



INNOVOUCHERS/1217/0024	Next Generation of Water Heaters	ELCORA LTD	MARIOS	NICOLAOU	5,000.00 €	5,000.00 €	<p>The Company manufactures a family of passive, active and combi solar thermal systems capable of providing hot water for household and industrial customers. After assessing the current state of the national market and international market tendencies for water heating, the main challenges faced by the host are: i) world-wide and EU tendencies in eco-labeling legislation, and ii) Tendencies in new building construction (tail residential / office buildings). The Company concludes that the present form of water heating systems must be significantly altered so that it can retain its share and penetrate even further in the market.</p> <p>Using this voucher, the Company aims to collaborate with a knowledge intensive organisation with the necessary expertise to design and develop an innovative family of next generation water heaters with superior characteristics and the following advantages:</p> <ol style="list-style-type: none"> <li>1.The first air-to-water heat-pump water heater with a copper tank.</li> <li>2.The first water heater product manufactured in Cyprus with an integrated air-to-water heat pump.</li> <li>3.Superior system efficiency.</li> <li>4.Higher energy classification (according to the eco-design and eco-labeling directives 2009/125/EC and 2010/30/EU respectively).</li> <li>5.A positive impact on the overall energy classification of the property.</li> </ol> <p>At present, the Company does not have the capacity to design, optimize and experimentally verify such a highly efficient heat-pump-based water heater as the one proposed in this voucher. With the services provided by the Knowledge Intensive Organisation the Company will initiate a R&amp;D effort to deliver the next generation of water heater products to the Cypriot and the International market.</p>
INNOVOUCHERS/1217/0026	Hand Crafted Traditional & Adjustable Smartphone based Desk	Ioverlight design ltd	Iman	Khoezimeh	5,000.00 €	5,000.00 €	<p>The modern lifestyle and digital world, has as a consequence that the people from different types of profession to work for many hours on a sitting position. As modern people, we spent an incredible amount of time in sitting posture, forcing our bodies in a position that was not developed for. Scientific and academic studies have shown that our bodies are mainly developed for standing and lying positions. Few consequences of desk work lifestyle can lead to various health problems such as back pain, joints disorder increasing the chances for arthritis, weight gain, lower HDL, overall reduction in metabolic rate etc.</p> <p>The Hand Crafted Traditional &amp; Adjustable Smartphone based Desk (HaCTAS Desk) is a proposal to make a piece of furniture which is important not only on functionality but also on aesthetic, conformable, modern but handcrafted so that anyone can adjust it for their needs remotely, from a mobile phone and keep track of their sit-stand activities through the day. The innovation is to use digital mapping of activities on a smartphone on an adjustable desk that is highly engineered with mechatronic systems which are hidden, at the same time providing a piece of art handcrafted furniture in an affordable price.</p> <p>The object will have mini hydraulic system, electronics board, Bluetooth and Wi-Fi transmitter and a smartphone application. The application will keep record of all activities providing feedback to the user, such as sitting/standing time, repetitions and notification settings.</p>
INNOVOUCHERS/1217/0027	WavelineMagnet for wave energy conversion	SEA WAVE ENERGY (CYPRUS) LTD	Chrysostomos	Zakheos	5,000.00 €	5,000.00 €	<p>The Company focuses on designing and developing innovative renewable energy technologies that are capable of harnessing the power of sea-waves. Until now, the maturity of those systems is such that there is no distinct technology leader or a reliable device which could efficiently deliver energy. The Company has developed, patented and owns the intellectual property rights of the Waveline Magnet (WM) technology, which shows to be very promising in terms of efficiency, reliability and manufacturing cost.</p> <p>The "proof of concept" of an early stage version has already been accomplished by field observations (at the bay of Lamaca) and by performing experimental measurements at the wave tank of the University of Plymouth (UK).</p> <p>At present, the Company is developing a laboratory scale improved updated version of their wave energy converter, the WMv10.</p> <p>The development of each version of the WM device is a very time consuming procedure for the Company. Using this innovation voucher, the Knowledge Intensive Organisation (KIO) will help the Company to accelerate the development of the WMv10 and prepare an official verification test, by an official certifying organisation. The KIO will help the Company to i) complete the development and prepare WMv10 for an official certification, ii) integrate appropriate Power Take-Off components and instrumentation and iii) perform a relevant set of experimental measurements at the Company's wave-tank. These measurements will be analysed to calculate:</p> <ol style="list-style-type: none"> <li>1. efficiency of the WMv10 for different wave and operational conditions</li> <li>2. operational curves and correlations between geometrical and operational parameters</li> </ol> <p>The implementation of the proposed project will help the Company to obtain an official certification and reach the next TRL level faster.</p>
INNOVOUCHERS/1217/0028	Fold-able Adjustable Crate	G.P. RETECH CONSULTING ENGINEERING LTD	Iman	Khoezimeh	5,000.00 €	5,000.00 €	<p>Billions of transportations of raw materials and consumer's goods are carried out each year and nearly every product has been packed, storage, handled and transported on wooden pallets or inside wooden crates. Only 1% of all crates are made of metal and that is because of their initial cost, required space for storage and mainly because after shipping to their destination, it's not always possible to be loaded with new cargo.</p> <p>Metal pallets are strong and materials include carbon steel, stainless steel, and aluminum which are expensive compared to wood. Long term costs, however, can be lower than wood. Aluminum pallets are stronger than wood or plastic, lighter than steel, and resist weather, rotting, plastic creep and corrosion.</p> <p>A foldable adjustable crate, made of aluminum would be an alternative solution. A packaging crane in standard pallet dimensions which can be folded. It means that after delivering the goods to their destination, it can then be folded into a small box saving more than 80% of its initial volume and then carried back to the start location. This system can save money on packing in long term use as well as eliminating the need for additional covered storage space and having a lifetime of 10 years it would be environmentally acceptable.</p>

INNOVOUCHERS/1217/0030	Multi-Objective Optimization Waste Management System	T.C. GEOMATIC LTD	Loizos	Tofas	5,000.00 €	5,000.00 €	The aim of the project is the definition and formulation of a real-life Multi-Objective Optimization Waste Collection Vehicle Routing Problem with Time Windows, as well as the design, development and analysis of a prototype that will primarily enhance realistic traceable information from the environment, then tackle the problem in the context of Multi-Objective Optimization, and thus provide a set of Pareto optimal routing schedules for waste collection, and finally decide what is the best solution to be applied based on instant requirements. Moreover, as part of the prototype design and implementation several Multi-Objective Optimization approaches will be developed and evaluated in order to utilize the best performing approach in the final prototype that will be finally evaluated using specific performance metrics.
INNOVOUCHERS/1217/0032	Financial Software Enhancements	Numisma Capital Ltd	Markos	Markides	2,500.00 €	2,500.00 €	Technology has shifted the approach of nearly every industry over the past decade, and the field of wealth management hasn't been immune to its influence. Technology can assist a Wealth Manager offer a more complete service to its clients and at the same time become more affordable and accessible. Numisma Capital is considering a redesign of its systems to be able to provide online Portfolio Management and Reporting services to its clients. The challenge: -Numisma needs to design development requirements, including, but not limited to: Process flow diagrams, database model diagrams, business requirements translation into algorithmic models, technical specifications conforming to ISO20001 and similar standards. -Numisma needs to create a plan for a secure IT infrastructure to address any possible data leakage, provide intrusion prevention and detection, active monitoring of internal network and other measures to ensure security and standardization of the planned project. -Numisma needs to develop multi-tier application framework with high-availability and redundancy features built-in from the beginning.
INNOVOUCHERS/1217/0038	Characterization of herbal extract	S.C. Twist Trading Ltd	Yiannis	Kountouris	5,000.00 €	5,000.00 €	According to literature the use of antimicrobial compounds extracted from natural sources such as herbs have been considered good agents for controlling human disease caused by various microbes. In fact, due to increasing antibiotic resistance, herbal teas are the most popular natural alternatives for the treatment of infectious diseases caused by microbes and are nowadays gaining great interest. The Host Organization (HO) has been producing a large range of Cypriot herbal infusions in teabag (sachets) made by herbal species. However, these herbal tea products have never been actually investigated for their medicinal properties. Through the utilization of this Innovation Voucher, the HO wishes to evaluate the antimicrobial activities of a new herbal infusion tea product which is prepared to be released to the market. For the antimicrobial evaluation of this product, the HO requires the services of the Knowledge Intensive Organization. The Knowledge Intensive Organization has experienced academic staff/scientists and the required infrastructure to perform these services. The Knowledge Intensive Organization will offer the scientific evidence which is expected to have a catalytic effect for the launching of the new product. The results of the experiments carried out are expected to verify the antibacterial action of these herbs, thus making these tea-products a powerful candidate for inhibiting growth of microorganisms of specific origin.
INNOVOUCHERS/1217/0040	Promoting Innovation and Creativity through Educational Robotics	MATHAIAN LTD	NIKOLAOS	EROTOKRITOU	5,000.00 €	5,000.00 €	The "Promoting Innovation and Creativity through Educational Robotics" programme, is designed to help every student to improve creativity through innovative Technology potentials. The programme offers students' the opportunity through incorporating Educational Robotics in Computer Science lessons to be improve thinking skills, creativity and solve problems with a novel way by promoting collaboration . This programme aims at changing students' attitudes towards STEAM (Science, Technology, Engineering, Arts and Mathematics) disciplines and improving 21st Century's capacities with the "learning by doing" approach.  This programme include three stages and is considered as an experimental design known as pre and post test design with control and experimental groups. During the first stage, both groups, will be given a pretest creativity test (TTCT) and their results will be considered as basic creativity for both two groups. During the second stage, the experimental group will attend robotics lessons for 16 weeks and then they will have 8 more weeks to solve a problem/task creatively (building and programming a robot with a novel way).During the second stage the control group will continue computer lessons without any changes. The third stage include for both groups the same post test creativity test (TTCT).  The results of the programme will contribute to the understanding of robotics on student's creativity and suggest ways to incorporate robotics in STEAM disciplines by fostering innovation and creative thinking through computers-robotics lessons. Nevertheless, the implementation of the project will have a positive impact students' perceptions and attitudes towards STEAM domains.
INNOVOUCHERS/1217/0047	Examining the Effectiveness of Banner Placements inOnline Marketing	Hivebreed Ltd	Demetris	Stefani	5,000.00 €	5,000.00 €	This innovation voucher will allow Hivebreed Ltd to collaborate with the Cyprus Interaction Lab (www.cyprusinteractionlab.com) a leading HCI lab at the Cyprus University of Technology to successfully tackle innovation challenges in the discipline of online marketing, through conducting a study to examine and evaluate the effectiveness of display ads online including the various formats and forms of banners and advertisements and how these influence decision-making of potential clients in Cyprus. The lab will provide access to specialised equipment and seconded personnel to carry out this study essential to the development of the innovation capacity of Hivebreed Ltd.

INNOVOUCHERS/1217/0050	Analysis of Reverse Osmosis Water Purification System	Karma Water Purification Systems Ltd	Sotiris	Michael	5,000.00 €	5,000.00 €	Climate change, natural droughts, population growth, inadequate drinking water treatment and lack of experienced management have all contributed towards the water crisis of the 21st century, globally. Cyprus being the third largest island in the Mediterranean Sea, has a semi-arid climate and limited water resources. Water is by far the most precious resource in Cyprus, since the quality of life and almost all economic activities depend upon the presence of water supply. Focusing on the contribution of distribution networks towards this crisis it is believed to be a key factor in water reservation and safeguarding water quality throughout the distribution network, while at the same time it increases customer satisfaction and trust towards the local water boards. The most common problems that the distribution networks face include failing infrastructure, pipelines made from materials that are considered hazardous such as lead and asbestos, corrosion, leaking, and scaling. Safeguarding water quality in the distribution networks of Cyprus it is particularly difficult because of the constantly changing source water used. The public does not trust the quality of the tap water received in their households and either obtain water from water dispensers/vending machines or install small scale water treatment units such as reverse osmosis-RO systems in their houses. The Host Organization has been providing water solutions to its customers and firmly believes that ongoing relationships with a customer are far more important than the sale of an individual product. Therefore, is seeking assistance through the "Innovation Voucher" call of RPF to find possible solutions, with the assistance of the Knowledge Intensive Organization, for one of its best seller's units based on RO. The specific services to be provided to HO are the testing of tap water and spilled water with chemical contaminants and microorganisms that will be used as an initial feed in the RO system in order to optimize its function.
INNOVOUCHERS/1217/0052	Prototype Design and Development for the PoC of: Large Array of Personal and Professional On-Demand Services Mediated Through a Mobile Application	APPRECI LIMITED	Juliana	Saavedra	5,000.00 €	5,000.00 €	Appreci will be a unique personalized integrated service platform that gives individuals, families and businesses the opportunity of requesting through a mobile application cost effective assistance of any kind, for which providers can also benefit by accepting to offer their service in real time. The purpose is to provide assistance during unpredictable circumstances or particularly busy periods, by providing people in need with the resources to balance personal or professional matters. The predetermined cost-per-task- flexible schedule scheme not only is convenient for users but also serves people with the need of working only part time and freelance. The idea is to form a multi-talented group of caring, hospitable and highly competent people in every area of Cyprus that users can trust and rely on for all their modern lifestyle demands. A pre-launch study is being conducted to better anticipate specific needs from new mothers, seniors, and people with disabilities or with post op needs. The beta version will offer about 10 selected ad hoc services common for everyone but can be customized in terms of location, time and tasks. The beta version services will be aimed at aiding this particular groups.
INNOVOUCHERS/1217/0060	Minimizing heat losses in solar heater water tank	P & D Solar Systems & Sons Limited	Eugenios	Anagiotos	5,000.00 €	5,000.00 €	Through the Innovation Voucher, P & D will acquire consulting services and execute some basic experiments combining with theory to minimize thermal losses for: 1. 150 liters of water tank to increase thermal efficiency from B to A 2. 200 liters of water tank to increase thermal efficiency from C to A 3. 300 liters of water tank to increase thermal efficiency from C to A The problem is a general one for all companies providing solar water heaters, so the solution to the problem will provide some innovating knowledge to the company and future collaboration with other companies in Cyprus and abroad to help them improve their products as well. The solution also has to be a satisfaction in price as well.
INNOVOUCHERS/1217/0068	Initial evaluation of the performance of saturated aggregates in concrete	Latomia Pharmakas PLC	Pericles	Savva	5,000.00 €	5,000.00 €	The Host Organization (HO) is an owner of several quarries located in the area of Nicosia and three batching plants of ready-mix concrete. The HO recognizes that the aggregates of Cyprus suffer high absorption and low strength and it seeks an optimum methodology to add them in concrete without deteriorating the final product's quality. Therefore, the contribution of Frederick University is required to determine the guidelines and the results of several combinations of coarse and fine aggregates in terms of source, size fraction and humidity condition to improve concrete performance and exploit the available natural resources.
INNOVOUCHERS/1217/0071	Pack-bed fabric filter for wastewater treatment	Darnasus Engineering Ltd	Ioannis	Roussos	5,000.00 €	5,000.00 €	Darnasus engineers have developed an innovative idea to treat wastewater that requires minimum capital, technical and energy input. This innovation is based on aerobic attached growth of microorganisms on an engineered textile media that is in contact with air.  Innovation Voucher will be utilized in order to setup of a pilot bioreactor that will be used for domestic wastewater treatment as well as chemical/microbiological analysis of feed wastewater and treated effluent water. The experimental results will indicate the effectiveness of the proposed innovation and future alterations.  Operation of the proposed bioreactor is very simple and requires minimum maintenance, making it ideal for individual houses, residential complexes and for small communities.
INNOVOUCHERS/1217/0072	Introducing objective evaluation of psychiatric intervention with EEG analysis	Panagopoulos IEPE	Vasileios	Panagopoulos	5,000.00 €	5,000.00 €	The Innovation Voucher would enable the Host Organization, Panagopoulos I.E.P.E., to consult with AAI Scientific Cultural Services Ltd. The overall goal of the work is to pave the way for predicting response to treatment interventions in various psychiatric illnesses based on an objective measurement. The proposal has the following specific goals: 1. To start an effort for building a database of electroencephalograms (EEGs) and clinical data that can be used to predict or monitor treatment response to a therapeutic intervention. 2. To obtain objective measurements of changes in brain function that happen with pharmacological and other interventions undertaken for frequently encountered psychiatric illnesses.  The methodologies will include administering EEGs to patients to be selected by psychiatrist, Dr Panagopoulos. For each patient, up to three EEGs will be recorded: before, soon after and/or immediately after the completion of the appropriate intervention defined for each patient by Dr Panagopoulos. The EEG data will then be analyzed tomographically with the goal of providing maps of changes in regional brain activity.  This project will hopefully contribute to the research regarding the development of an innovative biomarker for diagnostic purposes, and/or for the prediction or for monitoring treatment outcomes in Psychiatry.

INNOVOUCHERS/1217/0076	Rapid backfilling of utility trenches in motorways	M.P.Rebar Engineering Consulting Services LLC	Marios	Charalambous	5,000.00 €	5,000.00 €	For a number of several possible reasons, Public Works Department or private companies, undertake the contractual responsibility for the excavation of trenches along the motorways of the island, in order to bury different types of utilities, e.g. pipes for hydraulic, electrical, or other purposes, telecommunication cables, etc. The placement of the aforementioned utilities is always a tricky, complicated and difficult task, if one considers the essential constraints that the disruption of the traffic should be avoided, or limited to the minimum possible level, and also that the safety of the workers and the drivers should be an unnegotiable issue of top priority. Furthermore, on several occasions, the sensitivity of the utility that is going to be buried in these trenches, ask for specific configuration of the overhead layers. The specific research is submitted to evaluate different methodologies for undertaking the specific task in the minimum possible time ensuring the passing cars safety.
INNOVOUCHERS/1217/0080	FRAUD DETECTION THROUGH ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING	I-SPIRAL IT SOLUTIONS LTD	CHRISTOS	TTINIOZOS	5,000.00 €	5,000.00 €	<p>The host organization develops and markets software platforms for governance compliance, encompassing many needs, including Fraud Detection, Anti-Money Laundering and Know-Your Customer. Typically, fraud detection is performed by computing a "suspicion score" for each record under investigation (e.g., transaction of customer with a bank account or credit card). These scores are then ranked and ordered, and the ones with the highest rankings will go under scrutiny investigation and due diligence to reveal if indeed the corresponding transactions were fraudulent. However, a detailed investigation is usually too expensive so the more accurate the computed scores are, the lower the cost for the company is. To better illustrate the magnitude of the problem, consider industries that are processing hundreds of millions of transactions per month (e.g., telcos, banks): if 0.1% of every 100 million transactions are fraudulent, each losing the company just 10 euro, then overall the company loses 1 million euro. However, accuracy and specificity are not the only desirable qualities for an effective fraud detection system.</p> <p>The process of computing scores is seldom straightforward and does not rely on a single predetermined statistical model. It also requires fast and efficient data mining algorithms to search through data produced from different applications (e.g., credit card transactions, account management, CRM systems) that vary in both type, size and structure. Additionally, the process requires continuous adaptation as datasets rarely remain the same over time (i.e., present the same fraudulent patterns); Fraudsters constantly evolve by adapting their strategies to address current prevention and detection measures.</p> <p>To this end, the main objective of any fraud detection product is to efficiently (in terms of speed and cost) and effectively (in terms of suspicion score accuracy and specificity) detect fraudulent transactions automatically, so they can be examined and mitigated as appropriate.</p>
INNOVOUCHERS/1217/0081	SmartMApp: the go-to tool for on-field environmental surveys	A.L.A. PLANNING PARTNERSHIP CONSULTANCY L.L.C.	Achilleas	Kalopedis	5,000.00 €	5,000.00 €	<p>ALA provides environmental, planning and transport services for large planning development projects. Within the framework of these services, ALA visits the relevant sites to identify environmentally sensitive areas and constraints that may affect the study being carried out and to assess environmental impacts. Usually these areas and constraints are mapped out on a hard copy map, with notes in a separate notebook and are enriched with photographs of the site. The location is often identified by hand held GPS device.</p> <p>ALA foresees the development of an easy-to-use GPS tool for real-time mapping and archiving of environmental information in the field. The main idea is to develop an App for the very popular Android platform to be used during fieldwork. The App will be able to utilize Google Maps satellite images through LTE/3G/2G network and GPS function of the device, in order to identify the exact location in the field. The App will allow the taking of geotagged photographs, mapping using the creation of polygons operation and pins using finger touch operations/touch pen and taking notes using finger touch operations/touch pen/speech recording. All data shall then be easily sent to the cloud for further processing in the office.</p> <p>Nowadays, important improvements have been made on field mapping. However, in all cases, the available Mobile Apps are difficult to use, quite expensive and have as a prerequisite the editing of the recorded data in their corresponding desktop software. ALA, through the proposed project, aims towards a low-cost user-friendly environment which is quick and easy to use and will become the go-to tool for on-field environmental surveys. In order to tackle these issues ALA will utilise the expertise of a Research Center with long experience in the area of Mobile &amp; Web Computing. ALA expects that the software will reduce both the time and costs required for the completion of the various projects it undertakes, enabling the company to further develop in the local and possibly foreign markets.</p>
INNOVOUCHERS/1217/0083	Consulting services for the development of a mobile app	STARIS VETERINARY CLINIC	Constantinos	Staris	2,500.00 €	2,500.00 €	<p>Nowadays there is a shift towards the digital world. Therefore, there is a need to bring to the business innovation on this area and to make a shift into digital transformation.</p> <p>One of the areas where many companies induce digital innovation is to make their software available in a mobile application form - making it easier for customers to find and use their services. In this way, the business can provide to its clients easy-to-implement technology solutions in order to connect easily with the business and to give more advanced care to its clients.</p> <p>The services provided through this Innovation Coupon will be consulting services for the development of a mobile application for the clients of the business. At the end of the first phase of the services provided (consulting services), the owner of the business will be able to conclude on the features that would like the business' mobile application to include.</p>
INNOVOUCHERS/1217/0084	Development of a prototype for a mobile app	STARIS VETERINARY CLINIC	Constantinos	Staris	5,000.00 €	5,000.00 €	<p>Nowadays there is a shift towards the digital world. Therefore, there is a need to bring to the business innovation on this area and to make a shift into digital transformation.</p> <p>One of the areas where many companies induce digital innovation is to make their software available in a mobile application form - making it easier for customers to find and use their services. In this way, the business can provide to its clients easy-to-implement technology solutions in order to connect easily with the business and to give more advanced care to its clients.</p> <p>The services provided will be to design and develop a prototype for a mobile application for the business. Also, a first draft of the mobile application will be developed.</p>

INNOVOUCHERS/1217/0087	EMBRACE	CELLOCK LTD	Haris	Zacharatos	5,000.00 €	5,000.00 €	Embrace is a tracking device designed for children and seniors. Our need is to extend the use of the above device for the elderly community that is not accustomed to using smart devices like smartphones or smartwatches. This limited familiarity, in combination with the deterioration of fine motor skills above a certain age, creates a new problem for the use of EMBRACE device, and smart battery powered devices in general. The problem lays in their inability to properly charge such devices on their own, either by using a standard USB charger interface or a simpler magnetic attached charger interface. Therefore, our specific need is to design and develop a custom charging station for EMBRACE device so that the elderly will be able to use it with ease and counter the problem their inability to properly charge the device and the resulting battery drainage. The prototype should be easily accessible at all times by the seniors, as well as provide visual information for them. Usability is very important when we are referring to a community of people that they may have movement difficulties, thus the industrial design should accommodate this and create a user-friendly product experience.
INNOVOUCHERS/1217/0088	Development of remotely operated vehicle (ROV))	G.D. Electroniki Noisi - Systimata Automatismou & Rompotikis LTD	Iana	Omelchenko	5,000.00 €	5,000.00 €	Design of a remotely operated vehicle
INNOVOUCHERS/1217/0089	Bander Smart Charging Case	Laidback Life Ltd	Christina	Nicholson	2,500.00 €	2,500.00 €	The project aim is to assess the technical feasibility of a novel smart case where people will be able to store their wireless earphones and this case will be attached to all wearables i.e. smartwatches or tracking fitness wearables. This case will be unique as it will have wireless charging meaning it will be able to charge itself on any wireless charger and at the same time it will also charge the wireless earphones.
INNOVOUCHERS/1217/0090	Bander Prototype	Laidback Life Ltd	Christina	Nicholson	5,000.00 €	5,000.00 €	The project aim is to create a smart case prototype where people will be able to store their wireless earphones and this case will be attached to all wearables i.e. smartwatches or tracking fitness wearables. This case will be unique as it will have wireless charging meaning it will be able to charge itself on any wireless charger and at the same time it will also charge the wireless earphones. The challenge is to design and develop the Smart Case prototype, in order to get customer feedback as soon as possible. Through prototyping, we need to verify that the end product can be manufactured as a thin & fashionable gadget for people to clip it on their own wearables. The Smart Case prototype will need to embed and test wireless charging technology but still be thin and light.
INNOVOUCHERS/1217/0153	Consulting HCI Design for Mobile Games	Ascanio Entertainment Limited	George	Tziassas	2,500.00 €	2,500.00 €	The aim of the project is to get guidance over the best practices of Human Computer Interactions for our next game to be published on mobile devices. The consultancy will take into consideration the uniqueness of the project, the low age target group and the fragmented delivery of stages, among others, in order to provide the most optimal solution on creating and replicating a child friendly, children appealing digital environment. The consultancy will focus on guidelines of how to optimally generate the best graphical content in accordance to colour combinations. It will also focus on element positioning on the screen and character shaping and design to make it as relatable and intutional as possible for children. We expect to get professionals to utilize their experience in children illustration and design, as well as bringing child psychology and technological expertise in innovative design to our latest project for children. By getting consultation on unique character designs geared towards retaining children's focus and attention, we want to be able to create an immersive interaction with various products. In addition, we want guidance on how to best utilize children interactions and trigger points, in order to support our next project. Consultation will focus on the areas of creation of innovative and unique child-friendly designs to increase user engagement and retention, integration of child psychology into the design elements, development of unique characters and backgrounds to create an immersive experience and how to best allow users to seamlessly connect with the design, providing a cognitively enhanced experience.
INNOVOUCHERS/1217/0155	Experimental proof of concept of a novel non-concentrating solar thermal glazed air collector	M.I. PH DESIGN LTD	Milos	Ilic	5,000.00 €	5,000.00 €	The main objective of the project is the design and future commercialisation of a novel non-concentrating solar thermal glazed air collector, which will cool down during night time in summer and will heat-up during winter daytime the air used for ventilation, as well as the exhaust air heat recovery. The suggested project methodology follows the steps towards the experimental proof of the concept (TRL 3) and includes activities related to the down-scaling and design of alternative models of the novel non-concentrating solar thermal glazed air collector, their manufacture and laboratory testing, as well as the implementation of computational analysis for the definition of the novel non-concentrating solar thermal glazed air collector's performance in high-rise buildings application. The project implementation will result to the development of a proof-of-concept model that will verify the technology's potential for real-world application and readiness to proceed further through the development process. The project results address one of the major issues faced in the field of passive houses; the achievement of thermal comfort conditions in space with the use of efficient equipment that minimises energy consumption. In addition to the use of passive solar gain by passive buildings, the implementation of the project will further extend the potential of these buildings in making use of their intrinsic heat from internal sources, such as waste heat from lighting, white goods and other electrical devices, as well as body heat from the people inside the building. Although well-established solutions in this field are available, there is still space for novel approaches in the field of achieving thermal comfort with intelligent units in passive houses.

INNOVOUCHERS/1217/0156	LingTest	MCD Beyond Speech Ltd	Marianna	Devedian	5,000.00 €	5,000.00 €	<p>In 2017 CUT through the department of Rehabilitation developed the "CUT UNIVERSITY REHABILITATION CLINIC" (first pillar Speech and Language Pathology), constituting it the first state funded University Clinic with clinical observation and therapy rooms a teleconference room and five research laboratories including THERALAB , rTMS LAB, VOICE LAB, PHONETICS-ACOUSTICS LAB and DIAGNOSTICS LABORATORY, AUDIOLOGY BOOTH. All laboratories are furnished and equipped with newly purchased materials, tools, kits, furniture and equipment secured through research grants and University Allocated Budget for Equipment of net worth approximately 300,000 euro.</p> <p>For the purposes of the proposed Innovation Voucher , "TheraLab" research laboratory as the KIO was established in 2014 through state and start-up funding to Professor Kakia Petinou (Director of "TheraLab" and P.I of relevant funded projects reported on her attached CV). "TheraLab" is under the direction of Dr. Kakia Petinou and is devoted primarily to researching early speech and language parameters in typically developing and late talking toddlers as well as children with those with complex communication needs. Note that "TheraLab" operates under the auspices of the Department of Rehabilitation Sciences and more particularly the newly established academic program of Speech and Language Pathology (School of Health Sciences) as well as the Newly Established Speech and Language Rehabilitation Clinic at Cyprus University of Technology (kliniakokatatsis.org.cy on youtube). Its mission is to play a significant role in advancing research related to speech, language, and rehabilitation sciences in an effort to improve assessment and intervention practices for individuals with communication and associated disorders in Cyprus and across Europe. Its vision focuses on Researching, Educating, Rehabilitating, Testing, Training, Teaching, and Treating. It is currently employing 6 research assistants, and two post-doctoral fellows.</p>
INNOVOUCHERS/1217/0157	Heroes MyBook Implemetation	Heroes MyBook Ltd	Maria	Lavithi	5,000.00 €	5,000.00 €	<p>After we complete consultation we will need to proceed with development of the software that will allow our SME to automatically generate the personalized/customized books with a press of the button. Currently, although the front end appears seamless on the back end we need to do everything manually, therefore this is a barrier to us scaling the activities of the company. With this proposal, we will be able to develop our custom made innovative new software that will be a fully functional prototype and will enable the company to scale and be able to produce in an innovative way, a large number of customized books daily (in digital and printable format).</p>
INNOVOUCHERS/1217/0161	The use of electrochemistry in cattle waste management	WESTFALIASURGE CY LTD	Maria	Papapetrou	5,000.00 €	5,000.00 €	<p>Nowadays, livestock is considered an emerging agronomic sector leading to high quantities of manure. Farming manure is a complex environmental pollutant contributing both to air, water and soil pollution.</p> <p>The production of large volumes of liquid waste and manure from cattle farms in Cyprus results to the need for proper management, treatment and appropriate disposal in order to reduce their impact on the environment. One of the major problems is the difficulty of separating and treating waste due to the lack of installation of its treatment systems, as a result of the high cost. Therefore, the use of inappropriate non-watertight earth tanks for the storage of liquid waste, or inappropriate manure storage sites, creates the known problems of leakage or uncontrolled dumping, resulting in water and soil pollution, odour emissions and multiplication of flies, rodents and other carriers of communicable diseases.</p> <p>Many techniques have been developed until now, such as electrochemistry, to treat industrial wastewater with sound strategies, which seek to remove pollution with sustainable development and environmental protection. The present research proposal is focused on the employ of the electrochemical processes for the treatment of cattle wastewater, which are considered critical sources of contamination in Cyprus and in the broader Mediterranean area, as well. Electrocoagulation process (aluminium electrodes ) and electrochemical oxidation process (Boron Doped Diamond (BDD) and graphite electrodes) will be applied to the liquid fraction of cattle waste in order to decrease the nitrogen and organic content of the waste, eliminating the environmental impacts to soil, groundwater and atmosphere of the surrounding area, in order to meet the legal requirements.</p>
INNOVOUCHERS/1217/0163	Heroes MyBook Consulting	Heroes MyBook Ltd	Maria	Lavithi	2,500.00 €	2,500.00 €	<p>Consulting on how to develop a customized software to translate text into printable images and embed them into our own existing book images (currently being done manually) . We need to be able to develop an automatic on the fly generation of customized ready to print book assets to enable us to horizontally scale infinitely and integrate directly with print shops for the quickest order to delivery process possible even during high demand. All our books are internally developed with very specific guidelines to makes them customizable for each child. This means that we need a very specific solution to allow us to capture from the front end of the website the parent's choices for their child's book, and convert them into a ready to print book. The consultation will focus on providing guidance, specs and technical know-how on what we need ( and what to avoid) in order to successfully navigate the tech environment. This solution will enable the company to scale and be able to produce in an innovative way, a large number of customized books daily (in digital and printable format).</p>
INNOVOUCHERS/1217/0164	Waveguide Optical Sensors using Femtosecond lasers	Lumoscribe LTD	Antreas	Theodosiou	5,000.00 €	5,000.00 €	<p>Uniform, in-core FBGs have shown high sensitivity to environmental parameters, such as temperature and strain. However, their location in the fibre core is too far from the cladding/air interface to interact and detect the presence and properties of materials surrounding the optical fibre. Transmission sensors, such as tilted Bragg gratings (TFBGs) and long period gratings (LPGs) that couple light to the cladding and beyond, are used to make refractive index measurements. However, there is a fundamental need for refractive index sensors that operate in reflection, with an impact on chemical and biological measures, for which the analysis of refractive index can be related with the different diseases. Moreover, it applies to gas measurements, distinguishing minute differences in refractive index.</p> <p>With this Innovation Voucher, we foresee to develop and characterise optical waveguide sensors in the cladding of glass optical fibres for applications in biomedical and gas sensing areas.</p>

INNOVOUCHERS/1217/0169	Innovation Voucher B Hegemonic Project	Hegemonix Project Limited	Vamavas	Timotheou	5,000.00 €	5,000.00 €	The main problem that we are facing right now is that we do not have an in-house team of game creators to generate the main mechanics of our game. This problem of creating appealing and robust game mechanics results in the generation of further problems such inability to make informed micro and macro decisions regarding the conceptual design of the game. Some examples of these macro decisions are whether the game should have luck mechanics such as cards, dice, rollers; if yes, which ones should be used in a way that better reflects the character of the game without taking away too much of its strategy elements, and how should the impact of those random elements be metered in comparison to the strategic decisions of the players. There will also be micro decisions like how many moves do the players get or whether they can interrupt another player's turn that need to be answered before we even begin the implementation cycles. We also lack the knowledge of data gathering from each playthrough, and how to act based on these data correctly (i.e. how to shift the game, what mechanics to change and how).
INNOVOUCHERS/1217/0173	A Conscious Commerce Marketing Approach	TCT Controlley Ltd	GEORGE	PAPAGEORGIOU	5,000.00 €	5,000.00 €	The proposed work addresses a current challenge that the host organization faces in scaling their existing e-commerce-related online services by means of an effective software solution that allows partner sellers to easily connect their own e-commerce systems with a central platform/server. The ultimate goal is the creation of an alternative marketing mechanism that tracks, communicates and promotes the most conscious commerce behavior by partner sellers and their customers. The project's deliverable will include the design and development of a basic prototype of a set of software plugins that third-party platforms can use in order to easily connect with our host server through API connectivity.
INNOVOUCHERS/1217/0178	Full support from CYI to ADITESS' UAV Department	ADITESS ADVANCED INTEGRATED TECHNOLOGY SOLUTIONS & SERVICES LTD	NIKOLAOS	KOUTRAS	5,000.00 €	5,000.00 €	<p>The reason the company applies for the Innovation Voucher 2019, was the identification of a specific need that was raised, regarding the UAV activities of the company. Due to lack of expertise in the operation and maintenance of some types of UAV platforms (Fixed-wing and Helicopter type) the need to consult an experienced organization in this field is imminent.</p> <p>ADITESS has chosen the USRL department of the Cyprus Institute, which is the only organization in the country that fulfills all the attributes needed for successful UAV operations utilizing other UAV means apart from multirotors (Fixed-wing and Helicopter type). Additionally, the USRL department has its own specialized UAV laboratory and airfield, that we hope to be allowed to use. Furthermore, the expertise and knowledge to be transferred to ADITESS' team by the USRL's team is valuable and critical for the safe operation of UAV platforms. Proof that they possess the amount of experience and knowledge needed in the field of the UAV industry derives from the fact that they have been active since 2009 and yet no incident involving public safety was ever reported.</p>
INNOVOUCHERS/1217/0183	Innovative Website	NAA Paphos Views Ltd	George	Kitis	5,000.00 €	5,000.00 €	The organisation (Naa Paphos Views) is a property management company. It will create a platform on a website in order the customer to have access to all the information of their property. Through this platform customers from all over the world will be able to know about the repairs done to their property, what is the cost, who is renting their property etc. Each owner will have unique access codes in order to have access only to their property. Though this platform customers will have the relevant information immediately after they occur. In order for this platform to be created marketers and researchers will execute a relevant research among customers in order to learn their needs. Those information will be analysed and based on them the platform will be designed and created.
INNOVOUCHERS/1217/0184	Green Kid	GARDENIAS & JASMINES LTD	Donna	Kaparti	5,000.00 €	5,000.00 €	<p>Project objectives and anticipated results.</p> <p>Green Kid is an app designed to help parents around the globe provide better entertainment to their children. Our goal is to create a green family model where parents and children will enjoy games that hand down a love of recycling and habits good for nature in general.</p> <p>As parents we know how much of the online content is inappropriate for children even when it is supposed to be kids friendly. Green Kid App is giving the opportunity to both parents and children to go the other way around and enjoy online entertainment that hands down happiness.</p> <p>Our costumer are parents (men and women) with sense of ecology or interest in environment and healthy family eating.</p>
INNOVOUCHERS/1217/0188	Innovative educational models for focused ultrasound systems	Atikouris Enterprises Ltd	Costas	Atikouris	5,000.00 €	5,000.00 €	The aim of this proposal is to develop educational tools for the focused ultrasound technology.
INNOVOUCHERS/1217/0191	Proposed AC magnetic field measurement methods & test setups	EMTECH SPACE P.C (CY) Ltd	Stylianos	Tsatalas	5,000.00 €	5,000.00 €	EMTECH recently initiated an activity concerning the measurement of AC magnetic & electric fields of very low frequencies (in the range from some mHz up to 50 kHz) and of low field levels for space applications. Generally, there is a lack of standardized measurement methods for spacecraft equipment AC magnetic & electric field measurements. There are only substantial references in the relevant ECSS EMC Handbook. The same applies to military standards as they do not contain detailed information regarding the test setups, the instrumentation or practical testing guidance. So, practical information around the measurement procedures and useful scientific information required for measurement consistency are missing. In the space domain very low level (few hundreds nT) AC magnetic fields are required to be measured while in the power lines case the AC magnetic field level measurement range is higher (starting from a few micro Tesla). This leads to the use of different measuring equipment as the sensitivity level required is not the same. Both Fluxgate and Search Coil (Induction Coil) types of magnetometers are used to measure magnetic field levels of this range. It is required to increase our knowledge in the field of practical information on the usability of magnetometers (both of fluxgate and search coil types) in low frequency/ low level AC magnetic field measurements. The most important issue is to define typical test setup(s) employing these sensors with emphasis in practical information such as: measuring distances from the test object, possible perturbation from the environment, data acquisition requirements, including test period, effects coming from the operation of the test object, number of sensors required for a measurement. The above list is not exhaustive; any other technical information derived from AC magnetic field measurements, even from different testing area might provide practical solutions in our test cases



INNOVOUCHERS/1217/0193	PROLOOKS INITIAL CONSULTING SERVICES	Meaningful Synergies Ltd	BRANISLAVA	LAZIC VAN DER LINDEN	2,500.00 €	2,500.00 €	ProLooks is an innovative idea developed by Meaningful Synergies for the creation of the app, enabling a person to take a picture through a smartphone, using an automated assistant and guided wizard to produce an aesthetically pleasing outcome. The app is aimed at businesses, empowering them to produce uniform photos of their team, event speakers or influencers, enhancing their brand and enriching their professionalism. By utilising Artificial Intelligence and a number of add-ons and customisations, companies are offered a new innovative way to distinguish their brand. The app will enable a business to set their own preferences and personalised themes, showcasing their people on their website and other publications in a uniform and brand enhancing way. It will be the first subscription-based B2B professional photo-making assistant and is expected to disrupt the photography industry, offering a convenient and cost-effective solution to a problem being faced by local and global companies.
INNOVOUCHERS/1217/0196	Virtual Reality and EHR integration	SILVERSKY3D VR TECHNOLOGIES LTD	Kleanthis	Neokleous	5,000.00 €	5,000.00 €	Silversky3D team uses VR in a variety of projects of scientific and societal value and not until recently applications within the healthcare sector such as tools for physical and mental rehabilitation and VR versions of Electronic Health Records. Virtual Environments and games for rehabilitation purposes as well as User Interface modules for previewing medical data and portraying these data in a personalized, intuitive and user-friendly virtual workspace have been extensively studied and prototyped developed. However, one aspect of development has posed a significant challenge for the company. The problem the company has stumbled upon relates to the integration and bidirectional links between the Unity Engine (on which the various applications are being developed) with structural and relational Data Bases like for example Electronic Health Records. What is needed to upgrade our services and scale up our company is to integrate service-oriented components and APIs that will allow interfacing the Unity platform with EHR systems (for the medical applications) that follow the interoperability principles and EU guidelines. This is a complicated task requiring high development skills and specialized expertise on data exchange interoperability standards and protocols between diverse systems, especially when dealing with health-related applications. Both, high level development skills and specialized expertise with respect to interoperability issues are characteristics found in the 3AeHealth team.
INNOVOUCHERS/1217/0198	VR Training Game	LA HUMAN CAPITAL ASSOCIATES LTD	Leonidas	Alexandrou	5,000.00 €	5,000.00 €	The Caragua Bridge Challenge, is an immersive Virtual Reality experience that merges elements of classic role-playing gaming with a practical application of key soft skills – namely time-management, problem-solving and analytical and critical thinking. The VR experience is intended to be part of a blended learning approach by self-development mentor Leonidas Alexandrou, who will then evaluate and frame each player's performance in person. At the start of the game, the player finds themselves high up in the Andes mountains, at one side of the ancient Caragua Bridge, that stretches across a deep gorge, leading all the way to the mythical City of Gold. Instructed by a talking McCaw parrot, the player learns that after they get to the halfway point, the bridge will collapse if it carries weight over 60kg. The player also learns that (in the game) s/he weighs 50kg, and that they are carrying 10 pieces of equipment (e.g. a silver-plated pistol, a glass bottle containing sleeping powder, etc.) each item with its own specific weight. They are also given information about the strange customs and beliefs of the hostile residents of the City of Gold, to take into account when making their choice to keep or discard items. The challenge the player faces is deciding which three items to discard under time pressure (three minutes are permitted, start to finish) as they start crossing the Caragua Bridge, before getting to its halfway mark. Players are not permitted to discard the heaviest of the items, while, in addition to the items' weight, their relative usefulness to the player in facing the hostile City of Gold residents on the other side of the bridge, must also be taken into account. The game ends when the player gets to the Caragua Bridge's halfway mark – either the bridge will begin to collapse (without actual simulation) because the player is not carrying a light enough load, or, the player will have discarded the right combination of items and be light enough to continue.
INNOVOUCHERS/1217/0199	Investigation of the possibility for using seismic isolation to steel structure residential homes	CALCULUSENG LLC	Andreas	Nikolaou	5,000.00 €	5,000.00 €	The earthquake design is based on criteria which are defined in various specifications such as the Eurocode 8. The criteria are based on the current state of the art. As such the design of a building cannot guarantee safety in case of one of the criteria is violated. For this reason the criteria are always under review as a function of the new state of the art. The basis of seismic isolation is the isolation of the building from the displacement of the founding soil as opposed to the normal practice. The base isolation has to be designed to provide flexibility in the case of an earthquake while at the same time provide stiffness against other lateral loads such as wind. Moreover, the challenge of the base isolation design is to allow the building to return to its original place once the earthquake is passed. This is managed with the use of bearings at strategic locations of the structure such as the foundation. The bearings allow the movement of the building in the direction of the earthquake. The use of seismic isolation devices in buildings is not very common mainly because of the cost. Therefore, such devices are mainly used in important buildings where the use of such devices can be justified. This project involves the definition of the response of residential buildings with steel frame and base isolated foundation. Based on the results the CALCULUSENG LLC will evaluate the potential of promoting this foundation on such buildings. The investigation will include the development of numerical simulations for the definition of the response of steel frame residential buildings before and after the installment of a seismic foundation. The structures will be tested under static and dynamic loads. The study will conclude with the comparison of the two types of foundation to determine the advantages and disadvantages of each type compared to the other.
INNOVOUCHERS/1217/0200	SOFTWARE PROTOTYPE DEVELOPMENT	Fotis Ioannou (INFIAPPS)	FOTIS	IOANNOU	5,000.00 €	5,000.00 €	To develop the prototype for the online platform.

INNOVOUCHERS/1217/0202	Website moc-up and analysis	Forsat advisory and associates ltd	Andreas	Constantinou	2,500.00 €	2,500.00 €	The particular project will be prepared by a website developing company. The company will undertake the preparation of the back office basic chart flow, through creating an experimental on line portal along with data analysis for the preparation of a Unified Pancyprian educational on-line admission portal. The main objectives are to be able to inform students and agents for all the educational institutions and the services provided in Cyprus from a single portal. Secondly is to provide to students and agents the chance to apply on line through a single application form for more than one institution and follow, the procedure up to the moment the students arrives to Cyprus. The potential outcome from the preparation of the experimental online portal, is to present the moc-ups to all the educational institutions within Cyprus and Agents abroad in order to receive feedback and develop the main online portal in accordance of their need and demands. Through seeing the prototype portal at the initial step, it would be easier for them to understand the concept of it in order to participate in general. This project would benefit not just the institutions but the whole industry in general. It would boost the number of international students coming to Cyprus for studying and a positive effect in the overall society since it is targeting to expand the education in Cyprus internationally as well the country as a touristic destination.
INNOVOUCHERS/1217/0204	Optimization of RAdiaTion using 3D printed masks for Skin cancer	LINAC-PET SCAN OPCO LTD	Nikolaos	Zamboglou	5,000.00 €	5,000.00 €	MEDSONIC has the right expertise to produce from imaginary targets and then convert these images to STL drawings which are compatible with 3D printer. The second stage of this innovation coupon is to manufacture several masks using 3Dprinting technology. A cost analysis of the prototype will be prepared. It is likely that 2 or 3 different designs are prepared until an optimized prototype is developed. The designed mask will provide optimum therapy thus optimizing the photon delivery to the target. With this collaboration LINAC-PET SCAN OPCO LTD (Legal Name)(German Oncology Centre, Business Name, Limassol) will improve its existing services.