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## SILEO Pool of Technology Uptake Facilitators

*1<sup>st</sup> Open Call for Business Digital Transformation Projects*

**V11**



HISTORY OF CHANGES		
Version	Publication Date	Change
V01	13.04.2023	Initial version
V02	19.04.2023	New profiles added (in total 19)
V03	27.04.2023	New profiles added (in total 22)
V04	04.05.2023	New profiles added (in total 24)
V05	11.05.2023	New profiles added (in total 26)
V06	18.05.2023	New profiles added (in total 28)
V07	25.05.2023	New profiles added (in total 30)
V08	29.05.2023	New profiles added (in total 35)
V09	31.05.2023	New profiles added (in total 39)
V10	07.06.2023	Final version (in total 43 profiles)
V11	08.06.2023	Final version updated (in total 44 profiles)



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## 1. About the SILEO project








<b>Project Acronym:</b>	<b>SILEO</b>
<b>Project Title:</b>	Supporting recovery and business transformation of lighting & furniture SMEs for the Europe Industry of Tomorrow
<b>Project Reference:</b>	Grant Agreement n° 101074564
<b>Call Identifier:</b>	SMP-COSME-2021-CLUSTER
<b>Project duration:</b>	36 months (01.09.2022 – 31.08.2025)
<b>Project budget:</b>	1.438.835,42 EUR 1.050.000,00 EUR will directly benefit lighting and furniture SMEs in the form of financial support (to third parties)/ lump sums / prizes
<b>Website:</b>	<a href="https://clustercollaboration.eu/eu-cluster-partnerships/euroclusters/sileo">https://clustercollaboration.eu/eu-cluster-partnerships/euroclusters/sileo</a>
<b>SILEO Open Calls Application portal:</b>	<a href="https://clustersubmissionplatform.eu/eurocluster_post/business-digital-transformation-projects-1st-open-call/">https://clustersubmissionplatform.eu/eurocluster_post/business-digital-transformation-projects-1st-open-call/</a>

**SILEO Eurocluster project is co-financed by the Single Market Programme (SMP/COSME Pillar) of the European Union.** SILEO gathers seven key lighting and furniture clusters from Austria, France, Italy, Romania and Spain.

COVID-19 has shown that resilience matters and laid bare the ‘resilience divide’ between small and large firms. SILEO Consortium will support the European Small and Medium-sized Enterprises - SMEs of the lighting-furniture sector to recover fully from the crisis, become more resilient and better prepared for the digital and circular transition needs and challenges.

**SILEO Eurocluster project will help the European lighting and furniture SMEs to be proactive actors in this transition.**

SILEO Consortium aspires to capture all the digitalisation potential for the furniture and lighting SMEs with a concerted effort channelled through an open and inclusive ecosystem for innovation and technology business upgrading with accompanying business support measures including expert consultancy, business resilience building guidance, reinforced by direct financial support schemes and talent placement service to help companies attract talents.

SILEO CONSORTIUM		
	1. <a href="#">ELCA European Lighting Cluster Alliance</a>	Italy
	2. <a href="#">Cluster Lumière</a>	France
	3. <a href="#">CICAT Lighting Cluster</a>	Spain
	4. <a href="#">Rete di Imprese Luce in Veneto</a>	Italy
	5. <a href="#">Business Upper Austria - OÖ. Wirtschaftsagentur GmbH (BIZUP)</a> <a href="#">Building Innovation Cluster (BIC)</a>	Austria
	6. <a href="#">TFC Transylvanian Furniture Cluster</a>	Romania
	7. <a href="#">Cluster Legno, Arredo e Sistema Casa FVG</a>	Italy

During the project course, the SILEO Consortium envisaged 5 typologies of Financial Support to Third Parties - FSTP to be activated through open calls for cascade funding. The SILEO budget for the FSTP (financial support) open calls is 1.050.000,00 EUR.

The following financial support schemes for lighting and furniture SMEs are planned:

1. **SILEO Hack Day Travel Support for lighting & furniture SMEs** (financial support through lump sum)

Two 1-day international Hackathons “SILEO Tech Challenge - Hack Days to Drive Innovation in Lighting & Furniture” - will be organised by Rete di Imprese Luce in Veneto and Transylvanian Furniture Cluster in Italy and Romania. To help the maturation of ideas and investment projects, SILEO Consortium will support lighting and furniture SMEs’ participation in the project hackathon events and help them take an active part in the matchmaking with technology providers with the SILEO Hack Day Travel Support.

*Two open calls envisaged one per hackathon event. 1<sup>st</sup> Call planned for June 2023, 2<sup>nd</sup> Call planned for 2024.*

2. **SILEO Business Digital Transformation Projects** (financial support through lump sum)

Financial support to SILEO Business digital transformation projects aims to facilitate the collaboration of lighting and furniture SMEs with digital technology providers/facilitators and access to specific expert consultancies to boost business green and digital transition.

*Two open calls envisaged. 1<sup>st</sup> Call planned for 17 April 2023; 2<sup>nd</sup> Call planned for January 2024.*



### 3. SILEO Advance Technology Uptake Projects (financial support through lump sum)

Financial support through the SILEO Advance Technology Uptake Projects will be offered to support lighting and furniture SMEs in implementing/developing/integrating the new advanced technology(ies) into their business operations to support company resilience, digital and green transformation.

*Two open calls envisaged. 1<sup>st</sup> Call planned for January 2024; 2<sup>nd</sup> Call planned for September 2024*

### 4. SILEO Talent Placement Projects (financial support through lump sum)

Financial support through the SILEO talent placement projects aims to help SMEs attract talents - young professionals to reinforce company digitalisation and circular economy transitions, and to facilitate the job placement of new graduates in the world of work.

*One Call planned for November 2023.*

### 5. SILEO Best Company Story-telling video Contest (cash prizes)

To support companies' visibility and international appeal, lighting and furniture SMEs will be invited to take part in the SILEO International Contest for the "Best SME Storytelling" video, showcasing their green and/or digital transition success story (-ies).

*One open call is planned for September 2024.*

## 2. SILEO Pool of Technology Uptake Facilitators

In the frame of the SILEO Financial support to third parties scheme (cascade funding), and in particular, for the Business Digital Transformation Projects and Advanced Technology Uptake Projects, SILEO Consortium will identify and select **technology providers and/or digitization experts** through a specific **Call for Expression of Interest (Eoi)** to support SMEs - beneficiaries of these two funding opportunities - in implementing the project activities. The received Eoi applications are evaluated by the SILEO Partners to assess the expertise, competence and knowledge and technology transfer capacity in the target domain of advanced technologies uptake and digitalisation processes for SMEs.

The **SILEO Pool of Technology Uptake Facilitators** includes validated

- technology providers,
- tech-savvy companies (technology companies),
- Digital Innovation Hubs,
- Competence Centres,
- Academia, research centres and up-scaling entities,
- digitalization experts and

other bodies who are interested in supporting lighting and furniture SMEs in the digital and green transition and answered the specific *Call for Expression of Interest (Eoi)* launched by SILEO Consortium partners.

The SILEO Pool of Technology Uptake Facilitators is published on the [SILEO Application Portal](#).

Under the SILEO Open Calls for Business Digital Transformation Projects and Advanced Technology Uptake Projects, the **SME Applicant can select the technology provider(s) and/or digitalisation expert(s) from the existing list of validated expert organisations or can propose its own** by submitting the Expression of Interest Form (Eoi) completed by the proposed service provider to SILEO Coordinator ELCA and Partner of reference for country of origin (of the applicant and provider).

The Eoi form of a new provider must be submitted by email at the latest two weeks before the Call closure. For the SILEO 1° Open Call for Business Digital Transformation Projects (Call opening 17.04.2023 – call closure 20.06.2023) the Eoi must be submitted **until 06 June 2023**.



The SME Applicant and the selected technology provider(s) and/or digitalisation expert(s) must be two independent legal entities to avoid any conflict of interest. Moreover, there should be no conflict of interest between the technology provider/digitalisation expert and the SILEO project partners.

## Open Call for Business Digital Transformation Projects

In view of the [1<sup>st</sup> SILEO Open Call for Business Digital Transformation Projects](#), the SILEO Pool of Technology Uptake Facilitators will support SME beneficiaries in accessing the following expert services as:

- a) **General expert consultancy on company digitalisation processes** (*Which company processes might be digitised to improve its innovation and business potential?*)
- b) **Specific expert consultancy on identified advanced technology(ies) and/or digitalisation process(es) to concretely explore its potential uptake at the company level**, its implementation procedure into the firm operations and scale of investment (*How the specific technology or digitalisation process can upgrade business growth, green and digital transformation, what are its cost-benefit and estimated investment plan?*)
- c) **General expert consultancy for business transformation and market analysis**: support in market intelligence analysis including an outline of the size of the (new) market (segments) potentially accessible thanks to the company's technological upgrading, product demand, trends, customers, competitors (*What are the new market prospects in view of the company digital upgrading?*)

The [Call for Expression of Interest](#) will be open two weeks before the deadline of the 1<sup>st</sup> Open Call for Business Digital Transformation Projects (**until 06 June 2023**).

Experts interested must send their expression by email to the SILEO Coordinator ELCA and SILEO Partner of reference for the country of origin (of the applicant and provider).

SILEO SME HELPDESK			
Country	SILEO Partners	Representatives	E-mail
EU & SMP Associated countries	ELCA European Lighting Cluster Alliance	Marta Krakowiak	<a href="mailto:Marta.krakowiak@elcacluster.eu">Marta.krakowiak@elcacluster.eu</a>
France	Cluster Lumière	Mary Hadidi	<a href="mailto:m.hadidi@cluster-lumiere.com">m.hadidi@cluster-lumiere.com</a>
Spain	CICAT Lighting Cluster	Andrea Padre Martinez	<a href="mailto:apadre@secartys.org">apadre@secartys.org</a>
Italy – Veneto Region	Rete di Imprese Luce in veneto	Antonella Venza	<a href="mailto:antonella.venza@luceinveneto.com">antonella.venza@luceinveneto.com</a>
Austria	Business Upper Austria - OÖ. Wirtschaftsagentur GmbH (BIZUP) - Building Innovation Cluster (BIC)	Isabella Mantello	<a href="mailto:isabella.mantello@biz-up.at">isabella.mantello@biz-up.at</a>
Romania	TFC Transylvanian Furniture Cluster	Andreea Toma	<a href="mailto:andreea.toma@hygia.ro">andreea.toma@hygia.ro</a>
Italy – FVG Region	Cluster Legno, Arredo e Sistema Casa FVG	Caterina Pezzicar	<a href="mailto:caterina.pezzicar@clusterarredo.com">caterina.pezzicar@clusterarredo.com</a>

The 2<sup>o</sup> Open Call for Business Digital Transformation projects is envisaged for January 2024.



## Open Call for Advanced Technology Uptake Projects

In view of the SILEO Open Call for Advanced Technology Uptake Projects (1<sup>st</sup> Open Call scheduled for January 2024 and the 2<sup>nd</sup> for September 2024), the SILEO Pool of Technology Uptake Facilitators shall support SME beneficiaries in the following activities:

- a) **Prototyping of new products** using the selected advanced technology; and/or
- b) **Testing the new digital solution(s) and/or advanced technology(ies) application** in specific company production/manufacturing/commercialisation/management processes and its/their effective demonstration (**pilot application**).

## List of advanced technologies and digital solutions individuated from SILEO Consortium (*not exhaustive list*)

SILEO Partners carried out a preliminary but methodical research on the most requested and relevant advanced technologies that are key to enable digital and green transitions of lighting and furniture companies.

Thanks to this bottom-up exchanges, the following advanced technologies (*not exhaustive list*) have been individuated as of paramount importance for the lighting and furniture SMEs:

- ✓ **Additive Manufacturing** (3D printing) - The technology will improve resource efficiency in both production and use phases as manufacturing processes and products can be redesigned for AM, as well as extend product life achieved through technical approaches such as repair, remanufacture and refurbishment, more sustainable socio-economic patterns like stronger person-product affinities, closer relations producers - consumers.
- ✓ **Augmented and Virtual Reality** - support implementation of smart products, enhance focus on delivering customer experience and hyper customization for designers and end-users. Customization through VR allow lower product errors, diminish waste, impacting positively the shift towards a low-carbon-based economy.
- ✓ **Big Data & Analytics** - Data-based analysis tools used to visualize bottlenecks and risks in real time and present them in a comprehensible way.
- ✓ **Cybersecurity** - Most of the new building facilities are equipped with grid-connected products incl. lighting, electricity, heating etc. The lighting fixtures are used for the IoT sensors. Unfortunately, this makes them attractive for cyber-attacks. Thus, cyber security technologies should be included into smart lighting products.
- ✓ **Industrial IoT (IIoT) & sensors** - IIoT increase safety and efficiency at production sites, reduce human errors, improve logistic and distribution and thus increasing the resilience of companies to crisis related to suppliers. The integration of sensors or the development of printable codes to the wood logs for the raw material tracking and data acquisition. Available functionalities allow for very precise management of light sources so that the lighting is perfectly suited to the function of the ambient, and the energy consumption is maximally rationalised
- ✓ **Robotics** - efficient implemented robotics, such as material handling, welding, MIG, spot and arc welding, etc., will enable SMEs to improve the safety standards, the quality of their products and their resources usage.
- ✓ **Artificial Intelligence** - useful for product proposals via apps and for product development. AI has the potential of impacting the whole product design, increasing customisation. Lower errors and higher creativity in production.



- ✓ **Digitalisation of marketing and online trading**
- ✓ **Image scripting technologies** - This technology can be used to produce photorealistic images of each furniture or lighting product, enabling it to be showcased online in detail. Thus, consumers can view these products online, can zoom in and out without any loss of quality or clarity, or rotate images at any angle. Besides that, portions of the image can even be dissolved in order to reveal hidden components and features
- ✓ **WebAR:** This technology can help businesses in getting products to market in time and effectively communicate the worth and utility of a complicated and expensive product in B2B. It is also a sales tool that allows a customer to easily visualize how a product will fit within their own home. This is achieved with digital models of products that can be placed within real environments using AR technology
- ✓ **Machine learning:** Using artificial intelligence allows one to create a personalized buying experience for every individual customer
- ✓ **Others:** Other technologies and digital solutions relevant to the lighting and furniture business operations supporting green and digital transition. *Example of other technologies/solutions indicated by the validated expert organisations: ESG assessment Facilitation; consulting & support of innovation project using AI for product proposals; Innovation Processes; Light Communications technology; Blockchain; Computer Vision; Innovation management; Business Process Reengineering; Human-Like AI-ChatBots; IoT Connected Products; Computational Fluid Dynamics (CFD) and Numerical Optimisation (NO); 3D Scanning and modeling (accurate assets creation); Photogrammetry; End of Arm Tools (EOAT); Circular materials.*

### 3. List of validated organisations

The following list, the **SILEO Pool of Technology Uptake Facilitators**, is the expert database, which includes all the validated technology providers and digitalisation experts who have expressed their interest in supporting lighting and furniture SMEs under the SILEO Open Calls. The following list is organized at the country level and ordered alphabetically. The document is published online and regularly updated.

Code	Organisation	Country	Sector
004	IDEAZ e.U.	Austria	Furniture
040	Kompetenzzentrum Holz GmbH	Austria	Furniture
042	ThorbiQ NV	Belgium	Lighting
011	MATEREAL	France	Lighting
039	STRATE, school of design	France	Both
010	/NUOVOSTUDIODRASLER	Italy	Both
038	ADV GROUP	Italy	Furniture
021	Consortium Ubiquitous Technologies s.c.a r.l.	Italy	Both
001	EDALAB	Italy	Lighting
0022	Forma Srl	Italy	Lighting
002	Foxwin srl	Italy	Furniture
003	GF Tech S.r.l.	Italy	Both
028	Inventronics S.r.l.	Italy	Lighting
015	Lightcube SRL	Italy	Lighting
024	MANGANELLI MARIO	Italy	Both
027	Materially Srl Impresa Sociale	Italy	Both
013	OFFICINA DIGITALE S.r.l.	Italy	Both
031	PARCO SCIENTIFICO E TECNOLOGICO GALILEO – GALILEO VISIONARY DISTRICT	Italy	Both
012	Quasar srl	Italy	Furniture
017	Rawfish srl a socio unico	Italy	Both
009	Skeinholding s.r.l.	Italy	Both
008	SMACT scpa	Italy	Both
025	Vection Italy Srl	Italy	Both
014	VISUP SRL	Italy	Furniture
019	enlum Nikodem Derengowski	Poland	Both
032	F.P.H.U. "SEPHIA" DOMINIKA KUROWSKA DA COSTA	Poland	Furniture
005	Crantec	Portugal	Both
041	Asociația Digital Innovation Zone - Zona de Inovare Digitală	Romania	Furniture
044	il-Silv soluții ingineresti srl	Romania	Furniture
007	INNO Robotics srl	Romania	Furniture
006	TESAGON INTERNATIONAL	Romania	Furniture
016	Acondicionamiento Tarrasense (Leitat)	Spain	Both
023	Aumenta Solutions	Spain	Furniture
036	D13 GESTIÓN DE LA ENERGÍA S.L.	Spain	Lighting
018	Enlighting Technologies SL (KUMUX)	Spain	Lighting



030	<b>INNOVA IT, SL</b>	Spain	Both
035	<b>LAMÁQUINA</b>	Spain	Both
026	<b>Maqmetal Automation SL</b>	Spain	Lighting
034	<b>NOUMENA DATA SERVICES SL</b>	Spain	Both
029	<b>Òscar Beà Torras</b>	Spain	Both
020	<b>Sterna Innovation Projects, SL</b>	Spain	Lighting
043	<b>TECNICOS ECONOMISTAS ASESORES, S.A.</b>	Spain	Lighting
037	<b>TELEMATEL SLU</b>	Spain	Both
033	<b>Sigma Technology Solutions Group</b>	Sweden	Furniture



## Technology Uptake Facilitators from Austria

IDEAZ e.U.

**IDEAZ**  
Business Innovation



<b>Technology provider name</b>	IDEAZ e.U. (code 004)
<b>Location</b>	Rohrbach-Berg, Austria
<b>Company typology</b>	Innovation Consulting
<b>Expertise sector</b>	Furniture
<b>Contact person</b>	Edith Öller Email: <a href="mailto:edith@ideaz.at">edith@ideaz.at</a> Phone number: 0043681 10373347
<b>Website</b>	<a href="http://www.ideaz.at">www.ideaz.at</a>
<b>Speaking languages</b>	German, English, French, Spanish

### PROFILE

IDEAZ Business Innovation was founded in 2020 with the aim of helping companies to actively prepare for the future in times of dynamic change in the market and technology environment and to strengthen their position in the market. We are convinced that only companies that act sustainably will be successful in the long term. Even innovative companies often need a new perspective, new methods or a new way of thinking.

IDEAZ offers support focusing on **innovation & sustainability** including **consulting, facilitation, workshops and project** support in the field of: Product & Service Innovation (including digital & tech-innovation), Business Modelling (including Business Models for Sustainability), Circular Economy, Ecological and Social Impact, Purpose & Values, Vision & Strategy, CoCreation, User-centered Design, Design Thinking, Scrum, Agile in Hardware, Agile Leadership

Your consultant, **Dr. Edith Öller** is the founder of IDEAZ Business Innovation.

In addition to studying International Business Administration, she graduated from the University of Fine Arts and dealt intensively with the topics of design thinking and business modelling. In her work, she combines creativity and analytics. In addition, she has many years of experience as a CEO and Business Development Manager in various companies, and she supports start-ups and young founders as a start-up mentor.

For more information: [www.ideaz.at](http://www.ideaz.at)

### EXPERTISE PROVIDED IN THE FURNITURE SECTOR:

Product & Service Innovation (including digital & tech-innovation), Business Modelling (including Business Models for Sustainability), Circular Economy, Ecological and Social Impact, Purpose & Values, Vision & Strategy, CoCreation, User-centered Design, Design Thinking, Scrum, Agile in Hardware, Agile Leadership.



## **KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS**

<b>Technology/Solution</b>	<b>Expertise</b>
<b>Additive Manufacturing (3D printing)</b>	Facilitation, consulting & support of innovation project dealing with 3D printing in architecture as well as supporting business model processes including additive manufacturing solutions (e.g. to become more „circular“).
<b>Augmented and Virtual Reality</b>	Facilitation, consulting & support of innovation project using AR/VR for product demonstration, product individualization and in „virtual showrooms“ as well as supporting business model processes including AR/VR solutions.
<b>Robotics</b>	Facilitation, consulting & support of innovation project using robotics solutions.
<b>Artificial Intelligence</b>	Facilitation, consulting & support of innovation project using AI for product proposals.
<b>Facilitation, consulting &amp; support of innovation project using AI for product proposals</b>	Facilitation, consulting & support of innovation projects and business model processes including digitalisation of marketing and online trading (also in combination with VR/AR or AI-tools).
<b>Innovation Processes</b>	Facilitation & support of product/service innovation and business modelling processes using user-centered and agile co-creation methods as Design Thinking, Scrum and including the Circular Economy and SDG framework.



Kompetenzzentrum Holz GmbH

**WOOD**

**K PLUS**



<b>Technology provider name</b>	Kompetenzzentrum Holz GmbH (code 040)
<b>Location</b>	Linz, Austria
<b>Company typology</b>	Academia
<b>Expertise sector</b>	Furniture
<b>Contact person</b>	Andreas Haider Email: <a href="mailto:a.haider@wood-kplus.at">a.haider@wood-kplus.at</a> Phone number: +43 732 2468 6771
<b>Website</b>	<a href="http://www.wood-kplus.at">www.wood-kplus.at</a>
<b>Speaking languages</b>	German, English

## **PROFILE**

Wood K plus is a leading research organisation in the area wood and wood-related renewable resources in Europe. Our core competences are materials research and process technology along the complete value chain – from raw material to finished products. The R&D activities can be accompanied by sustainability assessment. We develop methods and basics and perform applied research on the economy-science interface, in order to enable resource-efficient management in the circular bioeconomy. Wood K plus was funded in 2000 and started operational work in 2001 and is located at 3 sites in Austria (Linz/Upper Austria, Tulln/Lower Austria, St. Veit/Carinthia).

In long-term research projects and programmes the experts of Wood K plus search for innovative solutions for companies, with scientific partners providing their know-how and many years of experience. Wood K plus analyses in cooperation with the industrial partners the demand for innovation, organizes the demand in technological issues and identifies promising approaches to the problems that can be implemented in specific research projects. If necessary, Wood K plus also acts as project manager from project definition, preparation of applications for projects, integration of partners over processing to clearing and communication with sponsors. Within the framework of service agreement tests, feasibility studies, expert reports and business consultancy are provided.

## **EXPERTISE PROVIDED IN THE FURNITURE SECTOR:**

Material and processing development – biobased materials, improving of manufacturing processes, surface coatings – applying above mentioned expertise.



## **KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS**

<b>Technology/Solution</b>	<b>Expertise</b>
<b>Additive Manufacturing (3D printing)</b>	Production of granules and filaments with own pilot line (unfilled, filled polymers, continuous fibres), FLM printing on various own printer systems, processing of granules, comprehensive characterization, formulation of polymeric materials.
<b>Augmented and Virtual Reality</b>	Developing assistance systems within manufacturing settings using e.g. spatial augmented reality, AR or VR glasses.
<b>Big Data &amp; Analytics</b>	Application and further development of computer vision systems including e.g. classification using neural networks; Multivariate statistical models for predictive analytics.
<b>Industrial IoT (IIoT) &amp; sensors</b>	Traceability of wood using markers or computer vision; developing sensors on and in wood for e.g. moisture sensing; Measurement of colour and lightness of surfaces of wood and engineered wood products;
<b>Robotics</b>	Expertise in using and programming collaborative robots.
<b>Artificial Intelligence</b>	Application of AI algorithms e.g. for classification of wood assortments, wood species or signals from wood processing etc.
<b>Machine learning</b>	Applications see above (improving manufacturing processes, computer vision, etc.).



## Technology Uptake Facilitators from Belgium

### ThorbiQ NV



<b>Technology provider name</b>	ThorbiQ NV (code 042)
<b>Location</b>	Lokeren, Belgium
<b>Company typology</b>	Technology company
<b>Expertise sector</b>	Lighting
<b>Contact person</b>	Wim Tas Email: <a href="mailto:wim.tas@thorbiq.com">wim.tas@thorbiq.com</a> Phone number: +32 472 53 52 30
<b>Website</b>	<a href="http://www.thorbiq.com">www.thorbiq.com</a>
<b>Speaking languages</b>	Dutch, English, French

#### **PROFILE**

ThorbiQ was founded in December 2016 as a spin-off of an engineering office for technical installations in Belgium.

ThorbiQ is a “technology as a service” company active in the digital transformation within the construction industry. Our primary target market is the group of manufacturers of building products. We help them in deploying a digital sales and marketing channel as a lead generation machine, improving their brand awareness, increasing their sales and improving their internal efficiency.

ThorbiQ is a technology provider that enables a webbased application plaGorm where both humans and machines can interact with to get reliable content, data and applications straight from the source.

ThorbiQ provides a technology as a Service (TaaS) for establishing their own sales and marketing channel towards all actors in the building industry. It consists of Digital Catalogues that integrate with BIM (Building Information Modelling). ThorbiQ offers services to manufacturers for structuring their data and content inline with the standards in that digital world.

Fully integrated approach for setting up an environment to interact as a manufacturer of technical installation products with your customers throughout the whole lifecycle of a building. The environment can be setup in weeks rather than months or even years.

#### **EXPERTISE PROVIDED IN THE LIGHTING SECTOR:**

Expertise in lighting design as a former engineering office working with Dialux and writing specification texts for project tenders.

BIM Object Creation for Etap, Deltalight, Kreon, Orbit.

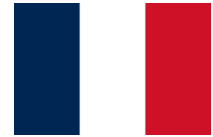


### **KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS**

Technology/Solution	Expertise
<b>Augmented and Virtual Reality</b>	With our technology, we can provide AR Objects of the products of a manufacturer for use in VR and AR environments.
<b>Digitalisation of marketing and online trading</b>	ThorbiQ enables a manufacturer to create its own digital catalogue which serves as sales and marketing channel towards all building professionals.
<b>BIM / Digital Catalogues</b>	Building Information Modelling. To participate as a manufacturer in digital construction with a cloud-based digital catalogue that integrates seamlessly with the digital world.

## Technology Uptake Facilitators from France

### MATEREAL



<b>Technology provider name</b>	<b>MATEREAL</b> (code 011)
<b>Location</b>	Vaulx en Velin, France
<b>Company typology</b>	SME research and innovation company
<b>Expertise sector</b>	Lighting
<b>Contact person</b>	Christophe MARTY Email: <a href="mailto:c.marty@matereal.net">c.marty@matereal.net</a> Phone number: +33 6 71 17 88 73
<b>Website</b>	<a href="http://www.matereal.net">www.matereal.net</a>
<b>Speaking languages</b>	French, English, Spanish

### PROFILE

MATEREAL provides a wide range of spectral SVBSDF files from a patented measurement method of real materials. The digitized materials can then be utilized in different renderers, with enhanced results obtained by spectral software and with calculators allowing BSDF extended exploitation. Complex materials such as sparkle paints, polarized materials, anisotropic materials, and texturized materials can now be characterized by MATEREAL and converted into a PBR material, making movies and video games even more realistic with physical based light effects brought by new categories of materials, and by renewal of previously existing ones. More and more materials are being characterized, making MATEREAL a key player in world's digitization.

MATEREAL is a startup created in May 2021, with the support of Ingelux lighting Design and national laboratory ENTPE in France. MATEREAL exploits and develops a patent by ENTPE, and has reached maturity for presenting its spectral material database and the corresponding PBR formats of it.

### EXPERTISE PROVIDED IN THE LIGHTING SECTOR:

Characterization of the optical behaviour of complex materials. Digitization of materials for PBR description: production of SVBRDF files to be used in light simulation software. Spectral, anisotropic, polarized, texturized materials.



### **KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS**

<b>Technology/Solution</b>	<b>Expertise</b>
<b>Augmented and Virtual Reality</b>	We provide SVBRDF files to be used in VR simulations, allowing actors to create scientific-based environments for the simulations.
<b>Artificial Intelligence</b>	Our SVBRDF files can be used to run multiple simulations of different situations, allowing to train AI displays in scientifically-based environments. Matereal is a support to train AIs with high number of simulates situations, without need of real samples or environments.
<b>Digitalisation of marketing and online trading</b>	Matereal can digitize most type of materials (texturized / polarized/ spectral/..) to be used for simulation in any type of application, including marketing and online trading
<b>Image scripting technologies</b>	Matereal provides the data files describing the materials of the simulated scenes, with scientifically-based measurements. The file include the complex behaviour of materials such as spectral/diffraction/polarization/etc. SVBRDF can be used to create Virtual twins and link to AI for instance.



## STRATE, school of design



<b>Technology provider name</b>	STRATE school of design (code 039)
<b>Location</b>	Lyon, France
<b>Company typology</b>	Academic
<b>Expertise sector</b>	Lighting/Furniture
<b>Contact person</b>	Paul Colombat Email: <a href="mailto:p.colombat@strate.design">p.colombat@strate.design</a> Phone number: +33 6 46 80 73 85
<b>Website</b>	<a href="http://www.strate.design">www.strate.design</a>
<b>Speaking languages</b>	English, French

### PROFILE

Strate, School of Design, renowned in France and internationally by both the academic ecosystem and companies, trains design professionals who will have a positive impact on the future. It is established on three campuses: Paris, Lyon, and Bangalore, covering the Ile-de-France region and Africa with short courses. Strate, School of Design offers ambitious multidisciplinary programs to meet the challenges of the 21st century. A designer's role falls between that of a marketer and an engineer. Designers must be able to identify people's needs while mastering technology to execute their skills in the service of others.

To achieve this, a designer at Strate, School of Design focuses on what we like to call "the design mix," which combines:

- Specific technical skills
- Knowledge of social sciences,
- marketing, and engineering Project
- management skills
- Creativity

Design constitutes a strategic lever for corporate development. Strate, School of Design trains the actors in their development, and the pedagogy is built upon a strong relationship with market players.

Strate, School of Design is a place of continuous dialogue and collaboration with companies. Through "Design" industrial partnerships, Strate, School of Design combines energy, passion, creativity, and freedom for prospective projects.

Once specifications and requirements have been defined, a group of 15 to 25 students at Strate, School of Design will utilize the school's resources (IT, Fab Lab, Workshops) to propose the best possible solution. Supervised by a professional designer, they will employ the methodology and expertise of a designer at Strate, School of Design to provide an innovative answer to your problem. What they deliver are essential design elements: trend surveys, concepts, mock-ups, use scenarios, videos, 3D models, and more. In any case, the school and all parties involved in the project agree to a confidentiality clause, and a transfer of copyright contract is signed between the partner and Strate, School of Design.



### **EXPERTISE PROVIDED IN THE LIGHTING & FURNITURE SECTOR:**

Trend surveys, concepts, mock-ups, use scenarios, video, 3D...

### **KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS**

Technology/Solution	Expertise
Additive Manufacturing (3D printing)	Trend surveys, concepts, mock-ups, use scenarios, video, 3D...
Augmented and Virtual Reality	
Big Data & Analytics	
Cybersecurity	
Industrial IoT (IIoT) & sensors	
Robotics	
Artificial Intelligence	
Digitalisation of marketing and online trading	
Image scripting technologies	
WebAR	
Machine learning	

## Technology Uptake Facilitators from Italy

### /NUOVOSTUDIODRASLER



<b>Technology provider name</b>	/NUOVOSTUDIODRASLER (code 010)
<b>Location</b>	Fagagna (UD), Italy
<b>Company typology</b>	Integrated Study for Design & Process Innovation
<b>Expertise sector</b>	Lighting/Furniture
<b>Contact person</b>	Giorgio Drasler Email: nuovostudio@drasler.it <a href="mailto:giodras@libero.it">giodras@libero.it</a> Phone number: +39 347 349 6547
<b>Website</b>	<a href="https://www.drasler.it/">https://www.drasler.it/</a>
<b>Speaking languages</b>	Italian, English

### PROFILE

/NUOVOSTUDIO DRASLER deals with distinctive expertise in innovation and integrated development of products (mostly furniture), services and business processes, operating for small, medium and large companies, concretely providing them with new successful ideas for markets that are ever faster in their evolution, often hybrid and turbulent, who never know rest. Our studio takes care of all of this. We are able to propose appropriate solutions to the most varied existing realities by providing new concepts and projects centered on trends and to favor the implementation of the Design Thinking philosophy and process within them. The staff is made up of three professionals in the areas of product and service design, communication and security.

The study also makes use of the collaboration of the best complementary professionals capable of providing the multidisciplinary approach necessary for innovation interventions in every field and for every market in their entirety.

In the specific area of design we use also platforms of Artificial Intelligence such as OpenAI and Generative Design tools; in the Organizational and Design Thinking we use processes of digital transformation. We offer a consultancy service regarding: brand value analysis/analysis of the product-service portfolio/competitive positioning analysis/assessment of market opportunities and threats and company strengths and weaknesses/analysis of current and future sector trends and their intersection/formulation of new product-service ideas/representation of the concept idea with DALL-E e 3D Studio/release motivated in the company with rendering of new products and services/support in the prototyping phase (3D print) of the product and service/communication to support the concept created for the market launch/consultancy for the implementation of design thinking in the company/web-sites, e-commerce and digital marketing, assistance in drafting the business plan/assistance to digital innovation in the generational handover in the company/assistance to the safety innovation system.



What differentiates us from other marketing, communication or design studios is the shared and multidisciplinary vision with expert collaborators in the areas most sensitive to the development of new product or service ideas for a specific market and segment(s) of it. We cross applied disciplines such as sociology, business organization and digital innovation, the analysis of emerging and consolidated trends, branding positioning, design value and effective communication. In short, Design Thinking! A winning model! From the initial company listening phase to the final presentation of the product/service concept, we always proceed through the preparatory logic of analysis and selection of market opportunities to be transformed into satisfying needs in a "competitively unique way".

#### **EXPERTISE PROVIDED IN THE LIGHTING SECTOR:**

New product development; design repositioning; brand enhancement; websites and e-commerce; product prototyping and engineering; trend analysis and setting.

#### **EXPERTISE PROVIDED IN THE FURNITURE SECTOR:**

New product development; design repositioning; brand enhancement; websites and e-commerce; product prototyping and engineering; trend analysis and setting.

#### **KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS**

<b>Technology/Solution</b>	<b>Expertise</b>
<b>Additive Manufacturing</b> (3D printing)	Prototypes obtained from 3D Print (Binder Jetting/ Inkjet Printing), FDM (Fused Deposition Modeling) or FFF (Fusion Filament Fabrication), Jetted Photopolymer, LOM (Laminated object manufacturing).
<b>Big Data &amp; Analytics</b>	Big Data Sources and analytics Marketing.
<b>Artificial Intelligence</b>	Use of AI (OpenAI, DALL-E and Generative Design to generate new products.
<b>Digitalisation of marketing and online trading</b>	Value promotion of brands to connect with potential customers using the internet and other forms of digital communication.





ADV GROUP

**ADV GROUP**  
Digital Technologies, Marketing & Consulting



Technology provider name	ADV GROUP (code 038)
Location	Pordenone, Italy
Company typology	Digital Marketing and Technologies company
Expertise sector	Furniture
Contact person	Federico, Paronuzzi Email: <a href="mailto:f.paronuzzi@groupadv.com">f.paronuzzi@groupadv.com</a> Phone number: +39333352453
Website:	<a href="http://www.groupadv.com">www.groupadv.com</a>
Speaking languages	Italian, English, Spanish

## PROFILE

**ADV GROUP** is a marketing technology company headquartered in the Technological Park “Alto Adriatico” in Pordenone, in the north east of Italy with over 13 years of experience in **Digital technologies, Marketing and Advertising**.

We analyse new trends on a fast moving and complex world, providing companies cutting-edge **technology and innovative marketing solutions** to compete in the global arena. Though a **network of high skilled professionals** we provide services for **marketing** and software **development**, like design of UI, UX and development of mobile app (hybrid, native iOS and Android), 3D objects, 3D rendering, 360 photos, product catalogs, websites, landing pages, e-commerce, CRM, advertising campaigns and customized web applications and web portals.

We recently developed and published **our own online software platform** to create **immersive and interactive experiences** in 360°/3D which can be even used by internal staff, like **designers** and **marketing managers**. It can be used to create:

- **E-commerce in 360°** where users can try products at home though **Augmented reality** and buy
- **24/7 Showroom and retails chains in 360°** with requests for quotations/appointments or sales funnels connected to CRMs.
- **Interactive product catalogs** with videos, lead generation, 3D products.
- **Assembly visual instructions**
- **360° establishment and plants** for virtual visits

We offer a new 3D browsing experience, immersive and interactive, which, for Marketing and Sales:

1. **Attract** and **increase** the **engagement** of visitors, customers and partners
2. **Enhance** the **user experience** with visual interfaces and immersive paths
3. **Elevate** the **brand positioning**
4. **Increase** the **remind** and the **awareness** of the brand, in the evaluation and purchase phases

5. **Increase the website visitors, average time spent and sharing rates**
6. **Increase the conversion rates (sales)**

For Maintenance, Service and Training the visual interface and the interactivity provided allow to make easier, **faster, more effective and lasting** the comprehension and understanding of assembly instructions, user manuals, both for fitters, resellers and end customers.

#### **EXPERTISE PROVIDED IN THE FURNITURE SECTOR:**

Knowledge of markets and online marketing for furniture sector. We have developed **websites and advertising campaigns** to generate quotation requests and leads to **furniture manufacturers** (kitchens, etc). **Rendering, Product catalogs and 3D products** (chairs, etc). We recently developed a 360° Interactive Virtual tour for the **Designtech in Salone del Mobile 2023** - Milan.

#### **KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS**

<b>Technology/Solution</b>	<b>Expertise</b>
<b>Augmented and Virtual Reality</b>	We create and manage <b>Interactive virtual and augmented reality experiences</b> . Expertise in creating interactive <b>Virtual Showrooms 360°</b> from photos or rendering. Creation of Interactive Product Catalogs including video and forms for resellers and end customers. Creation of <b>Assembly instructions in 360</b> for end users and fitters which allow to be easier to understand, provide a new experience and reduce assembly errors. Our software allow <b>designer and marketing managers</b> to project and create experiences with interactive and embedded elements in the environments (icons, texts, images, links, animations, videos, 3D objects, forms, html/js code) to add, for example <b>products in AR to try at home and connected to e-commerce, sales funnel connected to CRM, tickets for after sales support</b> . It can further use 360 videos and allow to start <b>streaming sessions and video calls</b> with customers. Can be easily shared as a link and <b>accessible by any device</b> , whatever is a smartphone, tablet, despot computer or even a VR visor within the need to install any app.
<b>Digitalisation of marketing and online trading</b>	Expertise in creating <b>company websites, landing pages, product catalogs, renderings, virtual showrooms, e-Commerce, generating sales funnels and marketing automation</b> through CRM (Customer relationship Management) and <b>planning and management of advertising campaigns</b> (Google, Linkedin, Facebook, Instagram, etc) both on B2B and B2C markets.
<b>Image scripting technologies</b>	Creation of <b>3D and products/environment renderings</b> , even with a super-high level of details for finishes.
<b>WebAR</b>	We can create <b>3D models</b> which can be seen and <b>tried at home in Augmented reality</b> though the camera of the Smartphones and without the need to install any app, so products and models can be easily shared to resellers and customers.



Consortium Ubiquitous Technologies s.c.a.r.l.



<b>Technology provider name</b>	<b>CUBIT s.c.a.r.l.</b> (code 021)
<b>Location</b>	Cascina, Italy
<b>Company typology</b>	technology provider, tech-savvy company
<b>Expertise sector</b>	Lighting/Furniture
<b>Contact person</b>	Luca Tavanti Email: <a href="mailto:luca.tavanti@cubitlab.com">luca.tavanti@cubitlab.com</a> Phone number: +39 0500984198
<b>Website:</b>	<a href="https://www.cubitlab.com/">https://www.cubitlab.com/</a>
<b>Speaking languages</b>	Italian, English

## **PROFILE**

Cubit is a small company specialised in Internet of Things (IoT) systems, fluid dynamics (FD) digital twins, and drones. Founded in 2007 by the University of Pisa and a group of Italian SMEs, Cubit is located in the Technological Park of Navacchio (<https://www.polotecnologico.it>).

Our IoT business unit designs and realises custom electronic devices, monitoring & control systems, and IoT solutions for industrial automation, environmental monitoring, home & building automation, etc. We can cover the complete engineering cycle of a new electronic product from hardware design to certification and industrialisation, the development of software, including complex and intelligent applications, the integration in third party systems, the realisation of simple cloud platforms to provide complete vertical IoT solutions.

Our FD business unit carries out consultancies in computational FD, numerical simulations and optimisation, fluid-structure interactions, test and experimentation.

Our team is composed mostly of experienced professionals who closely collaborate with the customer to guide it through its digital transformation process. Since our foundation, we have brought to completion 60+ commercial projects for the development of new products, supporting the customer from the idea to the market entrance and contributing to the creation or acceleration of start-ups (SensorID, Kyunsis, Nuvap). We have taken part in co-financed research and innovation projects, both at regional (ERDF) and European level (FP7, H2020, Horizon Europe). We are certified ISO 9001:2015.

## **EXPERTISE PROVIDED IN THE LIGHTING SECTOR:**

Smart street lighting system: Cubit designed, prototyped, engineered, certified, and developed the hardware and software of five different modules for wireless remote control of street lamps for public lighting (DALI 2.0 compliant), including the design and implementation of a custom wireless mesh network protocol for reliable communication of hundreds of nodes (<https://intellienergy.it/smart-lighting/>).

### **EXPERTISE PROVIDED IN THE FURNITURE SECTOR:**

TIAMBIENTA (ERDF, Regione Toscana): Cubit designed and implemented a set of IoT devices integrated in the furniture and a data storage and visualisation platform for living environments – camper vans, boats, kindergartens – with the aim of increasing well-being, comfort and safety for users, as well as monitoring the environment and the products for better management and maintenance. Spindle Vibration Sensor (SVS): Cubit developed a device for measuring and analysing the vibrations of electrospindles or bi-rotary heads for woodworking machines. The SVS can measure and integrate accelerations on three axes, apply appropriate filtering, report events of possible collisions, critical vibration regimes and malfunctions.

### **KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS**

Technology/Solution	Expertise
<b>Industrial IoT (IIoT) &amp; sensors</b>	We have 15+ years experience in the design and realisation of industrial IoT devices and systems, comprising a wide set of micro-controllers (e.g. ARM, ESP32), sensors (e.g. gases, dust, flow, radon, light, acceleration), communication technologies (e.g. ZigBee, Z-Wave, BLE, DALI, Modbus, Wi-Fi, EtherCAT, MQTT), and cloud platforms (FIWARE, AWS, custom). Our clients span from large companies (e.g. Seco, SCM, Generali, Enel) to SMEs (e.g. SICEP, Intellienergy, TecnoFerrari, EnerLife). We are an ST Microelectronics Proof of Concept (PoC) centre.
<b>Computational Fluid Dynamics (CFD) and Numerical Optimisation (NO)</b>	We have consolidated experience in fluid dynamics design, CFD, numerical simulations and optimisation, fluid-structure interaction, FEM, test and experimentation (wind tunnels, naval tanks, air conditioning), with a strong academic background (continuous cooperation with the University of Pisa), and solid operational knowledge, the result of activities carried out in automotive, marine, aeronautical, and civil sectors (e.g. Ferrari, Fincantieri, Alenia, General Electric, INFN). We own a cluster of 9216 cores.



EDALAB



<b>Technology provider name</b>	EDALAB (code 001)
<b>Location</b>	San Giovanni Lupatoto, Italy
<b>Company typology</b>	Tech-savy company
<b>Expertise sector</b>	Lighting
<b>Contact person</b>	Giovanni Perbellini Email: <a href="mailto:giovanni.perbellini@edalab.it">giovanni.perbellini@edalab.it</a> Phone number: +39 045 2570357
<b>Website:</b>	<a href="http://www.edalab.it">www.edalab.it</a>
<b>Speaking languages</b>	English, Italian

## PROFILE

EDALAB is a software engineering company founded in 2007, originally as a spin-off of the Department of Computer Science of the University of Verona, committed in supporting the innovation with modern electronic systems, leveraging on the software development as a key service to build new distributed and robust digital solutions. EDALAB is now focused on the delivery of customized IoT Platforms in many fields of applications, Industry, Smart Building, Logistics and agriculture, supporting its customers in 'connecting' their products and plants. EDALAB is certified ISO9001 and counts 15 engineers with expertise in hardware and software development, coordinated by project managers who ensure the correct workflows.

The main services EDALAB provides are related to the building of customized IoT Platform with the re-use of existing secure and robust software components (i.e. the BOX-IO Platform) and with the development of new dedicated hardware and software parts. The typical projects concern the data acquisition from the field, its transmission to the Cloud and the development of a software dashboard in which the customer extracts the value from the acquired data. EDALAB supports the customer in all project steps, starting with the design and ending with production and after-sale support. Other services linked with the above are the design and development of HMI for operators, design and development of Mobile Apps, design and development of custom firmware and hardware.

Customers find in EDALAB a unique partner for their IoT projects, a partner who strives to constantly update its expertise in the modern technology and to deliver the best service quality and technology transfer.



### **EXPERTISE PROVIDED IN THE LIGHTING SECTOR:**

- Development of IoT Platform to control lights in industrial warehouse environment. Management of the whole data flow with the ZigBee protocol and development of the operators' workflow for installation and services to the end-users.
- Development of home automation platform with the management of Zigbee light drivers from different vendors, integrated with several other sensors
- Development of custom led drivers hardware (AC/DC, DC/DC) connected with ZigBee protocol

### **KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS**

Technology/Solution	Expertise
<b>Industrial IoT (IIoT) &amp; sensors</b>	EDALAB is committed in the development of IoT Platforms, integrating OTS or custom sensors, gateways and Cloud services with the most recent software technologies.



Forma Srl



<b>Technology provider name</b>	Forma Srl (code 022)
<b>Location</b>	Vicenza, Italy
<b>Company typology</b>	Digital innovation
<b>Expertise sector</b>	Lighting
<b>Contact person</b>	Gaetano Bertolo Email: <a href="mailto:g.bertolo@webforma.it">g.bertolo@webforma.it</a> Phone number: +39 0444304125
<b>Website</b>	<a href="https://www.webforma.it/">https://www.webforma.it/</a>
<b>Speaking languages</b>	Italian, English, Spanish

## **PROFILE**

Forma is an Italian company with 26 years of experience in developing custom software for Public Administrations and for small, medium and large company. Flexibility and speed of execution are our main characteristics. Secure applications, accessibility, open source software, large DB maintenance (with Postgresql), standard coding, project management ... represent the way to develop our projects.

## **EXPERTISE PROVIDED IN THE LIGHTING SECTOR:**

B2B website and software for lighting company.

## **KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS**

Technology/Solution	Expertise
<b>Big Data &amp; Analytics</b>	Development of large and structured DB. More of 25 years experience in Postgresql DBMS (including GIS and time-series data for IoT) with open source analysis tools.
<b>Image scripting technologies</b>	3d rendering file automatic generation from CAD files. Hidden and secure watermarking of images. Large experience with JavaScript ES5.



Foxwin srl società benefit



<b>Technology provider name</b>	<b>Foxwin srl (code 002)</b>
<b>Location</b>	Udine, Italy
<b>Company typology</b>	Knowledge and technology provider
<b>Expertise sector</b>	Furniture
<b>Contact person</b>	Filippo Causero Email: <a href="mailto:filippo.causero@foxwin.eu">filippo.causero@foxwin.eu</a> Phone number: +39 3331256234
<b>Website</b>	<a href="https://www.foxwin.eu/">https://www.foxwin.eu/</a>
<b>Speaking languages</b>	Italian, English, Spanish

## **PROFILE**

We believe that the success of your organisation depends on people. Foxwin is a benefit corporation that helps organizations improve their governance through data-driven consulting services and software that engages all employees and stakeholders.

We developed a software called Fennec that is capable to collect from employees the internal inefficiencies, cluster them and find out what are the most urgent and important to be solved. Foxwin consultants, expert in management consulting, facilitate employees and managers in finding out the solutions to improve processes efficiency, business growth, digitalisation and organization clarity. The main advantages in using Fennec are: it reduces assessment costs by half (we don't need to interview many managers and employees to find out the inefficiencies) and increases engagement of employees because we listen to the needs of all collaborators.

We developed an ESG assessment software to help the companies that want to start their green transformation journey. Foxwin consultants, experts in sustainable development, through an online form and interviews to key managers, assess in less than one day how sustainable the enterprise is. The advantage in using our software is to show through a visual dashboard the results obtained in the following dimensions: environment, social, governance and the impact on UN Sustainable development goals.

## **EXPERTISE PROVIDED IN THE FURNITURE SECTOR:**

We have been working with furniture companies on different topics. Some examples are:

ESG Assessment service:

- Preparation of an impact report for a furniture company. The document, entitled "furniture for future", was drawn up for a project that won a call, which central topic was the circular economy.
- Preparation of ESG Assessment report for a company, which produces outdoor furniture.
- Preparation of ESG Assessment report for a company, which produces goods derived from wood



## KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS

Technology/Solution	Expertise
<b>Big Data &amp; Analytics</b>	We use our internally developed software Fennec to gather hundreds of data from employees, cluster them and generate insights that help managers in prioritising the organisation development activities. In a complex system, such as an SME, is difficult to understand the most important problem or bottleneck that must be solved. Managers are usually full of decisions to take and don't have the time to analyse deeply each one. Through our consultant services and software, we show them a list of all inefficiencies in descending order of popularity and importance perceived by employees. Managers are then able to take data driven decisions with clarity and quantification.
<b>Digitalisation of marketing and online trading</b>	We started our business as a startup 6 years ago and learned how to use different and sophisticated CRM for marketing automation and commercial activities. Now we use our experience to help other businesses adopting this type of software and train their employees in using them effectively.
<b>ESG assessment</b>	We developed a software to assess easily how sustainable an SME is. Many assessment tools (such as the popular B Impact assessment) are too difficult for SMEs because they ask hundreds of questions and request quantitative answers. For example, they ask how much CO2 the business produces in a year. We developed a series of questions to help companies that want to start a green transformation, not the ones that are already expert in this field. The software shows a dashboard that highlights immediately how sustainable the enterprise is in the dimensions of environment, social, governance, economic and communication/reporting. It also shows the positive impact on the 17 Sustainable development goals.



GF Tech S.r.l.



<b>Technology provider name</b>	GF Tech srl (code 003)
<b>Location</b>	Buttrio (UD), Italy
<b>Company typology</b>	CyberSecurity, IT Consulting, Academia, Digital Innovation
<b>Expertise sector</b>	Lighting, Furniture
<b>Contact person</b>	Matteo Greatti Email: <a href="mailto:matteo.greatti@gftech.srl">matteo.greatti@gftech.srl</a> Phone number: +39 340 36 89 945
<b>Website</b>	<a href="https://www.gftech.srl/">https://www.gftech.srl/</a>
<b>Speaking languages</b>	Italian, English

## **PROFILE**

GF Tech is a startup born in mid-2021 made up of a team of experts with more than 15 years of experience in sector of Information Technology.

We offer assistance and consultancy in the IT sector, Cyber Security and technological solutions for companies. From the design of Infrastructure and management of IT networks with certified system engineers, to Big Data analysis to facilitate the decision process business making and development thanks to Business Intelligence.

Over the years, the GF Tech staff has worked together on related projects to the various fields of networking, IT and security: from designing WiFi for densely visited commercial areas, to WiFi for industry 4.0 in production plants, networks over very large surfaces and with a large number of workstations with related infrastructure virtualized and cybersecurity (firewall, segmentation, VPN) up to corporate systems composed of many interconnected offices to the central data center. All these challenges built up the experience and the staff's know-how, as well as the well-established ability to work in team under pressure; these abilities allowed the team to make a well-rounded system integrator.

## **EXPERTISE PROVIDED IN THE LIGHTING & FURNITURE SECTOR:**

- Lighting sector: WiFi for Industry 4.0 in production plants
- Furniture: WiFi for Industry 4.0 in production plants

## **KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS**

<b>Technology/Solution</b>	<b>Expertise</b>
<b>Cybersecurity</b>	WiFi design for densely visited commercial areas, WiFi for industry 4.0 in production plants, networks for very large areas and with many stations with related virtualized infrastructure and cybersecurity (firewall, segmentation, VPN) even in business systems composed of many locations interconnected to each other and to the central datacenter.



Inventronics S.r.l.

**inventronics**



<b>Technology provider name</b>	<b>Inventronics S.r.l. (code 028)</b>
<b>Location</b>	Treviso, Italy
<b>Company typology</b>	Digital Systems - Manufacturer of lighting components/systems, Technical testing and analysis, and research and development of LED light engines, LED Drivers & Light Management Systems/Controls
<b>Expertise sector</b>	Lighting
<b>Contact person</b>	Valerio Michielan Email: <a href="mailto:v.michielan@inventronicsglobal.com">v.michielan@inventronicsglobal.com</a> Phone number: +39 329 366 95 68
<b>Website</b>	<a href="http://www.inventronics-light.com">www.inventronics-light.com</a>
<b>Speaking languages</b>	Italian, English

## **PROFILE**

Inventronics, with the recent acquisition of ams Osram Digital Systems Business in Europe and Asia, is now a new global leader in the lighting industry, a distinguished provider of advanced lighting and digital control solutions. This strategic merger of two industry powerhouses brings together our collective expertise and resources, allowing us to offer an even broader range of products and services to our valued customers. Inventronics drives innovation and redefine the future of the lighting industry. The company is committed to deliver exceptional value, promoting sustainability, and exceeding customer expectations, building a brighter future.

Inventronics main activities are represented by the Development, Validation, and Manufacturing of innovative and highly reliable digital Lighting Systems. The company's field of technical knowledge ranges from the LED based light engines, electronic Drivers, Sensors and Controls. Therefore covering a wide range of engineering competences: Optical, Mechanical, Thermal, Electronic Power Conversion, Wired/Wireless Control, Firmware/Software, IoT.

Inventronics offers a wide range of LED based lighting components to enable solutions in the different target applications (eg. Architectural indoor/outdoor, Streetlighting, Hospitality, Shop/Retail, Commercial, Residential, Horticulture, etc), both with standard components and customized.

Our technical services are available for customers who need technical application support in their projects (delivered by our Field Application Engineers), Product Certification (by our Qualified Laboratory), co-development and development support for customized solutions (by our RD department).

The main advantages of using our services is to have access to the highest technical expertise on any of the electronic components to build up an LED based Lighting System (from the Light Engine, Driver, Sensors and Controls) in general lighting applications as well as in special applications, such as UVC (for air purification/surface disinfection), Horticultural (Greenhouse, Vertical-farming, Aqua-culture) and others in which light is embedded for secondary function.



### **EXPERTISE PROVIDED IN THE LIGHTING SECTOR:**

As a global leader in the lighting industry, our fields of expertise cover advanced lighting and digital control solutions.

### **KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS**

<b>Technology/Solution</b>	<b>Expertise</b>
<b>Big Data &amp; Analytics</b>	Our cloud system where digital components programming settings, operating data collection are collected and can be visualised/analysed by our EM/MA SW tool.
<b>Cybersecurity</b>	Our HubSense Wireless Network (open BT Mesh based technology), where data communication and control management are developed to have the highest level of protection.
<b>Industrial IoT (IIoT) &amp; sensors</b>	Our DALI controllers, capable to interface with Building Automation systems, for Internet-remote monitoring, data transfer/collection and control, extensively useful for energy harvesting.



## Lightcube SRL



<b>Technology provider name</b>	Lightcube srl (code 015)
<b>Location</b>	Padova, Italy
<b>Company typology</b>	Knowledge and technology providers
<b>Expertise sector</b>	Lighting
<b>Contact person</b>	Diego Barbisan Email: <a href="mailto:diego.barbisan@light-cube.com">diego.barbisan@light-cube.com</a> Phone number: +39 347 306 6186
<b>Website</b>	<a href="http://www.light-cube.com">www.light-cube.com</a>
<b>Speaking languages</b>	Italian, English

### PROFILE

LightCube is a spin-off of the University of Padua founded in 2011 and deals with the research, development and design of LED systems, both for general lighting applications and for specific custom applications, from the industrial field to the biomedical and photobiological fields. LightCube offers its partners a complete design service for custom LED lighting systems. The integration of photometric, electronic, optical and thermal design in a single design development represents a significant competitive advantage for partner companies. Customers who rely on Lightcube have the opportunity to fully follow the development of the project. From optical design, to the creation of prototypes, to the optical and thermal characterization phase, up to the creation of the finished product. This allows to considerably shorten the times of industrialization and consequently the project costs.

In terms of services, Lightcube covers all sectors of both industrial and experimental research and development. The spin-off uses state-of-the-art instrumentation: source meters, parameter analyzers, power meters, for electrical characterization; integrating spheres with spectrometer, photogoniometer with diameter up to 2 meters, for photometric analysis; spectroradiometers, optical power meters and instrumentation specifically designed for optical characterization; high resolution infrared camera, calibrated thermocouple systems and proprietary electrical techniques for thermal characterization.



### **EXPERTISE PROVIDED IN THE LIGHTING SECTOR:**

Lightcube offers advanced skills in all design phases in the lighting sector. Starting from the optical and thermal design phase of lighting products, to the study and implementation phase of control electronics including the prototyping of dedicated PCB boards. After the prototyping, Lightcube offers optical and electrical characterization services thanks to the advanced instrumentation at its disposal. Source meters, parameter analyzers, power meters, for electrical characterization; integrating spheres with spectrometer, photogoniometer with diameter up to 2 meters, for photometric analysis; spectroradiometers, optical power meters and instrumentation specifically designed for optical characterization; high resolution infrared camera, calibrated thermocouple systems and proprietary electrical techniques for thermal characterization. LightCube offers support for IOT communication of LED based lamps with specific light protocols (DMX, Dali and general purpose protocols (Bluetooth, Wi-Fi, Zigbee, etc.)). After the products industrialization, Lightcube offers support for the EPREL energy label registration and ecodesign limits. Moreover, Lightcube offers dedicated courses on lighting techniques, optics design and reliability study on LED sources.

### **KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS**

Technology/Solution	Expertise
<b>Additive Manufacturing (3D printing)</b>	Experience in design and modelling of 3D optics. Design of the tools necessary for the production of small quantities of optical reflectors. Prototyping of 3D samples with 3D printers.
<b>Industrial IoT (IIoT) &amp; sensors</b>	Experience in environmental sensors (UV, VIS and IR lighting, capacitive sensors, temperature, humidity, etc.). Experience in communication protocols for lighting (DMX, Dali) and general protocols (Bluetooth, Wi-Fi, Zigbee). Experience in optical adaptive feedback for the control of the light (intensity, CCT).



## MANGANELLI MARIO



<b>Technology provider name</b>	<b>MANGANELLI MARIO</b> (code 024)
<b>Location</b>	Gorizia, Italy
<b>Company typology</b>	Freelance professional
<b>Expertise sector</b>	Furniture/Lighting
<b>Contact person</b>	MARIO MANGANELLI Email: <a href="mailto:info@mariomanganelli.com">info@mariomanganelli.com</a> Phone number: +39 3421964273
<b>Website</b>	<a href="http://www.mariomanganelli.com">www.mariomanganelli.com</a>
<b>Speaking languages</b>	Italian, English

### PROFILE

I am a freelance professional with a degree in Industrial Design (IUAV University of Venice 2009). I began my career as a technical employee and purchasing manager in the toy industry from 2010 to 2013. Later, I enrolled in a full-time Master's program in Computer Graphics, where I gained further experience in 3D modeling and rendering.

During this time, I transitioned to the furniture industry and in 2015 I became a digital manager at Cluster Legno Arredo del FVG, where I was responsible for 3D modeling, rendering, and web design/development. Afterward, I worked at Derwid (an AR/VR software house) creating 3D assets and C# programming inside its own product configuration platform.

Most of my current clients are SMEs in the furniture industry. I offer a wide range of services, including 3D scanning, detailed 3D modeling, photogrammetry, rendering, content creation for real-time applications, and implementation of web-based configurators. I also provide my services to agencies and other creative/graphic studios.

With the use of these technologies, my clients can save money and time by avoiding the need to build physical prototypes during the design process. This allows for a shorter time-to-market for new collections and enables customers to preview customized products (such as an armchair with an exclusive fabric cover) before production. Additionally, clients can obtain photorealistic renderings of all product variants for catalogs and e-commerce.

### **EXPERTISE PROVIDED IN THE LIGHTING SECTOR:**

Reworking of CAD models and technical drawings to generate 3D assets suited for 3D web applications. Implementation of web-based configurators.

### **EXPERTISE PROVIDED IN THE FURNITURE SECTOR:**

3D modeling service starting from technical drawings, or pictures, or 3D scanning. Created assets can suit different use cases according to the client's needs. I'm able to create high-resolution 3D models (highpoly) for photorealistic rendering, as well as low-resolution 3D models (lowpoly) for real-time 3D applications.

### **KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS**

<b>Technology/Solution</b>	<b>Expertise</b>
<b>Augmented and Virtual Reality</b>	Expertise in content creation: 3D modeling of products and virtual-spaces (digital showroom, shops, exhibitions); digitalization of materials/ finishes; management of VR/AR platforms.
<b>Image scripting technologies</b>	Digital product staging, lighting and high-quality rendering of furniture products. Provided images can have different styles and resolution according to the customer need. Solo images of a specific product are often used for e-commerce catalogs through a scripted process that allows batch rendering of multiple product variants or finishes (colors/materials).
<b>WebAR</b>	Expertise in bringing 3D product inside websites and web apps by optimizing 3D assets for fast loading and ease of use in mobile devices. UI and elements can be customized according to the B2B or B2C purposes.
<b>3D Scanning and modeling (accurate assets creation)</b>	Data capturing with a scanning device and development of 3D models with a very high definition. This technology is very suitable for products with organic (smooth) shapes, like sofas and upholstered armchairs.
<b>Photogrammetry</b>	Expertise in creating high-quality digital twins of materials from a given sample. Several properties are extracted from the material and used in a digital environment to replicate its visual appearance (roughness/glossiness, reflection amount and direction, bump, etc).





Materially Srl Impresa Sociale



**MATERIALLY**



<b>Technology provider name</b>	Materially Srl Impresa Sociale (code 027)
<b>Location</b>	Milan, Italy
<b>Company typology</b>	Innovative and circular materials advisory
<b>Expertise sector</b>	Lighting/Furniture
<b>Contact person</b>	Veronica Sarbach Email: <a href="mailto:vsarbach@materially.eu">vsarbach@materially.eu</a> Phone number: +39 02 86891727
<b>Website</b>	<a href="https://www.materially.eu/en/">https://www.materially.eu/en/</a>
<b>Speaking languages</b>	Italian, English, German, Chinese

## **PROFILE**

Materially S.r.l. Impresa Sociale – short Materially – is an independent Italian SME that helps companies in the development and dissemination of sustainable innovation starting from materials.

Materially operates with a design-oriented approach and attention to the issues of Circular Economy and intelligent innovation thanks to a broad background of international projects and experiences. In particular, Materially acts as a generator of links and contacts between producers of innovative and sustainable materials, as well as emerging material and processing technologies, and their potential users, be they companies or freelance professionals. Materially intervenes in this relationship by developing consulting projects where innovation starts from the material and is realised through design.

Materially also supports manufacturers through the promotion and dissemination of their innovative solutions via tailor made events, exhibitions and knowledge & technology transfer activities among diversified stakeholder groups belonging to educational institutions, public bodies, enterprises, end-users and civil society.

## **EXPERTISE PROVIDED IN THE LIGHTING SECTORS:**

Materially has advised major lighting companies in their transition towards carbon zero goals.

## **EXPERTISE PROVIDED IN THE FURNITURE SECTORS:**

Materially has advised the Italian Association of Wood and Furniture Manufacturers (FederLegnoArredo) in the set-up of a sustainable materials database.



## KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS

Technology/Solution	Expertise
<b>Additive Manufacturing</b> (3D printing)	Materially advises major manufacturing companies on the application of additive manufacturing and other cutting edge production technologies.
<b>Circular materials</b>	Consulting on circularity applied to materials and by means of material innovation. Scouting of circular material solutions. Advisory on sustainability guidelines applied to materials. Participation to several EU funded projects with focus on circularity-driven material innovation (most recent: <a href="#">GRETE</a> , <a href="#">INFURI</a> , <a href="#">Digiprime</a> Call A)



OFFICINA DIGITALE S.r.l.

**OFFICINA DIGITALE**

ENABLING TECHNOLOGY



<b>Technology provider name</b>	OFFICINA DIGITALE S.r.l. (code 013)
<b>Location</b>	Treviso, Italy
<b>Company typology</b>	CyberSecurity - Infrastructure Management - IT Security
<b>Expertise sector</b>	Lighting/Furniture
<b>Contact person</b>	Paolo Picchi Email: <a href="mailto:paolo.picchi@officina-digitale.net">paolo.picchi@officina-digitale.net</a> Phone number: +39 0422 911828
<b>Website</b>	<a href="http://www.officina-digitale.net">www.officina-digitale.net</a>
<b>Speaking languages</b>	Italian, English

#### **PROFILE**

Officina Digitale was founded in 2001 as an IT company to support commercial companies in the design and assistance of their information systems. The evolution of the services offered position it as MSSP (managed security services provider) and MSP (managed service provider) for the management of security and service continuity of IT systems. The company operates throughout the country with a focus on northern Italy. The team is made up of 7 people with IT certifications at various levels.

**Knowledge:** Advanced Networking, Cloud, Messaging Systems, Virtualization, Advanced Unified Communication Systems, IT Datacenter.

**Services offered:** ADS (System Administrator - GDPR compliant) - Infrastructure management (MSSP/MSP)  
Benefits of the services offered: guarantee of continuous operation of IT systems

#### **EXPERTISE PROVIDED IN THE LIGHTING & FURNITURE SECTORS:**

Complete management of it systems, security, users, service continuity, updates, crm/erp/mes integration, iot ot/it separation

#### **KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS**

Technology/Solution	Expertise
<b>Cybersecurity</b>	In-depth knowledge of issues relating to networking in its various forms, network and application firewalling, creation and maintenance of corporate and infrastructural posture aimed at preventing and eliminating cybersecurity risks. Execution of periodic assessments aimed at determining the real level of security established. In-depth knowledge of software tools and leading methodologies in the cybersecurity market.



## PARCO SCIENTIFICO E TECNOLOGICO GALILEO – GALILEO VISIONARY DISTRICT



<b>Technology provider name</b>	<b>GALILEO VISIONARY DISTRICT</b> (code 031)
<b>Location</b>	Padua, Italy
<b>Company typology</b>	Science and Technology Park, Digital Innovation Hub, Technology Transfer Centre Industry 4.0, startup incubator, Business Support Organization
<b>Expertise sector</b>	Furniture/Lighting
<b>Contact person</b>	ALESSIO ZINI Email: <a href="mailto:a.zini@galileovd.it">a.zini@galileovd.it</a> Phone number: +39 049 8061111
<b>Website</b>	<a href="https://www.galileovisionarydistrict.it/">https://www.galileovisionarydistrict.it/</a>
<b>Speaking languages</b>	Italian, Spanish, English

### PROFILE

Galileo Visionary District is the Science and Technology Park of Padua. Born in 1997, it is a consortium Company whose shareholders are the Padua Chamber of Commerce, the Cassa di Risparmio di Padova and Rovigo Foundation, the Municipality of Padua, the University of Padua, CNA Padova and Confindustria Veneto Est. Galileo's mission is to support the local competitiveness through services for developing of innovative processes.

Galileo's competences refer to design (industrial, digital, graphic and brand design), innovative materials and related technologies (technological scouting and technology transfer), support for business development and the birth of new innovative companies, marketing and communication.

Galileo's activities can be divided into the following areas:

- Scuola Italiana Design-SID, the educational dpt. of Galileo, is a vocational training centre and a creative centre for product innovation through the “design”.
- R&D: Galileo supports supporting companies in their innovation paths; the main activities refer to: research and Development on the themes of Industrial Design and Web Design, business development, new products and services, scouting of new and innovative materials on international markets, technology transfer projects.
- Start Cube, the Incubator of the University of Padua: Galileo supports the birth and the development of new high-tech and innovative enterprises, providing them with liquid offices, tools, and dedicated services.



- Galileo DIH - Industry 4.0: Galileo is a Technology Transfer Centre certified Industry 4.0 by Unioncamere (Decreto Direttoriale MISE 22 dicembre 2017) and is registered in the smart specialization portal as Digital Innovation Hub (<https://s3platform.jrc.ec.europa.eu/digital-innovation-hubs-tool>). The main activities within Industry 4.0's framework are Technological training, Training and consultancy on organizational and / or business, technical and industrial models, Design and planning of implementation interventions for Industry 4.0 technologies, Industrial research and experimental development including virtual prototyping, Analysis, monitoring and technological brokerage services.
- POPLAB: Galileo's subsidiary Company Poplab is a research & development center, a design studio, a FabLab and a training center. Poplab can develop dynamic architectures, temporary stages and pavilions, scenery based on virtual reality. Currently, the team includes professional figures who deal with the different phases of the projects.

#### **EXPERTISE PROVIDED IN THE LIGHTING & FURNITURE SECTOR:**

Product design; Innovative materials.

#### **KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS**

Technology/Solution	Expertise
<b>Additive Manufacturing</b> (3D printing)	Technological training; Prototyping.
<b>Augmented and Virtual Reality</b>	Technological training; Projects development; Virtual showroom; virtual prototyping.
<b>Industrial IoT (IIoT) &amp; sensors</b>	Technological training.
<b>Digitalisation of marketing and online trading</b>	Technological training; Market Analysis; CRM.
<b>Others</b>	Market Analysis Scenario building Envisioning & Design Thinking Start-Up Acceleration services Educational Activities (Industrial Design & Design Management) Research activities for companies Virtual prototyping Innovative materials & technologies Eco materials Product Design & Product Brand Language Visual & Communication Strategies & Art Direction UI/UX, Exhibit design



Quasar srl



<b>Technology provider name</b>	Quasar srl (code 012)
<b>Location</b>	Tavagnacco, Italy
<b>Company typology</b>	Consulting company
<b>Expertise sector</b>	Furniture
<b>Contact person</b>	Luca Diracca Email: <a href="mailto:dirluca@quasarud.it">dirluca@quasarud.it</a> Phone number: 0432573516
<b>Website</b>	<a href="http://www.quasarud.it/">http://www.quasarud.it/</a>
<b>Speaking languages</b>	Italian, English

## **PROFILE**

Quasar Srl was founded in 1992 as a consultancy firm. Over the years it has grown a multidisciplinary group of professionals to respond to different needs and develop different improvement projects in companies and public administration entities convinced that each structure cannot separate the strategic elements from the managerial ones and both these aspects from the economic ones.

It is currently made up of a "Management Systems" division that deals with organizational issues and a "Corporate Innovation" division that deals with digitization projects and predictive analysis projects. Again, the skill mix and multidisciplinary nature are the strong point of Quasar, as it deals with organizational issues with digital competence and awareness - because in 2023 there is no organizational enhancement without digital tools - and digital issues with organizational competence and awareness - because no tool is able to improve an organization that cannot read and innovate itself.

We offer innovation management services - training, implementation of innovation management systems, setting up of innovation projects, process reengineering - and organizational consultancy services in all contexts related to organization process management - management systems, certifications in accordance to ISO 9001, compliance to the CE marking standards, tools for growth and adaptation with respect to global sustainability (i.e. environmental, social and governance, so-called ESG).

## **EXPERTISE PROVIDED IN THE FURNITURE SECTOR:**

Even if our approach is transversal to the type of organization, over the years we have developed a solid knowledge of the market for chairs, furniture and interior design products in projects with large, medium and small manufacturing companies. We believe our experience in the fields of innovation management and process reengineering with manufacturing companies, even outside the furniture and lighting sectors, can be a valuable asset for any prospective client.

## KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS

Technology/Solution	Expertise
<b>Big Data &amp; Analytics</b>	Quasar Srl develops Analytics projects to visualize, analyse and design business processes both in production plants and in services companies.
<b>Artificial Intelligence</b>	Quasar Srl develops Predictive Analytics and Prescriptive Analytics algorithms aimed to improve the efficiency and effectiveness of production, logistics, quality assurance by analysing historical data about the business processes, forecasting future outcomes and, possibly, draw specific recommendations.
<b>Innovation management</b>	Quasar Srl helps big and small companies design and develop digitalization projects, analysing risks, designing a project management strategy and supporting the company during the project either as a project manager or as a coach of the project manager. Quasar Srl helps big and small companies to implement an innovation management system according to ISO 56002.
<b>Business Process Reengineering</b>	Quasar Srl help companies to re-design their business processes through a consolidated activity of cooperative reengineerization laboratories in which the key users of the business process are guided into rethinking it from scratch and create, as an output of the laboratory, a roadmap for the implementation project.



## Rawfish srl a socio unico



<b>Technology provider name</b>	<b>Rawfish srl a socio unico</b> (code 017)
<b>Location</b>	Vicenza, Italy
<b>Company typology</b>	Digital Tech Agency
<b>Expertise sector</b>	Lighting/Furniture
<b>Contact person</b>	Alessandro Lorenzin Email: <a href="mailto:alessandro.lorenzin@rawfish.com">alessandro.lorenzin@rawfish.com</a> Phone number: +39 0444 962617
<b>Website</b>	<a href="https://rawfish.com">https://rawfish.com</a>
<b>Speaking languages</b>	Italian, English

### PROFILE

Rawfish is a mobile agency that combines design and development, crafting unique digital experience. Born in 2012, Rawfish has three offices, Vicenza, Milan and Switzerland. It is divided into 6 areas with specific and vertical skills: iOS, Android, Backend, UI/UX, Frontend Web, Project Management. In 2022 Rawfish has 34 employees, but by 2025 it is expected to reach 50 employees.

We develop custom software solutions end to end. Service design, UI UX design and development of mobile, web and backend solutions. Our expertise drive us to design and create cutting-edge and technically excellent user centric experiences. We develop mobile app and web products, always keeping up with the latest technological trends.

### EXPERTISE PROVIDED IN THE LIGHTING SECTOR:

Knowledge of connection methods and related communication protocols with hardware devices such as lights and sanitization and sensor systems.

### EXPERTISE PROVIDED IN THE FURNITURE SECTOR:

Knowledge of connection methods and related communication protocols with hardware devices such as handles and access management systems to physical premises (doors, windows, etc.).

### KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS

Technology/Solution	Expertise
<b>Industrial IoT (IIoT) &amp; sensors</b>	Development of a mobile application in the IOT field as part of multi-year projects concerning smart and sustainable living environments and iot systems for healthy and safe living environments. Development of a mobile application for home automation management of fully furnished apartments that can be rented for long periods and for any type of user.





Skeinholding s.r.l.



<b>Technology provider name</b>	<b>Skeinholding s.r.l. (code 009)</b>
<b>Location</b>	Villanuova sul clisi, Italy
<b>Company typology</b>	IT and digital innovation industry
<b>Expertise sector</b>	Lighting/furniture
<b>Contact person</b>	Roberto Dallavilla Email: <a href="mailto:amministrazione@skeinholding.com">amministrazione@skeinholding.com</a> Phone number: +39 3349048561
<b>Website</b>	<a href="http://www.skeinholding.com">www.skeinholding.com</a>
<b>Speaking languages</b>	Italian, English, Spanish

## **PROFILE**

Skeinholding is an international organisation focused on the realisation and distribution of Virtual and Augmented Reality services, digitalisation of marketing and online trading, image scripting technologies specialising in the construction sector such as lighting and furniture.

Our solutions range from the realisation of image scripting technologies for the detailed representation of products and their components, to the realisation of augmented reality systems for the positioning of company products in rooms with real dimensions and choice of finishes, and in the realisation of infocommerce, ecommerce, PIM solutions and digitalisation of marketing to enter international markets and consolidate existing ones.

## **EXPERTISE PROVIDED IN THE LIGHTING SECTOR:**

Creation of IT developments for some of the most important manufacturer in the international B2B and B2C markets. Development of AR visualization, Product WebAR and Image scripting technologies.

## **EXPERTISE PROVIDED IN THE FURNITURE SECTOR:**

Creation of IT developments for some of the most important manufacturer in the international B2B and B2C markets. Software in cloud for the creation of 3D real-time render, development of AR visualization for maintenance, Product WebAR and Image scripting technologies.



## KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS

Technology/Solution	Expertise
<b>Augmented and Virtual Reality</b>	Realisation of interactive augmented reality systems for the positioning of company products in rooms with real dimensions and choice of finishes,
<b>Digitalisation of marketing and online trading</b>	Programming and publishing of info-commerce, e-commerce, PIM solutions and digitalisation of marketing to enter international markets and consolidate existing ones.
<b>Image scripting technologies</b>	realisation of image scripting technologies for the detailed representation of products and their components with the possibility to zoom, rotate and interact with the customer directly.
<b>WebAR</b>	Integration in web portals of 3D visualization in high definition related to the products with the possibility to integrate their position in the real environment using AR.



## Smact scpa

competence center  
**SMACT**



<b>Technology provider name</b>	Smact scpa (code 008)
<b>Location</b>	Venice, Italy
<b>Company typology</b>	Competence Center, DIH
<b>Expertise sector</b>	Lighting/furniture
<b>Contact person</b>	Diego Pellizzari Email: <a href="mailto:diego.pellizzari@smact.cc">diego.pellizzari@smact.cc</a> Phone number: +39 3666499331
<b>Website</b>	<a href="https://www.smact.cc/">https://www.smact.cc/</a>
<b>Speaking languages</b>	Italian, English, Spanish, French

### **PROFILE**

SMACT cc was established in 2018 to respond to the Italian Economic Development ministry call "Highly Specialised Competence Centres 4.0", part of the national "Industry 4.0 Plan". Following these requirements, a public-private-partnership (PPP) has been set up among 11 universities and RTOs in the Triveneto region and 29 companies and other institutions, with three fundamental areas of activity:

- Orientation of companies towards digital transformation;
- Managerial and technical, theoretical and experiential training for companies;
- Management of business research and innovation projects including technology transfer activities.

Then, SMACT cc launched the 'SMACT Innovation Ecosystem' (SIE) to coalesce other specialised skills over the ones of its founding members. At the moment, the program has been joined by 25 companies, leading the SIE to almost 70 entities. Thus, leveraging and activating SIE's knowledge, SMACT can mobilise many areas of specialisation to develop business solutions based on new technologies such as IoT, Cloud, Cybersecurity, Artificial Intelligence, Big Data and Analytics, Blockchain, Robotics and Augmented Reality.

Since its foundation, the Italian Economic Development ministry allocated to SMACT cc 2.7m€ to co-finance Innovation, Industrial Research and Experimental Development projects. These resources have been turned into 34 innovation projects, involving 49 research groups from the SIE to support companies in the fulfilment of their business ambitions.

### **EXPERTISE PROVIDED IN THE LIGHTING SECTOR:**

SMACT cc has developed and deployed an academic research, through its associated Universities, to define which are the advanced technologies applications in the lightning and furniture manufacturing processes and the related cost-benefit.



### **EXPERTISE PROVIDED IN THE FURNITURE SECTOR:**

SMACT cc has developed and deployed an academic research, through its associated Universities, to define which are the advanced technologies applications in the lightning and furniture manufacturing processes and the related cost-benefit.

### **KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS**

<b>Technology/Solution</b>	<b>Expertise</b>
<b>Augmented and Virtual Reality</b>	Knowledge developed in the previous innovation projects carried out by SMACT cc and present in SMACT Innovation Ecosystem
<b>Big Data &amp; Analytics</b>	Knowledge developed in the previous innovation projects carried out by SMACT cc and present in SMACT Innovation Ecosystem
<b>Cybersecurity</b>	Knowledge developed in the previous innovation projects carried out by SMACT cc and present in SMACT Innovation Ecosystem
<b>Industrial IoT (IIoT) &amp; sensors</b>	Knowledge developed in the previous innovation projects carried out by SMACT cc and present in SMACT Innovation Ecosystem
<b>Robotics</b>	Knowledge developed in the previous innovation projects carried out by SMACT cc and present in SMACT Innovation Ecosystem
<b>Artificial Intelligence</b>	Knowledge developed in the previous innovation projects carried out by SMACT cc and present in SMACT Innovation Ecosystem
<b>Blockchain</b>	Knowledge developed in the previous innovation projects carried out by SMACT cc and present in SMACT Innovation Ecosystem
<b>Computer Vision</b>	Knowledge developed in the previous innovation projects carried out by SMACT cc and present in SMACT Innovation Ecosystem



Vection Italy Srl



<b>Technology provider name</b>	<b>Vection Italy Srl (code 025)</b>
<b>Location</b>	Bologna, Italy
<b>Company typology</b>	XR Solutions
<b>Expertise sector</b>	Lighting/Furniture
<b>Contact person</b>	Francesca Lotta Email: <a href="mailto:francesca.lotta@vection-technologies.com">francesca.lotta@vection-technologies.com</a> Phone number: +39 345 6225237
<b>Website</b>	<a href="https://vection-technologies.com/">https://vection-technologies.com/</a>
<b>Speaking languages</b>	Italian, English, French, Spanish

## PROFILE

The company Vection Italy Srl was established in 2019 as an innovative start-up focused on R&D activities. It specializes in the realization of solutions with 3D technologies, with a personalized approach to develop software and platforms such as virtual reality experiences, augmented reality tools, real-time 3D configurators.

The R&D division has developed a proprietary technology called INTEGRATEDXR®, which is the heart of the digital solutions of the company and is composed by:

- 3DFrame - virtual reality platform that allows easy and fast loading of objects (3D models) and environment, so as to make Virtual Reality accessible to all. Thanks to the collaboration with Cisco, it is possible to integrate 3DFrame with Webex meetings and to use the platform tools.
- Enworks - tool that provides support in digital (Virtual Reality, Augmented reality or 2D) for the procedures of configuration/ maintenance/ installation and assembly of a machine or generally speaking a mechanical device.
- Mindesk - Solution that allows you to view 3D projects of Revit, Solidworks and Rhinoceros in Virtual Reality with immersive experience. Ideal for review design processes. Vection Italy Srl, wholly owned and controlled by Vection Technologies Ltd, a company listed on the ASX (Australian Securities Exchange), has its headquarters in Casalecchio di Reno (BO). Vection Technologies Ltd now has eight locations around the world in Bologna, Milan, Bari, San Francisco, Abu Dhabi, Ahmedabad, Sydney and Perth. It counts prestigious partnerships with world-class companies such as Cisco, Accenture, NTT Data, DXC, Toshiba, Nvidia, DELL, Epic Games, Siemens, etc. and operates in the most significant industries and services such as automotive, machinery, industrial production, healthcare & pharma, fashion & retail, training, AEC & real estate, furniture, etc.

Vection Italy helps organizations in any industry to transform their workflows and processes with extended reality (XR) technologies to increase sales, efficiencies, reduce costs or simply improve the way they work



### **EXPERTISE PROVIDED IN THE LIGHTING SECTOR:**

In the lighting industry, Vection Italy can support designers to create virtual lighting designs and test the effect of different light sources on the virtual environment. This allows the designer to identify lighting problems and make necessary adjustments before actual production, improving the efficiency and quality of the final design.

Vection Italy has worked on various projects in the furniture and lighting sector, including Uno+, Cassina and Bedshed.

### **EXPERTISE PROVIDED IN THE FURNITURE SECTOR:**

In the furniture industry, Vection Italy can support the creation of virtual furniture mockups, allowing designers and end users to virtually view and customize products. This allows the designer to identify any design issues and make necessary changes in a timely manner, reducing waste and improving the quality of the final product. Additionally, virtual reality technology can also help customers visualize how the product fits into their home environment, enhancing the overall customer experience.

Vection Italy has worked on various projects in the furniture and lighting sector, including Uno+, Cassina and Bedshed.

### **KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS**

Technology/Solution	Expertise
<b>Augmented and Virtual Reality</b>	Vection Italy's expertise focuses on using virtual reality technology to support smart product implementation, increase focus on customer experience delivery and advanced customization for designers and end users, reduce product errors and reduce waste, positively impacting the transition to a low-carbon economy.



VISUP SRL

# VISUP®



<b>Technology provider name</b>	<b>VISUP srl (code 014)</b>
<b>Location</b>	Milan, Italy
<b>Company typology</b>	Tech-savvy Company
<b>Expertise sector</b>	Furniture
<b>Contact person</b>	Gabriele Venier Email: <a href="mailto:gabriele@visup.it">gabriele@visup.it</a> Phone number: +39 340 244 5408
<b>Website</b>	<a href="https://www.things5.com/">https://www.things5.com/</a>
<b>Speaking languages</b>	Italian, English, French, Spanish

## **PROFILE**

VISUP is a software house that specialises in data collection, analysis, and visualisation in the IoT field. The company was founded in 2015 and has since focused on Big Data Analytics for the Internet of Things (IoT) in the industrial sector.

VISUP offers a range of products specifically designed for industrial machinery and appliance manufacturers (OEMs), including Things5 and Plant9, which were developed through the company's extensive experience in data-driven insights. VISUP's services include Big Data and Analytics, Artificial Intelligence, Human-Like AI-ChatBots, and IoT Connected Products. By leveraging the power of Big Data and Analytics, VISUP empowers businesses to optimise operations, drive innovation, and gain a competitive edge.

The company excels in creating custom-designed analytics applications that unlock the true potential of IoT data for addressing specific business challenges. VISUP also specialises in creating algorithms for intelligent and personalised lighting to improve the quality of life for people. The advantages of using VISUP's services include improved decision-making through real-time visualisation of bottlenecks and risks, increased customization and reduced errors in machine operations through the use of Artificial Intelligence, and improved customer support through the use of Human-Like AI-ChatBots. VISUP's IoT Connected Products provides a comprehensive solution that helps businesses manage their IoT devices effectively and efficiently.

## **EXPERTISE PROVIDED IN THE FURNITURE SECTOR:**

Visup Srl is a highly experienced company in the field of IoT solutions for kitchen appliances. With a strong track record of successful projects, Visup has established itself as a leading player in this market segment. The company has worked with some of the biggest names in the industry, collaborating with worldwide market leaders to create innovative and cutting-edge solutions that meet the needs of modern consumers. Thanks to its deep expertise and extensive knowledge of the latest technologies, Visup is able to deliver high-quality services that are tailored to the specific requirements of each client.

## KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS

Technology/ Solution	Expertise
<b>Big Data &amp; Analytics</b>	Leveraging our extensive experience in data-driven insights, we specialise in creating custom-designed analytics applications that unlock the true potential of IoT data for addressing specific business challenges. With a deep understanding of data-based analysis tools, we excel in visualising bottlenecks and risks in real time, presenting them in an easily digestible format for quick decision-making. Our dedicated team of experts works closely with clients to identify their unique needs and develop tailored solutions, ensuring seamless integration and maximum value extraction from the wealth of available data. By harnessing the power of Big Data and Analytics, we empower businesses to optimise operations, drive innovation, and gain a competitive edge in today's rapidly evolving marketplace.
<b>Industrial IoT (IIoT) &amp; sensors</b>	Our area of specialisation in the IoT industry focuses on Connected Products' IoT technology. For further information on our solutions in this area, please refer to the specific paragraph below.
<b>Artificial Intelligence</b>	Our expertise in this field focuses on creating algorithms for intelligent and personalised lighting to improve people's quality of life. For example: -Smart lighting algorithms that automatically adjust brightness based on sunlight levels for optimal illumination. - Personalized lighting tailored to your circadian rhythm, promoting better sleep and overall well-being. -Customised lighting solutions designed to accommodate specific health conditions such as colour blindness, myopia, or autism. -Lighting algorithms specially crafted to cater to the needs of young children.
<b>Human-Like AI-ChatBots</b>	<p>The Bot is built on the latest AI technology (Chat GPT like), making it capable of understanding customer queries and providing relevant responses in real-time about your company's knowledge base (maintenance manuals, procedures, etc.).</p> <p>Our bot is designed to handle a wide range of customer support inquiries, from basic issues to complex problems, and provide instant solutions. With its advanced capabilities, our Bot can help customers get answers to their questions quickly and efficiently, without the need to wait for a human representative and cut-off costs for Customer Support.</p>
<b>IoT Connected Products</b>	<p>IoT Development Platform.</p> <p>Our IoT Development Platform is a comprehensive solution that offers a range of features to help businesses manage their IoT devices effectively. With OTA firmware and software batch updates, users can easily update their devices remotely, ensuring that they are always up-to-date with the latest features and security patches. The platform also offers device analytics, which allows users to monitor the performance of their devices and identify any potential issues. Bi-directional communication enables seamless communication between devices and the platform, while user behaviour analysis provides valuable insights into how users interact with their devices. Remote diagnostics and service allow users to troubleshoot and resolve issues remotely, while API interoperability ensures seamless integration with other systems. Automated reporting provides real-time data on device performance, while installation site analytics help users optimise their device placement. Finally, alarms and notifications ensure that users are alerted to any issues or events that require their attention. Overall, our IoT Development Platform is a powerful tool for businesses looking to manage their IoT devices effectively and efficiently.</p>



## Technology Uptake Facilitators from Poland

enlum Nikodem Derengowski



<b>Technology provider name</b>	enlum Nikodem Derengowski (code 019)
<b>Location</b>	Szymbark, Poland
<b>Company typology</b>	Tech Savvy
<b>Expertise sector</b>	Lighting/Furniture
<b>Contact person</b>	Nuria Diago Alonso Email: <a href="mailto:nuriadiago@gmail.com">nuriadiago@gmail.com</a> Phone number: +33 6 38 76 66 67
<b>Website</b>	<a href="http://www.enlum.eu">www.enlum.eu</a>
<b>Speaking languages</b>	English, Polish, Danish, French, Spanish, Catalan

### PROFILE

Enlum is a young Polish company focused on research- and innovation-based design processes. It was founded in 2019, and it's portfolio of services is based on research (psychometric techniques, lighting technology, and NIF of light) and design (lighting, architectural, artistic) activities.

The major activities and services utilising advanced technologies are:

- Digital prototyping using 3D modelling and accurate simulations of materials and lighting.
- Aiding the design (lighting, furniture, architecture) with usage of online-based tool for surveying, communicating, and co-creating of a product. This service allows for quick feedback on the design (within company, as well as between the company and product users) and its implementation.
- Research-based calibration techniques for representation of visual stimuli, allowing for realistic representation of the design.
- Photogrammetry and drone photography in the architecture-focused projects, allowing for accurate representation of site-conditions.
- Surveying lighting conditions and material properties through measurements (luminance, illuminance, spectrum), questionnaires, simulations, and photography (classic and drone).

The major advantage of using Enlum's services is its scientific background, and research-based techniques implemented in the design processes. Moreover, Enlum's mission is to stay up to date with the newest - and community verified - technologies, especially in the domain of 3D modelling and digital prototyping.



#### **EXPERTISE PROVIDED IN THE LIGHTING SECTOR:**

Optical calculations, 3D image and video production , material simulation, 3D rendering, calibration of images, calibration of screens, spherical imaging, image processing, visual quality assessment (comfort, agreeableness, etc.), construction of narrative of sessions dealing with prototype testing, management of surveys, processing of results, statistical analysis.

#### **EXPERTISE PROVIDED IN THE FURNITURE SECTOR:**

3D simulation of scenes, real-time adjustment of materials photometry, production of sessions allowing testing of concepts and processing of results ( preferences, observations, suggestions, applications, etc. ), simulation of the design in a digital-twin of a 3D environment created using photogrammetry.

#### **KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS**

Technology/Solution	Expertise
<b>Digitalisation of marketing and online trading</b>	Enlum proposes interactive sessions to communicate innovative solutions through invitations of participants . Solutions are prepared through co-design and are presented in context of indoor or outdoor scenes.
<b>Image scripting technologies</b>	Enlum proposes interactive sessions for the design teams and their partners to explore, test and validate digital prototypes. Solutions are presented in context (indoor or outdoor scenes). An important and quick step in prototype analysis before manufacturing.

**F.P.H.U. "SEPHIA" DOMINIKA KUROWSKA DA COSTA**


<b>Technology provider name</b>	<b>F.P.H.U. "SEPHIA" DOMINIKA KUROWSKA DA COSTA (code 032)</b>
<b>Location</b>	Brody, Poland
<b>Company typology</b>	Tech-savvy company
<b>Expertise sector</b>	Furniture
<b>Contact person</b>	Karolina Furyk-Grabowska Email: <a href="mailto:biuro@studio3d-krakow.pl">biuro@studio3d-krakow.pl</a> Phone number: +4888162722
<b>Website</b>	<a href="https://studio3d-krakow.pl/">https://studio3d-krakow.pl/</a> <a href="http://www.sephia.com.pl/">http://www.sephia.com.pl/</a> <a href="https://studio3d-sklep.pl/">https://studio3d-sklep.pl/</a>
<b>Speaking languages</b>	Polish, English

**PROFILE**

The Sephia BHP company has been in existence since 2017. Initially, the company specialized in occupational health and safety (BHP) and printing on ceramic materials. However, since January 2022, the company acquired Studio 3D, expanding its offerings to include additive manufacturing, 3D design, machining, and training in these areas. The company employs a specialist named Karolina Furyk-Grabowska in the field of additive manufacturing. She has been involved in 3D printing for 11 years, both in the industry and as a staff member at State Universities (currently working at the University of Agriculture in Krakow). She holds a higher education degree in Management and Production Engineering, as well as Materials Engineering. From 2014 to 2022, she ran a business focused on 3D printing. She participates in national and international conferences and is the author of publications, including:

A. Kielbus, K. Furyk-Grabowska: "Develop an innovative compensation solution for functional disorders of the hand," *Zeszyty Naukowe Quality. Production. Improvement*, No 1(6) 2017.

The company collaborates with the Cracow University of Technology, specifically with the Department of Engineering and Production Automation. As part of this cooperation, the company provides its machines to students, assists with thesis writing, and offers student internships. Thanks to the collaboration with universities and a specialized team, our clients can expect comprehensive support in 3D design, additive manufacturing, and the selection of appropriate materials.



### **EXPERTISE PROVIDED IN THE FURNITURE SECTOR:**

Our clients are associated with various industries. We have the opportunity to collaborate with representatives from fields such as healthcare, fashion, automotive industry, plastics industry, and furniture industry. Our experience in this area includes projects and printing of furniture, creating tactile sculptures for visually impaired individuals, as well as designing and printing sculptures.

### **KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS**

Technology/Solution	Expertise
<b>Additive Manufacturing (3D printing)</b>	Sephia Company has a specialized team in this field. Thanks to the collaboration with the Cracow University of Technology and the University of Agriculture in Krakow, we have access to numerous laboratories and specialists in this area. Our laboratory is equipped with SLA, FDM, and SLS technologies. With the extensive experience of our staff, we are capable of developing a production process using 3D scanning, CAD programs, and 3D printers. This enables us to shorten production time and reduce costs while maintaining the initial product specifications.

## Technology Uptake Facilitators from Portugal

### Crantec




Technology provider name	Crantec (code 005)
Location	Esposende, Portugal
Company typology	Technologies Solutions Engineering, R&D, Expertise & Integration
Expertise sector	Lighting/furniture
Contact person	José Tabu Email: <a href="mailto:contact@crantec.net">contact@crantec.net</a> Phone number: +33 6 95 94 13 87
Website	<a href="https://www.crantec.net">https://www.crantec.net</a>
Speaking languages	English, French, Portuguese,

### PROFILE

Crantec is an Engineering and R&D Company, an IT Expert and Pioneer on LiFi (Light Communications), IoT, AI solutions integration collaborating for more than 10 years with PureLiFi Company (<https://pureLiFi.com>), (Leader on LiFi technology development) with full access to the state of the art LiFi technology (hardware and software) as a LiFi Solutions Provider. Crantec is a Member of Solar Impulse (<https://www.solarimpulse.com>) World efficient Solutions Foundation fighting the Climate change and addressing sustainability challenges while enabling economic growth.

As an Technology Expert Integrator, Crantec ambition is to provide on the market innovative end-to-end Low-carbon high Energy efficient solutions addressing the Climate change, Connectivity, Cybersecurity and security issue in various sectors including Smart Home, Smart Building, Smart Cities, Hospital, Medical, School, Industry 4.0, ...

Our field of knowledge and technology include expertise and strong skills on:

- **Networking and hardware Infrastructure** : Power Line Communications, Fibre Optical network, Power Over Ethernet (PoE) as the Backbone and foundation of high Energy efficient Digital and secure network infrastructure with the integration of the Solar Energy as a Power Source ;
- **Wireless Mobile Network Infrastructure**: WiFi and LiFi (Light Communications) high speed Wireless Mobile network solutions integration;
- **Cybersecurity**: Cybersecurity solutions and stack integration;
- **Security**: AI Smart Surveillance and Observation applications integration with real-time video analysis and Deep Learning technology.
- **Industrial IoT and sensors**: Design and manufacturing of high efficient and secure connected IoT Solutions integrating innovative technologies such as (**PoE, USB-C PD LED Luminaire, WiFi/LiFi Access Point, AI, BLE, Sensors**) using **3D Printing Technology**;



- **Light Sector:** Manufacturing of innovative connected and high efficient LED Luminaire fixture, LiFi /WiFi LED Luminaire Access Point
- **Furniture Sector:** Design and Manufacture of Digital furnitures integrating innovative technologies and connectivity (AI, LiFi /WiFi);
- **Robotics:** LiFi/WiFi solutions integration on robotics for Industry 4.0
- **Artificial Intelligence (AI):** Artificial Intelligence solutions integration on IoT objects, Infrastructures and Network solutions.
- **Machine Learning:** AI Machine Learning solutions integration addressing various sectors such as Security Smart surveillance, Industry process automation, Smart Office Digital transformation, E-Commerce, Services, Banking, Training, ...
- **Light Communications:** Design and integration of High Speed interference-free secure Wireless communications solutions based on visible light and/or Laser Based Infrared Light.

Crantec have Expertise and skills in key technologies with a great experience over the entire chain of its activities. Crantec vision is to Design, Manufacture, develop and implement low-carbon-based solutions on the market. Crantec solutions rely on Resilience, Connectivity, Energy saving, Energy efficiency, Cybersecurity, Usability.

- **Network Backbone:** Crantec provide a Greentech Networking and Infrastructure solutions based on Fibre Optic (POL, GPON, FTTO (x)) and Power over
- **Ethernet (PoE++ 802.3bt)** Standard technologies as the foundation of low consumption Energy efficient and Energy saving Networking Backbone infrastructure for IP-based Smart Building, Smart Home, Smart City, Industry 4.0....;
- **Connectivity:** Crantec design Low consumption and High efficient and Energy saving LED Luminaire, LiFi / WiFi LED Wireless Access Point Luminaire designed on top of **USB-C Power Delivery high Power LED technology**. Crantec develop innovative USB-C technology to develop new generation of Human Centric LED Lamp Luminaire (Low-carbon) connected on Power over Ethernet Network;
- **Cybersecurity:** Crantec integrate Cybersecurity tools and AI features on its designed products such as connected PoE LED Luminaires, fixtures, LiFi/WiFi Access Point, IoT Objects as a connected secure platform.
- **Usability:** Crantec integrate AI solutions for a better and easy User Experience

Over time, Crantec have been able to develop a Vision and a Global Strategy on key technologies. We can supply and integrate global solutions with a joint development on specific projects with our Partners. We can also assist them from the analysis and proposal of technical solutions to the deployment to ensure the full success of their projects.

#### **EXPERTISE PROVIDED IN THE LIGHTING SECTOR:**

Crantec design, develop and manufacture innovative connected and Low-carbon Energy efficient LED Luminaire, fixture, LiFi /WiFi LED Luminaire Access Point based on USB-C PD high power LED Luminaire technology.

#### **EXPERTISE PROVIDED IN THE FURNITURE SECTOR:**

Crantec design and Manufacture Digital furnitures integrating innovative technologies and connectivity: AI, LiFi / WiFi) wireless mobile connectivity technologies.

## KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS

Technology/ Solution	Expertise
<b>Additive Manufacturing (3D printing)</b>	Crantec use 3D Printing technology to design and manufacture its products such as LED Luminaire, LiFi/WiFi Access Point, IoT Device Platform.
<b>Augmented and Virtual Reality</b>	To successfully support the implementation of smart products for VR application, there is a strong needs of high speed, high bandwidth, reliable and low latency network infrastructure, as a backbone and as the foundation of VR Network infrastructure. LiFi is the only reliable high speed Wireless technology which can achieve a low latency to support VR and AI applications. LiFi is a Low-carbon , Energy efficient and Green technology solution to achieve the Net Carbon Network Communications infrastructure. LiFi network infrastructure is based on Fibre Optic technology interconnected with Power Over Ethernet (PoE) LAN Network. LED Luminaires Access Point are then connected to a PoE network which is interconnected with the Optical network Backbone connected to the Internet.
<b>Cybersecurity</b>	Crantec integrate Cybersecurity tools and AI Artificial Intelligence features on its designed products such as connected PoE LED Luminaires, fixtures, Furnitures, LiFi/WiFi Access Point, IoT Objects as a connected secure platform.
<b>Industrial IoT (IIoT) &amp; sensors</b>	Crantec design and manufacturing Low-carbon high Energy efficient and secure connected IoT Solutions integrating innovative technologies such as USB-C PD LED Luminaire, WiFi/LiFi Access Point with integrated BLE technology and Sensors using 3D Printing Technology;
<b>Robotics</b>	Crantec integrate LiFi/WiFi Wireless connectivity technologies on robotics, machine for Industry 4.0, Medical solutions, Industrial IoT Devices ...
<b>Artificial Intelligence</b>	Crantec integrate Artificial Intelligence AI solutions addressing needs in various sectors such as IoT objects, AI Smart Surveillance, Environment monitoring, Hardware Infrastructures and Network solutions.
<b>Machine learning</b>	Crantec integrate AI Machine Learning solutions addressing needs in various sectors such as Security Smart surveillance, Industry process automation, Smart Office Digital transformation, E-Commerce, Services, Banking, Training, using realistic AI Virtual Human Assistant (Digital twin) AI Deep Learning technology.
<b>Light Communications technology</b>	Crantec is an Expert, Pioneer and Integrator on LiFi Solutions. Crantec have been collaborating and developing LiFi technology with PureLiFi Company for 10 years now: Design and integration of High Speed interference free secure Wireless communications solutions based on LED visible light and/or Laser Based Infrared Light. Crantec have been designed and developed real life LiFi solutions on the market. LiFi is a wireless technology holds the key to solving challenges faced by 5G. LiFi can transmit at multiple gigabits, is more reliable, virtually interference free and uniquely more secure than radio technology such as Wi-Fi or cellular. LiFi is a Low-carbon , Energy efficient and Green technology solution to achieve the Net Carbon Network Communications infrastructure. LiFi network infrastructure is based on Fibre Optic technology interconnected with Power Over Ethernet (PoE) LAN Network. LED Luminaires Access Point are then connected to a PoE network which is interconnected with the Optical network Backbone which is connected to the Internet.



## Technology Uptake Facilitators from Romania

### Asociația Digital Innovation Zone - Zona de Inovare Digitală



<b>Technology provider name</b>	Asociația Digital Innovation Zone - Zona de Inovare Digitală (code 041)
<b>Location</b>	Iași, Romania
<b>Company typology</b>	European Digital Innovation Hub
<b>Expertise sector</b>	Furniture
<b>Contact person</b>	Cristina Baghiu Email: <a href="mailto:cristina.baghiu@digital-innovation.zone">cristina.baghiu@digital-innovation.zone</a> Phone number: +40724275435
<b>Website</b>	<a href="https://digital-innovation.zone/">https://digital-innovation.zone/</a>
<b>Speaking languages</b>	Romanian, English, French, Spanish

#### PROFILE

[Digital Innovation Zone EDIH](#) is an European Digital Innovation Hub active since 2019 in North-East Romania region. It was funded as a private not-for-profit initiative between the Regional Development Agency North-East, 6 universities, 5 chambers of commerce, 2 clusters and several tech & digital marketing companies. Starting 2022, we developed the EDIH capabilities of our consortium and we are part of several industry & DIH associations at EU level, such as DIH2, I4MS, Change2Twin certified DIH, Enterprise Europe Network node, EIT Health & EIT Manufacturing ecosystems via associated partnerships. Since our organization is bridging the gap between research and market, we see ourselves as an essential piece of the national innovation ecosystem.

The Digital Innovation Zone (DIH) EDIH is led by a competent and enthusiastic team with expertise in various domains. The team is passionate about regional development and aims to create a culture that encourages digital development in the North-East Romania region. The governance structure is based on:

- ❖ Managing Board: advises and coordinates all major strategic decisions;
- ❖ Executive Team: Provides the operational expertise and day-to-day business;
- ❖ Special interest Group Leads: we encourage participation and involvement from all interested parties (tech suppliers, ecosystem organizations, etc) that are joining our association as associated partners.

Digital Innovation Zone is the EDIH in North -East Romania. Our main activities are:

- test-before-invest (supporting technologies experimentation for our SME customers);
- access -to-finance (support in developing new business models, grant readiness and investor readiness programs);
- digital culture & skills programs;
- ecosystem development and partnership matchmaking.





The technologies that are available through our test before invest service are:

- ❖ Process Automation;
- ❖ Digital Twin;
- ❖ Artificial Intelligence (AI);
- ❖ Internet of Things (IoT);
- ❖ Virtual & Augmented Reality (VR&AR);
- ❖ Cloud;
- ❖ Product innovation (Additive Manufacturing/3D Printing);
- ❖ Cyber Security and Blockchain;
- ❖ 5G laboratory.

The EDIH is built on the regional specialization strategic sectors - with a focus on manufacturing & healthcare, having as Key Enabling Technologies Artificial Intelligence (applied at all levels).

The main benefits in using our services are:

-Unique service offerings - As the only EDIH in the North-East region of Romania, our unique service offerings can help differentiate us from competitors in our region and attract companies seeking digital innovation solutions.

-Access to a growing market - With a relatively low density of SMEs in the region, there is significant potential for growth and market penetration in the manufacturing and healthcare industries, two of our main target industries.

-Strong government support - Our DIH services are supported by the government of Romania (National Authority for Digitalization), as well as the Regional Development Agency.

#### **EXPERTISE PROVIDED IN THE FURNITURE SECTOR:**

We worked during 2019-2021 with a regional leader in manufacturing industry, NordArin Prodcom, to support him to advance his digitalisation level, via a pilot innovation project.

#### **KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS**

Technology/Solution	Expertise
<b>Additive Manufacturing</b> (3D printing)	<p>The proposed technologies support the exploration and development of solutions for the development of innovative medical devices through the design thinking approach. It also contributes to understanding the advantages of additive manufacturing with the possibility of introducing 3D printing technology both in the prototyping phase and in the technological flow. We provide advice on determining the optimal material as well as the method of 3D printing for a given application.</p> <p>Our partners <i>TUIASI</i> and <i>University of Medicine and Pharmacy Grigore T. Popa Iași</i> can provide these technologies.</p>
<b>Augmented and Virtual Reality</b>	<p>With the help of XR* technologies, a variety of business operations in different industries can be improved, including in the area of training, collaboration, remote assistance and more.</p> <p>XR Technologies: Augmented Reality (AR), Virtual Reality (VR) and Mixed Reality (MR)</p>

	<p>The Hub's XR experts can help to discover the various benefits that AR, VR and MR technologies can bring to the organisation through research, proof-of-concept and innovative solutions. We can help to look beyond the 2D world so a client can better manage his assets, increase his productivity and improve customer experience.</p> <p>Our partner <i>TUIASI</i> can provide this technology</p>
<b>Big Data &amp; Analytics</b>	<p>Our hub can provide a series of web services that can be integrated into any patient management application so that these applications benefit from the advantages of cloud storage of medical data.</p> <p>Among the benefits of implementing these services in a medical application are: Online medical appointments; Automatic completion of medical records; Online medical consultation; Collection of medical services rendered; Obtaining GDPR consent online.</p> <p><i>TUIASI</i> and <i>RomSoft</i> can provide these technologies.</p>
<b>Cybersecurity</b>	<p>In this sector we cover 4 areas:</p> <p><b>Digital Identity and Traceability Blockchain:</b> we have developed the DigitalME tool (Digital Maturity Evaluator). This is a tool that allows to uniquely identify a machine or product user and keep all his data in a secure way, using the SSI* (Self-Sovereign Identity) concept: personal information, delivery locations, shopping preferences, anthropometric data, patient health records, product label, login data, etc. data is stored on the user side. It can be used in any sector as a method to validate identity and to store and access personal data in a secure way;</p> <p><b>Public Institutions:</b> The development of self-sovereign identities (SSIs) based on blockchain technologies gives citizens ownership and control over their personal data and allows them to share their data using a kind of "digital safe".</p> <p><b>Industrial production:</b> DIZ specialists offer consultancy in order to implement a technology through which you can follow the traceability of a product throughout the supply chain and offer you the opportunity to keep all the company's digital data in a secure way.</p> <p><b>Health:</b> Our team advises on the implementation of a technology that allows the unique identification of a patient and the preservation of all his data in a secure way, using the concept of SSI self-sovereign identities.</p> <p><i>TUIASI</i> and <i>Webmagnat</i> provide these technologies.</p>
<b>Industrial IoT (IIoT) &amp; sensors</b>	<p><b>IoT, Cloud Computing:</b> The proposed cyber-physical system consists of a network of wireless sensors capable of real-time monitoring of the clinical environment, the presence of people in a room as well as the detection of their actions. The aim is to target the most common sources of infection as well as the most common ways of their transmission, known from the specialized literature. The system will monitor several clinical scenarios that are known to play a role in the transmission of nosocomial infections, based on a rules engine with the help of which it will be possible to define the hygiene rules that want to be monitored and respected.</p> <p><b>Awareness raising – IoT:</b> Remote monitoring (at the patient's home) of vital parameters (heart rate and rhythm, blood sugar, blood pressure, oxygen</p>

	<p>saturation, etc.), environmental variables (domotics) will allow doctors to identify changes in the patient's condition as soon as they occur , so that timely intervention can be made if necessary. The patient can also be in continuous contact via a tablet or smartphone with the healthcare team that monitors his condition.</p> <p><i>TUIASI and University of Medicine and Pharmacy Grigore T. Popa Iași can provide these technologies.</i></p>
<p><b>Process Automation</b></p>	<p>Efficient implemented robotics, such as material handling, welding, MIG, spot and arc welding, etc., will enable SMEs to improve the safety standards, the quality of their products and their resources usage.</p> <p><b>Logistics 4.0:</b> Through the use of autonomous mobile robots and cloud, we offer the possibility of rapid automation of the transportation of materials within production systems as well as within logistics warehouses. We can also interface mobile robots with warehouse management systems.</p> <p><b>Computer Vision:</b> We offer consultancy in the field of integrating computer vision systems into production processes with the aim of minimising human operator intervention, optimising operational efficiency and reducing production costs.</p> <p><b>Supervisory Control &amp; Data Acquisition (SCADA):</b> Through SCADA systems, we can control system architecture, network data communications, and graphical user interfaces for high-level oversight of machines and processes.</p> <p>We provide SMEs with guidance and support in the development of algorithms, procedures and support platforms for the implementation of intelligent control systems.</p> <p><i>TUIASI can provide these technologies.</i></p>
<p><b>Artificial Intelligence</b></p>	<p>Useful for product proposals via apps and for product development. AI has the potential of impacting the whole product design, increasing customisation. Lower errors and higher creativity in production.</p> <p><b>Data Platforms, Business Intelligence (BI), and Artificial Intelligence (AI):</b> Considerable investment is being made in creating reliable and secure data platforms that are the foundation for deeper use of data through business intelligence (BI) and artificial intelligence techniques and tools.</p> <p><b>Dara Platforms and AI/ML Awareness:</b> Individuals, projects and organisations have their own unique context and specific needs, so there is no “standard” training. That’s why the approach we take to the training effort consists of a set of phases that all boil down to a larger overall value: discovery, adaptation, delivery, follow-up.</p> <p><i>Strongbytes can provide this technology.</i></p>
<p><b>5G Laboratory</b></p>	<p>The new 5G laboratory inaugurated within TUIASI will work in a complementary way with the one in Bucharest, but a good part of its activity will be focused on the research and development of intended solutions transport and mobility of the future.</p> <p>The Orange 5G Lab in Iasi is equipped with technologies that will be available in the commercial network in the future, which can only be tested today in a laboratory environment:</p>



	<p><b>5G Standalone Virtualized User Plane Function</b> – the local component that processes the traffic <b>5G</b> and <b>makes the connection with the core network of Orange 5G Lab Bucharest</b>;</p> <p><b>5G New Radio</b> – the radio access component of the 5G infrastructure;</p> <p><b>Open RAN &amp; Open Core</b> – separation of software from hardware and virtualization of the radio network or the core network that allow the system to run on CoTS (Commercial-of-the-shelf);</p> <p><b>Edge Computing</b> allows reducing the distance between users (applications) and services (data) and facilitates the guarantee of transmission latencies and throughput as required by services and applications.</p>
<p><b>Digital Twin</b></p>	<p>The digital twin has as its central point the generation and use of a virtual replica of a real system. In industrial production, with the help of the digital twin, a company can test and validate a product even before it physically exists.</p> <p><b>Industrial Production:</b> DIZ specialists provide consultancy in the field of creating a replica of the production process. You will have access to a high-performance infrastructure for testing and experimenting with the appropriate technologies (CAD software, industrial robot infrastructure, simulation software, etc.) and you will be able to analyze and experience working scenarios with digital twins such as the use of robots in manufacturing processes.</p> <p><b>Health:</b> The digital twin in medicine (GDM) is defined as the virtual representation (“digital twin”) of the patient (“physical twin”) that is generated from multimodal patient data, population data, and real-time updates of environmental variables and vital parameters of the patient.</p>



## il-Silv soluții ingineresti srl



<b>Technology provider name</b>	il-silv soluții ingineresti srl (code 044)
<b>Location</b>	Miercurea Ciuc, Romania
<b>Company typology</b>	Wood engineering solutions
<b>Expertise sector</b>	Furniture
<b>Contact person</b>	Molnár, Gábor Email: <a href="mailto:office@ilsilv.ro">office@ilsilv.ro</a> Phone number: 0040745228438
<b>Website</b>	<a href="http://www.ilsilv.ro">www.ilsilv.ro</a>
<b>Speaking languages</b>	Romanian, Hungarian, English

### **PROFILE**

Technical solutions for the wood industry

Through our activity we offer partners design, planning and preparation process, respectively design and optimization technological processing lines, technical audit, necessary for the manufacture of wood and wood-based products.

At the same time, through technical consultancy we can help to develop technical solutions for wood industrialization, needed to access funds through projects. By working with the consultant, we can find the optimal technical solution that is necessary for you.

The product offered is the technical documentation necessary for furniture production and finished products made of wood and wood-based materials, consisting of: 3d drawings in space, 2d in plan, sections, details, drilling schemes, assembly schemes, nomenclature, consumption rules, general drawings, 3D renderings.

As a first step is to find out what your company has and what technological flow reaches the finished product. We do not want to have to spend extra to work with us, we want to settle on your pace and technology, as if we were working in the workshop. For this we will visit your factory and learn how it works. At the same time, we get to know your style of making the technical documentation, the level and degree of complexity required by the workshop for the technical documentation, the components you use for the technical documentation.

The final product is conceived as modular, that is to say from the technical documentation what the partner wants. For example, 3d, or 3d and 2d with the landmarks list etc.

At the same time, through the service contract, the beneficiary, you, of the realized product will perform verification through his own verifier, which means the final acceptance of the realized product and now the established fee will be invoiced.

Your company receives the technical documentation online, verifies it and teaches in production. Since it is designed in their style of production, those in production will have no problem using it.



Collaboration is based on contract on project, after verification and acceptance, we bill for the fee. Occasionally or continuously, we can collaborate. In the collaboration contract we also have a confidentiality clause. The copyright will be yours only the right of use as good practice will have our company as a supplier, but with your written consent for use.

#### **EXPERTISE PROVIDED IN THE FURNITURE SECTOR:**

Furniture design engineer, with phd and over 20 years of experience. I have expertise in furniture production, tools and machine for furniture manufacturing, respectively I was also a manager of a furniture factory. Now I am a manager of a wooden houses and furniture factory also I managed my own furniture planning ltd.

#### **KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS**

<b>Technology/Solution</b>	<b>Expertise</b>
<b>Externalized furniture planning</b>	We offer partners design, planning and preparation process, respectively design and optimization technological processing lines, technical audit, necessary for the manufacture of wood and wood-based furniture. Furniture planning engineer, with phd and over 20 years of experience. Now I am a manager of a wooden houses and furniture factory also I managed my own furniture planning ltd.
<b>Manufacturing Process Optimization</b>	Advanced techniques such as Lean Manufacturing, Six Sigma, or other optimization methodologies to improve the efficiency, quality, and productivity of wood manufacturing processes. I have expertise in furniture production, furniture manufacturing, respectively I was also a manager of a furniture factory.
<b>Computer-Aided Design (CAD)</b>	Advanced CAD software to design solutions for wood and wood-based products. This technology enables precise and efficient design processes. With experience in using AutoCad, Imos, SolidWorks.
<b>Industrial Automation</b>	Automation technologies, such as robotics and control systems, might be utilized to streamline and optimize the technological processing lines. This could involve the use of computer-controlled machinery and robotics to enhance productivity and precision in wood processing. With expertise in furniture production, tools, machines, cnc-s for furniture industry and experience in industry 4.0 for furniture manufactures.



## INNO Robotics SRL



<b>Technology provider name</b>	<b>INNO Robotics SRL (code 007)</b>
<b>Location</b>	Cluj-Napoca, Romania
<b>Company typology</b>	Tech Provider
<b>Expertise sector</b>	Furniture
<b>Contact person</b>	Mihaela IOANEȘ Email: <a href="mailto:mihaela.ioanes@inno-robotics.com">mihaela.ioanes@inno-robotics.com</a> Phone number: +40765 335 040
<b>Website</b>	<a href="http://www.inno-robotics.com">www.inno-robotics.com</a>
<b>Speaking languages</b>	Romanian, English, Spanish

### **PROFILE**

Inno Robotics is a wholly Romanian-owned company started in 2011. It has become the largest national integrator of fully automated solutions of industrial robots, while also gaining the trust of our external customers. Over the years its projects have been implemented in various industries: automotive, aeronautics, metal processing (CNC assistance, presses, bending machines, welding), porcelain processing industry, etc. The expertise developed over time is mainly in robotic automated welding processes, machine tending and palletizing of various products.

Company offers to the customer the complet autotomated solution for the industrial production process that needs to be automatized by offering, together with the products, services as: defining the technical solution, making mechanical and electrical design, manufacturing the parts needed for the robotic cell, developing the software for robot and PLC, providing the installation of the robotic cell, testing and validation, training for the operators, technical support after sale, warranty and post-warranty services.

The main advantage that INNO Robotics has is the wide know-how in robotic automation domain and in-house manufacturing workshop where at least 90% of the components of an automated cell that requires mechanical processing are produced, thus allowing to have a real control over the product quality and the execution deadlines.

### **EXPERTISE PROVIDED IN THE FURNITURE SECTOR:**

INNO Robotics has experience in automation of production processes in wood manufacturing. One of the most complex projects was handling and palletizing of hanger coats.



## KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS

Technology/Solution	Expertise
<b>Robotics</b>	<p>We have already developed a series of automated welding solution with incredible performance and succes on Romanian market. WeldPro can be easily adapted to the changing type of manufactured parts. From small series production to high volume production. We have designed this product to provide flexibility for production changes and it can be easily reprogrammed for new production parts if necessary.</p> <p>For material handling we also have experience in palletizing solutions in various industries and also CNC or presses tending. CNC tending cells can serve up to eight machine tools. They can easily handle small batches of parts and combinations of batches within the same machining process.</p>





## TESAGON INTERNATIONAL



<b>Technology provider name</b>	<b>TESAGON INTERNATIONAL</b> (code 006)
<b>Location</b>	PAULESTII NOI, Romania
<b>Company typology</b>	Tech-savvy company
<b>Expertise sector</b>	Furniture
<b>Contact person</b>	IULIA MATEI Email: <a href="mailto:iulia.matei@tesagon.com">iulia.matei@tesagon.com</a> Phone number: +40 786 393 801
<b>Website</b>	<a href="http://about.tesagon.com">about.tesagon.com</a>
<b>Speaking languages</b>	Romanian, English, Spanish, French, Hungarian

### PROFILE

Tesagon International was founded in 2015 to fulfill the need for quality, custom-made, quickly implemented cloud systems. Our team successfully designed and developed custom-made ERP solutions for clients in various industries. We've gained experience implementing solutions for vending machine operations, custom furniture manufacturers, map-based tracking of alerts and assets.

We provide the following services:

- ❖ Systems design
- ❖ Custom made software
- ❖ Engineering
- ❖ Consulting
- ❖ Web development

Products developed by us:

**3DAII** - Presentation, design, and production management solution for custom furniture manufacturers, developed on imos software platform, the world leader in the field. <https://3dall.ro/>

**IWerp** - ERP tool, created and developed on the specific of the furniture production industry - an integrated management system of all the processes and operations of the company. <https://iwerp.ro/>

**Digital Dynamic** – Sales and marketing tool for presenting spaces or products through professional virtual architectural solutions (dynamic rendering). <https://digitaldynamic.eu/>

**Research, innovation and development** are very important to us. Therefore, we were part of several R&D projects with public funding that you can find more about at <https://about.tesagon.com/>

We are passionate about open source technologies and use them to deliver the best technical solutions at the best price. Using agile development methodologies, we can adapt very fast to changing needs in this fast-paced world we live in.



### **EXPERTISE PROVIDED IN THE FURNITURE SECTOR:**

We have over 10 years of experience in the furniture industry. We are constantly on an active search to find the best solutions to specific problems, as well as optimal ways of working that provide overall efficiency and lead to minimizing the resources used and therefore costs.

We develop proven integrated solutions that offer a fast and efficient way of working and that work for both small and very large companies. In addition to custom developments for this industry, we have our own products (3D ALL and iWERP) that we have created for furniture manufacturers.

### **KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS**

<b>Technology/Solution</b>	<b>Expertise</b>
<b>Augmented and Virtual Reality</b>	We create immersive VR presentations for spaces and products using real time renderings. <a href="https://digitaldynamic.eu/">https://digitaldynamic.eu/</a>
<b>Big Data &amp; Analytics</b>	We created and developed an integrated management system for all processes and operations of the company, customized for furniture manufacturing industry. <a href="https://iwerp.ro/">https://iwerp.ro/</a>
<b>Digitalisation of marketing and online trading</b>	<a href="https://www.dressing.ro/">https://www.dressing.ro/</a> - online furniture configurator for dressings. Based on the final configurations, furniture can be directly sent to production without further investment of time and resources. 3dall.ro

## Technology Uptake Facilitators from Spain

### Acondicionamiento Tarrasense (Leitat)



<b>Technology provider name</b>	<b>Acondicionamiento Tarrasense (Leitat) (code 016)</b>
<b>Location</b>	Terrassa, Spain
<b>Company typology</b>	Digital Innovation Hub - Digital Industry
<b>Expertise sector</b>	Lighting/Furniture
<b>Contact person</b>	Vincent Jamier Email: <a href="mailto:vjamier@leitat.org">vjamier@leitat.org</a> Phone number: +34 93 788 23 00
<b>Website</b>	<a href="http://www.leitat.org">www.leitat.org</a>
<b>Speaking languages</b>	Catalan, Spanish, English, German, French

#### **PROFILE**

Founded in 1906, Leitat is one of the reference entities at national and European level in technology management. It has a team of more than 500 professionals, experts in applied research, technical services and management of technological and innovation initiatives. Leitat provides social, industrial, economic and sustainable value, offering comprehensive solutions in multiple sectors and areas: development of new materials, eco-sustainable production, occupational health prevention systems, revaluation of waste and use of natural resources, interconnectivity and digitization of industry, green energy and maximization of energy efficiency. Leitat is recognized by the Ministry of Economy, Industry and Competitiveness and is one of the main entities participating in Horizon 2020 and Horizon Europe.

Digital Industry department improves industrial competitiveness through access of state-of-the-art facility ([DFactory](#)) and knowledge transfer in the field of additive manufacturing and 3D printing (Leitat is member and manager of the International Advanced Manufacturing 3D Hub [IAM3DHUB](#)), robotics and automation, 5G & IoT, vision & photonics and artificial intelligence under open innovation models for the development of research and innovation projects, with a tech transfer and industrial adoption vision for a positive impact and return to the society.

#### **EXPERTISE PROVIDED IN THE LIGHTING SECTOR:**

AM3DP: Design and development of components and new disruptive solutions in AM3DP, inner & outer components (structural/shape/aesthetics), electrical connectors and heat dissipators, obtention of complex geometries, special series, on demand manufacturing, customized designs, prototyping. ROBOTICS: Associated robotics processes: Assembly, union, cabling, machining, machine tending, vision, force control. P&V: optical modelling and development of prototypes, including light sources, mirrors, diffusers, etc.

### **EXPERTISE PROVIDED IN THE FURNITURE SECTOR:**

Design and development of components and new disruptive solutions in AM3DP, structural elements, solutions for seatings and cushions with lattice structures, obtention of complex geometries, special series, on demand manufacturing, customized designs, prototyping. ROBOTICS: Associated robotics processes: assembly, union, machining, cutting, machine tending, palletizing, packing, vision, force control. P&V: integration of photonic materials for decoration, and optoelectronic devices such as solar cells, LSC, etc.

### **KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS**

Technology/Solution	Expertise
<b>Additive Manufacturing (3D printing)</b>	Technology consulting & adoption journeys; Design, redesign, optimisation of parts and development of new advanced industrial applications (solidworks, rhino, grasshopper, altair suite, magics...); customized trainings; parameter development of new AM materials; 3D printing with various materials (polymers in filament, powder, resins; metals -stainless and tool steels, nickel alloys, aluminium, titanium, copper-; sands for moulds) and different AM technologies (VAT -SLA, DLP, LCD-, FFF, MJF, SLS, SLM, BJ, GDP); development of new strategies and systems for post processing of AM parts (sandblasting, tumbling, shoot peening, electrochemical polishing, coatings, surface treatments, heat treatments); AM process digitalization and predictive models.
<b>Big Data &amp; Analytics</b>	System architecture. Design of data pipelines and implementation of AI systems, both knowledge and information bases systems.
<b>Cybersecurity</b>	Implementation of different technologies, such as hardware secure elements integration or single sign on methodologies.
<b>Industrial IoT (IIoT) &amp; sensors</b>	<p>Leitat has been involve on three main areas: data generation, connectivity, edge computing and hardware security. On data generation for indoor and outdoor applications the parameters to be monitoring are analysed in order to design and /or select the transduction strategy to data capture and digitalization.</p> <p>On connectivity, channel bandwidth and data-rate are also analysed before to select the most appropriate band for interconnect sensors with dataloggers, PLC, mobile phone, servers or cloud. Design of privative and secure networks. Apply strategies against cyberattacks. Hardware is hardened and secured by design and also using cryptography at hardware &amp; software levels.</p> <p>Low power sensor networks and depending data topology, design battery-less sensors.</p> <p>Design and develop, Node sensors with EDGE computing with the aim to use artificial intelligence to analyse, categorize al data reported by deployed sensors.</p> <p>Sensors' design and integration of commercial ones. Data connectivity layers, MQTT, OPC-UA, Rest interfaces, JSON, non-relational data bases.</p>

<b>Robotics</b>	<p>Expertise in industrial robotics processes (welding, painting, machine tending, assembly...). Robotics lab for development, testing and validation of new robotic abilities, processes, and functionalities, based on enabling technologies such as artificial vision, navigation, force control, light manipulators, and sensors. Logistics processes with autonomous mobile robots.</p> <p>Leitat manages and operates the space and equipment available in the shared laboratory (including ATEX robotics area), offering different technological services, capabilities, expertise in robotics and automation according to the different levels of process complexity. The lab includes industrial and collaborative robots, AMR, 2D and 3D vision systems, robot end effectors and peripherals.</p> <p>Expertise in different enabling technologies such industrial control and communications, AI enabled robotics, digital twins, ROS modelling, vision, and sensors.</p>
<b>Artificial Intelligence</b>	<p>Development of pre-processing methodologies and analytics for data cleaning purposes, to support creation of good data training sets. Image and data-based systems.</p>
<b>Machine learning</b>	<p>Use of different algorithms to support regressions, classifications and clustering problems.</p>
<b>Photonics &amp; Vision (P&amp;V)</b>	<p>Expertise in five productive sectors: Industry, Energy, Health, Agri-Food and Environment.</p> <p>Since 2017, working under private contracts, developing solution at different grade of maturity. Some examples are: 1) design illumination system for sorting machinery for use hyperspectral camera in plastic sorting lines. 2) design and develop different sunlight management system for energy field, for example for the integration of solar cells in urban furniture. 3) development of photoluminescent materials for decorative applications and for energy harvesting.</p>



## Aumenta Solutions



<b>Technology provider name</b>	<b>Aumenta Solutions</b> (code 023)
<b>Location</b>	Barcelona, Spain
<b>Company typology</b>	Deep tech company
<b>Expertise sector</b>	Furniture
<b>Contact person</b>	Pere Roset Email: <a href="mailto:pere@augmentasolutions.com">pere@augmentasolutions.com</a> Phone number:+34650307019
<b>Website</b>	<a href="http://www.aumentasolutions.com">www.aumentasolutions.com</a>
<b>Speaking languages</b>	Catalan, Spanish, English

### PROFILE

Since 2013, we are pioneers in the integration of Augmented and Virtual Reality with cutting-edge technologies such as Artificial Intelligence, IoT, Blockchain, Edge Computing, and Holographic Transmission via 5G networks. These advanced technologies enhance the capabilities of our Augmented Reality solutions, allowing us to provide even more efficient and effective tools for virtual training, geolocated information access, remote assistance in repairs and maintenance, and product and installation planning and development. Our company's commitment to innovation and technological excellence makes our Augmented Reality applications a leading choice for businesses seeking to optimize their operations and stay ahead of the curve.

A list of our clients includes Space X, Seat, Alstom, Nissan, Iveco, Epson, Medtronic, J&J, MWC, Caixabanc, Fundació Miró, Verizon, Nokia, Telefónica, GSK, Pfizer, Banak, Aguas de valencia among others.

Some of our products:

- **DMAI: First Blockchain, IoT an AR platform for Active Maintenance**

AR No code Step-by-step SMARTGLASSES guide for maintenance/service procedures. Utilizing blockchain technology, IoT, and augmented reality (AR), this innovative platform enables real-time maintenance data sharing, increasing efficiency and reducing downtime.

This platform enables maintenance workers to access digital information, including schematics and maintenance manuals and visualize IoT remote data while on-site and allows for the certification of user tasks with Blockchain. - Identifies and certifies with Blockchain the operator's location and Timestamp. - Visualize IoT data in AR -Generate Blockchain certified images of the maintenance operations carried out.

- **5G POWERED AUGMENTED REALITY HOLOGRAM ASSISTANTS**

Virtual assistants based on 360 volumetric video and displayed on real time using Augmented Reality powered by edge computing and 5G. As example, discover the main activities and events related to 5G technology during the last MWC22 by downloading the APP 5G Railway Lab developed by Aumenta Solutions. <https://play.google.com/store/apps/details?id=com.mwc.highlights&gl=ES>.



- **LIGHT FIELD HOLOGRAMS**

Immersive experiences with the world's first group-viewable 3D holographic displays. No headset required. As a use case of this breakthrough technology we developed the project "ZOOHHH!" which offers new experiences to child hospital patients. Through this pilot project with 5G and LIGHT FIELD holographic technology, presented at the Sant Joan de Deu Hospital in Barcelona, the aim is to bring some animals from the Barcelona Zoo closer to boys and girls from the hospital to improve their mood and reduce the impact of hospitalization.

- **PLACE**

Smart placement of 3D objects on real places using Augmented Reality.

For furniture, we developed placement applications for companies like Banak and Puertas Sancas showing how their products appear in a real environment.

#### **EXPERTISE PROVIDED IN THE FURNITURE SECTOR:**

Developing AR applications for several furniture manufacturers in Spain.

#### **KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS**

Technology/Solution	Expertise
<b>Augmented and Virtual Reality</b>	More than 10 years of experience on AR/VR/MR with more than 100 projects and top clients.



**DI3 GESTIÓN DE LA ENERGÍA S.L.**



**Di3**  
INGENIERÍA



<b>Technology provider name</b>	<b>DI3 GESTIÓN DE LA ENERGÍA S.L. (036)</b>
<b>Location</b>	Badalona – Barcelona, Spain
<b>Company typology</b>	Industrial Engineering - Tech-savvy company
<b>Expertise sector</b>	
<b>Contact person</b>	JORDI PORTA NEBOT Email: <a href="mailto:jporta@di3ingenieria.es">jporta@di3ingenieria.es</a> Phone number: 609366050
<b>Website</b>	<a href="http://www.di3ingenieria.com/index.html">http://www.di3ingenieria.com/index.html</a>
<b>Speaking languages</b>	Catalan, Spanish, English

## **PROFILE**

Di3 Energy Management S.L., is an engineering dedicated mainly to energy management in its different facets, energy management and monitoring, lighting system management and monitoring, energy study audits, creation of computer platforms.

Our services are intended to facilitate the management and saving of energy, with applications that are both useful and simple for system operators.

Our systems are fully multi-brand, so that they can exchange information with products from any manufacturer.

## **EXPERTISE PROVIDED IN THE LIGHTING SECTOR:**

Gallery of the Royal Collections of Madrid, Exhibition Hall of the Mapfre Foundation Barcelona, Exhibition Hall of the Mapfre Madrid Foundation, Garriga Nogues Museum Barcelona, Bullfighting Museum of Cordoba, La Casa Encendida Exhibition Hall of Madrid, Carlos V Museum in the Alhambra in Granada , Toledo Army Museum, Malaga Customs Museum, Salamanca Museum, Fundacion Telefonica on Gran Via in Madrid, etc.



### KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS

Technology/Solution	Expertise
<b>Additive Manufacturing</b> (3D printing)	Online control and management of the energy consumed in the production of more than 40 industries, with the consequent follow-up of production costs by product type.
<b>Augmented and Virtual Reality</b>	Implementation of virtual reality systems for courses and training of operators in the operation of machinery.
<b>Big Data &amp; Analytics</b>	In our ONLINE energy management platform, we analyze the times, volumes and periods of all the productive periods, in order to detect the possible improvements in productivity and costs.
<b>Industrial IoT (IIoT) &amp; sensors</b>	For all the data recapture tanks, use presence detectors, light sensors, temperature probes, flow meters, thermostats, tachometers, pulse meters, analog communication 0-10 I 4-2mA.
<b>Artificial Intelligence</b>	The implementation of AI is being studied, to improve the scene selection processes, operating time, and the entire operability of the system.
<b>Image scripting technologies</b>	A virtual demo is being created with a real scenario where you can demonstrate online the features of the platform.
<b>WebAR</b>	Technology pending study of feasibility, costs and implementation.
<b>Machine learning</b>	Initially the AI, (and pending study of new services), the AI cannot personalize our sale of services.



## Enlighting Technologies SL (KUMUX)



<b>Technology provider name</b>	KUMUX (code 018)
<b>Location</b>	Barcelona, Spain
<b>Company typology</b>	Software
<b>Expertise sector</b>	Lighting
<b>Contact person</b>	Adrià Huguet-Ferran Email: <a href="mailto:adria.huguet@kumux.io">adria.huguet@kumux.io</a> Phone number: 690044863
<b>Website</b>	<a href="http://www.kumux.io">www.kumux.io</a>
<b>Speaking languages</b>	Catalan, Spanish, English, Italian, Portuguese

### **PROFILE**

KUMUX is a spin-off of the Faculty of Physics of the University of Barcelona that was born in 2017. The company currently has 7 highly qualified employees within the world of software, control and lighting.

Due to its strong links with academia, KUMUX has a high level of experience in technology transfer. In addition to holding a patent protecting its core technology, KUMUX has participated in numerous scientific studies related to algorithms applied to lighting, including a collaboration with the Barcelona Supercomputing Center.

KUMUX offers software in the form of an API capable of being integrated into any lighting control system that allows to simulate natural light cycles autonomously based on geolocation, datetime or activity (office, hospitals, nursing homes, schools...). This has a high impact on people's health and well-being and positively affects cognitive performance and patient recovery. In addition, we have a spectral design platform to apply complex simulation algorithms to multichannel luminaires.

Our service is fully user-centric, so the software makes decisions to provide the best light without the user having to take any action beyond turning the lights on and off, just as they would in a traditional lighting system.

### **EXPERTISE PROVIDED IN THE LIGHTING SECTOR:**

The founding team of KUMUX has been working for more than 10 years in the lighting sector from a scientific point of view. After 6 years developing technology, KUMUX has managed to make a niche for itself among large companies in the sector, managing to partner with control companies such as Casambi, Tuya or KNX, among others, and certification companies such as UL. In these years KUMUX has participated in circadian lighting projects applied to offices, hospitals, nursing homes, universities or outdoor public lighting as a technology supplier. In addition, it has also provided software solutions to some of its technology partners that include technologies related to artificial intelligence, machine learning or software development, as well as consulting services.

## KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS

Technology/Solution	Expertise
<b>Artificial Intelligence</b>	Ability to apply algorithms related to the field of artificial intelligence, such as computer vision or machine learning. As an example, we developed software that was able to automatically digitize thousands of images of LED spectra from datasheets, something that would have taken thousands of hours of dedication if done manually.
<b>Machine learning</b>	Ability to apply machine learning algorithms to improve product features. As an example, we applied a neural network to a colorimetric sensor to increase its resolution and be able to calculate colorimetric parameters such as CRI, which would otherwise have been impossible.



INNOVA IT SL

INNOVA<sup>IT</sup>



<b>Technology provider name</b>	INNOVA IT, SL (code 030)
<b>Location</b>	Mataró (Barcelona), Spain
<b>Company typology</b>	Tech-savvy company
<b>Expertise sector</b>	Lighting/Furniture
<b>Contact person</b>	Francesc Rodon Email: <a href="mailto:frances.rodon@innovait.cat">frances.rodon@innovait.cat</a> Phone number: 676565038
<b>Website</b>	<a href="http://WWW.INNOVAIT.CAT">WWW.INNOVAIT.CAT</a>
<b>Speaking languages</b>	Catalan, Spanish, English

## **PROFILE**

Innova IT S.L. is a company founded in January 2004 by two young entrepreneurs, senior technical engineers, with the aim of making their customers more efficient, effective and competitive thanks to the automation of their production processes.

Innova IT staff continuously strives to provide a personalized response to our clients, trying to adapt and be flexible to changing situations and contexts. We are experts in the development and implementation of industrial software, and we have a wide range of technological solutions for Industry 4.0 that go hand in hand with a complete service that encompasses all the stages and processes involved in the development of a Project:

- Industrial IoT
- Planning POLCA
- MES
- CMMS
- Analytics & Machine learning
- System integration
- Advanced technologies
- Digital Consulting
- Industrial Automation

## **EXPERTISE PROVIDED IN THE LIGHTING & FURNITURE SECTOR:**

We can contribute our knowledge and experience in companies in the furniture and lighting sector with the implementation of production planning systems.



### **KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS**

<b>Technology/Solution</b>	<b>Expertise</b>
<b>Big Data &amp; Analytics</b>	Development of dashboards in power BI.
<b>Industrial IoT (IIoT) &amp; sensors</b>	<p>Development of an own production planning application (POLCA)</p> <p>Legionella control application for preventive maintenance</p> <p>Water consumption application.</p> <p>Development of traceability solutions for assembly parts</p> <p>Development of our own hardware for data capture and its subsequent treatment to obtain information from the production line.</p> <p>MES and CMMS solutions</p> <p>Digital Consulting</p>
<b>Artificial Intelligence</b>	Predictive maintenance platform for virtual monitoring in the metaverse of photovoltaic installations.
<b>Machine learning</b>	Installation of sensors for preventive maintenance (Sewage treatment).



LAMÁQUINA

**LAMÁQUINA**  
by noumena



<b>Technology provider name</b>	LAMÁQUINA (code 035)
<b>Location</b>	Barcelona, Spain
<b>Company typology</b>	Advanced Manufacturing Centre
<b>Expertise sector</b>	Lighting/Furniture
<b>Contact person</b>	Yara, Tayoun Email: <a href="mailto:yara@noumena.io">yara@noumena.io</a> Phone number: +34 937420927
<b>Website</b>	<a href="https://lamaquina.io/">https://lamaquina.io/</a>
<b>Speaking languages</b>	English, Italian, Spanish, French, Turkish, Greek

## **PROFILE**

LaMáquina by Noumena is an advanced manufacturing centre, introducing sustainable 3D printing solutions. With a team of young engineers, researchers, and robotics experts, it is part of the Noumena group since 2017 and offers services for architecture, interior and product design and retail and commercial sector that range from concept engineering, using advanced computational design tools, to advanced manufacturing, rapid prototyping, 3d mass customization production pre-assembly test, assembly on-site and assistance until the correct delivery of the project is certified.

Through different mediums and processes, our team works with various materials approaching projects with an innovative mindset. Computational design allows us to deal with complex digital forms and push the boundaries of the 3d printing technology. Our Facility uses state of the art machinery combined with 3DP technology to contribute to the large-scale fabrication in the aec industry. We are equipped with a variety of industrial robots, including the 6 axis abb robotic arm, delta wasp - one of which consistently prints in clay, a resin printer and a series of smaller scale printers. We promote material innovation, deploying alternative manufacturing solutions driven by sustainability. We consult and develop projects together with our clients blending advanced sustainable materials with innovative printing strategies, focusing on the relationship between leading-edge aesthetics and environmental awareness.

## **EXPERTISE PROVIDED IN THE LIGHTING SECTOR:**

LAMAQUINA designs and produces its own range of products, in addition to offering consultancy in defining a creative workflow for innovative product development. Services include design engineering, advanced manufacturing processes and material research for the production of small, medium and large scale design products.



### **EXPERTISE PROVIDED IN THE FURNITURE SECTOR:**

LAMAQUINA has more than 6 years of experience in high-end furniture and interior components manufacturing. We have designed and fabricated together with renowned clients, designers and artists alike, furniture elements such as chairs, benches and varied seating elements, tables, lighting fixtures, sculptural elements, bars and partition panels.

### **KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS**

Technology/Solution	Expertise
<b>Additive Manufacturing</b> (3D printing)	LAMAQUINA has advanced expertise in both Large scale 3d printing projects such as : Facade Partition for the Bafta Theatre London, Exhibition installation for the Spanish Pavilion at Dubai World Expo, in retail for the WOW store in Madrid, Presented by Stores in Riyadh and Dubai; and in smaller scale products and furniture such as a ceramic printed table for Kettal, retail stand elements for Jimmy Choo, along other installation for renowned exhibitions such as the Venice Biennale. We work to deliver the most innovative solution for an impactful and customised manufacturing solution for our clients that include designers, architects and artists.



Maqmetal Automation SL



Technology provider name	Maqmetal Automation SL (code 026)
Location	Fogars de la Selva, Spain
Company typology	Industrial robot & automation integrator and development
Expertise sector	Lighting
Contact person	Daniel Pascual Email: <a href="mailto:daniel@maqmetal.com">daniel@maqmetal.com</a> Phone number: 646 123 848
Website	<a href="http://Maqmetal.com">Maqmetal.com</a>
Speaking languages	Spanish, English, Catalan

#### **PROFILE**

Maqmetal Automation S.L., we are an industrial process automation company located between Girona and Barcelona.

Our expertise lies in robotic engineering, automation, and specialized machinery, and we are dedicated to innovation in these fields.

We are proud to offer a range of services that include robotic cells for loading and unloading, manipulation, palletizing, picking and placing, machining, cutting, and polishing.

We also provide artificial vision and measurement systems, EOAT/robot hands, special machinery, and installations of pneumatic transport systems for plastic materials.

Our team also offers engineering services such as project feasibility studies, 3D simulations, and layouts, as well as maintenance and remote assistance services. We are committed to providing our clients with reliable and cost-effective solutions for their automation needs.

#### **EXPERTISE PROVIDED IN THE LIGHTING SECTOR:**

Manufacturing, design, moulds, assembling (Lighting industry).



## KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS

Technology/Solution	Expertise
<b>Industrial IoT (IIoT) &amp; sensors</b>	Our company has developed dedicated software and hardware for reading and recording sensor data, in order to remotely monitor and capture real-time information from automation systems. With powerful predictive analysis tools, this data can be used for maintenance, improvement, and optimization of production processes. We have dataloggers and full experience in communications with PLC and computers and WEB server to provide full tracking tools.
<b>Robotics</b>	Our company specializes in the integration of 6-axis robots and all types of industrial automation that enable productivity improvements in handling and manufacturing processes. We develop full robot cells with collaborative robots, 6 axis robots, tandem robots, automation stations, cut stations, threat stations. All under CE standards.
<b>Image scripting technologies</b>	Our automation systems can integrate artificial vision systems for quality control and verification of automated steps, ensuring safe and complete production data logging. We use hyperspectral camera-based artificial vision systems, including VIS-NIR (visible-near infrared) vision technology.
<b>End of Arm Tools (EOAT)</b>	We have a strong capability for handling End of Arm Tools (EOAT) grippers. Our team is highly skilled in designing and implementing customized EOAT solutions for a wide range of industrial applications. Our expertise includes the integration of advanced sensing and control technologies to optimize the performance and reliability of EOAT systems. With our comprehensive knowledge and experience, we can provide our clients with highly efficient and cost-effective solutions for their specific automation needs.
Also we develop a custom <b>API bridge software</b> for communication al full tracking of parameters process.	



NOUMENA DATA SERVICES SL

# noumena



<b>Technology provider name</b>	<b>NOUMENA DATA SERVICES SL (code 034)</b>
<b>Location</b>	Barcelona, Spain
<b>Company typology</b>	Tech company
<b>Expertise sector</b>	Lighting/Furniture
<b>Contact person</b>	Yara, Tayoun Email: <a href="mailto:yara@noumena.io">yara@noumena.io</a> Phone number: +34 937420927 First name, Surname: Julia, Borges Email: <a href="mailto:admin@noumena.io">admin@noumena.io</a> Phone number: +34 937420927
<b>Website</b>	<a href="https://noumena.io/en/">https://noumena.io/en/</a>
<b>Speaking languages</b>	English, Spanish, Italian, Catalan

## PROFILE

Founded in 2021 as part of Noumena Group, Noumena Data is a tech company implementing data-informed solutions for spatial analytics and strategic planning. Since 2011, Noumena Group has been developing practices that integrate cutting-edge technologies to study and analyse spatial dynamics. The mission of the group is to develop metrics and tools in various sectors and scales that enable decision-makers to find more efficient, resilient, and sustainable spatial solutions.

We lead the way in AI-driven Spatial Analytics and metrics for enterprises and organisations. Our solution enables leaders to unlock and understand complex spatial data within their spaces through our advanced visualisation platform. Our solution is a comprehensive tool that empowers decision makers with valuable insights into customer behaviour to make informed decisions that enhance their customer journey, create better customer experiences, and ultimately increase customer satisfaction. Our working methodology incorporates data collection, data processing, and spatial monitoring. Our portfolio of work includes the application of these methodologies in various projects related to urban analysis, precision agriculture, and commercial spaces through the creation of digital twins, the implementation of autonomous systems to collect data, detecting and monitoring the physical characteristics of a site through cameras and on-board sensors to establish criteria for spatial decision making.



### **EXPERTISE PROVIDED IN THE LIGHTING & FURNITURE SECTOR:**

NOUMENA DATA offers data-driven business growth services and has experience in the retail sector, on a variety of products, working on commercial spaces integrating software and hardware solutions to capture, analyse, and process data from stores. Our infrastructure includes sensing devices to gather information from the physical space, AI algorithms to process data, and an online platform to access, visualise, and monitor the results.

### **KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS**

<b>Technology/Solution</b>	<b>Expertise</b>
<b>Big Data &amp; Analytics</b>	Development of custom algorithms to extract relevant information for the client and provide it through a platform with user friendly interface to visualise the processed data.
<b>Industrial IoT (IIoT) &amp; sensors</b>	Noumena's data collection system architecture is organised as a network of edge computing devices, where each element is designed as modular components hosting sensors, cameras, and computing power capacity.  The sensing system units are smart hardware devices integrating cameras and multiple sensors to collect ambient data through CO2, humidity, noise, and lighting sensors. All data is processed and made available on Noumena's online platform, converting data into spatial information translated into maps, sections, and data charts.
<b>Artificial Intelligence</b>	The use of AI for the creation of predictive models.
<b>Machine learning</b>	Spatial Monitoring: AI-driven spatial analysis. We develop spatial algorithms to reveal invisible patterns of human behaviour and their spatial expression. Through computer vision and machine learning, NOUMENA DATA implements strategies to track and monitor spatial dynamics, discovering associations between each individual component. Our goal is to produce informative geographic representations of spatial occupancy to drive strategies such as energy consumption in buildings, urban analysis, agricultural practices, or on-site construction management.



Òscar Beà Torras



ÒSCAR BEÀ I TORRAS  
ORGANITZACIÓ I TRANSFORMACIÓ DIGITAL



<b>Technology provider name</b>	Òscar Beà Torras (code 029)
<b>Location</b>	Barcelona, Spain
<b>Company typology</b>	Digital transformation Consultant for SMEs
<b>Expertise sector</b>	Lighting/Furniture
<b>Contact person</b>	Òscar Beà-i-Torras Email: <a href="mailto:oscar@beatorras.cat">oscar@beatorras.cat</a> Phone number: +34 620 927 655
<b>Website</b>	<a href="https://oscarbea.com">https://oscarbea.com</a>
<b>Speaking languages</b>	English, French, Catalan, Spanish

## PROFILE

Òscar Beà-i-Torras is an Information Systems Engineer, MBA who has with extensive experience working both for multinationals and SMEs. He has managing experience as IT area manager, and as managing director for an SME. He currently freelances offering his services to SMEs as well as to training entities.

Òscar started his professional career on 1991 working in the IT / Organization consultancy sector, mainly for multinational companies. During this period, he managed and implemented projects for a wide variety of companies of different sizes and sectors. Although these projects mainly had to do with IT, their scope became more and more strategic as his career progressed.

In 2013 he started his own practice; his value proposition is aimed at SMEs with two different lines:

- **TRAINING**

Professor in Escuela de Alta Dirección y Administración (EADA) and tutor at Universitat Oberta de Catalunya (UOC) and UPCshool. Currently a doctoral candidate at the Universitat Politècnica de Catalunya (UPC). The research line for his PhD has to do with Digital transformation for SMEs. Defining and training in-company courses when necessary.

- **CHANGE MANAGEMENT / ASSESSMENT / CONSULTANCY**

Assessing companies in their digital transformation and helping management to culturally adapt the whole company. Defining and implementing the digital transformation roadmap to support every company's strategy. In this line, Òscar organizes in-company training and discovery workshops to help with the cultural change as well as teams with management to discover their needs. Acting as Interim manager to support management with decision taking and organization management.

The services offered by Òscar are tailored to every company, reaching out for specialized help when necessary. Òscar helps each organization to find the right partner and gives support to managing projects. His experience and own training in management and IS/IT give him a unique understanding of different situations and ability to help in the circumstances of each organization.

### **EXPERTISE PROVIDED IN THE LIGHTING SECTOR:**

Teaching management methodology to a lighting company specialized in leds. Helping a public lighting maintaining company to elaborate their business plan as well as supporting data-oriented management decisions. Reviewing and restructuring procedures to certify quality.

### **EXPERTISE PROVIDED IN THE FURNITURE SECTOR:**

I have helped companies to elaborate their transformation map relating their systems map to their strategy considering an as-is situation and using IT and business innovation in order to get to the to-be situation. In this sense I have helped choosing corporative systems as ERP, CRM integrating these with production systems or sensors to capture information to manage operations or prepare feeding bigdata to predict tendencies and taking management decisions.

### **KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS**

<b>Technology/Solution</b>	<b>Expertise</b>
<b>Big Data &amp; Analytics</b>	Helping my customers to rightly design their KPI to take decisions. Giving support to my customers to choose the right partner for their needs.
<b>Cybersecurity</b>	Managing cybersecurity teams working for a digital security company.
<b>Industrial IoT (IIoT) &amp; sensors</b>	Projects related with using IoT sensors to reduce human errors in stock management and logistic processes.
<b>Robotics</b>	Together with Artificial Vision (AI) and machine learning, the system helps handling pharma material to safely prepare prescription medication for patients.
<b>Artificial Intelligence</b>	
<b>Digitalisation of marketing and online trading</b>	Studying business process creating and restructuring procedures searching the efficiency and coherence with the mission of the company.
<b>Machine learning</b>	Preparing a chatbot to understand customer needs to offer individual experience according to their needs.



Sterna Innovation Projects, SL



<b>Technology provider name</b>	<b>Sterna Innovation Projects SL (code 020)</b>
<b>Location</b>	Girona, Spain
<b>Company typology</b>	Technology Development SME
<b>Expertise sector</b>	Lighting
<b>Contact person</b>	Marc Torrent Email: <a href="mailto:mtorrent@sterna.es">mtorrent@sterna.es</a> Phone number: +34 605243956
<b>Website</b>	<a href="https://www.sternainnovation.com">https://www.sternainnovation.com</a>
<b>Speaking languages</b>	Catalan, Spanish, English

## PROFILE

STERNA Innovation Projects SL is a Spanish SME founded in 2013 and specialized in Technology Development and Innovation Strategy.

Our key fields of knowledge lie in sensor design and development, electronics design, Internet of Things, product design and prototyping. Our main fields of expertise are in industrial systems, medical devices, agritech and logistics.

Our Services portfolio includes:

- Technology advisory: We provide our knowledge in technology, sensors, and product design, and analyse the state of the art and our customers chain value to propose new product concepts that best fits our clients' ideas.
- Prototyping: We create new functional prototypes from materials engineering to electronics development and smart features design. We provide manufacturing of concepts and mock-ups with rapid fabrication technologies to obtain early milestones.
- Product Validation: Our testing and validation methods follow the highest set standards to ensure product quality and compliance. We work closely with certified body parties to ensure certification and compliance. We are experts in code analysis and debugging to develop secure and failproof devices.
- Manufacturing Advisory: We manage product manufacturing from the first testing series to mass production. We design the best quality assurance strategies and manage them during production cycle. We design the tooling and the capabilities needed to fulfil your production objectives.
- Innovation Strategy: We help our client organization in the elaboration of Strategic Plans and implementation, Business Model Innovation, Business and Exploitation Plans and innovation portfolio management. Sterna helps to define a roadmap of key actions and support on the strategy follow-up and surveillance plan.



### **EXPERTISE PROVIDED IN THE LIGHTING SECTOR:**

Design and development of a IoT distributed system for lighting applications control and maintenance.

### **KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS**

Technology/Solution	Expertise
<b>Additive Manufacturing</b> (3D printing)	We are experts in the design and optimisation of parts for additive manufacturing techniques, using all market available materials and technologies. We are experts in low volume series product manufacturing taking advantage of these technologies.
<b>Industrial IoT (IIoT) &amp; sensors</b>	We are experts in the design and development of customized IoT devices and platforms. We can design custom solutions with sensors, actuators, embedded processing and cloud communications for a broad selection of use cases including outdoors and dangerous ambients.



## TECNICOS ECONOMISTAS ASESORES, S.A.



<b>Technology provider name</b>	<b>TECNICOS ECONOMISTAS ASESORES, S.A. (code 043)</b>
<b>Location</b>	Barcelona, Spain
<b>Company typology</b>	Technological, organization and management consulting
<b>Expertise sector</b>	Lighting
<b>Contact person</b>	Toni Guasp Email: <a href="mailto:tguasp@teasa.es">tguasp@teasa.es</a> Phone number: 600 456 437
<b>Website</b>	<a href="http://www.teasa.es">www.teasa.es</a>
<b>Speaking languages</b>	Catalan, Spanish, English, Italian

### **PROFILE**

Teasa is a consultancy with more than 30 years of experience, specialized in SMEs and oriented towards the creation of value, the innovation of work processes and systems and the technological transformation of the company to improve efficiency, reduce costs and increase profitability.

Teasa was born in 1992 and is made up of a team of highly qualified, multidisciplinary senior professionals (with a minimum of 20 years of professional experience) specialized in the different areas of the company.

The company is divided into two areas of specialization, teasaconsulting focused on Strategy, Organization and Management consulting projects and teasatech focused on Digital Transformation, Industry 4.0 and Innovation consulting projects.

Some of our added values are our specialization in SMEs, offering a flexible and personalized service, with a senior team, with proven experience and oriented to results. teasa is an implementation consultant that will accompany you throughout the implementation project until you achieve the objectives set.

### **EXPERTISE PROVIDED IN THE LIGHTING SECTOR:**

Collaboration with companies like: CARPYEN, ELT, CALSI, SALVI LIGHTING, ARELSA, CASTAN ILUMINACION, among others.



## KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS

Technology/Solution	Expertise
<b>Additive Manufacturing (3D printing)</b>	<p>Teasa has participated in a 3D Printing project for the Technical Office of a company that manufactures metal parts for third parties using Forging and Chip Removal Machining techniques. The 3D Project had the objective of being able to make sample pieces and prototypes of pieces and molds for forging in plastic materials and resins, as part of the Bid process + Validation of prototypes, prior to the manufacture of batches of orders for the clients.</p> <p>Teasa has established a partnership relationship with a 3D Printing company, founded by a former consultant and still a regular collaborator of Teasa. As a result of this relationship, we can also prove our participation in various projects for the application of 3D Printing to the manufacture of logos and other types of products for commercial and marketing (advertising) uses.</p>
<b>Augmented and Virtual Reality</b>	<p>Teasa has participated in a project called "DESIGN AND DEVELOPMENT OF AN INNOVATIVE INDUSTRIAL DIGITALIZATION SOLUTION ON THE MARKET, WHICH SERVES AS GUIDE AND SUPPORT IN FORMAT CHANGES OF CONDITIONING LINES FOR THE PHARMACEUTICAL INDUSTRY AND OTHER SIMILAR INDUSTRIES, INCREASING THE EFFICIENCY OF THE PROCESS". The project arises from the need for format changes in conditioning lines (in most of the industry made up of machines from different manufacturers) are long, complicated and inefficient. There is currently no type of application on the Spanish market that helps in format change operations. The format change guides are on paper and are usually incomplete, the dependence on the shift and the experience of the team is excessive, and reliable performance indicators are not recorded. It is about designing and developing a generic application that sufficiently covers the particularities of most industries with conditioning lines.</p> <p>The technological challenge of the project is twofold. On the one hand, it consists of the integration of augmented reality in the format changes in production lines, Conditioning and, on the other hand, the software designed makes it possible to significantly reduce dependency and human errors, as well as greatly improve the efficiency of manufacturing plants, through the incorporation of sensors in the different machines of the conditioning lines and the communication between them and with the designed software (IoT).</p> <p>It is important to note that "THE BOARD OF DIRECTORS OF THE CENTER FOR TECHNOLOGICAL DEVELOPMENT AND INNOVATION, E.P.E. (CDTI), AT ITS MEETING HELD ON 03/29/2023, APPROVED THE PARTICIPATION OF THE CDTI IN THIS RESEARCH AND DEVELOPMENT PROJECT, WITH IMPORTANT FINANCIAL HELP CO-FINANCED BY THE EUROPEAN REGIONAL DEVELOPMENT FUND (FEDER 2021-2027)".</p>
<b>Big Data &amp; Analytics</b>	<p>Teasa has participated in more than 10 projects for the implementation of MES (Manufacturing Execution Systems) or WMS (Warehouse Management Software) solutions in manufacturing plants and logistics or supply chains, of various types of products, for timely data collection. real and subsequent analysis of the same, generally through exploitation by tools of the BI (Business Intelligence) type.</p> <p>We have also directed a project called "Process innovation based on the implementation of an advanced Production and Logistics Management System</p>

	<p>with BIM (Building Information Modeling) technology in a company that designs, manufactures and assembles structural elements for residential wood construction". This Project, fully framed within the Industry 4.0 concept and also participated in by the CDTI, has the capacity to:</p> <ul style="list-style-type: none"> <li>• Control production and logistics by digitally connecting the machines involved and the different processes (IoT).</li> <li>• Optimize production, logistics and assembly costs (Smart Data &amp; Analytics).</li> <li>• Improve the use of materials.</li> <li>• Improve the efficiency of processes and customer satisfaction.</li> </ul>
<p><b>Industrial IoT (IIoT) &amp; sensors</b></p>	<p>Teasa has participated in a project called "DESIGN AND DEVELOPMENT OF AN INNOVATIVE INDUSTRIAL DIGITALIZATION SOLUTION ON THE MARKET, WHICH SERVES AS GUIDE AND SUPPORT IN FORMAT CHANGES OF CONDITIONING LINES FOR THE PHARMACEUTICAL INDUSTRY AND OTHER SIMILAR INDUSTRIES, INCREASING THE EFFICIENCY OF THE PROCESS". The project arises from the need for format changes in conditioning lines (in most of the industry made up of machines from different manufacturers) are long, complicated and inefficient. There is currently no type of application on the Spanish market that helps in format change operations. The format change guides are on paper and are usually incomplete, the dependence on the shift and the experience of the team is excessive, and reliable performance indicators are not recorded. It is about designing and developing a generic application that sufficiently covers the particularities of most industries with conditioning lines.</p> <p>The technological challenge of the project is twofold. On the one hand, it consists of the integration of augmented reality in the format changes in production lines, Conditioning and, on the other hand, the software designed makes it possible to significantly reduce dependency and human errors, as well as greatly improve the efficiency of manufacturing plants, through the incorporation of sensors in the different machines of the conditioning lines and the communication between them and with the designed software (IoT).</p> <p>We have also directed a project called "Process innovation based on the implementation of an advanced Production and Logistics Management System with BIM (Building Information Modeling) technology in a company that designs, manufactures and assembles structural elements for residential wood construction". This Project, fully framed within the Industry 4.0 concept and also participated in by the CDTI, has the capacity to:</p> <ul style="list-style-type: none"> <li>• Control production and logistics by digitally connecting the machines involved and the different processes (IoT).</li> <li>• Optimize production, logistics and assembly costs (Smart Data &amp; Analytics).</li> <li>• Improve the use of materials.</li> <li>• Improve the efficiency of processes and customer satisfaction.</li> </ul>
<p><b>Robotics</b></p>	<p>Teasa is directing and implementing the Digitalization and Automation project of the main production line of the company ENCOFRADOS J. ALSINA, S.A.</p> <p>The scope of said project is based on the incorporation of Robotics, Artificial Vision and Digitization of the Process.</p>



<p><b>Artificial Intelligence</b></p>	<p>Teasa is participating in a project called "Automation of the processes for generating offers and product development", for a company that manufactures products and installations for the storage and channeling of highly corrosive liquids. These products are made to measure according to the requirements of each client. For the geometric sizing of the same, complex calculations are required, also attending to general regulations, of each country and even of each client.</p> <p>The solution sought must be able to carry out two processes:</p> <ol style="list-style-type: none"> <li>1. System based on Artificial Intelligence and/or Technical Configurator that, based on customer requirements, allows the calculation of the main parameters of the product to be manufactured through the iterative application of specific calculation algorithms, whose design constitutes one of the main phases of this project from a technological challenge point of view. In this way it will allow us to create the valued bill of materials.</li> <li>2. Configurator of Offers that, based on the client's requirements, allows calculating the product, creating the valued bill of materials and generating the offer document with all the necessary documentation.</li> </ol>
<p><b>Digitalisation of marketing and online trading</b></p>	<p>In the field of digitalization of marketing in companies, teasa has extensive experience in the implementation of CRM systems and more recently in the interconnection of these systems with the company's general management systems (ERP).</p>



TELEMATEL SLU

# TELEMATEL >



<b>Technology provider name</b>	TELEMATEL SLU (code 037)
<b>Location</b>	Sant Cugat del Valles, Spain
<b>Company typology</b>	Professional Services & consulting - Tech-savvy company
<b>Expertise sector</b>	Lighting/Furniture
<b>Contact person</b>	Miquel Mur Orts Email: <a href="mailto:miquel.mur@telematel.com">miquel.mur@telematel.com</a> Phone number: +34 902 36 18 34
<b>Website</b>	<a href="http://www.telematel.com">www.telematel.com</a>
<b>Speaking languages</b>	Spanish, English

## **PROFILE**

Telematel is a company founded in 1988 with the aim of sharing digital information between suppliers and distributors of electrical materials. It was founded by the employers' association of electrical material manufacturers and the electrical materials distributors. After a few years, it became independent and expanded into other sectors such as lighting and others related to the construction materials and installation industry. Since 2020, Telematel has been part of the Canadian multinational group Valsoft.

Telematel is the largest product information management company in the construction materials sector, as it integrates information from over 6 million products from 1,200 brands, digitizes, harmonizes, and transforms it for distribution to thousands of recipients for their use.

The services offered include: supplier catalog digitization and publication, product catalog syndication service, data transformation into various formats (Fab-Dis, BMEcat, others), information on information consumption and product visibility, measurement programs, and improvement of product information quality.

Product suppliers are able to shorten lead times for product launches, provide information to all analog and digital channels, analyze information consumption, and transform the information into formats required by distributors. Distributors receive updated information on all the products they need every day, with quality, and effortlessly integrate it into their information systems, such as ERP, CRM, web shop, Intranet, or others.

## **EXPERTISE PROVIDED IN THE LIGHTING SECTOR:**

FARO, SIMON, PRILUX, NOVOLUX, LEDS C-4, LLURIA, PHILIPS, LEDVANCE, SECOM, ROBLAN, THREELINE, DAISALUX, TRILUX, ARKOSLIGHT, NORMALUX.

## **EXPERTISE PROVIDED IN THE FURNITURE SECTOR:**

GRB, ROCA, SALGAR, IDEAL STANDARD, MEDICLINICS, GROHE, GEBERIT, GENEBRE, TEKA, TRES, FELIU BOET.



## KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS

Technology/Solution	Expertise
<b>Big Data &amp; Analytics</b>	Product data harmonization, digitalization & integration in service Databases. Information transformation to any required format (ETIM BMEcat, Fab-Dis, distributors' formats, ad-hoc, html, other). Information delivery thru API to receivers. Data analytics of information consumption, quality and insights.
<b>Digitalisation of marketing and online trading</b>	



## Technology Uptake Facilitators from Sweden

### Sigma Technology Solutions Group



<b>Technology provider name</b>	<b>Sigma Technology Solutions Group (code 033)</b>
<b>Location</b>	Göteborg, Sweden
<b>Company typology</b>	Technology Company
<b>Expertise sector</b>	Furniture
<b>Contact person</b>	Amelie, Olsen Email: <a href="mailto:amelie.olsen@sigmatechnology.com">amelie.olsen@sigmatechnology.com</a> Phone number: +46733877444
<b>Website</b>	<a href="http://sigmatechnology.com">http://sigmatechnology.com</a>
<b>Speaking languages</b>	Swedish, English

#### **PROFILE**

ENGINEERING THE DIGITAL REVOLUTION – A COMPANY, WHERE PEOPLE ARE IN FOCUS - SUSTAINABLE DEVELOPMENT FOR A SUSTAINABLE WORLD - MAKING TECHNOLOGY USABLE

Sigma Technology Group, part of the Sigma Group, is a privately-owned global technology consulting company with operations in Sweden, Hungary, China, Norway, Germany, and Ukraine and global delivery to Europe, the USA, and China. Sigma Technology Group offers cutting-edge expertise in software development, product information, embedded systems design & development, IT infrastructure development & administration, and digital solutions with expert consultants, offshore delivery, and development teams.

Our team provides comprehensive IT solutions for companies of any scale. We understand the need to feel native and organic to your software development while keeping costs low. Our professional project managers, developers, solution architects will guide you through every step of the way to successful delivery.

We offer Software development services, IT consulting, Digital transformation strategy and guidance and Business analysis.

Sigma is owned by Danir AB and has more than 5 000 employees and a network of partners in thirteen countries.

#### **EXPERTISE PROVIDED IN THE FURNITURE SECTOR:**

Collaborations with Interior Cluster Sweden and its members. Partner and supplier within Software Development, Information Management and Business Development towards IKEA.

## KNOWLEDGE AND EXPERTISE RELATED TO ADVANCED TECHNOLOGIES AND DIGITAL SOLUTIONS

Technology/Solution	Expertise
<b>Big Data &amp; Analytics</b>	We help companies improve their business models and grow through digitalization and the identification of new offerings. Our team has a deep understanding of how to help the companies to get insights and become more data-driven in their decisions. In this area, we are a silver partner with SAS Institute.
<b>Industrial IoT (IIoT) &amp; sensors</b>	Our development team has excellent LoRa, LoRaWAN, Sigfox, NB-IOT, sensor capabilities, and hardware development skills. We combine a unique understanding of the ecosystem's complete chain with extensive knowledge in putting together advanced solutions. We can also offer an open multi-technology IoT platform that fills the gap between sensors and the cloud and enable our customers to enter verticals with large-volume data opportunities. In this area, we are a gold partner with IIOTE.
<b>Artificial Intelligence</b>	We have experts in AI, Machine Learning, analytics, modelling, visualization, and cloud computing.
<b>Digitalisation of marketing and online trading</b>	Our team have been helping companies with developing ERP systems and back-end solutions to automate customer and product delivery management, administrate purchase and logistics, track customer loyalty and activity. Integrating systems with various other solutions, including company website, payment and invoice systems, and customer support.
<b>WebAR</b>	We provide Senior Agile Software and VR/AR/MR developers. In this area, we also have a strong focus on open-source tools.
<b>Machine learning</b>	We have experts in AI, Machine Learning, analytics, modelling, visualization, and cloud computing.
<b>Software Development</b>	We are dedicated to delivering software solutions to both established world-brands and innovative start-ups. Our team of experts has extensive experience in providing customized software solutions for businesses of all sizes, regardless of their level of complexity. Our commitment to innovation and excellence means that we always stay ahead of the curve, leveraging the latest technology.
<b>Content Management</b>	<p>Ultimate product experience begins with creating product information that the end-user needs.</p> <p>We are experts in putting the end-users first and tailoring the information to their needs. We support companies with everything from defining project scopes to information analysis, technical writing, terminology management, localization, translation services, and publishing services.</p>
<b>Information Management</b>	<p>Information is the most valuable asset of any business. Be it internal manuals for employees or product descriptions for end-users, a knowledge delivery pipeline becomes a core of anything concerning your commodities and services. Global digitalization entailed the increasing need for automation and using technologies to unlock the full potential.</p> <p>We have substantial experience working with information management, product information development, and formatting. We have developed a method for information analysis that we call SPI – System Process and Information. With the support of this method, our consultant will help companies to do a full review of the information needs and create tailor-made solutions meeting the requirements and business peculiarities.</p>



<b>Digital Transformation</b>	<p>Our team provides comprehensive IT solutions for companies of any scale, with professional project managers, developers, solution architects that will guide companies through every step of the way to successful delivery. Our team provides leadership and competence on digitalization journeys, offering our senior agile coaches and change managers in strategy and guidance.</p>
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