

CATALOGUE

Green Small Smart Cities

This catalogue was funded by the
European Union's COSME Programme



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European Union

INTRODUCTION

This document represents the deliverable D5.2. “Catalogue of GSSC products and services” of the project GSSC- Green Small Smart Cities- funded by Cosme Cluster Go International (COS-CLUSINT-2019-3-01), the European Union Programme for the Competitiveness of Enterprises and SMEs.

The document is the second deliverable of WP5 “Communication & Dissemination”. This unique catalogue, which will be periodically updated during the project period, provides you the main information about the Green Small Smart Cities (GSSC) project, show you the specific solutions, companies, products and services which tackle the challenges of GSSC sector. You will find here the descriptive information about the ESCP-4is together with its mission and vision, strategic partners and SMEs. Each SME is related to the GSSC sectoral value chain and its service and product portfolio.

The content of this catalogue represents the views of the author only and is his/her sole responsibility; it cannot be considered to reflect the views of the European Commission and/or the Executive Agency for Small and Medium-sized Enterprises (EASME) or any other body of the European Union. The European Commission and the Agency do not accept any responsibility for use that may be made of the information it contains.



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PROJECT DESCRIPTION

► **Green Small Smart Cities project (GSSC)** aims to spread the use of sustainable technological solutions from Europe to less developed regions in the world by supporting the internationalization strategy among European SMEs with cutting edge solutions, complementary technologies and a shared vision on making a better world.

A city can be defined as smart when it displays positive performance in three fields: innovation, entrepreneurship and the generation of economic activity, knowledge and talent and finally digital society and economy. These elements have to be built based on a “smart” combination of elements factors (communications, infrastructure, economic development and on purposeful and independent citizen activities (participation, education) that make sound management of the available resources through open governance.

On the other hand, government's agendas are driven more and more by climate change and environmental challenges that are confronting the world. Thus, economic and technological development must provide its fair share of bringing in those aspects in the creation of green products, services and systems. A useful definition is provided by the Malaysian Ministry of Energy, Green Technology and Water, which defines green technology as *“the development and application of products, equipment and systems used to conserve the natural environment and resources, which minimises and reduces the negative impact of human activities”*.

The implementation of Green Technologies into Smart Cities set the framework of a **Green and Smart City**.



PROJECT DESCRIPTION

▶ GSSC MISSION

- To intensify cluster and business cooperation across borders by promoting cross sectoral cooperation and strengthening the value chain
- To merge different innovation players from water, ICT, energy and nanotechnology into GSSCs sector
- To establish European Strategic Partnership in the GSSC sector
- To promote competitiveness and internationalisation of GSSC project cluster members and especially SMEs in Europe and beyond
- To improve the visibility of the consortium and affiliated entities SME on an international scale

▶ GSSC VISION

Green Small Smart Cities partnership (GSSC) aims to spread the use of sustainable technological solutions from Europe to less developed regions in the world by supporting the internationalization strategy among European SMEs with cutting edge solutions, complementary technologies and a shared vision on making a better world.

THE GSSC ESCP-4i PARTNERSHIP

The **GSSC consortium** combines five highly complementary value chains addressing a very specific market niche: Small Cities. The focus of GSSC project is to benchmark opportunities and needs on growing cities: energy infrastructure, renewable energy solutions, rational use of resources, lack of connectivity, water treatment, access to the internet, implementation of digital solutions, decrease of the carbon footprint among many other vital issues that are already covered in big cities but not in rural and developing areas. GSSC project will support the transfer of knowledge, solutions, products and services to help them meeting the global challenges they are facing worldwide.

The Clusters composing the partnership have been carefully chosen for their great potential to combine solutions on solar energy (SOLARTYS), water (CWP), green technologies (GreenTech) using as key enabling technologies ICT (MCICT) and nanotechnology (NP); and for their individual experience working with their members on internationalization processes. Thus, GSSC project represents more than 400 entities.





SOLARTYS

www.solartys.org/en/

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*ASOCIACIÓN ESPAÑOLA PARA LA INTERNACIONALIZACIÓN
Y LA INNOVACIÓN DE LAS EMPRESAS DE
ENERGÍA SOLAR – SOLARTYS*

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Solartys is a non-profit organization and works alongside the entire solar energy value chain, manufacturers and distributors of materials and components, engineering, installers and promoters of solar energy projects. We bring together all the relevant agents in the sector and together we join efforts to make the energy transition a reality.

At Solartys, Solar Energy Cluster, we have been working since 2009 with the conviction that a more sustainable future is possible, fighting for the new generations so they can find a better world than the one we have now. We are convinced that technology and sustainability have to go hand to hand. The time to act is now.

Contact: SOLARTYS, Alba Álvarez, Email: aalvarez@secartys.org, Address: Gran Via de les Corts Catalanes 774, 4th floor, 08013, Barcelona, Barcelona, Spain.,
Web: <https://www.solartys.org/en/>





ASOCIACIÓN CATALANA PARA LA INNOVACIÓN Y LA INTERNACIONALIZACIÓN DEL SECTOR DEL AGUA, CATALAN WATER PARTNERSHIP - CWP



The CATALAN WATER PARTNERSHIP (CWP) is the Catalan Cluster of the sustainable use of water, located in the North East of Spain. The CWP was launched in 2008 as a business oriented non-profit strategic association, which mission is to improve the competitiveness of its members. The CWP involves consultancies, research centres, equipment manufacturers and other entities involved in the water cycle and in the solutions for the sustainable use of water. The CWP is recognized by the European Cluster Management Excellence with the Gold label.

The CWP promotes projects and multilevel collaborations to develop innovative & sustainable solutions to global water needs. The CWP works with an innovative approach and an international vision, continuously looking for establishing strategic alliances with companies and centres of knowledge from any part of the world, in order to identify opportunities that bring us together to a worldwide advanced position in the global market.

Contact: Catalan Water Partnership, Edifici H2O, Carrer Emili Grahit, 101, 17003 Girona Spain, Email: comunicacio@cwp.cat, Web: www.cwp.cat/en,





GREENTECH

<https://greentech.clust-er.it/en/>

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*ASSOCIAZIONE CLUST-ER ENERGIA E SVILUPPO
SOSTENIBILE - GREENTECH*

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Since 2017, Greentech Clust-ER aims at supporting companies, universities, research and education centers, to collaborate together with policy maker and other stakeholders in order to achieve a more sustainable society.

Greentech Clust-ER focuses its action on two Value Chains of research and innovation:

- **Low Carbon Economy** to foster the transition of the economy towards a higher environmental sustainability, reducing the dependence on fossil sources.
- **Environmental Sustainability and Ecosystem Services** to improve the management of degraded and/or vulnerable ecosystems and the environmental control in all its compartments (air, water, soil) through the development of remediation and mitigation technologies with a circular approach.

Contact: Greentech, Katia Ferrari – Cluster Manager, Address: Via P. Gobetti, 101 – 40129 Bologna Italy, Email: info@greentech.clust-er.it Web: <https://greentech.clust-er.it/en/>

GREENTECH





MAZOVIA CLUSTER ICT

<https://klasterict.pl>

Mazovia Cluster ICT is the heart of development projects implemented for the benefit of the region and the country supporting the SME sector. The undertakings in which the Cluster is involved are innovative and ecological, meeting the real needs of the market.

Mazovia ICT consists of almost 300 companies of which 90% are SMEs. Currently, 9 research institutes and 6 universities operate within the Cluster. The goal is to initiate research and development projects which increase the innovative potential of the members. By integrating enterprises, research units, NGOs, business support institutions or investors, MCICT is able to analyze and draw accurate conclusions.

Mazovia Cluster ICT, in accordance with the decision of the Ministry of Development, supported by the Polish Agency for Enterprise Development, obtained the status of the Key National Cluster, as one of the first seven in Poland, currently the only one in the Mazowieckie Voivodeship.

In constant cooperation with the entrepreneurs we contribute to the initiation, acceleration and commercialization of innovations on a global scale. Due to the horizontality of IT, there are many niches / market segments in which we operate: biotech, med-tech, creative technologies, energy and space.

Contact: Mazovia Cluster, Cluster Manager: Ewa Rekosz, erekosz@gmail.com,
T: +48 796 762 507, Address: ul. Piekna 31/37, 00-677 Warsaw, Poland,
Web: <https://klasterict.pl>

MAZOVIA CLUSTER ICT





NANOPROGRESS

www.nanoprogess.eu

Nanoprogess's vision is to serve as an example of cluster Excellency, with strong synergy, trust and interconnection among our members and transparent management policy focusing on continuous improvement. We are also keen to develop and implement innovative technological procedures of functionalization of nanofibers in its woven and non-woven form with high added value for future customer-oriented industrial products and with a positive environmental impact. We were awarded the **gold medal of cluster excellence**. By winning this award, Nanoprogess is ranked among the European Cluster Elite. The Nanoprogess cluster focuses on researching and developing functionalized nanofiber structures and their industrial and medical applications. We are leading the "AdPack" European Strategic Cluster Partnership in the new emerging industry. As part of our joint research activities, we have developed sophisticated methodologies for the functionalization of nanofiber structures, built new technological equipment for core-shell nanofiber production and new equipment based on the globally unique AC electrospinning technology. We have also determined the application potential of a wide range of functionalized nanofiber structures in medicine and industry.

Contact: Nanoprogess, z.s., Nová 306, Pardubice 530 09 Czech Republic,
info@nanoprogess.eu, Web: www.nanoprogess.eu

NANOPROGRESS



NANOPROGRESS



NANOPROGRESS



THE GSSC ESCP-4i PARTNERSHIP



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SUN SOLUTIONS PV ENERGY SLU

www.sunsolutions.es

Company established in 2008 as solar photovoltaic park promoter as energy producer, distributor of components to electricity production with renewables and solar installer focused in photovoltaics. Our core business is solar energy producer and solar installer .

Sun Solutions main activity is the production of electrical energy by other types, and especially, low voltage electrical production facilities, in general and especially by photovoltaic renewable generation. Promotion of solar projects from 1 to 5Mw. Solar energy project management up to 5Mws. Installation of photovoltaic solar energy systems, specialist in photovoltaic solar energy, and pioneers in the installation of Lithium Ion batteries of different brands.

Installation of solar thermal energy systems, aerothermal energy.

Contact: Phone general 0034 933 726 824 General Manager - María López - 0034 695184917
info@sunsolutions.es www.sunsolutions.es

SUN SOLUTIONS PV ENERGY SLU



CLUSTER SOLARTYS





LAB CIRCUITS, S.A.

www.lab-circuits.com

Founded in 1972, Lab Circuits is an independent company whose facilities' surface measures 4,000 m². It is currently made up of a team of 80 highly specialised professionals who are committed to the philosophy of offering the best possible service to our clients.

We manufacture printed circuits with two to 30 layers with the most advanced digital technology, which allows us to offer PTH, HDI printed circuit boards, laser-drilled microvias, buried vias, Rigiflex, impedance certification, and special materials, all of the highest quality.

Our Dynamic Services package provides a solution to the entire productive process demand, from initial design development through Proto Express or Proto Standard services, with Serie Urgent or Serie Quick for first pre-series units, and finishing with Serie Standard or Serie Long-term production services. It is possible to change one series service for another during the production process. Production is carried out at our plant in Santa María de Palautordera in compliance with ISO 9001:2008, ISO 14001, UNE-EN 9100:2010, UL, RoHS, and REACH certifications and below IPC A600 class 2, and 3 or 3A on demand.

Capabilities: Standard PCBs, up to 30 layers PTH. HDI PCBs, microvias 1, 2 or 3 levels and/or buried vias, blind vias, copper filled microvias, filled & capped vias and back-drill. Rigiflex PCBs, Flex-to-install or Dynamic. FR4 and special materials as PTFE's for RF or Hydrocarbon ceramics. Controlled impedance certification. Certifications ISO 9001:2015 UNE-EN 9100:2018, ISO 14001. UL-94V0, RoHS AND REACH. IPC-6012, class 2, 3 and 3A. IAg, ENIG, HAL Lead free, HAL SnPb and Hard gold edge connector.

Contact: Sales & Marketing Manager Josep Anton Sánchez josep.anton@lab-circuits.com
+34 93 848 03 75

LAB CIRCUITS, S.A.



 ENDEF Solar Solutions.

ENDEF ENGINEERING S.L.

www.edef.com

From the design phase to the execution phase, our engineers propose improvements to the project by implementing the most innovative and efficient solutions.

We offer different services that cover all the steps of the process, from project design to legalization of solar systems. Our team of engineers responds and offers solutions to any need related to solar energy and energy efficiency.

From EndeF, we want to help you to find the solution that best allows you to take advantage of a clean and profitable source of energy such as the solar, whatever your project is.

As a result of research and development, EndeF has been able to combine photovoltaic and thermal production in a single solar module, which has been conventionally achieved using separate modules. Hybrid solar panels simultaneously produce electricity and hot water. The combination of both technologies allows a better use of irradiation, producing more energy per surface than both technologies separately.

Contact: C.E.O. Isabel Guedea Isabel.guedea@edef.com +34976365811 www.edef.com
Polígono Ciudad del Transporte, C/PA nº11 San Juan de Mozarrifar, 50820 Zaragoza





TRAMA TECNOAMBIENTAL - TTA

www.tta.com.es



Global consulting and engineering company with headquarters in Barcelona, Spain.



Since its founding in 1986, fully committed to a sustainable energy development, TTA has been providing specialized services in distributed generation through renewable energies, energy management and efficiency, rural electrification, self-generation, integration of renewables in buildings, sustainable architecture, as well as, specialized training, education and technological development related to its activities.



TTA has been pioneer of renewable energy-based microgrids, 100% and/or hybrid, both in concept development, design and engineering, as well as deployment and dissemination. With vision and an approach keys to sustainability, TTA also covers transversal aspects –institutional, social, economic and financial. Its active participation in international scientific organizations has enabled TTA not only to be up-to-date in knowledge, but to contribute to the scientific and technological advance in this sector..

Contact: Gemma Diaz gemma.diaz@tta.com.es + 34.93.446.32.34 Address: Av. Meridiana 153, baixos – 08026 Barcelona, Catalonia

TRAMA TECNOAMBIENTAL - TTA





NVISION S.L.

<http://nvision.es/wp/>



NVISION is an R&D company founded in 2006 by three entrepreneurs with more than 20 years of experience in multinational companies such as SIEMENS and Seiko-EPSON.



We help service suppliers and system operators launch new solutions based on innovative technologies and business models using IoT, Artificial Intelligence and Big Data to provide advanced functionalities to their products and services in the Energy sector.

We develop and operate datAssist ©, an “end-to-end” IoT platform with leading verticals in renewable energy management, environmental sensors, asset control and e-Health. We are committed to a Business to Business (B2B) model through direct sales and an international network of partners.

NVISION has been involved in relevant financed projects, ranging from coordination to partnership:

- Contributing to the development of world leading products (including our own IoT platform).
- Gaining broad and deep understanding of the global cloud.
- Based IoT and decision-making platforms market.
- Fostering partnerships with players around the globe

Contact: Head of R&D Department Laura Sanz laura.sanz@nvision.es +34 938 041 535
IG-NOVA Tecnoespai Av. Barcelona, 105, D-8 08700 Igualada (Barcelona) - Spain



REGISTROS EN LA RED. SL.

<https://registros.net/>



Registros en la Red, S.L. was founded in 1997 and is managed by Ivan Carrasco Arcos, President of ASEDEM. The company has managed thousands of domains and web servers since its foundation and it is specialised in finding the best solution for your needs.



We develop customised technological solutions according to the client's needs. We currently develop mobile applications with the latest technology. REGISTROS.net has a team of highly trained and experienced professionals who will provide an optimal solution for the development of your project.

Contact: Ivan Carrasco ivancarrasco@registros.net Tel.: 933 323 262 Adress: Rambla Badal, 102 - 08014 Barcelona



ALITER GROUP S.L.

www.alitergroup.com/en/

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Àliter is a company with a team of professionals who agglutinate the experience and the knowledge of more than 20 years of activity in the sector of the renewable energies worldwide, with more than 1.300 MW of PV and more that 100 MW of CSP projects advised, engineered, managed and/or installed..

”

Àliter Group has a long term business commitment and a clear global view, wants to be everywhere where a renewable energy business opportunity can take place. Nowadays Àliter Group has presence in Spain, Bulgaria, Romania, India, Middle East and Latam.

Àliter Group develops activities of consultancy, promotion, design, construction and exploitation of renewable energy infrastructures, always combining the best technical solution for maximum performance and high economic benefit, at the same time that contributing to the sustainability of our planet.

Contact: CEO Xavier Pastor +34 93 252 84 53 C. VICTOR CATALÀ 44, 43206 · REUS (TARRAGONA) · SPAIN



R2M SOLUTION SPAIN SL

www.r2msolution.com

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From the design phase to the execution phase, our engineers propose improvements to the project by implementing the most innovative and efficient solutions.

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R2M main activity of production of electrical energy by other types, and especially, low voltage electrical production facilities, in general and especially by photovoltaic renewable generation. Promotion of solar projects from 1 to 5Mw. Solar energy project management up to 5Mws. Installation of photovoltaic solar energy systems, specialist in photovoltaic solar energy, and pioneers in the installation of Lithium Ion batteries of different brands.

Installation of solar thermal energy systems, aerothermal energy.

Contact: R2M Director Raymond Sterling, raymond.sterling@r2msolution.com
Calle Villablanca 85, 28032, Madrid, Spain.

R2 M SOLUTION SPAIN SL



R2M your partner for implementing Local Energy Communities

- Social assessment
- Regulatory and financial assessment
- Sustainability assessment
- Energy efficiency and auditing
- LEC design via Digital Twins

DESIGN

- User engagement via participative processes
- Financial support (i.e. crowdfunding, co-investments)
- "Turn Key" infrastructure deployment
- Cutting edge technologies (5G smart meters, P2P trading, smart contracts)

IMPLEMENTATION

- Commissioning, O&M and Energy Management
- Value maximization through aggregation, demand response and ancillary services to the DSO
- Energy certifications (LEED, BREEAM, ISO 50001)

OPERATION



FUNDACIÓ EURECAT

www.eurecat.org

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Eurecat, the big industrial technology provider of Catalonia offers business services applied R & D, technology services, technology consulting, training highly specialized development of innovative products and services, and promotion and dissemination of technological innovation.

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Eurecat directs its activity in all sectors, but especially to seven main strategic areas: Food, Energy and Resources, Industrial systems, industries based on design-related industries sustainable mobility Industrial Health and Cultural Industries and based on experience.

Eurecat offers a comprehensive service for the development of a detailed action plan that defines the strategy for innovation and technology development in the company, more systematic procedures and to carry out activities R & D internally. Transfer of knowledge through multidisciplinary training programs aimed at professionals and companies interested in increasing their expertise in technology and innovation.

Eurecat employs innovative training methodologies through classroom workshops, hands-on labs, online webinars, or a combination of classroom training with online training.

Contact: Daniel Raya daniel.raya@eurecat.org +34 932 381 400, Av. Universitat Autònoma, 23, 08290 Cerdanyola del Vallès (Barcelona)





ISFOC

isfoc.net

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ISFOC (Institute for Concentration Photovoltaics Systems) is the result of the R&D plan promoted by the Department of Education and Science from the Castilla la Mancha Government and the Institute of Solar Energy from the Universidad Politécnica de Madrid.

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ISFOC products are: WEBENER. ISFOC is developing an energy efficiency system for public institutions, hotels, industry, and other sites that permit management, reduction, and optimization of the energy consumption, as well as the la promotion of sustainable environmental economics; GOCPV. ENERBOX. It is a simple and economical solution to optimise the energy consumption in buildings, offices, and installations through the management and monitoring of energy, and with the advantage of comparing, analysing, and representing the data collected from several buildings using consumption graphs and customizable ratios; METHEOBOX.

Contact: Administration isfoc@isfoc.com +34 926 441673 C/ Francia, 7, Puertollano (Ciudad Real). Pol. Ind "La Nava III".



THE GSSC ESCP-4i PARTNERSHIP

The image features a map of Europe with several regions highlighted in light green. Lines connect these regions to a vertical list of logos on the left. The logos are: Mazovia Cluster ICT (Silver Cluster Management Excellence), NANOPROGRESS (Gold Cluster Management Excellence), SOLARTYS (Bronze Cluster Management Excellence), CWP (Gold Cluster Management Excellence), and CLUST-ER GREENTECH (Bronze Cluster Management Excellence). A small European Union flag is located in the bottom right corner of the map area.

Mazovia Cluster ICT
SILVER Cluster Management Excellence

NANOPROGRESS
THE NANOTECHNOLOGY CLUSTER
GOLD Cluster Management Excellence

SOLARTYS
BRONZE Cluster Management Excellence

CWP
CATALAN WATER PARTNERSHIP
GOLD Cluster Management Excellence

CLUST-ER GREENTECH
ENERGIA E SOSTENIBILITÀ
BRONZE Cluster Management Excellence

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KEIKEN ENGINEERING SL.

www.keiken-engineering.com



Keiken Engineering was founded in September 2015 in Alcobendas (Madrid) with two core activities, Desalination of Sea Water and Energy Efficiency.



With our know how and technicians with more than 20 years of experience, we are able to support companies in the water world with solutions and supplies to face their big projects with guarantees of success both economic as in delivery times. Combining energy-saving echnologies with our expertise, it is possible to get important savings in any facility. All these activities are carried out under ISO EN-9001-2015 quality standards.

Design and manufacturing of compact and pilot plants for pre-treatments, desalination plants, reverse osmosis, chemical dosing skids and Polyelectrolyte preparation units.

Supply of filtration media (anthracite, sand, gravel, activated carbon, zeolite, aquamandix, garnet, etc), cartridge filters, electricity consumption savers (Enerreq).
Turnkey Solar powered installations.

Contact: KEIKEN ENGINEERING SL. Catalonia Office: C/Imaginació, 12 08850 Gavà, Barcelona (Spain) Madrid Office: Ctra. Fuencarral, 44. Edif. 7 L28 28108 Alcobendas (Madrid)
www.keiken-engineering.com info@keiken.es, +34 910577254





CRALEY GROUP EUROPE SL

www.craley.com/

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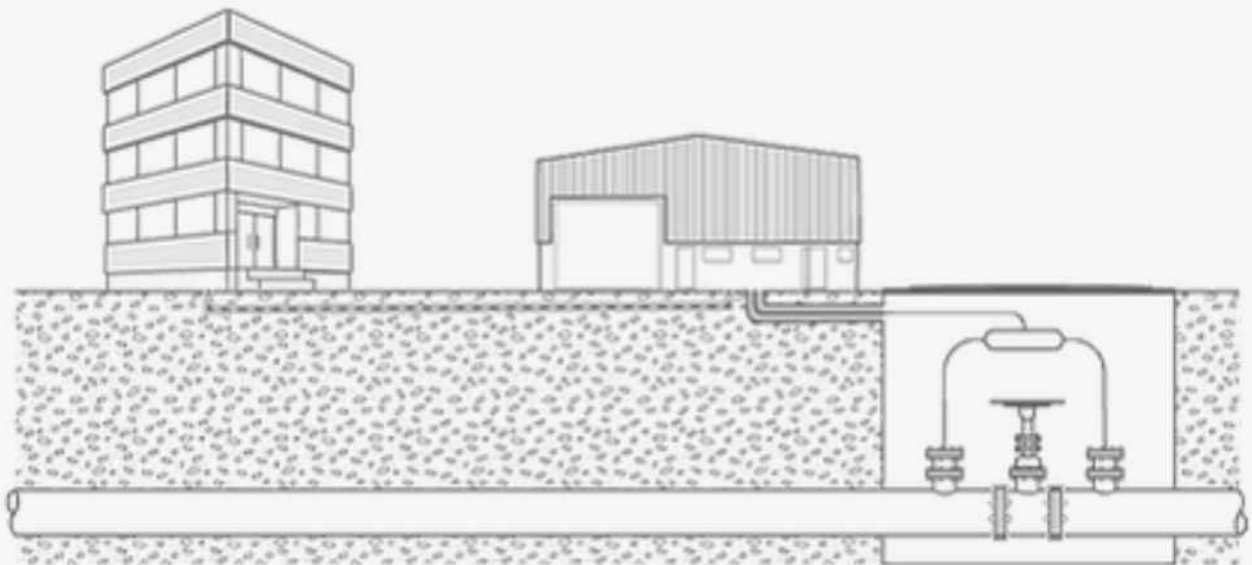
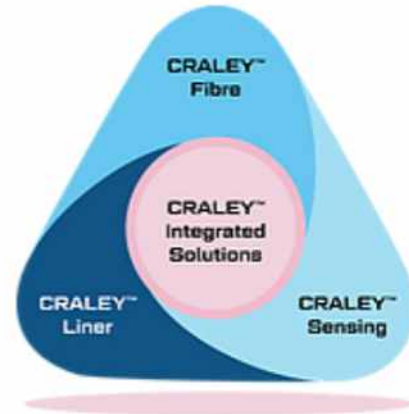
CRALEY Group founded in 2014, is developing and patenting innovative solutions for the development of SMART pipeline Infrastructure.

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Its suite of solutions make smart water networks happen. Their solutions are capable of providing fibre optic communications by utilising the existing in ground pipe infrastructure as ready made conduits. They provide products that create a platform to deliver hard-wired ultra-fast comms, leak detection and asset monitoring within a water network. Certified to NSF/ANSI 362 and NSF/ANSI 61.

Their product is focused in 3 key areas: **In-pipe sensing** for use in pre-existing or new buried pipelines as well as overground pipelines, **In-pipe fibre optics** for an improved method of fibre optic deployment by using existing pipeline infrastructure and **In-pipe Relining** for re-lining existing pipelines to extend their service life.

Contact: CRALEY GROUP EUROPE SL., C/ Bisbe Morgades 46, entresol 2^a , 08500 Vic, Barcelona (Spain) , www.craley.com/ | office@craley.com





hydroo®

HYDROO PUMP INDUSTRIES S.L.

www.hydroo.com

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*Hydroo is a European pump manufacturer with
ISO9001 & ISO14000 Certifications.*

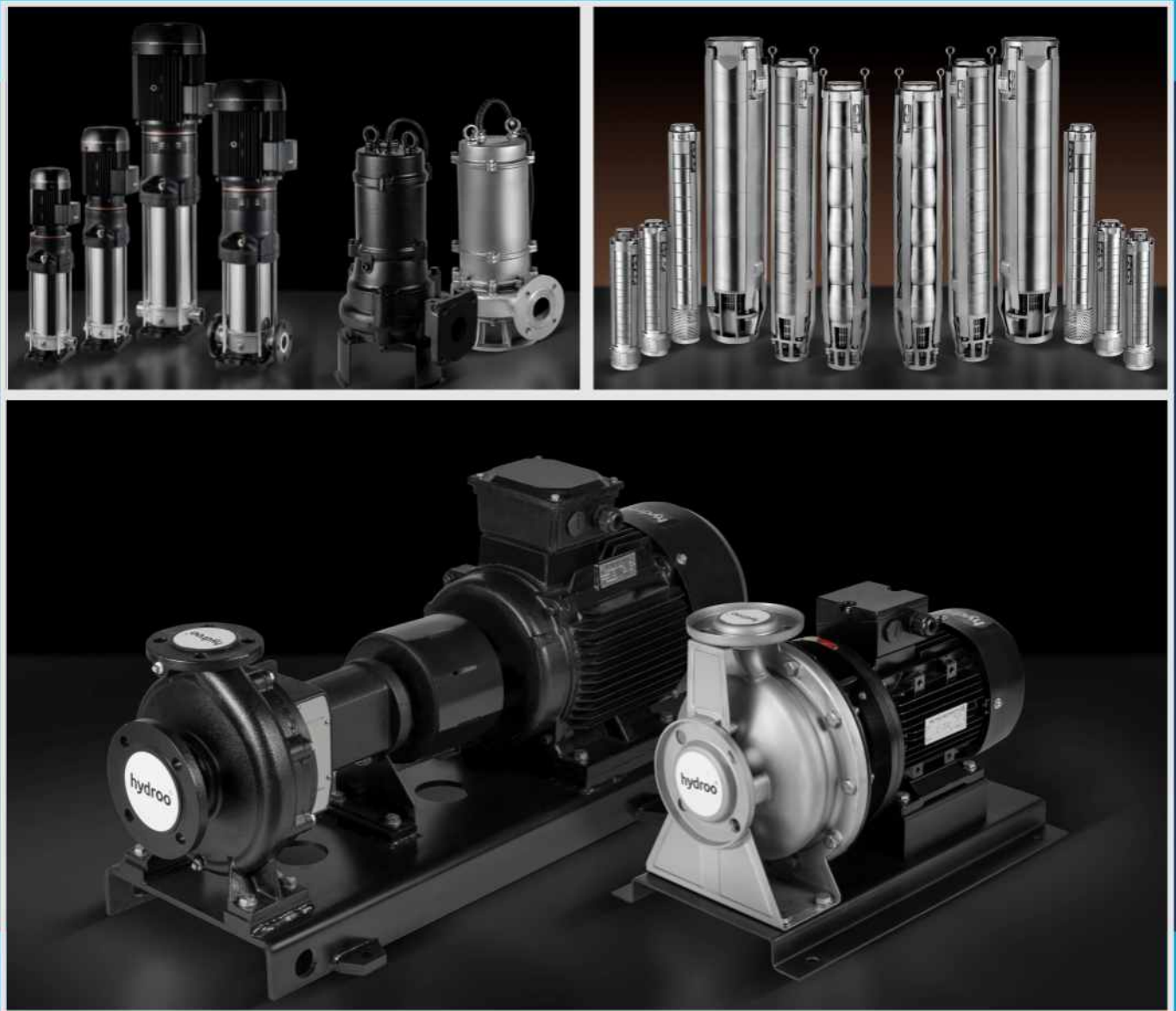
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In order to better meet customer's needs and requirements, the company focuses its operations based on three main principles: an extensive network of distributors, a productive unit and a R&D excellence centre. Hydroo offers a fast and efficient service for a wide range of pumping solutions for many applications, such as water supply, industry, irrigation, reverse osmosis and water treatment processes.

Vertical multistage pumps, Horizontal multistage pumps, Single stage horizontal stainless steel centrifugal pumps, Single stage end suction pumps, Submersible borehole pumps, Self-priming pumps, Single stage double suction split casing centrifugal pumps, Vertical turbine pumps, Submersible sewage pumps, Vertical in-line circulation pumps and Swimming pool pumps and Drivers and pump controllers

Contact: HYDROO PUMP INDUSTRIES S.L., Carrer La Banyeta Nova, 11 , Polígon Industrial La Banyeta , 17843 Palol de Revardit, Catalonia – Spain +34972394654, info@hydroo.com

HYDRO PUMP INDUSTRIES S.L.



CLUSTER CWP





L AFCARR PROJECT & DESIGN SL

www.lafcarr.com

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Founded in 2005, is a leader company in Spain within the design of alarm systems. They are specialized in the following risks: flood, chemical, tsunami, earthquake, avalanche and acoustic warnings at beaches, rivers and fires.

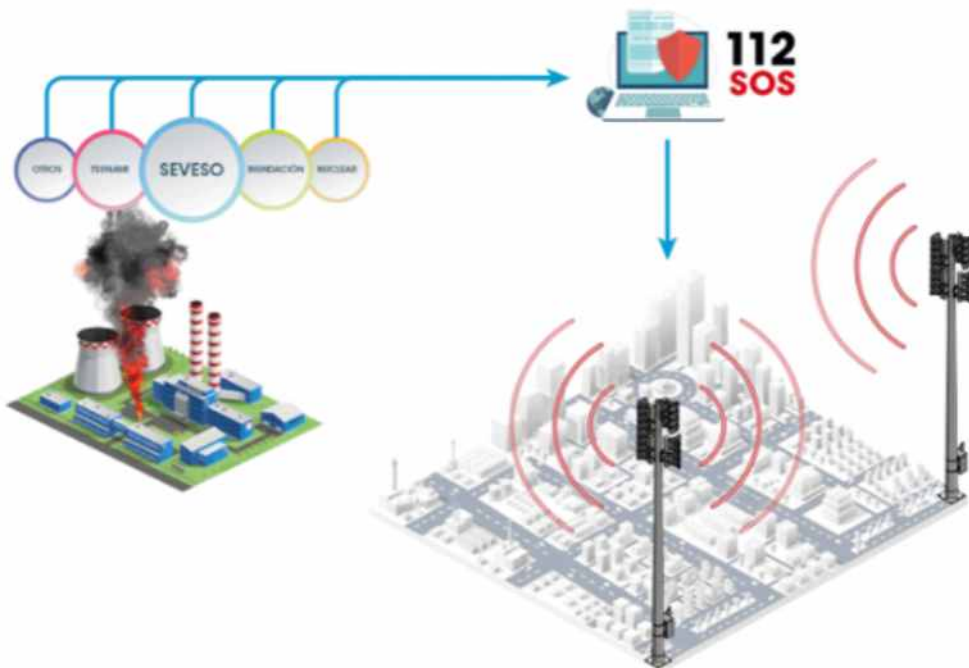
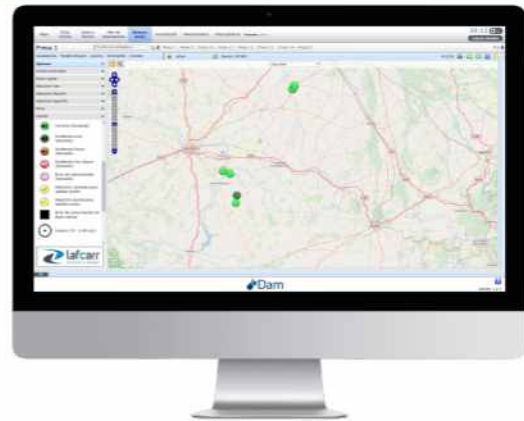
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Their consultancy and engineering area is of great help when it comes to project writing for their clients or collaborators. Their I+D+i department is always pursuing excellence in the personnel, adapting to social changes and innovating to keep up with a spirit of constant change. Certified with ISOs 9001-14001-45001. Located in Spain, Portugal and Colombia.

Offers systems of immediate alarms (SAT) which enable a control and following of emergencies, as well as alerting and notifying the population in the case of any risk. They also offer decision support systems, which is a fundamental tool for the management of any emergency. As services, they offer infrastructure maintenance and technical office.

Contact: L AFCARR PROJECT & DESIGN SL, C/ Antoni Rovira i Virgili, 2 | 17180 Vilablareix, Girona (Spain), www.lafcarr.com | info@lafcarr.com

L AFCARR PROJECT & DESIGN SL





AMPHOS²¹
SCIENTIFIC AND STRATEGIC ENVIRONMENTAL CONSULTING

AMPHOS 21 CONSULTING SL

www.amphos21.com

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Amphos 21 is a group of consulting and engineering consultant companies that has recently been acquired by RSK, a leader in the engineering and environmental consulting field with headquarters in the UK and international operations in a large number of countries.

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A great part of the activity is developed internationally, with a special focus on R&D projects. They are 200 professionals integrated into a large environmental group with high technical skills and innovative mindset.

AMPHOS 21 offers scientific, technical and strategic consulting services in five main market sectors (nuclear, mining, water, sustainability and CCS & Climate Change). In the water sector, Amphos 21 provides Hydrological and Hydrological Field Services and Modelling; Soil Remediation Projects; Water Cycle Pressures and Impacts analyses; Managed Aquifer Recharge; Climate Change Studies and Water re-use.

Contact: AMPHOS 21 CONSULTING SL, C/ Venezuela 103, 2^o 1^a, 08019 Barcelona, Catalonia Spain, www.amphos21.com | amphos21@amphos21.com





BLUEPHAGE SL.

www.bluephage.com



BLUEPHAGE S.L. is a biotechnology company specializing in products and services for the analysis of bacteriophages as viral indicators in water, food and biosolids, launched as a spinoff company in 2016 from the University of Barcelona, Spain.



BLUEPHAGE's team of world-renowned experts in basic and applied microbiology and virology in water testing methods tap into 35+ years of knowledge and know-how developed at the University of Barcelona within the MARS research group (Water Microbiology Related to Health).

BLUEPHAGE offers a patent-protected accelerated coliphage indicator test, their microbiological water quality testing products detect coliphages. Their product pipeline will offer the fastest and easiest to use coliphage detection method currently available on the market for environmental testing of water.

Contact: BLUEPHAGE SL., C/ Gavà 4, 2-2a, 08820 El Prat De Llobregat, Barcelona, Catalonia Spain, www.bluephage.com | info@bluephage.com





INLOC ROBOTICS SL

www.inlocrobotics.com

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INLOC Robotics was born at the end of 2013 as an idea and was definitively constituted in the middle of 2014. It has identified a clear need for the precise location of mobile devices that work in underground infrastructures such as urban drainage systems, drinking water infrastructures, road tunnels or electrical networks.

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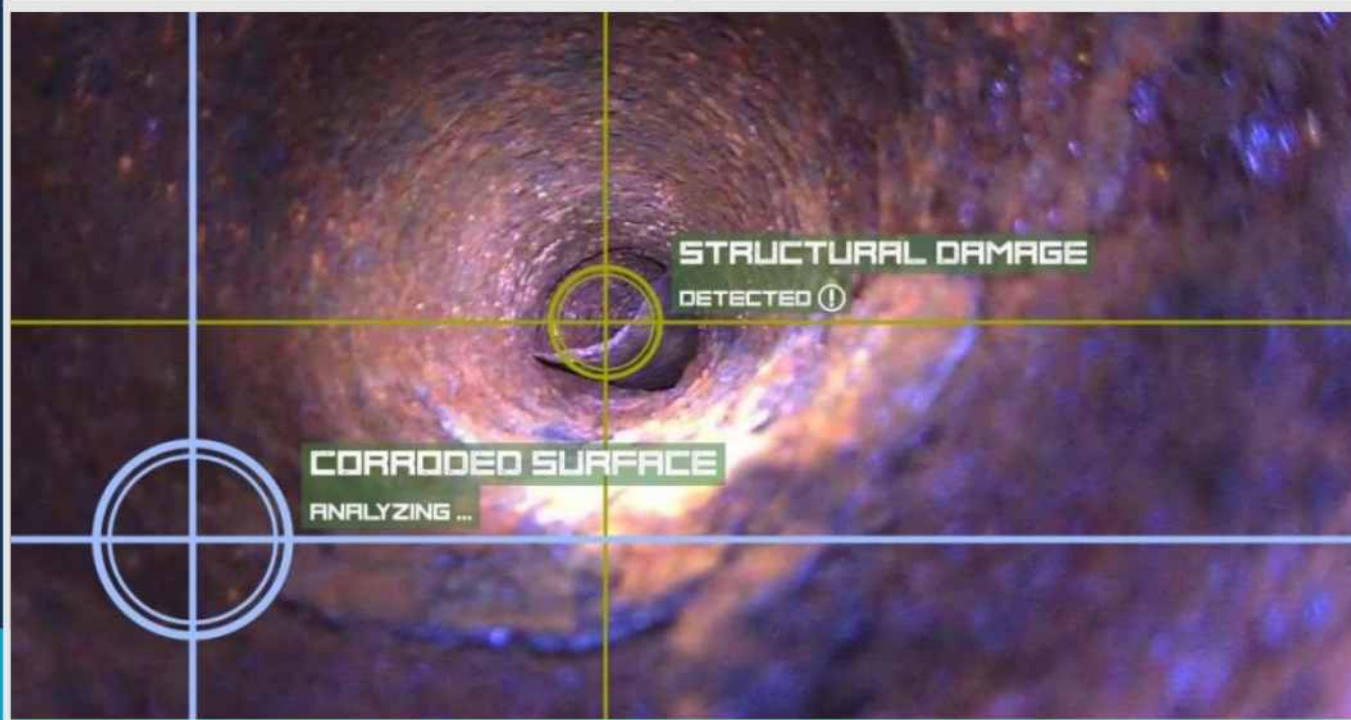
Through research projects and engineering projects it offers solutions in the field of robotics and, in a generic way, in the fields of automation and control including the paradigms of Industry 4.0 and IoT.

Advanced instrumentation, ICT solutions, artificial intelligence, IOT and software applied to the water sector, Integrating engineering. INLOC ROBOTICS have different business lines: Monitoring and control systems, AI and computer vision and Localization and autonomous navigation of mobile robots (algorithms).

Contact: INLOC ROBOTICS SL, c/Cartagena 187, 1 7 , 08013 Barcelona (Spain)
www.inlocrobotics.com | info@inlocrobotics.com



SEWDEF



SUMINISTROS Y GESTIONES MEDIOAMBIENTALES SL

www.aguasigma.com

“ *SIGMAGROUP is a wastewater treatment company with more than 40 years of experience, whose reputation is based on cost-effective and reliable modular products.* ”

SIGMAGROUP's objective is to provide innovative solutions for physico-chemical, biological, filtration and disinfection processes to meet the various needs of water and wastewater treatment in the industrial field. It is formed by AGUASIGMA, dedicated to the development of engineering and turnkey projects, and SIGMADAF CLARIFIERS S.L. that designs, manufactures and commercialize dissolved air flotation (DAF) systems, compact MBR and MBBR equipment and Package Plant solutions.

DAF systems:

- DAF FPAC: clarification system by large-area wastewater flotation and cross-flow separation
- DAF FPBC: high-profile separator to treat wastewater with low/medium load of waste, even those containing low buoyancy particles
- DAF FPHF: an improvement over the existing lamellar plate technology that uses a combination of cross flow and counter current flow.
- FPAC Compact, plug & play unit. Complete physico-chemical unit pre-assembled on a skid
- MBR compact: Compact and autonomous containerized MBR system that can integrate hollow fibre, submerged membranes or flat membranes.

Contact: SUMINISTROS Y GESTIONES MEDIOAMBIENTALES SL, C/ Mq. Caldes de Montbui, 37 Ent. 3, 17003 Girona (Spain), www.aguasigma.com | info@aguasigma.com

SUMINISTROS Y GESTIONES MEDIOAMBIENTALES SL



CLUSTER CWP





KING DIAMOND SL

www.ufbaf.com

”

They have patented UFBAF, which is the cleanest, most advanced and efficient technical solution for the reduction of nitrate levels in drinking water

”

Environmentally friendly solution, without concentrated brine which is costly and complicated to handle, reduces CO2 emissions and generates energy savings compared to reverse osmosis membrane solutions.

They provide the design and construction of UFBAF systems to both operators and managers of the integral water cycle and public entities.

They offer UFBAF, a patented biological denitrification system for nitrates removal in drinking water.

Contact: KING DIAMOND SL, Ronda de Can Macia, 23 | 08810 Sant Pere de Ribes, Catalonia Spain, www.ufbaf.com | info@ufbaf.com

KING DIAMOND SL

UFbAF
Patented Biological Denitrification Process



CLUSTER CWP





SPIN SA

www.spingroup.global

”

This company began in 1981, when 3 engineers with a big passion for technology founded the first SPIN company in Barcelona. Since then, hundreds of customers have trusted SPIN with their automation and testing requirements.

”

Through the years, SPIN have grown to become a human size multinational, the SPIN Group, capable of far bigger projects based on the latest technology, with the same spirit of service.

They offer solutions to Automation and Control, Testing Systems, Smart Buildings (HVAC control system, energy efficiency, etc.), Networks, Electrical Engineering, Software Programming, Instrumentation and Drives, Data and information, Cybersecurity, Smart Reporting, Virtualization and Mechanical Engineering.

Contact: SPIN SA, C/Rocafort 241-243, Entlo. 5ª , 08029 Barcelona, Catalonia - Spain
www.spingroup.global | info@spin.es

SPIN





INNOVACIO TECNOLÓGICA CATALANA SL

<https://www.itc.es/>

”

Set up in 1988 ITC is dedicated to manufacture dosing pumps and dosing control equipment. Placed in Barcelona, one of the main logistic centres in the Mediterranean Sea.

”

It uses the synergy of being placed in a city which is a reference point for creativity, design, and technology, to strengthen its commitment towards innovation, quality and service in the international market.

With the aim of supplying the products with the highest quality, ITC follows all kind of standards and certifications: ISO 9001:2015, UL-ETL, NSF, GOST R, SASO,...

ITC offers a wide range of products for the treatment of water, the industrial processes, and the agricultural sectors. Dedicated to the manufacture of dosing pumps and dosing control equipment, ITC always try to be at the highest technological level.

Latest products developed at ITC include the possibility for remote control and monitoring (with PC or smartphone App) via Cloud technology.

Contact: C/ Vallès, 26, P.I. Can Bernades-Subirà, 08130 Sta. Perpetua de Mogoda Barcelona (Spain), <https://www.itc.es/> | itc@itc.es

INNOVACIO TECNOLÓGICA CATALANA SL



CLUSTER CWP





CREATECH SOLUTIONS SL

<https://www.createch360.com/>

” *Technology company specializing in the development of IT solutions for intelligent control and supervision of WWTP and other industrial facilities.* ”

CREATECH was incorporated in 2016 as a spin-off of two specialized universities respectively in ICT and in water treatment and our Platform helps the operators to guarantee the required effluent quality, to minimize the energy demand of the process, to optimize the use of resources and to implement intelligent and autonomous supervision tools for the controlled plants. CREATECH has implemented its technology in more than 150 WWTP plants (essentially municipal treatment plants) in various countries. Createch360[®] has a global network of service providers in Europe, USA, South America, Middle East and Asia.

Createch360[®] provides water and wastewater facilities with an operational intelligence platform that supports real-time control and decision making to reduce operational costs, enhancing reliability and achieving quality consent limits.

Contact: Costa d'en Paratge St. 22, E1 08500 Vic (Barcelona), <https://www.createch360.com/>
info@createch360.com

CREATECH SOLUTIONS SL



THE GSSC ESCP-4i PARTNERSHIP

The image features a map of Europe with several regions highlighted in light green. Lines connect these regions to a vertical list of cluster logos on the left. The logos include: Mazovia Cluster ICT (Silver award), NANOPROGRESS (Gold award), SOLARTYS (Bronze award), CWP (Gold award), and CLUST-ER GREENTECH (Bronze award). A small European Union flag is located in the bottom right corner of the map area.

Mazovia Cluster ICT
Cluster Management Excellence

NANOPROGRESS
THE NANOTECHNOLOGY CLUSTER
Cluster Management Excellence

SOLARTYS
Cluster Management Excellence

CWP
CATALAN CLUSTER PARTNERSHIP
Cluster Management Excellence

CLUST-ER GREENTECH
ENERGIA E SOSTENIBILITÀ
Cluster Management Excellence

This catalogue was funded by the European Union's COSME Programme



Co-funded by the European Union

**CLUST-ER
GREENTECH**
ENERGIA E SOSTENIBILITÀ

BRONZE



Cluster
Management
Excellence

STRIVING FOR CLUSTER EXCELLENCE

This catalogue was funded by the
European Union's COSME Programme



Co-funded by the
European Union



CLAMP STUDIO S.R.L.

www.clampstudio.com



Established in 2012 in Castel Bolognese (Ravenna, Italy), Clamp Studio srl is an engineering design firm that offers services of Engineering, Manufacturing and robotics solutions for industry. Clamp Studio srl produces and sells packaging solutions and vehicles for construction, industrial, agriculture and lifting.

Clamp Studio srl has premises also in India and USA.



Clamp Studio srl offers engineering design services like sketches & styling, concept & layout, calculations, 3D modelling, stress analysis, 2D drawings & BOM, literatures, software design, IoT, assembly, testing and delivery.

Between its vehicles, Clamp Studio srl proposes the MP01 multipurpose machine consisting of one power unit (which can be powered by petrol or even full electric) plus many interchangeable attachments.

Contact: Italia, Headquarter: Via Antonio Valdrè, 226 - 48014 Castel Bolognese RA, Italy

India, Headquarter: INDIA, Chennai-600053 ,No. 4 Cholan street, Ambattur, Tamil Nadu

USA Headquarters:

- 2288 Gunbarrel Rd# 154 - Chattanooga, 37421, Tennessee
- 18, Bridge St, Unit 2A - Brooklyn, New York 11201, New Jersey

Email: marco.montanari@clampstudio.com Website: <https://www.clampstudio.com/>

CLAMP STUDIO S.R.L.



CLUSTER GREENTECH





CTS H2 S.R.L.

www.ctsh2.com

”

Hydrogen based System integration company. As innovative Start up company CTS H2 was born in 2019, based on the competence and expertise of its founder of 15 years in the “hydrogen world”.

”

The company is able to realize turn-key complete systems comprising hydrogen production, storage and conversion into electricity. The company has even an active R&D department focused mainly on the water electrolysis hydrogen production and innovative storage systems.

CTS H2 can project and realize customized hydrogen-based turn-key systems even large ones, and has standard products: H2Home, a residential hydrogen based energy storage system, suitable for renewable energy sources coupling, and innovative ultralight high pressure cylinders.

Contact: CTS H2 Srl, Via Antonio Carpenè 23, 33070 Brugnera (PN) Email: info@ctsh2.com
Website: www.ctsh2.com



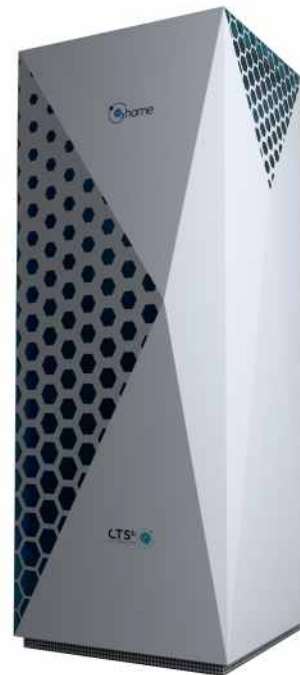
Headquarter - Pordenone - Italy



Hydrogen grid balancing system 200 kW/h



Off-grid Hydrogen refilling system for electric fuel-cell bike



H2home storage hydrogen system



3000 S.R.L. - ECOSURVEY

www.ecosurvey.it



Ecosurvey®, since 2003, is a services company in the field of environmental sciences and technologies that involves a team of a dozen of geologists and engineers.



Our quality and environmental management are guaranteed, since 2005, by the UNI EN ISO 9001 and 14001 certifications.

The company has entered agreements for applied research projects with national and international universities and research institutions. Know-how is shared through participation in international conferences.

Our team support customers from different production sectors for:

- the management of contaminated sites
- the design and operation of soil & groundwater remediation plants
- green & sustainable remediation SmartStripping®
- convert the environmental problems of contamination into resources
- circular economy on waste and wastewater

Contact: dott. geol. Claudia Beatrice Mosangini, 3000 Srl, via Caduti di Cefalonia 5, 40125 Bologna, Italy Email: cm@ecosurvey.it, Web page: <https://www.ecosurvey.it>
LinkedIn: <https://www.linkedin.com/company/2938939/admin/>

SMARTSTRIPPING.

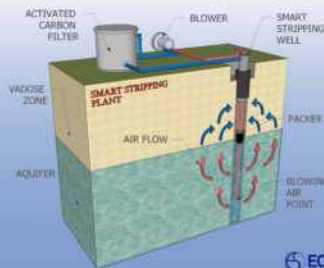
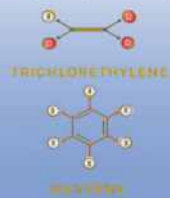
SmartStripping® - Green & Sustainable remediation



Co-funded by the Examination
Initiative of the European Union

The groundwater remediation technology called SmartStripping® is an innovative process for **groundwater on-site remediation** that reduces concentrations of Volatile Organic Compounds (VOC) and semi-VOC which are produced by chlorinated compounds and petroleum fractions adsorbed into the unsaturated zone and dissolved in groundwater at industrial and civil sites, especially at sites with underground storage tanks.

Target contaminants:
Volatile and semi-volatile
compounds (VOC – sVOC)



ECOSURVEY

Transactions are like icebergs...

ECOSURVEY

what you see is not always what you get.

Real estate transactions are like icebergs: you can be sure of what you see, not of what you do not see. It is necessary to rely on specialized technicians on Due Diligence activities to verify the quality of the underground to avoid surprises, such as the purchase of a "landfill" in place of a "promised building area".

The Ecosurvey® operational headquarters is in via Caduti di Cefalonia 5 in the city center of Bologna, Italy, a few minutes walk from the high-speed train station connected to less than 1 hour from Milan, less than 2 hours to Rome and less than 7 minutes from Guglielmo Marconi International Airport, by Marconi Express [people mover].



F.M. SRL

www.fm.re.it

”

Established in 1974, F.M. activity concerns the engineering and manufacture of moulds and products made of high-tech polymers, through injection, in order to deliver to the customer a “ready to use” product, ensuring also an after-sale service.

”

The company catalogue includes over then 15.000 items marketed all over the world, with the possibility to develop customized products.

The company has 100 patents covering several high-tech polymers application. The quality of all processes is guaranteed by a System of Quality Control certified since 1995, UNI EN ISO9001 and the company was awarded in 2009 with the certification of its System of Safety and Health Care of Workers UNI EN 45001. In 2010 FM achieved the Certification of its Environmental System, according to the ISO14001.

The catalogue includes over then 15.000 components used primarily to move products into industrial processing plants.

The last line developed is GreenBlow®, that include all necessary components to create a complete blowing/suction/filtering systems able to clean, dry, cool any products together with suction and filtering.

Contact: Headquarters in Italy: Via Europa 4 - 42015 Correggio (RE) Italy Company website: www.fm.re.it | GreenBlow line website: www.greenblow.it Email: fm@fm.re.it





IDRO MECCANICA SRL

www.idromeccanica.it



Founded in 1966 in Modena (Italy), Idro Meccanica produces compressors for natural gas and hydrogen (450 bar for 35 MPa filling stations and for injection into the network).



In 2020, the company started the production of 70 MPa hydrogen station compressors.

Idro Meccanica compressors, comply with Directive 2014/68/EU, (PED), Machine Directive 2006/42/EU and Directive 2014/34/EU (ATEX). The company is ISO 9001:2015 certified and the products are PED certified with Module H1.

Natural gas and Hydrogen compressors; CNG refuelling stations; hydrogen refuelling stations; biomethane compressing stations; mobile refuelling units (MRU), grid-injection stations.

Contact: Italian Headquarter: Via S.Allende, 81 - 41122 Modena - Italy

Email: giordano@idromeccanica.it | Website: <http://www.idromeccanica.it/>

IDRO MECCANICA SRL





LA CITTÀ VERDE SOC. COOP. SOCIALE A R.L.

<https://lacittaverde.coop/>



Founded in 1991, La Città Verde activity focuses on the employment of disadvantaged people; urban hygiene; management of the public green and waste treatment.



The cooperative owns and runs a composting plant for the aerobic digestion of organic waste in aerated static piles [15,000 tons / year]. In the same plant, the cooperative produces woody biofuels from untreated mowing, pruning and packaging [8,000 tons / year] and storage of bulky wood, glass and metal packaging waste [total 11,000 tons / year]

La Città Verde offers services of tutoring, training and capacity building in:

- waste treatment on medium-small plant size and strongly connected to the reference territory
- feasibility studies and design of development projects for biomass recovery and leachate treatment and aerobic composting processes in bio-cells

Contact: Italian Headquarter: Via Mascarino 14/A 40066 Pieve di Cento (Bologna - Italy)

Email: giorgio.rosso@lacittaverde.coop | Website: <https://lacittaverde.coop/>

LA CITTÀ VERDE SOC. COOP. SOCIALE A R.L.





LAB SERVICE ANALYTICA S.R.L.

<https://www.labservice.it/>

“ *Founded in 1984, Lab Service Analytica is a certified ISO 9001:2015 Italian company with more than 35 years' experience in “Life Chemistry”, “Separation Sciences” and “Environmental” sectors. We provide emerging and customized solutions to Public Entities, Research Centres, Universities, Small and Large Companies and accredited Laboratories.* ”

Since 2010, Lab Service Analytica has started to produce its own instruments for environmental monitoring and sampling of pollutants. In this regard, the last innovation concerns a disruptive and innovative solution for odor sector also awarded and funded by the European Community under the H2020 SME Inst. Program [G.A 756865]: OdorPrep©

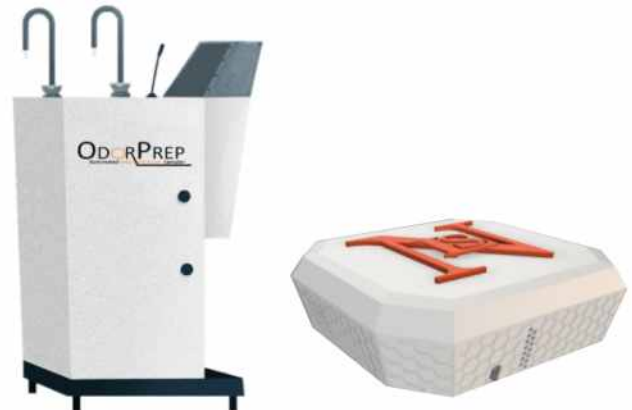
OdorPrep©: on-demand environmental emission sampler and air quality monitoring system dedicated to odors in compliance with ISO EN13725:2003. The system is certified and it suitable for different monitoring applications (e.g. refineries; biomass plants; Industries, landfill waste sites). The sampling is automatic (activation through sensors) and it can be performed even manually by its mobile application. Rules of sampling (triggers) can be set out remotely via the mobile application.

NetPID: autonomous environmental monitoring station suitable for creating complex networks. NetPID is based on the use of a highly sensitive photoionization detector (PID) capable of determining the presence of VOC (Volatile Organic Compound) at ppb level. The system acquires and collect data on its internal storage. In addition, the system is able to synchronize and update the data in real time with an online platform to analyse and download the collected data remotely. Through the online platform it's also possible to set threshold values ("trigger") for each sensor and activate notifications via email.

Contact: Italian Headquarter: via Emilia 51/c - 40011 Anzola Emilia (BO)

Email: alessandro.battaglia@labservice.it | Website: <https://www.labservice.it/>

LAB SERVICE ANALYTICA S.R.L.





SIS.TER S.R.L.

<https://www.sis-ter.com>

“ *Founded in 1997, Sis.Ter srl works in the field of geospatial solutions to understand, analyze and monitor the territory.* ”

The company develops digital solutions in order to trigger innovation in Cities and Territories through consulting, research and services in the field of new applied technologies. Being systems integrators and certified 4.0 technology transfer center, Sis.Ter assists clients along the full innovation project/process.

The company is certified ISO 9001:2018 and ISO 27001: 2015.

CityOmnis® is a technological web-GIS platform which, through the collection, integration and processing of data from different sources, allows the monitoring, analysis and management of the development cycle of the urban and territorial context.

CityOmnis® can integrate various modules created as vertical services in specific domains, such as:

- Public Lighting
- Urban planning
- Green areas management
- Agricultural and Irrigation management
- Underground networks

Contact: Italian Headquarter: Via Emilia 69, 40026 Imola (Bologna, Italy)

Email: e.vigo@sis-ter.it ; sister@sis-ter.it | Website: <https://www.sis-ter.com/?lang=en>



THE GSSC ESCP-4i PARTNERSHIP

The image features a map of Europe with five callout lines pointing to specific clusters. On the left, a vertical list of logos and their corresponding Cluster Management Excellence (CME) ratings is provided. The ratings are: Silver for Mazovia Cluster ICT, Gold for NANOPROGRESS, Bronze for SOLARTYS, Gold for CWP, and Bronze for CLUST-ER GREENTECH. The European Union flag is located in the bottom right corner of the map area.

Cluster Name	CME Rating
Mazovia Cluster ICT	Silver
NANOPROGRESS	Gold
SOLARTYS	Bronze
CWP	Gold
CLUST-ER GREENTECH	Bronze

This catalogue was funded by the European Union's COSME Programme



Co-funded by the European Union



This catalogue was funded by the European Union's COSME Programme



Co-funded by the European Union



ARTIGIANO & CO SP. Z O.O.

<https://artigiano-and-co.com/>



Artigiano & Co aims to be a leading company in the research and manufacturing of innovative polymeric materials, flame retardant compounds and masterbatches and recycled polymers. Company highly experienced R&D and manufacturing team balances the material flame retardant & mechanical properties, and matches the regulatory requirements for various applications and markets for increasing their fire safety.

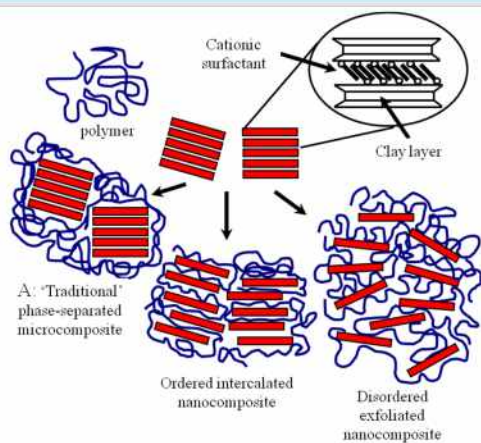


Artigiano & Co offers innovative, flame retardant compounds and masterbatches with:

- Excellent performance in established FR tests including UL 94, and comparative tracking index (CTI)
- Low generation of toxic gases and black smoke during combustion
- Effective flame retardants in a variety of polymer systems
- Low effect on physical and mechanical properties
- Good thermal stability and low volatility
- Excellent hydrolytic stability for improved performance under high humidity conditions

Artigiano & Co's unique technology suite can find application in improving the quality of extruded compounds like synthetic and natural polymers where surface scorch problems could be mitigated and higher curing speed achieved. The halogenated compounds like soft PVC could be improved and the replacement of toxic ATO provided.

Contact: Address: ul. Łódzka 123B, 87-100 Toruń. Poland, CEO: Sales & Technology
Francesco Vallorani francesco@artigiano-and-co.com, +39 340 989 6339 | CIO: Investments
Relarions Łukasz Feldman lukas@brave.vc T: +48 730 070 444 <https://artigiano-and-co.com/>





AZIMUTHE SP. Z O.O.

<https://azimuthe.com>

”

We are creators of cloud based data collector for producers, sales networks and other business entities, allowing to create and manage product data from different market segments, according to law and customers' requirements, based on product forms, statistic and reports.

”

Our product complies with international data models and provides data in multiple languages. We use machine and deep learning technologies, picture reading and text processing to provide high quality product to our customers.

Main services provided by us are: creating and delivering product data, reading and processing given information, data quality improving, data integration with other systems, standardizing core product data, enhancing and customizing marketing information based on product data.

Contact: CEO: Jacek Hecka jacek.hecka@azimuthe.com, Managing Director: Barbara Adamska barbara.adamska@azimuthe.com, ML Leader: Wojciech Blazejczak wojciech.blazejczak@azimuthe.com | T: +48 510 022 035 | Web: <https://azimuthe.com>
Mail: hello@azimuthe.com | Address: ul. Kijowska 44, 85 - 705 Bydgoszcz

AZIMUTHE SP. Z O.O.



CLUSTER MAZOVIA ICT





cthings.co
INTEGRATING YOUR WORLD

CTHINGS.CO SP. Z O.O.

<https://cthings.co/>

”

We design, develop and perfect custom bleeding-edge IoT solutions with 5G, cloud platforms and web applications.

”

We create smart IoT systems to help clients to better manage their processes with real-time analytics, by developing bridging 5G gateways and IoT sensors networks that are applicable in all the segments of Industrial revolution. We have systems for monitoring water level in sewage systems, long-life beacons for localizing assets, 5G gateway access points to bridge applications with 5G networks.

Intelligent systems for edge computing which embody best industrial design principles and telco standards, ensure vast and prompt integration of IoT sensor networks and industrial applications with 5G. Gateways, Beacons, Cloud Applications and embedded OS.

Contact: CEO: Arnold Wierzejski a.wierzejski@intelliventy.ai, CSO: Aleksandar Bogoevski a.bogoevski@intelliventy.ai, Marketing: Maja Koper m.koper@intelliventy.ai
T: +48 664 000 706 | Web: <https://intelliventy.ai> | <https://cthings.co/>
Address: CIC Warsaw, Chmielna 73, 00-801 Warszawa





HORIZON BUSINESS HUB SP. Z O.O.

<http://direct-astigmatic-test.com/>

”

*HorizOn Business HUB Sp. z o.o. was established 25th of November, 2014
Company conducts a wide market activity focused in particular on the
medical-related area in the field of eye disease diagnostics technology,
as well as on activities related to the broadly
understood technological scouting.*

”

HorizOn Business HUB is an innovative company commercializing DAT (Direct Astigmatic Test) devices using a new and unique method for detecting defects of optical systems in the diagnosis of eye defects, including astigmatism with the potential for development towards diagnostics of civilization diseases and screening tests. The new method is result of +5 years research and development projects and the subject of a patent application.

Company offers DAT, DAT Optor diagnostic devices supported with dedicated application for mobile devices – DATApp. The DAT & DAT Optor devices, using Direct Astigmatic Test method have the potential to be used in the diagnostics of disease states of the human body and the reasons for the appearance of eye defects.

Contact: Headquarters: ul. Graniczna 19, 20-010 Lublin Poland, Research & Development Center: ul. Obrońców Bydgoszczy 1, 85-054 Bydgoszcz, Poland, T: +48 609 18 17 14, CEO: Agnieszka Smektalska mail: agnieszka.smektalska@gmail.com, CSO: Albert Smektalski mail: albert.smektalski@gmail.com | Web: <http://direct-astigmatic-test.com/>
LinkedIn: <https://www.linkedin.com/company/dat-usa/> M: office@direct-astigmatic-test.com

HORIZON BUSINESS HUB SP. Z O.O.





MTAP SMART CITY SP. Z O.O.

<https://mtapsmartcity.com/>

”

mTap Smart City was founded in 2019 in Ełk, in 2020 company moved to Olsztyn. We are focused on development of hardware and software in area of Smart City.

”

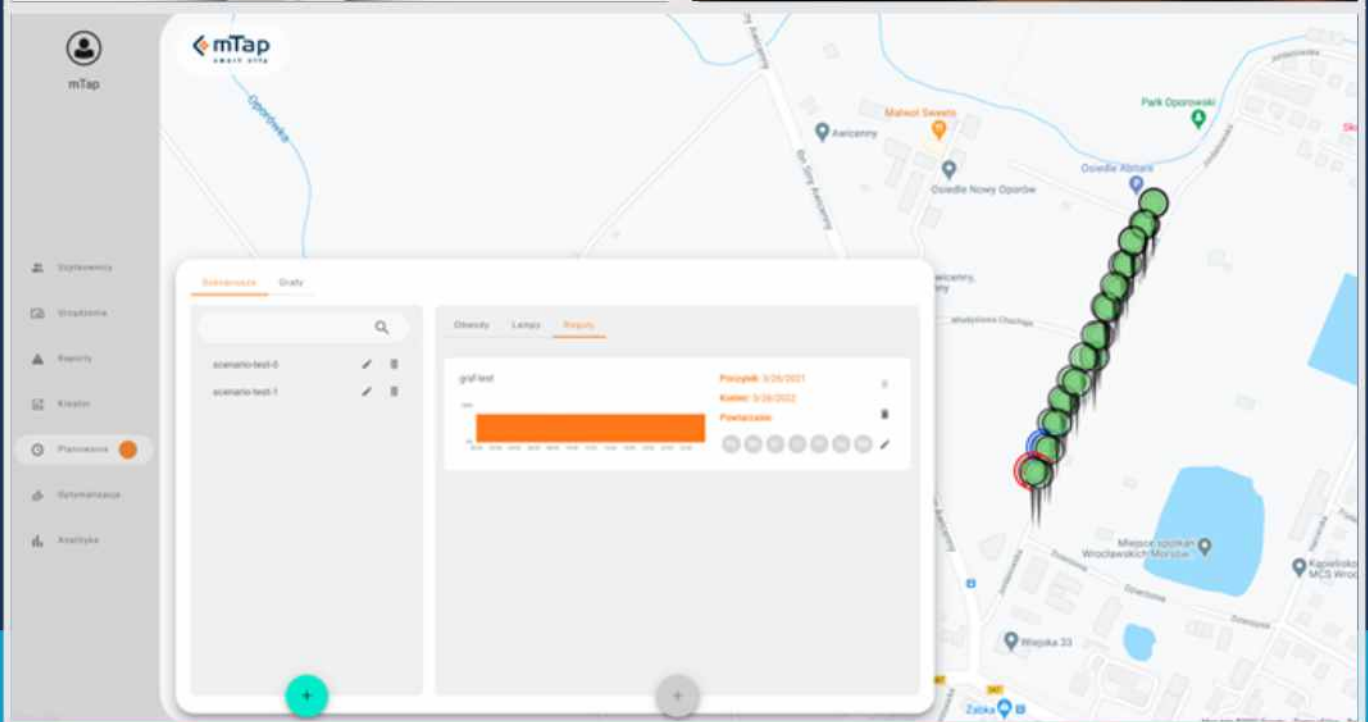
We focus on light management and air quality. Our team has strong skills in hardware and software development including LPWA communication, cloud solutions and AI. We are open for cooperation in area of Smart City and Industrial Light Management.

mTap Smart City offer 4 products:

- **mTap Data Platform** - management of light schedule, data from sensors and smart suggestions
- **mTap Smart City Controller** - DALI and DALI 2.0 compliant light controller with LTE-M communication
- **mTap Air Quality Sensor** - Air Quality sensor with USB or LTE-M communication
- **mTap Industrial** - module for industrial lights management

Contact: mTap Smart City sp. z o.o., Władysława Trylińskiego 14, 10-683 Olsztyn
<https://mtapsmartcity.com/> | contact@mtapsmartcity.com

MTAP SMART CITY SP. Z O.O.





PETAL INTERNATIONAL SP. Z O.O.

<https://petal.international>

”

Petal International was established in 2019 in Poland and provides cloud-based services for indoor farming worldwide, making smart indoor farming possible for all through a subscription.

”

Until now, high establishing costs to hardware and software has been a limiting factor for smart indoor farming. Petal International lets the clients use standard wireless IOT devices that are constantly lowering in price, because they are marketed across many industries.

UrbanFarmer is a subscription-based service for food activists, green entrepreneurs, first-moving retailers and a new generation of professional indoor farmers. They are in different ways reacting to the climate crisis, the global social inequality and the call for UN development goals.

Contact: Petal International Sp. z o.o., HQ: ul. Władysława Trylińskiego 2, 10-683 Olsztyn, Poland | Web: petal.international | Email: ceo@petal.international

PETAL INTERNATIONAL SP. Z O.O.





SEEDIA LTD.

www.seedia.city

”

SEEDiA is a tech company founded in 2016 in Poland that builds an intelligent infrastructure that allows to realistically optimize city services and reduce costs by up to 45%.

”

The heart of our system is the software and electronics which optimize the power distribution from solar panels. Our platform is designed to integrate smart solutions, while integrating SEEDiA product data with other urban solutions via API. Our products are energy independent, communicating with the cloud using 3G and 4G protocols. Seedia pays great attention to the quality of its equipment and processes, which is why it received ISO:9001 certification in 2021 and SEEDiA products have already received IK, IP and CE certifications.

SEEDiA offers smart solar furniture that is a part of small architecture. All our products are energy independent and in our portfolio can be found solar benches, infokiosk, smart hand sanitizers, bus shelters and micromobility charging station for e-scooters and e-bikes.

Contact: Head quarters office: Bociana 22, 31-231 Kraków, Poland, Piotr Hołubowicz, Chief Executive Officer of SEEDiA piotr@seedia.city, Paweł Smółka Business Development Manager, pawel@seedia.city | Website: www.seedia.city





SYSTEMS RESEARCH INSTITUTE, POLISH ACADEMY OF SCIENCES

www.ibspan.waw.pl



Research institute of the Polish Academy of Sciences (est. 1976), one of the leading in Poland and in Europe in advanced artificial intelligence, computational intelligence and data analysis, modelling of complex processes, operations research and optimisation, with applications in environment and ecology (e.g. air pollution transport), health, energy (e.g. smart local grids), knowledge engineering, IoT, decision support, water and sewage systems, transport, regional development, quality & reliability.



Examples of potential products / services:

- Models of air pollution distribution and transport in a city
- As above, with health impact assessment
- Smart control / management systems for prosumer-oriented energy grids
- Integrated systems for water supply and sewage system planning, monitoring and control

Contact: Systems Research Institute, Polish Academy of Sciences, Newelska 6, 01447 Warszawa, Poland | +48 22 3810 275 dyrekcja@ibspan.waw.pl owsinski@ibspan.waw.pl
www.ibspan.waw.pl

SYSTEMS RESEARCH INSTITUTE, POLISH ACADEMY OF SCIENCES



CLUSTER MAZOVIA ICT



THE GSSC ESCP-4i PARTNERSHIP

Mazovia Cluster ICT
Cluster Management Excellence

NANOPROGRESS
THE NANOTECHNOLOGY CLUSTER
Cluster Management Excellence

SOLARTYS
Cluster Management Excellence

CWP
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Cluster Management Excellence

CLUST-ER GREENTECH
ENERGIA E SOSTENIBILITÀ
Cluster Management Excellence

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BIOINOVA S.R.O.

www.bioinova.cz



Main focus of the company is the bench-to-bedside RnDof advanced therapy medicinal products (ATMPs) based on stem cells from different somatic and extra-foetal tissues for regenerative medicine and tissue engineering.



As a certified manufacturer of ATMPs under GMP, Bioinova has state-of-art manufacturing facilities for aseptic processes (cleanrooms class A/B). for regenerative medicine and tissue engineering. Bioinova also performs clinical trials with cell therapy products. Within the green smart cities sector, Bioinova contributes to improving the quality of life of the population and supporting the environment. Bioinova is also active in molecular diagnostics and develops novel in vitro diagnostic tools.

BiCure[®] ortho MSCp (MSCs in autologous plasma in combination with a 3D scaffold for orthopaedic indications)

BiCure[®] ophtalmo MSCs (MSCs for retinal diseases)

BiCureSol[®] (clinical grade solution for cell storage and transportation)

Bi-CoVTM set (set for biological material sampling and RAN isolation)

BiCureS

Contact: Bioinova s.r.o., | Vídeňská 1083 | 142 20 Prague | Czech Republic

E-mail: info@bioinova.cz | www.bioinova.cz





DBH TECHNOLOGIES S.R.O.

www.dbh-technologies.com



DBH Technologies is a technology start-up engaged in the development of innovative processing technologies that can be utilized especially in the food and cosmetic industries.

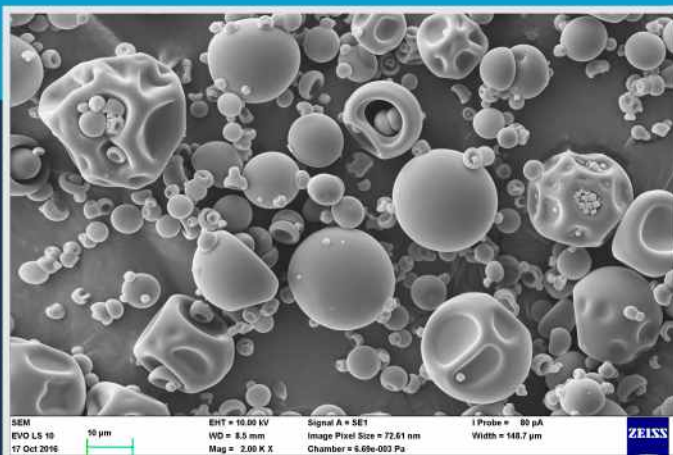


Currently, the company finishes a prototype of its own unique Carbon Dioxide Assisted Spray Nebulization Drying Technology (CASND), which is particularly suitable for drying and encapsulation of biological and thermolabile materials. The other focus of the company is the development of food applications and the third is the development of alternative technology for the production of nanofibers. Within the green smart cities sector, DBH Technologies contributes to improving the quality of life of the population and supporting the environment.

The main service of the company is the (contractual/collaborative) development of food formulations using, for example, functional proteins, nutraceuticals, probiotics, etc. Our know-how can be utilized in variety of food products such as flavored water, smoothies and yoghurts, bars, beer and more. Secondly, we offer the production of customer samples and drying through our CASND for other R&D teams.

Contact: DBH Technologies s.r.o., Československých legií 229, 439 01 Černčice, Czech Republic
zdenek.husek@dbh-technologies.com | www.dbh-technologies.com

DBH TECHNOLOGIES S.R.O.



CLUSTER NANOPROGRESS





ENVI-PUR S.R.O.

www.envi-pur.cz

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The company ENVI-PUR thanks to its long-lasting conceptual work, makes up one of the strongest Czech companies that is concerned with the development, production and the delivery of ecological equipment, focused especially on the branch of waste water treatment and water treatment.

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The company gains a dominant position on the Czech market due to its big proficiency and its products are evaluated even abroad, to where it exports successfully. ENVI-PUR works with a very strong developmental department, cooperates with colleges, remarkable specialists of the branch of waste water and water treatment. That is why the most of the products is patent protected.

Production programme of the company includes waste water treatment plants (WWTP) BioCleaner[®], biological WWTP, fats separators, oil separators, MBR, water treatment plants (WTP) for drinking and industrial purposes, components for WWTP and WTP, tanks, pumping stations, aeration systems, closure and regulation members, industrial air conditioning, mechanical engineering production, metal workshop , etc.

Contact: ENVI-PUR s.r.o., | Wilsonova 420, 392 01 Soběslav, Czech Republic
E-mail: info@envi-pur.cz | www.envi-pur.cz





EPS BIOTECHNOLOGY S.R.O.

www.epssro.cz



EPS biotechnology is conceived as a modern biotech company to constantly enhance the knowledge portfolio of their employees and the entire company.

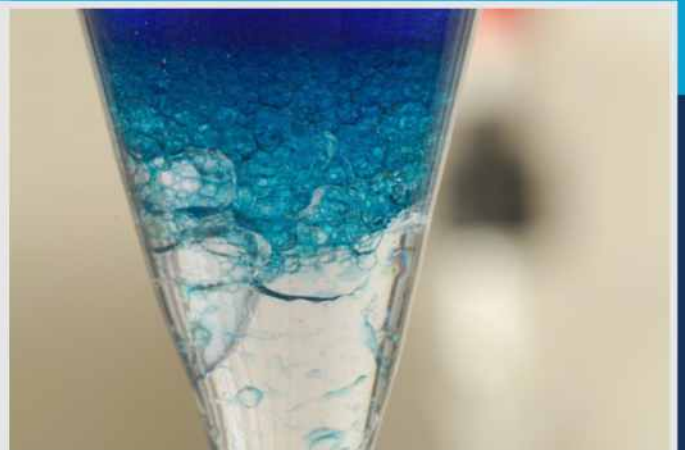


The development strategy is based on several key pillars which during over a decade the company's existence have proved successful, contributing to stability, long-term sustainable development potential and finally to a respected market position: research and development, procurement of environmental services, hazardous waste management and renewable resources in the form of operating biogas plants and composting.

The company currently has approved bioremediation technologies which allow for bioremediation efforts to be implemented on ground pollution, but also on biodegradation secure areas intended for hazardous waste treatment. EPS biotechnology, has facilities to conduct advanced research, covering a broad range of modern apparatus, equipment and a highly educated work force for laboratory research work. The company offers cooperation in bioremediation and contract-based research in environmental services.

Contact: EPS biotechnology s.r.o., V Pastouškách 205, 686 04 Kunovice, Czech Republic
E-mail: eps@epssro.cz | www.epssro.cz

EPS BIOTECHNOLOGY S.R.O.



CLUSTER NANOPROGRESS





FILTREX S.R.O.

www.filtrex.cz

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Based in Svitavy, Filtrex focuses on producing panel filters certified for use in food.

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Thanks to its unique dual-channel solution in place for the past twenty-five years already, the company's filters have proved the potential to save energy, finance and the environment. Tradition, quality and savings are the advantages that the company brings together for manufacturing and filter sales for brewing, wine, oil production, medicines and cosmetics. The company has established partnerships in Europe, Asia and Africa.

FILTREX mainly produces food filters for filtration of oils, beer, wine, spirits, fruit juices and mineral water. For oil filtration the company developed the nanomembrane RIFTELEN N15, which is currently undergoing operational testing with customers. For pressing of food oils, the offers oil presses, which can be supplied as a complete set including a filter. Their main products are the D11, and D18 filter, oil press HLOm- 01 ECONOM and HF 100/40 oil production set.

Contact: FILTREX s.r.o., | U Stadionu 2, 568 02 Svitavy, Czech Republic
E-mail: info@filtrex.cz | www.filtrex.cz





NANOPHARMA A.S.

www.nanopharma.cz



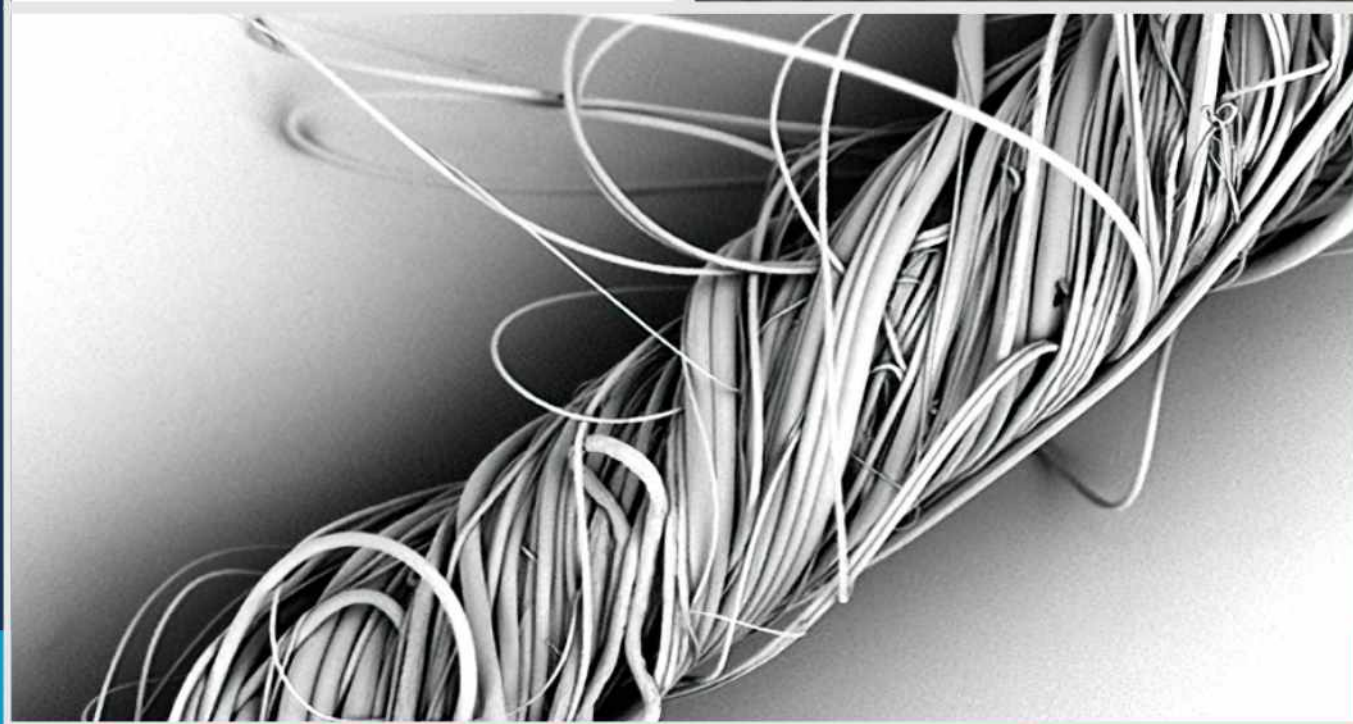
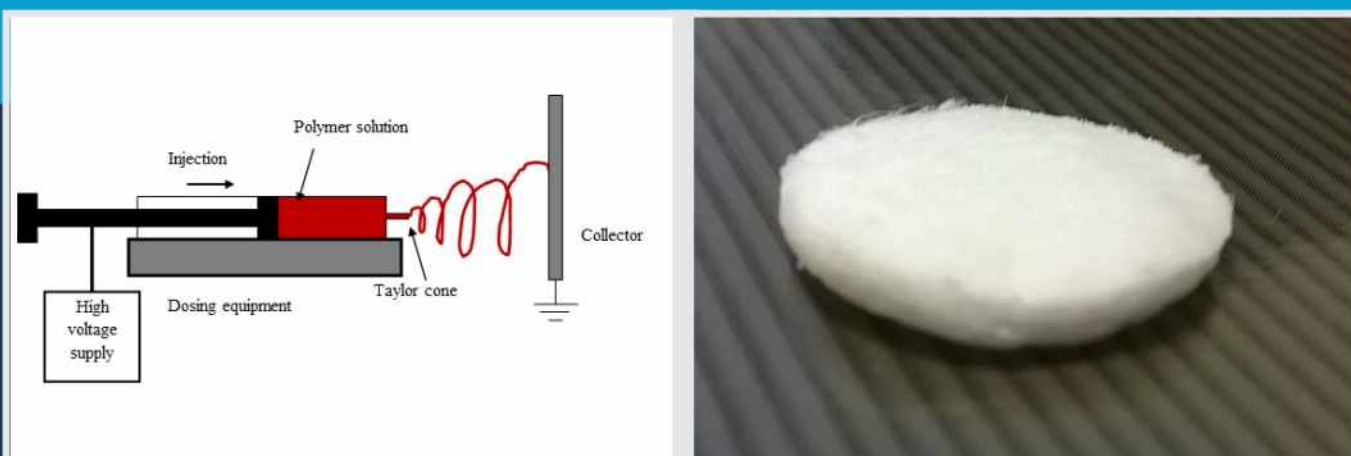
Nanopharma is a technology company operating in nanomaterial engineering. Since 2008 the company has focused intensively on research and development of nanofiber structures for clinical and technical applications.



The main activity of the company is the systematic research and development of innovative material solutions using 2D and 3D nanofiber structures, produced by conventional and coaxial spinning technologies. Nanopharma is also dedicated to energy saving technologies - electrical insulation, smart packaging and water saving. The Technology Solutions by Nanopharma division offers expert services in research, development, experimental validation and pilot testing of material solutions.

The company produces classic, coaxial or porous nanofibers to make nanostructures. From these structures it is possible to prepare custom 2D and 3D materials for specific cell lines, active substances and particular industrial products. The most promising outputs have been patented and commercialized in the form of licenses. Nanopharma has successfully commercialized two nanofiber-based products - the NanoMatrix3D[®] cell scaffold line and the [n]fibrecare nanofiber dry face mask.

Contact: Nanopharma a.s., Nová 306, 530 09 Pardubice, Czech Republic
E-mail: info@nanopharma.cz | www.nanopharma.cz





NANOSPACE S.R.O.

www.nanoSPACE.cz



nanoSPACE s.r.o. is a new emerging company, which operates on the Czech and foreign markets, especially in the field of nanofibers products. Whole production process is performed in the Czech Republic.



Suppliers of nanofibers substrates and laminates are also Czech nanotechnology companies. Thanks to our cooperation with them we continuously improve the processes and the quality of the products. Vision of nanoSPACE brand is to rank among the global leaders of barrier anti-allergy bedding. Solution of the company to use nanofibers is unique worldwide. The aim of nanoSPACE is to make this technology in the future as the standard. Within the green smart cities sector, NanoSPACE contributes to improving the quality of life of the population and supporting the environment.

NanoSPACE Company is the first company in the world that launched anti-mite barrier covers, sheets, blankets, pillows and toys with nanofiber barrier. This completely innovative way of protecting against dust mites allergens puts the company nanoSPACE to the leading global manufacturer of protective coatings for bedding. The company's offer includes a wide range of products based on special properties of nanostructures.

Contact: nanoSPACE s.r.o. | Rohova 98, 344 01 Domažlice, Czech Republic
E-mail: info@nanospace.cz | www.nanoSPACE.cz





NANOTECH DYNAMICS S.R.O.

www.ntdynamics.com

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Nanotech dynamics, ltd. is a dynamic start-up, whose core business is the development and commercialization of highly innovative products created primarily on the basis of a revolutionary technology for the preparation of nanofiber structures, which uses high voltage (electrospinning).

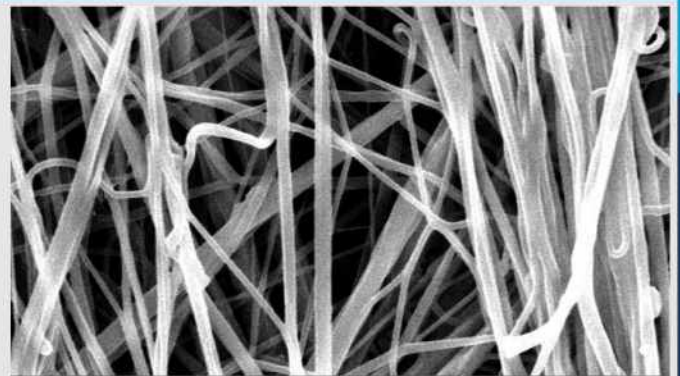
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We build on the know-how of our team, which was acquired during the implementation of more than ten years of research and development in the field of nanomaterials and nanotechnologies at prestigious institutions. Our credo is to provide the customer with a tailor-made solution from the specification of input materials through the delivery of technological solutions and production equipment to the final application. Within the green smart cities sector, Nanotech dynamics contributes to improving the quality of life of the population, supporting the environment and water remediation.

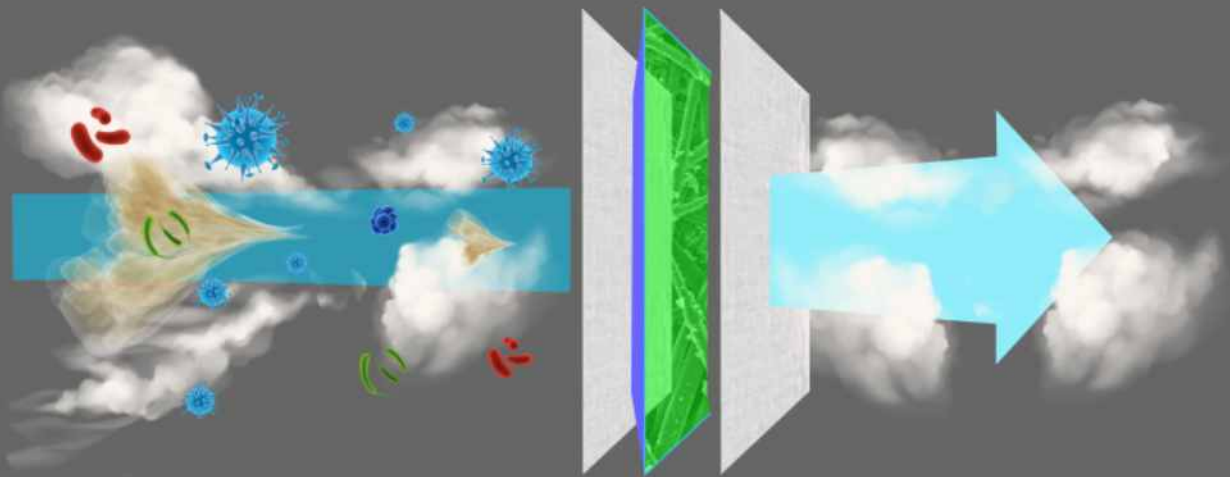
Our main products are Laboratory equipment for production of nanofibers, Personal protective equipment, Nanofibrous biomass carriers for water remediation, air and water filters, Tailor-made nanofibrous materials. These tailor-made materials are divided into two groups: Materials suitable for technical use, such as filtration, separation, special membranes and others, composed of a base polymer and Materials suitable for biomedicine, such as cell scaffolds, skin covers, fillers and others, composed of a base polymer. Main services are Technology development, Product development, Customized production, Specialised analyses and measurements.

Contact: Nanotech Dynamics s.r.o., Lounská 498/7, 460 07 Liberec

E-mail: info@ntdynamics.com | www.ntdynamics.com



SEM HV: 20.0 kV	WD: 14.57 mm	VEGA3 TESCAN
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NANOVLÁKENNÝ FUNKCIONALIZOVANÝ FILTR



NWT A.S.

www.nwt.cz

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NWT a.s. has been one of the most important technological and innovation companies in the Czech Republic for more than a quarter of a century.

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The Visual Society is the world leader in technology. Innovative products, problem solving and possible quality represent the core pillars of the holding. With a center in Zlín and offices in Slovakia, England and Cyprus, it employs more than 400 workers in agriculture, construction, information technology and energy savings.

Construction - realization of technological buildings and electrical installations
 Production greenhouses - turnkey production greenhouses. We operate production greenhouses and offer training and advice for new growers.
 IT - we supply computing, we offer cloud solutions and our own data center services.
 Energy - we specialize in large industrial installations as well as in the implementation of small heat and electricity sources in family houses. We are engaged in service of small and large photovoltaics, supply of economical LED lighting and we are also supplier of cheaper electricity and gas.

Contact: NWT a.s. | Třída Tomáše Bati 269, 760 01 Zlín, Czech Republic
 E-mail: info@nwt.cz | www.nwt.cz





TERAMED, S.R.O.

www.teramed.cz



TERAMED has the facilities to carry out research and development in the field of geological sciences and geotechnics, industrial biotechnology, and material research.



TERAMED has laboratory facilities dominated by equipment enabling intact processing of environmental materials and their maintenance in an inert atmosphere. TERAMED operates a special HYDROGEPARK infrastructure (www.hydrogeopark.cz), which allows demonstration of groundwater management, protection, and use, as well as an active approach to rainwater management in a near nature mode and allows testing in green chemistry mode.

Development of microbial fertilizers (agents for releasing of P and S nutrients from soil for plants and crop), anaerobic microbiology (mobile glovebox, anaerobic chamber, collection of anaerobic microorganisms, large respirometry systems, large-scale production, diagnostic kits), remediation agent production (IRB composite particles for CHS biodegradation, composting accelerators, crude oil product biodegradation by bacteria immobilized in oil droplets, agents for decentralized), plastic bags cultivation, tracer agent tests in soil (PITT technology), ROUX kit (own kit for estimation of reproduction danger in environmental samples), hydrogeological monitoring with on-line data signal – mobile application), HYDROGEPARK (facility for field testing in hydrogeology, environmental chemistry, geomicrobiology, geochemistry and monitoring system development – www.hydrogeopark.cz), infiltration tests – mobile device, soil infiltration capacity, drilling works, bioremediation – field application, biocorrosion test simulation, particle surface colonization, isolation of microorganisms, their conservation, characterization, and simulation tests, pavilion for technological development – large infrastructure for environmental process simulation, artificial septic tank for testing of water treatment tools.

Contact: Nad Kamínkou 1345, 156 00 Praha- Zbraslav - HYDROGEPARK Pátek | TERAMED Kolín (Polepská 831 , 280 02 Kolín) , T: +420605904826 | mikes@teramed.cz | www.hydrogeopark.cz



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