals, 1 rehabilitation center and 2 nursing homes. Within these healthcare institutions, physicians use RxReasoner to easily determine or assess every patient's medication therapy, reducing errors by 20% and saving as much as 14 work hours monthly.

# PhosPrint

Advanced Technologies

**TECH KEYWORDS:** Additive Manufacturing, Organic 3d in-vivo Printing, Regenerative Medicine, Tissue Engineering

**MEDICAL KEYWORDS:** Transplants, Urology, Cytoplasty

**VALUE PROPOSITION:** *An innovative dual beam laser bioprinting device and process*



## PhosPrint Solution Description

**PhosPrint** created an innovative dual beam laser bioprinting device and process which comprises novel surgical protocols for on-site laser bioprinting of autologous urothelial cells. The approach is employed to create a neo bladder in cancer patients after the removal of their affected organ. PhosPrint's brand-new approach overcomes the gold standard of cystoplasty that causes severe side effects since it uses unsafe intestinal epithelium to recreate the bladder.

The use of laser bioprinting in Biotech and Regenerative Medicine can help resolve medical conditions that are either currently untreatable and result in loss of life or serious deterioration of quality of life. The proposed D-LIB technology for in-vivo printing will be adapted to serve specific clinical applications. The go-to-market one is the in-vivo printing of bladder tissue during cystoplasty (generation of neo-bladder for cancer patients). Bladder cancer is one of the most common cancers with over 550,000 new cases every year globally.



# Vidavo

## EMMA - Emergency Clinical Support

TECH KEYWORDS: Medical Wearables, AI, Edge computing

MEDICAL KEYWORDS: Emergency Department, Burnout, Triage, Clinical Decision Support System

VALUE PROPOSITION: *We minimize doctors' burnout on ERs by providing optimized patients' triage.*



# EMMA Emergency Clinical Support Solution Description

**EMMA** is a Clinical Decision Support System with the aim to assist ER personnel more effectively triage incoming patients to the ERs that exploits ML algorithms on real-world data.

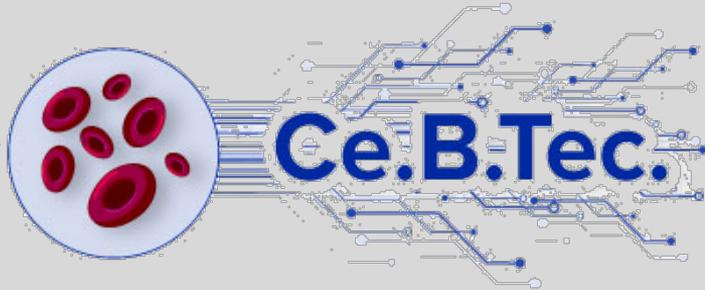
EMMA is able to offer early notification of health deterioration of incoming patients allowing doctors to work with peace of mind; allows doctors to focus on one incident per time and creates a decision support mechanism that makes them to feel safe and avoid multitasking; minimizes burnout having positive impact on healthcare services and alleviates the respective economic burden.

EMMA is a useful AI medical tool that:

- Monitors patients' vital signs and indoor position through wrist-wearable biosensors
- Detects real-time health deterioration and assigns priorities
- Offers probabilistic insights beyond medical data, focusing on patient outcomes and hospital resources management
- Provides business intelligence insights to the hospital's management team regarding the influx and accommodation of patients in the ER

Specifically, EMMA creates a probabilistic framework to inform healthcare professionals on the prediction estimates (in the form of probabilities) of a patient to be admitted in the hospital or discharged and furthermore when hospitalized, if there is a high chance to be admitted in the ICU. This patient stratification algorithm especially in medium-risk incidents, may save lives and result to better patient outcomes in the long run. In addition, the calculated estimation of the potential duration of hospitalization allows for more efficient hospital resource management.

EMMA realizes a more feasible and sustainable business case, avoiding the huge costs, connection dependence and complexity that cloud infrastructures demand.



# Ce.B.Tec.

TECH KEYWORDS: Biomarkers, Electronics, Cloud

MEDICAL KEYWORDS: Respiratory Infections Diagnostics, Covid, Viruses

VALUE PROPOSITION: *A revolutionary biosensors-based diagnostic test for respiratory tract infections*



## Ce.B.Tec. Solution Description

**Ce.B.Tec.** is a spin-off company of the Agricultural University of Athens in Greece which provides a revolutionary biosensors-based diagnostic test for respiratory tract infections. The size of the total addressable market is tens of billions.

Improving access to lab testing and inexpensive diagnostic tests is defined as a cost-effective solution for Acute Respiratory Infections (ARIs) in general and Covid-19 in particular. The more tests that are conducted, the easier it becomes to track the spread of the virus and reduce transmission. Viral respiratory diagnosis has traditionally relied on antigen detection and virus isolation. The lack of sensitivity of antigen detection, the delay in the results with virus isolation and the limitations of detecting only cultivable viruses usually made the diagnosis of respiratory viruses incomplete.

The biosensors-based diagnostic test proposed by CeBTec detects antigens extremely fast, with high accuracy and specificity, without any sample pre-treatment or enrichment processes. In addition, current research demonstrates the ability to distinguish among different variants, including delta and omicron.

The second target to be detected by CeBTec diagnostic test is Respiratory Syncytial Virus (RSV). In a normal year, RSV causes substantial global morbidity and mortality in children under 5 years of age, resulting in an estimated 3.2 million hospital admissions and 118,200 deaths. The CeBTec diagnostic solution for respiratory tract infections will be completed with Influenza virus and Human Rhinovirus.

The CebTec technology can revolutionize personalized digital medicine: test results are processed instantly, classified and recorded via mobile internet to a central server where an e-certificate can be automatically issued.

# HEALTHSPACE

## HealthSpace

TECH KEYWORDS: Digital Health, Innovation

MEDICAL KEYWORDS: Chronic Diseases, Hospital Information Systems, Emergency Care, Electronic Health Records, Personal Health Records, Perioperative Stress Management, Ischaimic Strokes, Frailty

VALUE PROPOSITION: *Innovative customized digital health solutions for adding value in the customer journey, for the efficient management of healthcare and wellbeing.*

HEALTHSPACE

## HealthSpace Solution Description

**HealthSpace** creates and implements innovative, user-friendly, personalized digital tools to support effective and sustainable health services for all. HealthSpace offers state of the art expertise in translational medicine, in the management of innovation, in the reorganization of healthcare processes, and the co-creation of digital solutions based on customer needs. Its products have won several prizes in entrepreneurial and pre commercial procurement competitions. Some examples include:

**Time is Brain** is an emergency management platform aiming to improve the efficiency of managing ischemic strokes. Often the speed of dealing with this type of stroke is not what is required, resulting in adverse health effects for patients such as disability and loss of quality of life. The introduction of the platform to healthcare providers can significantly speed up treatment time and bring significant immediate benefits to patients and the insurance market by reducing the cost of long-term healthcare costs.

**BONVITA** smart platform for the effective integrated management of frailty.

**Carinae** for the perioperative stress management of patients undergoing elective surgery.

**docandu**

**TECH KEYWORDS:** Platform, AI based symptom checker, EHR, online doctor consultation

**MEDICAL KEYWORDS:** Diagnosis, Connecting Doctors and Patients, Derma, Diabetes

**VALUE PROPOSITION:** *A fully integrated digital health platform that connects patients to medical advice, healthcare data, and doctors anytime, anywhere*

[www.docandu.com](http://www.docandu.com)

[www.diabeat.gr](http://www.diabeat.gr)

[www.dermacare.docandu.com](http://www.dermacare.docandu.com)



## docandu Solution Description

**Docandu** offers a fully integrated digital health platform that connects patients to medical advice, healthcare data, and doctors anytime, anywhere. Docandu enables patients to get quick and accurate access to medical advice (via AI-based symptom checker), manage and share their medical profile and records in multiple languages, connect them with doctors, and get instant personalized advice (via video or voice consultation).

In this way, docandu eliminates or reduces the practical barriers by providing quick access to doctors and the emotional barriers by providing unbiased and accurate medical advice.

Docandu offers another two platform designed for patients with diabetes and patients with derma related conditions.



## JADBio

**TECH KEYWORDS:** State-of-the-art Automated Machine Learning Platform, Designed for Life Scientists

**MEDICAL KEYWORDS:** User-friendly Machine Learning without Coding equipped with Powerful Knowledge Extraction tools

**VALUE PROPOSITION:** *JADBio stands for Just Add Data and aims to make machine learning accessible to all regardless of expertise or programming skills*



## JADBio Solution Description

**JADBio** is a platform designed specifically to extract value and insights from life-science datasets (clinical, molecular, images, text and combinations thereof). The dataset to analyze is input to JADBio as a 2D matrix with the rows corresponding to samples and the columns corresponding to measured features (a.k.a. biomarkers, variables, measured quantities, predictors) and a defined outcome of interest. The AutoML system does not care if these features are amplicons, genes, proteins, etc or whether the samples are patients or single cells. JADBio can typically handle datasets with feature sizes, up to 1M and sample sizes, from 15 (per class) to 200K. In addition, JADBio accepts dichotomous (binary classification), nominal (multi-class classification), continuous (regression), and time-to-event (e.g., survival analysis) type of outcomes.

JADBio's uniquely Automated Machine Learning (AutoML) is guided by Artificial Intelligence (AI) to provide accurate and efficient predictive models for Classification, Regression and Survival (Time to Event) analysis. Typical prediction tasks are (but not limited to):

- Disease Status (Diagnosis)
- Disease Subtype
- Response to Treatment
- Phenotypic Trait
- Time to Event (Death, Metastasis, Relapse)



## BioAssist

TECH KEYWORDS: Platform

MEDICAL KEYWORDS: Telehealth, Integrated Platform for Remote, Conventional and Home-Based Healthcare Services

VALUE PROPOSITION: *An one-stop shop for remote, conventional and home-based healthcare services*

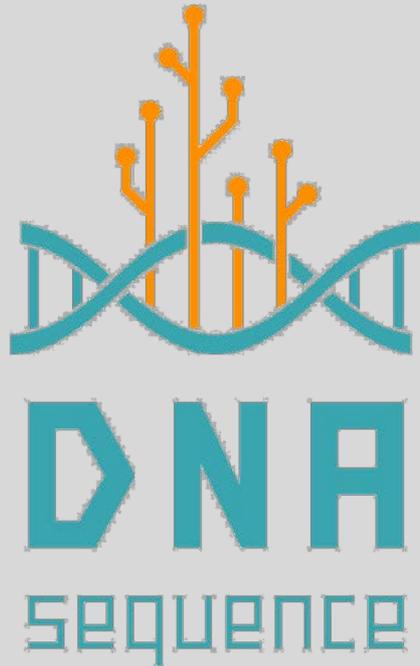


## BioAssist Solution Description

**BioAssist** cloud-based eHealth solution is capable of supporting modern health monitoring and teleconsultation services, providing end-users with a single tool that enables communication with various types of healthcare professionals (i.e., doctors, but also nurses, dieticians, psychologists, etc.), facilitates booking (i.e., teleconsultations, lab tests, homecare, etc.), and incorporates smart features and functionalities for efficient health monitoring, early detection and management of critical incidents. The platform integrates remote patient monitoring features, using medical and wearable devices and online questionnaires, as well as videoconferencing between patients and doctors. Patients have access to a directory of professionals offering continuous and on-demand services and the platform includes a Personal Health Record, which contains all of the patient's data and allows for visualizations and reporting. The solution includes ready-to-use modules for data analysis and for the creation of additional knowledge and insights to support the healthcare professionals on the assessment of the patients' health condition and on the decision-making regarding the adopted medical protocol.

The platform and applications to support end-users and healthcare professionals include a rich set of features that are based on state-of-the-art tools and technologies, offering interoperable services with high levels of robustness, security, extensibility, user experience and engagement. Seamless integration with certain biosignal sensors, smartwatches, and activity trackers is also provided both in app level, where the system communicates via Bluetooth with sensors, such as oximeters, bpm, etc., and also at the platform level, where the acquisition of measurements takes place via services from the cloud platforms of the device manufacturers, such as Apple, Fitbit, etc.

Our solution enhances doctors' service coverage and efficiency, enabling them to treat their patients more effectively and bolstering patient satisfaction. The platform can be further extended with additional innovative features (e.g., serious games, affective computing, patient coaching, etc.) that provide value-added services and create a competitive advantage for the service provider.

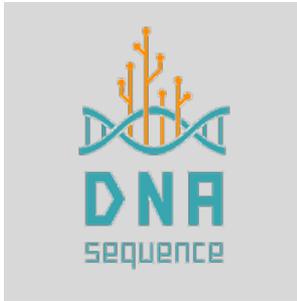


# DNASequence

**TECH KEYWORDS:** DNA/RNA, Metagenomics, Bioinformatics, Online Platform

**MEDICAL KEYWORDS:** Non-Targeted Microbial Detection, Complete Microbiome Detection, AMR Monitoring

**VALUE PROPOSITION:** *DNASequence provides products and services that will transform the world of business and everyday experience as we know it, by digital biology. We provide tailor-made end-to-end solutions by integrating cutting edge biotechnology into business operations.*



## DNASequence Solution Description

**DNASequence** enables the detection of the *complete microbial footprint* in hospital areas, using cutting-edge technologies in the field of biotechnology and information technology. DNASequence technologies enable the qualitative and quantitative recording of all pathogenic microorganisms in air, water and surface samples, as well as the detection of resistance genes in the microbial community. This facilitates the identification and monitoring of infected areas and transmission patterns, which facilitates the adoption of effective mitigation measures.

The detection includes all known microorganisms including DNA and RNA viruses and is performed agnostically, without a priori knowledge of the microbes to be detected. This provides a huge advantage in comparison to competing approaches in microbial detection such as cultures and PCR. Very importantly, the detection includes antimicrobial resistant strains, responsible for the occurrence of nosocomial infections, which is a crucial issue in ICUs worldwide.

The approach is end-to-end, tailored to customers' needs, and includes the following steps:

- Sampling of selected surfaces and air in hospital environments
- Metagenomics analysis of the samples and Bioinformatics analysis of the produced data
- Result interpretation and interactive reporting, including proposed mitigation measures



## RTsafe

**TECH KEYWORDS:** Radiotherapy Personalized TPS QA, Polymer Gel Dosimetry, SRS Safety, Radiation Oncology Quality Assurance QA, 3D Printing, Head & Brain Replica

**MEDICAL KEYWORDS:** Radiation Oncology, 3D Dosimetry

**VALUE PROPOSITION:** *The world's first personalized care solution in Radiation Oncology (RO) bringing confidence to the treatment plans and profits to healthcare system*



## RTsafe Solution Description

**RTsafe** is a medical technology company. They have patented, FDA cleared, and commercialized the world's first personalized care solution in Radiation Oncology (RO). Apart from killing the cancer cells, radiation may destroy the surrounding healthy brain tissue, causing severe side effects and ineffective treatment. 12% of the patients face such problems and you cannot know in advance if your case will within the problematic ones. Their solution is the following: Based on the patients CT scans and using materials that react to the radiation as the human bones and soft tissue, they 3D print a personalized perfect replica of the patient's head and brain ready to detect the radiation in three dimensions. The medical team tests the treatment on the replica, studies the results, and after that, safely applies the treatment to real patient. Their innovation gains Enthusiastic comments and testimonials from their pilot users (medical teams and patients)

Their competition offers one-size-fits-all solutions of a cube or cylinder shape to check if the Radiotherapy Equipment is ok. RTsafe focuses on checking the personalized treatment plan for each patient, and **they** are the only one offering three dimensions dosimetry.

The Greek National Organisation for the Provision of Health Services ΕΟΠΥΥ reimburses RTsafe's services.



# BIOEMTECH

## BIOEMTECH

**TECH KEYWORDS:** Monte Carlo, Simulations, Dosimetry, High Performance Computing, Anthropomorphic Phantoms, Pediatric Dosimetry, Personalized Dosimetry

**MEDICAL KEYWORDS:** Personalized Dosimetry, Nuclear Medicine

**VALUE PROPOSITION:**

- *As a preclinical CRO, they offer a one-stop-shop at their state-of-the-art Laboratories that cover a full chain of preclinical studies, following a Good Laboratory Practice approach in the daily routine.*
- *As a manufacturing company of novel breakthrough imaging systems (eyes), they offer simplicity, speed and efficiency on a daily workflow, during the first steps of testing of novel compounds.*



## BIOEMTECH Solution Description

**BIOEMTECH** aims to develop a novel software product that will offer the clinicians the possibility to assess internal dosimetry and optimize Nuclear Medicine (NM) SPECT/PET and Radioimmunotherapy (RIT) clinical protocols, in terms of personalized dosimetry. The proposed tool is designed, implemented and evaluated with specific focus on pediatric patients, whose dose considerations are high and no standard protocols and solutions exist. The tool has been developed incorporating commonly used radiopharmaceuticals, with a user-friendly interface (GUI) for the clinicians. It is a supporting SW tool, without changing their clinical routine and practices.

The clinician has to:

- a) import the specific characteristics of the child (patient) like, age, gender, height, weight,
- b) select the radiopharmaceutical that will be administered to the patient
- c) select the administered activity.

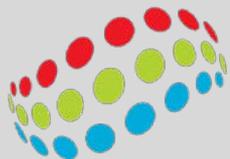
The tool exports directly a pdf file with all the doses/per organ that the patient will receive.

Having this information, the clinician can reconsider the protocol that will apply to the patient.



## BioAssist Solution Description

**BIOEMTECH Laboratories** provide services in a unique infrastructure and platform for pre-clinical studies, starting from a cell level and going up to the in vivo level. In more detail, BIOEMTECH Laboratories include pre-clinical study rooms for: • animal hosting and animal model creation, • radiochemistry infrastructure, • in vitro cell equipment and • in vivo imaging facilities, that provide a spectrum of techniques (dynamic imaging of SPECT & PET isotopes, high resolution SPECT & CT imaging, optical imaging). Such services could be useful for any research activity regarding novel radiopharmaceuticals, cancer therapy, toxicity studies, etc.



**BIOPIX-T**

**TECH KEYWORDS:** Pharmacogenomics, Smartphone-Based Application, LAMP

**MEDICAL KEYWORDS:** Molecular Diagnostic System, Test Kit, Point of Care Testing, POCT, NAATs

**VALUE PROPOSITION:**

- *The PEBBLE qcLAMP Platform: A certified (CE-IVD) molecular diagnostic system for providing specimen examination results at the point of care or need site*
- *And a "disposable" molecular diagnostic instrument*

[www.biopix-t.com](http://www.biopix-t.com)



## BIOPIX-T Solution Description

- The **PEBBLE qcLAMP** platform is a certified (CE-IVD) molecular diagnostic system for providing specimen examination results at the point of care or need site (doctor's office, clinical sites, limited resource areas etc.) . It has a small size, is lightweight and runs with low power, making it ideal for portable use and decentralized testing. A smartphone-based application operates the system through a low power Bluetooth connection. BIOPIX-T has released two fully certified (CE-IVD) test kits, Cov19 qcLAMP Kit and Flu A qcLAMP, and has a long R&D pipeline of other infectious diseases test kits but also kits for pharmacogenomics, expanding the platform's use into companion diagnostics as well. All test results are stored on the BIOPIX-T cloud for remote or later time access.
- Base on the same principle of Nucleic Acids Amplification used for the PEBBLE, they are developing a "disposable" molecular diagnostic instrument.

bialoom

## bialoom

**TECH KEYWORDS:** Silicon Photonic Biosensors, Microfluidics, Lab-On-Chip

**MEDICAL KEYWORDS:** Point of Care Diagnostics, Infection-Related Blood Biomarkers, Pathogen Detection

**VALUE PROPOSITION:** Bialoom is on a mission to accelerate diagnosis and therapy of sepsis by enabling multiplexed lab-quality blood tests in minutes next to the critically ill patient at a fraction of the cost of traditional molecular testing and cultures.



## bialoom Solution Description

Sepsis is a serious and, in many cases, deadly complication of common bacterial infections. Sepsis affects 48 million people worldwide each year and takes 11 million lives, translating into healthcare yearly costs nearly \$50 billion in the US alone. Starting appropriate and effective antimicrobial treatment is crucial for sepsis survival. However there is no technology yet available that will allow multiplexed diagnostic tests that detect both sepsis related bacteria and proteins next to the patient.

Bialoom develops a low-cost, simple to use and fully scalable micro-optical diagnostic platform that allows the measurement of multiple infection-related blood biomarkers with a single use cartridge next to the patient. Our unique sensor technology allows multiplexed assays for the detection of both bacteria and acute infection proteins from nanoliter volumes of patient sample.



CureCancer

## CureCancer

**TECH KEYWORDS:** Web platform, EHR, Online Doctor Consultation

**MEDICAL KEYWORDS:** Hospitals and Cancer Centers

**VALUE PROPOSITION:** *CureCancer offers cancer patients and their families a comprehensive approach in cancer supportive care and prevention.*



## CureCancer Solution Description

**CureCancer** is an innovative, digital tool, patient-centered and patient-driven. Patients organize their medical history and report their symptoms. They communicate with their oncologists and receive fast, timely and effective management. Cancer treatment toxicity and related costs of care are reduced up to 33%. CureCancer can be integrated within all Hospitals and Cancer Centers and all peripheral Medical Units, outside the Cancer Center, so as to use the power of the patients themselves towards a direct and effective management, with concurrent significant financial benefit to the health care system. CureCancer is fully functional.



PROFITER

# PROFITER

TECH KEYWORDS: AI

MEDICAL KEYWORDS: Medicine Stock Management

VALUE PROPOSITION: *The Profiter model helps pharmacies, hospitals and pharmaceutical distributors to manage their stocks efficiently and on time*



## PROFITER Solution Description

**Profiter** is a startup benefit corporation that uses artificial intelligence to predict the future demand of pharmaceutical products in order to avoid problems like stockouts and overstock while maximizing the marginalities during the replenishment process. Their goal is to assist the personnel of the pharmaceutical departments with AI in order to reduce the errors in stock managements

The main problem for hospitals is to avoid dangerous stockout situations and to be supported in the replenishment process by useful insights from an AI. Sustainability is also an issue since a lot of drugs are being thrown away because they expire in the warehouse

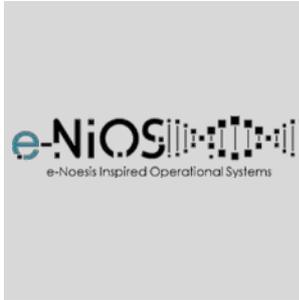
**e-NiOS**  
e-Noesis Inspired Operational Systems

## e-NiOS

**TECH KEYWORDS:** Bioinformatics, Genomics, Multi-Omics, Bio-Inspired AI

**MEDICAL KEYWORDS:** Precision Medicine, Companion Diagnostics (CDx), Early Biomarker Discovery, Biomarker-Aided Clinical Trials, Composite Biomarkers

**VALUE PROPOSITION:** *A biological knowledge-driven data mining platform capable of resolving the inherent biological complexity and automatically transforming raw or processed NGS data to few actionable biomarkers*



## e-NiOS Solution Description

Biological big data, produced by Next Generation Sequencing or microarrays, are known for their high volume, heterogeneity and complexity. Overwhelming data accumulation is currently a major issue in clinical genomics. Recent developments in NGS technology have enabled the generation of exponentially increasing volumes of digitized -omics data, while leaving the experts absolutely bewildered by the patterns of complexity that they need to grasp and translate, in order to transform them into solid, actionable clinical information.

Most current commercial efforts have been focused on the development of cloud platforms capable of storing and managing the generated big data. However, the crucial step of the final biological interpretation (i.e., extraction of few actionable biomarkers) is not efficiently addressed and thus remains a major bottleneck in translational genomics.

**e-NIOS** has developed a biological knowledge-driven data mining platform capable of resolving the inherent biological complexity and automatically transforming raw or processed NGS data to few actionable biomarkers (signatures). The SaaS platform (BioInfoMiner), comprises the following features:

- Fully automated, fast NGS multi-omic analysis (DNA/RNA-seq, Exome-seq, microarrays)
- Capable of integrating different types of NGS data
- Pharmacogenomic analysis: the prioritized genes and biological mechanisms are matched with drugs from pharmacogenomic databases
- Automated stratification of samples/cohorts based on inter-signature similarity (works from just one sample, to cohorts of any size)



## e-NiOS Solution Description

### Applications:

**Precision Medicine:** direct insights for selection of appropriate therapy  
Real-time monitoring of dynamic genomic response  
Pharmacogenomics, Drug targeting/repurposing: ranked, prioritized critical targets  
Early biomarker discovery: the BioInfoMiner signatures represent a robust interpretation of the detected genomic mechanisms and derive ranked genes as most promising biomarkers  
Biomarker-aided clinical trials: increase of success rates, due to identification of patient subgroups more susceptible to benefit from a given drug (or combinations of drugs)

**Precision Oncology:** Personalized signatures are extracted from patient biopsies (Whole-exome seq, gene expression/methylation microarrays) and a tumor pharmacogenomic profile is built, assisting medical decision.

The service is addressed to Hospital/Clinics, Pharma and Biotech industries:

- Streamlined analysis and interpretation of clinical omic data for Precision Medicine applications (from raw data to signatures)
- Companion diagnostics (CDx)
- Acceleration of early biomarker discovery
- Acceleration of biomarker-aided clinical trials



# Aisthesis Medical

**TECH KEYWORDS:** AI, Health Informatics, EMR, Mobile App, Internet of Medical Things

**MEDICAL KEYWORDS:** Surgery, ICU, OR, Perioperative Care, Decision-Support Systems, Patient Monitoring, Surgical Patient Triage

**VALUE PROPOSITION:** *We support anesthesiologists and intensivists make the best decision for their patients by developing a trustworthy AI platform.*



## Aisthesis Medical Solution Description

Given that approximately 300 million surgical procedures are performed annually worldwide, it is reported that more than 70 million patients experience potentially preventable complications during surgery. Recent research studies have shown an in-hospital postoperative mortality of up to 12%. With increasing adoption of electronic medical record systems, high fidelity heterogeneous data are being captured during surgery and critical care, yet the utilisation of these data to improve patient safety and quality of care remains poor.

Recognising this unmet need and leveraging recent advances in medical informatics, we present Aisthesis, an Artificial Intelligence (AI)-powered software that supports clinicians with the best decision-making for their patients by predicting adverse perioperative complications. The quality of surgical care can potentially be improved by earlier identification of intraoperative complications, allowing anaesthesiologists to make early interventions before it is too late. Such intraoperative complications are highly correlated with postoperative complications, such as acute kidney injury and organ failure. Thus, our cutting-edge AI system is not limited in operating room (OR) use, but also extends in the intensive care unit (ICU), where accurate predictions for multiple organ failure, sepsis, and other complications can save millions of lives every year.



## Aisthesis Medical Solution Description

Our solution comes with a user-friendly interface that does not interfere with the surgical workflow and can be integrated on any critical care monitoring device. The clinician has real-time access to predictive analytics for potential complications in ORs and ICUs. These predictions are generated by advanced Machine Learning models that utilise vital sign recordings as well as the electronic medical record (EMR) data of the patient. The models generate a digital representation (digital twin) of the patient that is utilised for the extraction of complication predictions. The patients and hospitals can benefit from our solution in multiple ways. From one side our models are trained on large cohorts of patients and on the other side clinical insights and predictions are offered for each patient individually by taking the medical history into account. In this way, we offer a patient-centred system able to adapt on each patient's health status.

Having such an automated monitoring framework, hospitals and clinicians will be able to offer state-of-art, accurate and efficient care to their patients. In addition, establishing a real-time monitoring pipeline efficiency in clinical routines is achieved by means of operation excellence, lower costs for treatments and increased revenue for the hospitals. Accessing all patient monitoring data on a single platform from various devices (e.g., mobile, tablet, desktop, etc.) not only saves time, but also enhances patient's experience and therapy adherence.



ADVANTIS  
MEDICAL IMAGING

# ADVANTIS

**TECH KEYWORDS:** Web-Based and Automated Medical Imaging Software Platform, AI

**MEDICAL KEYWORDS:** Radiology

**VALUE PROPOSITION:** *Advantis Platform: A pure web-based and automated medical imaging software platform for the analysis of brain and prostate MRI exams*



## ADVANTIS Solution Description

**Advantis** alleviates the growing workload of radiology departments through the provision of more automated, accurate and accessible MRI software solutions. The company offers Advantis Platform, a pure web-based and automated medical imaging software platform for the analysis of brain and prostate MRI exams. It is intended to assist trained healthcare professionals to achieve a more timely and accurate diagnosis of severe human diseases such as neurological pathologies, traumatic brain injury, brain cancer and prostate cancer. According to WHO 1BN people are affected by neurological pathologies and based on recent reports by the American Cancer Society, 1 man in 8 will be diagnosed with prostate cancer during his lifetime. Moreover, every year 4% of the 100M MRI exams which are acquired globally are misdiagnosed due to:- Under reading caused by the increasing radiology shortage & burnout- Lack of standardization caused by doctor subjectivity error & bias- Lack of accurate, accessible, fast & standardized software tools It is currently a fact that the number of trained and qualified radiologists who screen medical images decreases every year, while on the other hand the number of medical exams grows exponentially. This growing gap can be only addressed by the use of automated, accurate and accessible software solutions which work together with the clinicians. These solutions can detect abnormalities in a consistent and more accurate way and operate as a quality control, exam prioritization and decision making tool within the clinical settings saving time for the organization and increasing the quality of the services. (source: <https://www.diagnosticimaging.com/view/are-we-prepared-for-a-looming-radiologist-shortage->) For instance, in 2019 the guidelines around prostate cancer diagnosis changed by including the multiparametric prostate MRI exam as a prerequisite in the diagnostic sequence.



## ADVANTIS Solution Description

In the past after a specific blood test /biomarker the patient would be required to perform biopsy which is expensive, time consuming and creates a lot of anxiety and frustration to the patient along with any unwanted side effects due to the invasiveness of the procedure. A recent report by Karolinska Institute (2021) showed that MRI can cut overdiagnoses in prostate-cancer screening by half. It was shown that almost 5/10 biopsies were unnecessary biopsies. Therefore, the number of multiparametric prostate MRIs is growing significantly every year and is expected to grow dramatically in the coming 10 years as public awareness around prostate cancer in male population reaches the same level as breast cancer around female population.(source: <https://news.ki.se/mri-can-cut-overdiagnoses-in-prostate-cancer-screening-by-half>)To this direction Advantis has developed a multi-organ, multi-modal and pure web-based software platform that:- increases the accuracy of the generated processed results through its proprietary algorithmic set assisting the clinicians to achieve a more reliable diagnosis (independent comparative studies and pilot case studies available)- enhances automation reducing the processing time by at least 50% in comparison to traditional manual oriented software workstations- operates as a pure web-based solution accessible from any location- offers capabilities for collaborative processing and peer reviewing of exams- eliminates any installation and maintenance cost for the hospital- it is offered on the basis of annual recurring subscriptions which scale in-line with the customer's needs- comes with a dynamic and interactive online helpdesk (phone, chat, email) and a helpful online knowledge base that hosts webinars, tutorials, documentation for a smoother user onboarding. Advantis Platform can save significant time and expenses for healthcare organizations while in parallel can increase the quality of services through a more standardised and reliable processing workflow of MRI exams.



# Raivotech

**TECH KEYWORDS:** Smartphone App, Web Dashboard, Wearables

**MEDICAL KEYWORDS:** Sleep, Fitness, Patient Surveillance

**VALUE PROPOSITION:** *A two-fold product comprising of an application for commercial use and a dashboard which is targeted to physicians, medical professionals, clinics, and hospitals*



## Raivotech Solution Description

Raivotech is developing a two-fold product comprising of (i) an application for commercial use, and (ii) a dashboard which is targeted to physicians, medical professionals, clinics, and hospitals.

The application is aiming to assist users improve their health by analysing the data collected by their smart devices regarding their daily activity, vital signs, sleep quality and more. Initially our application will focus on assisting users with their sleep quality and in the near future we are planning to widen our offer to other health issues.

The dashboard is aiming to help doctors and medical professionals in general with remote and automated patient surveillance. The patients will be able to share their vital signs with their doctors, by using off-the-shelf smart devices. In that way their doctor can evaluate whether a medical treatment has been successful, or additional changes are required. This solution can also be used by research institutions or pharmaceutical companies to evaluate whether a novel medication or pharmaceutical treatment is effective or whether it causes unwanted side effects.

There is a plethora of applications in which the dashboard can be implemented, and we believe that an efficient collaboration with hospitals and clinics can be vital for our success.



## MDit

**TECH KEYWORDS:** EHR, HIS, SaaS, Cloud App, Web App, Online Consultation

**MEDICAL KEYWORDS:** Medical Asset Management System, Electronic Patient Record for Ophthalmology, Telemedicine Platform, Booking & Billing App

**VALUE PROPOSITION:** *A medical asset management system for medical devices & an Electronic Medical Record (EMR) application for ophthalmology*



## MDit Solution Description

### **myPAS - Patient Administration System**

myPAS is the most modern, advanced and flexible appointment management and invoicing system. We call it myPAS because it can be delivered to meet your organisation needs.

It has been designed by Clinic Managers, Receptionists and NHS Doctors to meet all healthcare professionals needs simply by automating processes and by putting patients first.

You can schedule and make secure video calls through the Doctor Anywhere digital tele-medicine platform.

You can automate your appointment booking process through myPAS Booking. Even if you do not have a website, you can choose whether you give access to your patients to book, reschedule or cancel their appointment 24/7.

Your tasks, appointments and all your files are accessible from wherever you are. Fully compliant with the U.K. GDPR.



## MDit Solution Description

### **F2:**

f2 is the first-choice medical device asset management system among healthcare professionals wanting to create dynamic workflows, enhance efficiencies and drive productivity.

f2 is the leading medical asset management system for medical devices, consumables, stock management, contracts, device technical history, documents and many more.

f2 has fast become the preferred medical asset management platform, seeing it being fully deployed in NHS Trusts throughout the UK, meeting the exacting, individual requirements of each hospital.

### **OpenEyes:**

OpenEyes™ is the leading open-source electronic patient record (EPR) for ophthalmology.

It has been designed by clinicians to be fast in delivering content, fast to navigate and easy (and fun) to use.

OpenEyes is an Electronic Medical Record (EMR) application for ophthalmology, which enables clinicians to access all the information they need in one place. This includes features like letter automation, audit reporting, anatomical diagrams, findings and diagnoses.

This product was created with the support of leading clinicians that make up the OpenEyes Foundation, so you can be rest assured that the application has everything that a clinician will need.



# Frontida Care & Recruitment

TECH KEYWORDS: Platform

MEDICAL KEYWORDS: Nurses and Care Handling Software

VALUE PROPOSITION: \_\_\_\_\_



## Frontida Care & Recruitment Solution Description

**Frontida Care** is specialized in providing nurses and care personnel for specialized and exclusive care in hospitals and for home care. Based on the existing law, exclusive nurses in hospitals come directly from the ministry of health and specifically from the associated health regions. Once every year, lists of exclusive nurses are created from the health regions and assigned to all public and private hospitals. Exclusive nurses are not part of the hospital's regular workforce and they are being paid directly from the patient and/or their relatives or those who care for them. As a result, the hospital is just the place where this service is being offered, the hospital has no saying on the exclusive nurses that are being assigned to offer their services in their patients and most importantly is not responsible for any economic transaction whatsoever. The hospital is responsible however for assigning the exclusive nurses to the patients, in a rotation system, and finding additional exclusive nurses when there is a demand. It is of paramount importance that the services of the exclusive nurses are of the highest standards and that the patient (and relatives) as well as the nurses and the hospital's members of staff are satisfied with their performance.



## Frontida Care & Recruitment Solution Description

They have created an online software where we can:

1) Keep a record of all the cases. This is important for many reasons, since:

1a) Each hospital needs to know who is in the hospital offering services at any point in time

1b) A patient may ask or the same nurse again in the future, if they are satisfied, or

1c) A nurse may need to be excluded from a patient's care, for whatever reason

2) Know the nurses' specific skill, in case they are needed for the care of a specific patient. For example it is important to send a specialized nurse to care for a patient with dementia. Their cv should be available to the "customers"

3) Collect comments and satisfaction from both:

3a) The patient and the family

3b) The hospital nurses and staff that work along with the exclusive nurses

For example it is important to record good and/or bad performance. In this way each exclusive nurse will have a specific profile, based on their performance.

This profile can be shared with the patients and their relatives for better quality control.

Their software can be upgraded to include more info and specific needs per hospital. Information can be shared between hospital in order to improve the services offered in greek hospital.



## Traqbeat technologies

**TECH KEYWORDS:** Medtech, IoMT, AI-enabled & secured, Wearable Sensor

**MEDICAL KEYWORDS:** Non Invasive, health-tracking, single device two applications (wrist & patch)

**VALUE PROPOSITION:** *Novel convertible wearable device providing continuous & synchronous health monitoring and alarming*



## traqbeat technologies Problem Description

Acute and chronic cardiorespiratory illnesses (accounting for 34% of acute hospital admissions worldwide) are a major burden for hospital admissions.

This became even more evident during the COVID19 pandemic where healthcare systems exceeded their capacity while re-deploying up to 94% of staff. This resulted in “neglecting” chronic illness patients who either were afraid to attend hospitals or could not receive timely care.

A large proportion of cardiorespiratory patients attending secondary hospital care with low-intermediate risk of deterioration could benefit from being discharged early or not admitted at all if and only if medical teams had a reliable tool to perform continuous monitoring of patients’ vital signs/give advice at home thus shifting lower risk patient care in a home setting. One third of these patients could be managed at home or shorten their time in hospital by 60%. With the current model of care, healthcare costs approach \$400 billion in the US only.

There are cumbersome, non-customizable suggestions in the market (mostly recreational and of questionable accuracy) measuring part of the vital signs offered from our solution. Ongoing studies suggest combining multiple devices (of high cost) measuring different metrics that often lead to biased results and timing errors. Cuffless blood pressure monitoring in particular is still merely a promise. Competitors actually provide cloud enabled offline data storage services. The problem is still there and accelerating with no workaround so far.



## Traqbeat technologies Solution Description

**Traqbeat's** core technology consist of a proprietary – in house – developed novel electrically-powered, wearable sensor (e.g., wristband, patch, watch, finger probe, head-worn sensor) medical grade device (patent pending) capable of continuously or intermittently measure and record multiple health related biomarkers such as Heart Rate (HR), Heart Rate Variability (HRV), Blood Oxygen Levels (SpO2), Blood Pressure (BP), Temperature and Electrocardiograph (ECG), on a need be basis.

Traqbeat's enabling technology consists of precisely designed electronics and optical hardware for optimal signal capture, as well as state-of-the-art signal processing algorithms and AI methods. Our unique proposition offers real-time monitoring with different embodiments combining short term continuous monitoring (patch version) and long-term convenient monitoring (wrist-based wearable).



# Cognitive Innovations

TECH KEYWORDS: Deep Learning Frameworks and AI Systems for Biomedical Datasets

MEDICAL KEYWORDS: AI Power House for Biomedical Applications

VALUE PROPOSITION: \_\_\_\_\_



## Cognitive Innovations Solution Description

Translational deep learning (DL) pipelines are useful toolset to improve the prediction and diagnosis into several serious diseases. In fact, the translational AI, which should turn into clinical practice will require medical applications to be embedded seamlessly within the existing or new digital workflows. Such an integrated approach is useful to diagnostics requesting for new tools that accelerate workflows, improve diagnostic consistency and reduce errors. Several strategies for modernizing the clinical development process by integration of AI and DL based digital methods and secure computing technologies through recently announced regulatory pathways at the United States Food and Drug Administration are outlined translate. In the same way, their work below consists of a set of translational pipeline applications as follows:

- Acquisition and preprocessing: presenting acquisition methods for non-imaging clinical data and imaging investigational data.
- Clinical datasets: extracting features from the clinical database and which preprocessing steps we used to enable the application of ML methods to obtain predictions based on the available datasets.
- Report datasets: to use of radiological reports, as they contain radiologist-defined interpretations of the imaging itself.
- Imaging datasets: sequence classification to acquire precise information about the sequence types being used, the body parts being scanned and the coverage of those scans.



# TENDERTEC

**TECH KEYWORDS:** Thermal Sensing, AI/ML, Platform, Mobile/ Web App, HAAS, Intergration with 3rd Party Medical Devices

**MEDICAL KEYWORDS:** Connected Care, Virtual Wards, Body Temperature Trend Monitoring, Daily Living Activity, Falls, Seizures, Unusual Behaviour, Prevention

**VALUE PROPOSITION:** *For health and care providers looking to enter the world of virtual wards and preventive care in the post-pandemic era, Hestia is a privacy-first connected-care platform delivering previously unavailable insights enabling health and care professionals to capture and understand remotely “when”, “how” and “why” exacerbations happen, without requiring any user engagement.*



## TENDERTEC Solution Description

For hospitals, unplanned and unnecessary admissions are avoided in primary care. Frequent observations enable problems to be identified straight away and pro-actively nipped in the bud. 'Supported Discharge' enables clinicians to physically discharge patients and monitor them in virtual wards prior to clinical discharge back to primary care, reducing length of stay and the number of re-admissions. Both help to reduce the load on hospitals, improve patient flow and satisfaction, and optimise capacity, especially important to help reduce the pandemic back-log.

Their technology, Hestia, is an integrated machine learning platform assisting health and social care providers to capture and review daily activities, incidents and vitals remotely 24/7. Hestia support patients in receiving out of hospital care and with the management of their long-term conditions – the fundamental driver of rising demand. It enables healthcare providers to adopt new ways of delivering out of hospital care, improving efficiency, quality and outcomes while monitoring patients at home.



# BOOKING CLINIC RESEARCH

TECH KEYWORDS: Platform

MEDICAL KEYWORDS: Hospital, Virtual Consultations

VALUE PROPOSITION: *A global platform that connects Patients with Doctors and Clinics*



# BOOKING CLINIC RESEARCH Solution Description

**BookingClinic** is a global platform that connects Patients with Doctors and Clinics, providing digital access to specialised Doctors for virtual medical consultations and digital access to Clinics for online selection and booking of treatments, fostering quality and accessibility in patient's choices, and personalized digital health services through innovative data-driven technologies

The main pain points patients are facing when in need of a treatment or an operation is that they cannot make well informed decisions as there is lack of information. The patients do not have efficient ways to search, compare and select specialised Doctors for medical consultation, nor have an efficient way to compare and book online for an operation or treatment they need. In general, patients cannot search and compare Clinics' services and costs in a transparent way.

Currently patient decisions are mainly based on word-of-mouth and a few physical visits to Doctors or Clinics at their proximity. They do not have access to specialised Doctors that may be located in other cities or countries, and they do not have information of health care services and their costs in a transparent way. So, deciding about a treatment or an operation is stressful, time consuming, expensive and uncertain task.

The problem Clinics and Doctors are facing is that their services have not followed the digital transformation, so doctors mainly provide consultation with physical meeting while clinics attract patients in their proximity. Doctors need to offer their treatments to a broader patients group while Clinics need to attract new patients and reduce their operational/managerial cost. Without digital presence clinics cannot attract customers from around the world and cannot reach the medical tourism market. Digital tools can cover the need for improved patient services, while the same time use their resources more efficiently.



# BOOKING CLINIC RESEARCH Solution Description

Using BookingClinic solution, patients in need of a treatment are able to search and compare medical experience, quality of services, while also review the costs of health providers in order to make well informed decisions and personalized choices among the best Clinics and Doctors, while having an easy and direct access to Clinics through an online booking tool. Today they can only rely on the word of mouth while multiple visits to providers at their proximity require time and money.

Booking Clinic is a digital health platform and marketplace that e-connects Patients to Clinics and Doctors, providing medical information, video-consultations and a booking tool for treatments. Specialized Doctors provide video medical consultation and advice for the appropriate operations/treatments. Clinics provide detailed information on treatments and enable patients' on-line offering and booking. The platform is supported with extensive medical content, podcasts and videos.

The customer experience will be enhanced by a recommendation engine to predict search needs based on machine learning and deep learning. On the clinics' side the decision making will be supported by visualization dashboards, exploiting machine learning, deep learning and statistical methods to enable data driven decisions for clinics.



# BOOKING CLINIC RESEARCH Solution Description

BookingClinic solution goes beyond the state-of-the-art which includes competitive platforms that are mostly clinic catalogues, or operating as online brokers, without direct booking, mostly operating via phone calls and emails. They neither offer cost transparency nor online booking. Also, current solutions in the telemedicine area are offering medical consultation for everyday medical care, and not specialised operation or treatments while, when a treatment is advised by a Doctor, there is no seamless online offering and booking procedure by the Clinic. The need for online health services that especially emerged after the Covid-19 lock down, is radically changing the patients' behaviour and habits the day after, for which BookingClinic is ready.

Combining medical consultation from specialized doctors with direct access to online booking with Clinics is a market gap. BookingClinic fills this gap by offering a full online patients journey from medical info to medical consultation by specialized Doctors and finally online offering and booking of Clinics in a seamless way. This way, patients have direct access to global high quality health providers, while benefiting from cost and services transparency.

# Capemed

## Capemed

**TECH KEYWORDS:** ML, Software Based on Guidelines, Radiology Information System

**MEDICAL KEYWORDS:** MACCE Prediction Tools for CAD Patients, CR Exercise Prescription Tools, RIS

**VALUE PROPOSITION:** *Capemed helps cardiologists assess the risk of secondary cardiovascular events by using machine learning methods and clinical parameters typically acquired from CAD patients, especially post PCI.*

Capemed

## Capemed Solution Description

Prognostic scores, developed with machine learning methods, for patients with CAD, post an index event mainly revascularization, to evaluate the risk of MACCE and the likelihood of desired response to cardiac rehabilitation at the start and end of such secondary prevention programs.

In patients with CAD, therapeutic strategies aimed at counteracting and relieving ischaemia, the pathophysiological substrate of CAD, are key to sizably improve clinical outcomes either in the early phases after the index event and in the long term. Patients with CAD, especially those with a index event are at substantial risk of experiencing recurrent ischaemic adverse events, despite effective treatment which includes also cardiac rehabilitation, according to current guideline recommendations. Tailored management of patients during follow-up, based on individual risk profiles, is advisable to customise clinical management strategies for secondary prevention. The use of risk stratification tools might also be useful in secondary prevention.



**aidplex**

TECH KEYWORDS: Wearable, Mobile App, Web App

MEDICAL KEYWORDS: Orthopedic

VALUE PROPOSITION: ***ScolioSense: A remote patient monitoring wearable for scoliosis treatment increasing adherence to the treatment and improving clinical decision making***



## aidplex Solution Description

**ScolioSense:** a remote patient monitoring wearable for scoliosis treatment increasing adherence to the treatment and improving clinical decision making.

Bracing is currently the primary method for treating moderate idiopathic scoliosis during the developmental phase of growth. 18hrs/day correct wearing of the brace is required. If the patient is not compliant, the possibility of costly and risky spinal surgery is escalating. Patients have no guidance on how to efficiently use the brace, until their next appointments, which are usually scheduled every few months, patients lose motivation and have no means to correct mistakes in using the brace.

ScolioSense consists of a wearable device, a mobile app for patients, and a web app for clinicians, introducing everyday adjustments to the straps of the back brace, based on the values that the clinician has set, simulating with that way an everyday interaction with the clinician. Patients through this gamified telehealth system will wear their back brace for the prescribed time which can lead to better curve correction at the end of the treatment while avoiding having spinal surgery.

The Global Scoliosis Treatment Market is expected to reach \$3,342B by 2025 with a CAGR of 4.12%. It is reported that every year in the EU and the US more than 100,000 new back braces are built for use by adolescents, with an estimated lifetime of 2-4 years. Costs depend on the country with a price range of 1500€-6000€.

Patients can wear up to 3 back braces during treatment. The second type of competition is sensor-based monitoring systems fitted on braces, such as Intellirod Spine and Nova Motum.

The third type of competitors is adjustable braces. Green Sun Medical has developed a new adjustable brace that corrects the pressures inside the brace.

AidPlex is offering a solution that can be retrofitted onto any type of back brace. This enables access to the global market. The extra charge that ScolioSense represents for the end-user is expected to be covered by insurance companies, especially given that improved patient adherence directly affects the risk of costly spine surgery.

The business model of Aidplex will be B2B2C, as Aidplex will sell to clinics and brace manufacturers and they will sell ScolioSense to patients. The profit margin (Price Tag - COGS) of Scoliosense will be significantly increased, projected to be between 80%-85%.



## aidplex Solution Description

The price for the HW will be \$500 and the SW will be sold to clinics or manufacturers with a subscription model of 10\$/per patient/per year. Last but not least, partnerships with Brace manufacturers, who are both installing and selling ScolioSense, could make Aidplex profitable.

Aidplex has already closed partnerships with major organizations.

Brace Manufacturers: Hlamidis Orthopaedic Center & Scoliosis SLC

Patient Advocacy Groups & NPOs: Petalouda, which is the largest patient advocacy group for spine in Greece.

Furthermore, Aidplex will be supported by Patient advocacy groups to penetrate the Greek market faster, by providing to AidPlex contacts with Key Opinion Leaders in Orthopedics.

Aidplex has already tested its business model and go-to-market strategy with Scoliosis SLC the biggest manufacturer in Greece. Scoliosis SLC has agreed to pay for our upcoming pilot test in May 2022 and has expressed its interest for 500-600 ScolioSenses in late September 2022 which can lead Aidplex to surpass its breakeven point.

Aidplex aims not only for the profit margins of the wearable device but also for the recurring revenues that will be generated each year from the subscription model of the Software sold to the clinics or manufacturers.

Our financial projections are:

€175.000 (2022)

€2.000.000 (2023 by accessing the EU5)

€3.875.000 (2024 by accessing the US)

€5.550.000 (2025)

ScolioSense has been tested with 14 patients in 2 different pilot tests held in Thessaloniki and Athens with the help of the 2 largest brace manufacturers in Greece.



# collaborate

TECH KEYWORDS: Digital Health, SaaS, HIS, Specialized EHR, Mobile App, ML/AI

MEDICAL KEYWORDS: Specialized Clinical Application for Research/Clinical Trials and Integrated Chronic/ Rare Disease Patient Care

VALUE PROPOSITION: \_\_\_\_\_



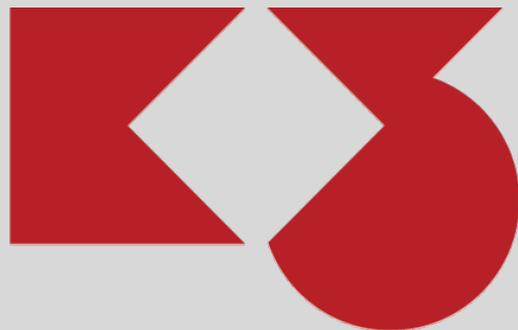
## collaborate Solution Description

Despite breakthrough improvements in clinical outcomes during the last decades, chronic conditions like cardiovascular disease and diabetes or neurodegenerative diseases such as multiple sclerosis, comprise major causes of morbidity and mortality, causing million deaths per year in Europe alone and imposing significant costs on the healthcare system and lasting physical, emotional, and financial impacts on patients and families. Digital health interventions can help diminish chronic disease outcomes by facilitating systematic risk assessment and prevention, adherence to treatment as well as behavior and lifestyle changes. However, thousands of individual practices and hospital specialty clinics are still burdened by unintuitive and ineffective legacy tools, thus cannot reduce further the burden of Chronic Diseases. Existing Hospital Information Systems (HIS) rely on legacy EHR cards that contain only a subset of the patient's health data that is almost always limited to lab work and general visit notes. Disease specific clinical manifestations i.e. such as the EDSS scale of a patient with multiple sclerosis, the duration and intensity of relapses or the details of treatment plans are still managed via physical records while patient follow-up relies on telephone-based outreach at best.

Collaborate addresses these issues by providing a specialized clinical application & analytics platform that complements and enriches existing hospital EHR tools, and allows healthcare professionals to prevent, manage and treat effectively patients with chronic or degenerative conditions. More specifically, the platform helps care teams to risk stratify patients, keeps precise health records in a time saving manner in terms of data entry, avoid errors, and increase patient compliance by facilitating diagnostic and communication tasks, particularly of those related to chronic disease information gathering and exchange( among the care team inside and outside the hospital and the patients), organization and display, collaborative diagnosis and patient follow up. With regards to the latter, the platform comes with a patient portal and patient mobile app for the delivery of integrated care to patients. In particular, patients or their caregivers can seamlessly access rehabilitation plans, upload exams & labwork results, fill-in periodic symptom questionnaires or logs (i.e. blood sugar logs), exchange messages with the care team or even book virtual appointments for face-to-face follow up. Facilitates research and patients recruiting for clinical trials through specialized reports of the precise and complete data.

Collaborate is available on a SaaS basis and can be used either as a stand-alone clinical application or as a complementary tool that connects with the Hospital Information System via its available APIs.

# Guidance Cancer Center



ΚΕΝΤΡΟ  
ΚΑΘΟΔΗΓΗΣΗΣ  
ΚΑΡΚΙΝΟΠΑΘΩΝ

TECH KEYWORDS: Web, Mobile

MEDICAL KEYWORDS: Cancer, Oncology

VALUE PROPOSITION: \_\_\_\_\_



## Guidance Cancer Center Solution Description

The mission of K3 is to help cancer patients and their families, through information and supporting services, to improve their everyday life conditions, with an open, honest and respectful attitude. K3 aims to provide valid and timely information to cancer patients and their families, as well as legal and counseling assistance, mainly focusing on current legislation provisions and facilities that can improve their everyday life conditions, along with servicing the beneficiaries on all required bureaucratic procedures. K3, through the “Mapping of Needs” of cancer patients in Greece, identified their main “everyday life” problems towards achieving a better quality of life and developed a full range of services that are offered “on site” in collaborating hospitals, through a network of skilled collaborators, as well as through the “kapa3” application. Indicative services include: tax reduction, issue of Unlimited Route Pass and Cultural Pass, social tourism, exemption of Municipal Fees, social tariffs, reduced working hours, dismissal of military service, Higher Education benefits, free access to internet etc.

# Shuttle CATHETERS

▶ An  ATHROA company

TECH KEYWORDS: Medtech

MEDICAL KEYWORDS: Aneurism, RAAA

VALUE PROPOSITION: *“We extend the reach of minimally invasive procedures in emergency medicine”*

## Shuttle Catheters

[www.shuttlecatheters.com](http://www.shuttlecatheters.com)



## Shuttle Catheters Solution Description

Ruptured Abdominal Aortic Aneurysm (RAAA) leads to ~150 deaths per day worldwide, because currently, available aortic balloons can only partially stop bleeding without restoring blood circulation.

SC is a simple, but revolutionary life saving innovation adding a second, mobile balloon to an occlusion catheter - enabling the simultaneous occlusion and shunting of the RAAA, almost fully stopping the bleeding and restoring blood circulation, thus greatly improving patient outcomes.



# MindMed

TECH KEYWORDS: IoT, FHIR-based clinical Platform

MEDICAL KEYWORDS: Asthma, Diabetes, Hypertension, Cardiovascular

VALUE PROPOSITION: \_\_\_\_\_



## MindMed Solution Description

The **MindMed** IoT based Unified platform envisions healthcare to be more proactive, continuous and data-driven while it can enable innovators and stakeholders to create self-management apps and solutions that seamlessly and securely run across the healthcare system and for improving clinical care, research, and public health. Also, in the area of hypertension and cardiovascular diseases, Mindmed has provided its health-related services (clinical platform, Mobile app) for several health agencies like the Hellenic Cardiology Association but also the pharma company Roche Diagnostics S.A.



**Think like your customer**

# SmartRep

**TECH KEYWORDS:** Horizontal Application, Advanced & Enabling Digital Technologies

**MEDICAL KEYWORDS:** Respective function dealing with aftercare services

**VALUE PROPOSITION:** *Virtual Assistant providing aftercare tips for patients checking out of hospitals*



## SmartRep Solution Description

**Virtual Assistant** providing aftercare tips for patients checking out of hospitals. The Virtual Assistant (provided as SaaS) will be accessed from a chat widget incorporated in a website and/or Facebook, and will provide answers to frequently asked questions about specific inquiries regarding patients health condition. For example, a person faces an allergic reaction and visits a hospital. Due to the emergency of the situation, the instructions for the recovery for when the person checks out of the hospital, might not be clear. As such, for any related inquiry (e.g.: follow up on medication, what food to avoid, etc.), the person might revisit the hospital and/ or communicate directly with the responsible doctor.

The main advantage of a Virtual Assistant, based on AI and Natural Language Processing), is that it allows doctors and other key stakeholders to save time from answering frequent inquiries.



# SymbIASIS

Attikon General Hospital, Vascular Surgery |  
Attikon General Hospital, 2nd Cardiology |  
Attikon General Hospital, 3rd Department of Surgery |  
Hippocraton 1st Department of Otolaryngology – Head &  
Neck Surgery | Hygeia Hospital | Papageorgiou Hospital |  
Onassis CSC



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Health



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