**Hungarian
National
Trading House**

Smart City
and
Smart Agricultural Solutions
from
Hungary

Cutting-edge Hungarian solutions

Hungarian SME-s (small and medium-sized enterprises) offer best-in-class competitive products, services and world leading technology solutions in different industry sectors. The main goal of Hungarian National Trading House is to find potential business partners and open new opportunities for Hungarian SME sector with support of our representative offices based in more than 60 countries around the world.

Hungarian National Trading House local network will find the way to connect the demand arising in foreign markets with the supply of Hungarian enterprises.

FULL-SCALE GOVERNMENT SUPPORT

The Hungarian National Trading House is responsible for the operative implementation of the Hungarian Government's external trade policy.

- Supporting bilateral economic relationships
- Cooperation with embassies, commercial attachés
  Hungarian Export-Import Bank (EXIM),
  Hungarian Investment Promotion Agency (HIPA)

COMPETENCE CENTRES

In order to fulfil regional needs the Hungarian National Trading House has created special Competence Centres in the following sectors: agricultural and food technologies in Cambodia, info-communications (ICT) in Mexico and consumer and industrial goods in Mongolia.
• Representing cutting-edge competence in their field, our experts operate on a regional level in close cooperation with local representative offices.

COMPETITIVE LANDSCAPE AND MATCHING SOLUTIONS

- Selecting appropriate Hungarian business partners
- Preparing individualized quotes
- Continuous professional advice, project management
- Consultancy on market processes and business culture
- Representing Hungarian companies at business events, B2B meetings

SMART CITY

All around the world urban development projects are supported by the new ICT technologies achieving the main goal to convert the city life more comfortable, liveable and smarter.

Ecological and technological changes are generating interest in smart cities, smart homes, etc. Europe and Hungary face the challenge of combining competitiveness and sustainable development simultaneously. Thus the solution is smart city conception.
A smart city is a city well performing in 6 key fields of urban development: smart economy, smart mobility, smart environment, smart people, smart living, smart governance.
In Hungary, there are more and more talented, experienced companies, offering outstanding quality and commitment in work.

Our key competences are:
- City Management Solutions
- Smart City Infrastructure
- e-Mobility
- Intelligent Transportation
- Energy Management
- e-Health
- Smart Agriculture
- Smart Home

Cities are becoming smart
More and more cities take a strategic approach to becoming „smart".
Published Smart City Strategies per year

CASE STUDY

The Zalaegerszeg test track is unique, the traditional test track features focusing on driving and driving stability are implemented together with the research and development infrastructure elements connection with future vehicles on multi-level system for validation. The proving ground provides not only dynamics tests for conventional vehicle, but it also allows validation tests for autonomous vehicles and electric vehicles.

In May 2016, the Government of Hungary decided on the implementation of the vehicle test track in Zalaegerszeg, with the view to assist in strengthening of native automotive R & D capacities. In line with this, Automotive Proving Ground Ltd. was established as a responsible company for managing and implementation of the test track. The task is to manage the conception of the proving ground, to fulfil the investment, to build the related automotive and engineering knowledge, to establish competitive operation and to create the customer network.
For more information please visit https://zalazone.hu/en

PARTNER
COMPANIES

ERBA96 Ltd.

COMPANY PROFILE

Address: Stubnyai 4, Budapest, H-1141, Hungary

Phone: +36 1 788 8007

Email: information@erba.hu

Web: www.erba.hu

Industry: Information Systems and Services

ABOUT US

Our company was founded 25 years ago, and has been developing smart city solutions since early 2000.

A small business it is agile on market and technology shifts and rapidly adopting to new conditions.

UNIQUE SELLING POINT, VALUES

Our vehicle tolling systems are license plate based thus none of these services do require any additional system or physical vignette on the vehicles.

Our loyalty card systems not only allow the collection of bonus points and discounts for their users but also provide valuable marketing segmentation data for our clients

MAIN SERVICES / SOLUTIONS:

Our proven technologies include road toll and congestion charge systems that are license plate based.

We were part of the team that developed the first vignette based toll system for the Hungarian Highway Office and we were leading the team that reconstructed the whole tolling system to the current paperless on-line services.
Since then we are still providing development services to this customer.

We have also developed and maintain city card and loyalty card systems in many countries. Our most important client is the biggest loyalty system in Hungary: SuperShop that gathers 15 partners with 5000 Shops and its card users include almost third of Hungary population.

FLEXSYS

FLEXSYS Ltd.

COMPANY PROFILE

Address: Stubnyai 4, Budapest, H-1141, Hungary
Phone: +36 1 788 8007
Email: info@flexsys.hu
Web: flexsys.hu

Industry: Information Systems and Services

ABOUT US

Flexsys is working on smart city solutions since its establishment in 2008.

Our expertise include industrial design, hardware development and testing and embedded software services.

UNIQUE SELLING POINT, VALUES

Our kiosks are flexible and easy to implement in wider range of network structures.

This smart charging product range called Flumen, is ideal for Office Space Garages and Mall Parking where the rising demand from electric vehicles cannot be matched by simple linear extension of charging capacities.

MAIN SERVICES / SOLUTIONS:

Our first products were smart city terminals for public places that was later developed further into a paperless payment kiosks system. We are the developers of the FastTrack Kiosk for Budapest Airport.

Our newest kiosk range is used by Hungarian Post to implement postal money services in public spaces like malls.

Our newest product range is a smart charging solution for all electric vehicles and devices in office buildings and in public spaces.

The charging cycles are controlled by our AI based energy management center that factor in numerous inputs to balance between charging requirements, available resources and costs.

LAUREL Ltd.

COMPANY PROFILE

Address: Máriássy st 7., Budapest,
HU-1095, Hungary

Phone: +36 22 510 350

e-mail: laurel@laurel.hu

web: www.laurel.hu

Industry: Information Systems for Retail and Manufacturing

ABOUT US

Laurel Group is the market leader solution provider of the Hungarian retail industry with more than 24 years of experience in the field of development, localization, implementation of commercial systems.

We offer solutions to retail units in all areas of the industry.

UNIQUE SELLING POINT, VALUES

Laurel was the first provider who received permission from the Hungarian Trade Licensing Office for our Online cash register. We offer our system a „ready-made technology".

We deliver Cash Register hardware, Central system and its components and Full competence on the parts of the developed system.

MAIN SERVICES / SOLUTIONS:

Online cash register system - The OPG is an advanced system where sales data from the retail POS is transmitted in real-time to the revenue authority.

eReceipt solution – The global e-receipt concept provides a centralised data center as standard interface to both retailers and customers, thus enables quick access to data and paperless operation.

Advanced video analytics solution. Ultinous can recognize, identify or verify a person with facial recognition. It helps improve customer service and protects your assets by identifying important customers or potential perpetrators.

The essence of the e-receipt solution is that the receipt is not provided in a printed form, instead, it is sent to the customer's private account in the e-receipt data center and is instantly available on smart phone, computer, tablet, or via email.

SENSO MEDIA

SENSO MEDIA Ltd.

COMPANY PROFILE

Office:1116-HU Budapest, Kondorfa utca 10.

Web: www.sensomediagroup.com

CEO: Attila Major Gábor

- Smart City solutions
- Out of Home Advertising
- Digital Signage 2.0 Technology
- Software development
- Smartphone application development
- Digitial Information and Communication Technology
- Cashless terminals and Standalone Payment solutions
- Interactive Museum solutions
- Automated Gas Station technologies
- Research and Development

ABOUT US

Our company, Senso-Media Zrt. has many years of experience in designing and developing kiosk softwares, interactive systems and smart phone applications.

Through our Innovative Digital Signage (DS) solutions we would like to offer an integrated info communication system, which not only expands, but takes digital touch screen technology to a whole new level. Senso Media provide solutions for every Digital Signage segment.

MAIN SERVICES / SOLUTIONS:

- Smart City solutions
- Out of Home Advertising
- Digital Signage 2.0 Technology
- Digitial Information and Communication Technology
- Cashless terminals and Standalone Payment solutions
- Interactive Museum solutions
- Automated Gas Station technologies

UNIQUE SELLING POINT, VALUES

Our greatest asset is the co-ordination of hardware, software and service development. Integrated work enables us to provide the most effective up-to-date Digital Signage systems. All of our devices are designed and manufactured in Hungary. We follow market trends and put the emphasis on continuous development. We use the latest hardware technology and premium quality materials for production.

We design our devices considering current market demand and individual customer needs.

We establish complex systems supporting customers, mall management, stores as well as marketing companies. We produce an extra long-term income, which makes it possible that the investment is returned in a short time.

R&R Software

R&R Software Co. Ltd.

COMPANY PROFILE

Address: 1038 Budapest, Ráby Mátyás utca 7.

Phone: +36-20-946-90-49

E-mail: gergely_lakatos@rrsoftware.hu

Web: www.rrsoftware.eu

Industry: ICT: Consultancy + Development + Implementation

ABOUT US

R&R Software develops enterprise level IT solutions since 1991. Employing over 185 experts, it became a decisive IT solution provider, successfully concluding large-scale IT projects in Europe, Africa and Northern America.

UNIQUE SELLING POINT, VALUES

- Proven track record of successful large scale IT projects around the globe.
- European quality products and services with industry best practices built right in.
- Solid competency and financial background, offering dependable long-term partnership (company on the market for 26 years).
- Offers more flexibility in the services and solutions than large, multinational suppliers.

MAIN SERVICES / SOLUTIONS:

- e-Government solutions (population management, ID Card, and various public administration registries)
- CRM and enterprise mobility solutions (eg.: field force automation for city public works employees)
- Business Analytics (Big Data for analyzing large-scale smart city data)
- Public utility and Infocommunication/Telecommunication service provider systems (ERP + BSS)

![M2M COMMUNICATION SOLUTIONS logo]
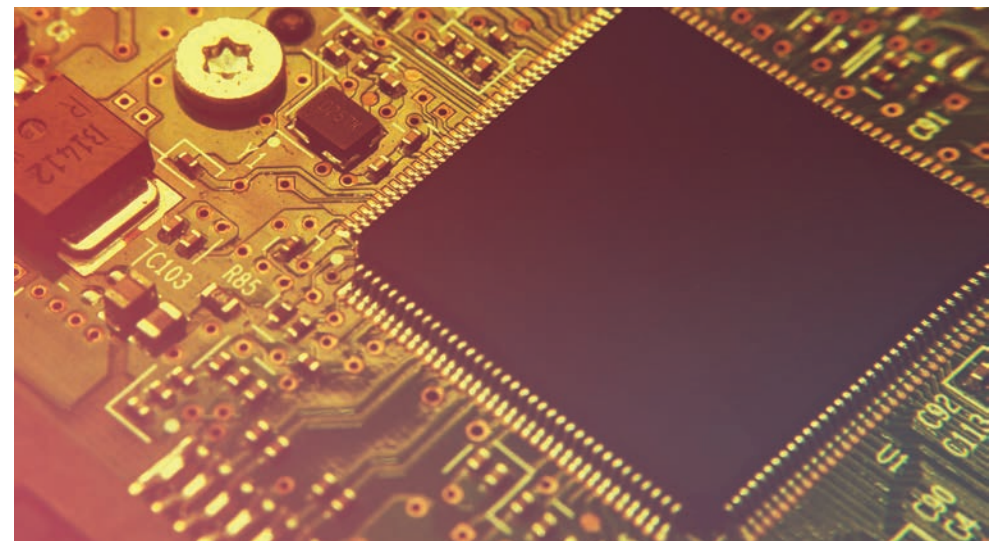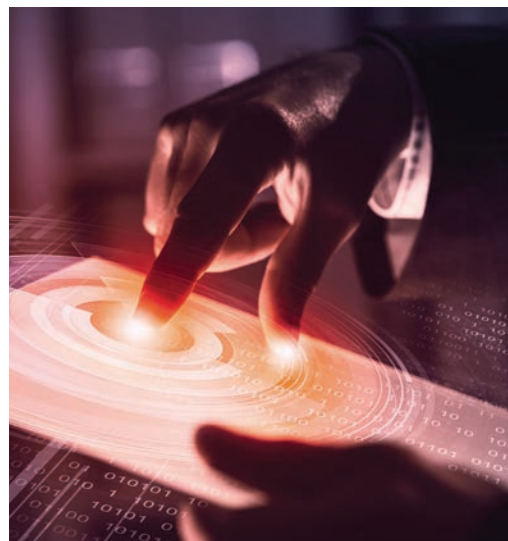
WM SYSTEMS LLC.

COMPANY PROFILE

8 Villa str. 1222 HUNGARY

Phone: +36 1 310 7075 / Fax: +36 1 319 8249 /
Email: sales@m2mserver.com

The company was established in 2002, in Budapest, Hungary (Central-Europe). We're developers of wireless communication devices and software, server application. Serving Smart city & metering, NB-IoT, safety and industrial fields.

ABOUT US

We are a significant IoT/M2M developer, manufacturer, international trading company. Recognized partner of international mobile operators, utility companies, providers.

Our activities are based on the IOT/M2M (machine-to-machine) industry, serving our Partners with our complete data transmission solutions built for the network of the mobile and internet operators Development, sales and services are performed in accordance with ISO 9001, IT operation comply with ISO 27001. Our company has a Bisnode AAA qualification.

We're focusing on M2M & IoT, providing wireless data transmitting (CDMA 450, 2G, 3G, LTE 4G, LTE450, Narrow-Band IoT LTE-M).

UNIQUE SELLING POINT, VALUES

- 15 years of experience with any type of mobile network

- High skill in designing global wireless M2M/IOT systems according to international needs, worldwide usage

- End-to-End, solutions for metering, security, tracking and telemetry applications, future proof solutions for IoT, Narrow-Band, Smart City

MAIN SERVICES / SOLUTIONS:

- Smart City & IoT applications, Smart metering modems, Load management devices • Industrial routers, Data concentrators
- Alarm & Fire alarm safety transmitters • Safety & asset trackers • Device monitoring & management
- Cloud applications (Tracking, Metering, Safety, Telemetry, Street Light Control)

BIG FISH
Internet-technology Ltd.

COMPANY PROFILE

Address: Nyugati tér 1-2., H-1066 Budapest, Hungary
Phone: +36 1 209 0760
Fax: +36 1 700 4304
E-mail: cafe@bigfish.hu
EU Tax Number: HU13767213
Company Reg. Number: 01-09-872150
Web: www.bigfish.hu/en/

Industry: Information and Communications Technology, Web and Mobile Development, Design

ABOUT US

We are a team of web and mobile developers and designers in Budapest.
Our Industry segments: Information and Communications Technology, Web and Mobile Development, Design

UNIQUE SELLING POINT, VALUES

Indoor Navigation Solutions

Where real time maps fall short is when there is no GPS signal such as indoors in buildings
and tight spaces. There is a growing need for this service, and this is where BIG FISH Indoor Positioning Solutions (IPS) are useful.

Help users navigate indoors, and show them your true value open a second storefront through their mobile, give them discounts, motivate them to visit your partners shops.
You can also integrate data from other systems to make your app meaningful, such as real time flight information from

- Indoor Navigation Solutions

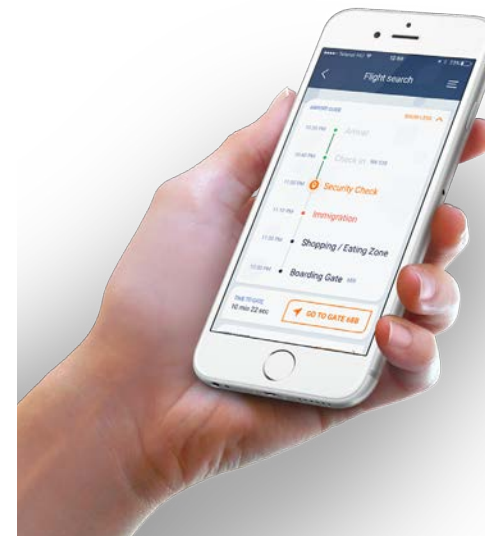online systems, meeting schedules or location changes.

IPS is the perfect solution for: Museums, Conferences, Airports, Shopping Malls, Trade fairs, Hospitals.

IPS Features:

- Unique indoor map
- Navigation
- Positioning
- Point of Interest database
- Indoor analytics
- Reach your audience at the right moment (based on position)

DOLPHIO TECHNOLOGIES LTD.

COMPANY PROFILE

Seat: H-2016 Leanyfalu, Moricz Zsigmond út 196

Offices: H-1095 Budapest, Soroksari út 56. II/14

Industry: Research and Development

ABOUT US

- At Dolphio Technologies we provide state-of-the art solutions for all our partners. We offer a whole range of innovative solutions, but our key area of expertise is computer

- We are determined to become Central Europe's leading technology provider with the capacity to contribute to Europe's proud legacy of scientific innovation.

UNIQUE SELLING POINT, VALUES

- CounterGuard – Fully automated people counting solution with over 98% counting accuracy. Integrated reporting software provides real time visitor informations and data visualization.

- SpotNzoom - Combines the advantages of two types of cameras (CCTV and PTZ) in a single intelligent system. SpotNzoom provides high definition picture of all automatically detected object based on its cameras, so anyone can be identified later

- Caralyzer – Automated traffic counting system, available with traffic violation detection for further fining

- SpeedHunter – Provides speed measurement and photo documentation on the same device, cutting down the cost of the whole system.

- CounterGuard – Optical people counting solution
- SpotNzoom – Intelligent security camera system
- Caralyzer – Camera based traffic counting system
- SpeedHunter – Camera based speed measurement system

CELLUM GROUP

COMPANY PROFILE

Address: Puskas Tivadar u. 14. C/B

City: Budaörs, ZIP: 2040 Country: Hungary

e-mail: contact@cellum.com

Industry: ICT – Mobile Payments & Commerce

ABOUT US

Cellum is a leading European-based mobile wallet provider, making purchases via mobile phones easier and more secure.

Our technology is used by financial institutions, mobile network operators, governments and merchants worldwide.

UNIQUE SELLING POINT, VALUES

Unique patented/patent-pending technology offering banking-grade security; open access using virtually any payment instrument held at any financial institution, supporting all major platforms on any mobile network; zero percent fraud rate after a decade of live operation; convenience through smooth and friendly user experience; interoperability with third-party ecosystems.

- Server hosting services
- Online Payment Solutions
- SMART Analytics

MAIN SERVICES / SOLUTIONS:

- **Cellum Mobile Next:** a secure transaction platform that provides a multitude of use cases, can handle virtually any funding source and supports all major mobile platforms.

- **Parking:** Available as both in-app and SMS-based solutions, Cellum Mobile Next gives motorists the ability to pay for parking anywhere with only their mobile handset, while making parking payment data fully traceable.

- **Highway Toll:** Cellum Mobile Next's solution allows motorists to pay highway tolls against the payment instrument of their choice by simply keying in their licence plate number and selecting the appropriate e-sticker type.

- **Public Transport:** Metro systems and other public transport operators can cut fare payment times and cash management costs by adopting Cellum's QR-based mobile payment platform. A flexible and highly secure solution, Cellum Mobile Next offers advanced data-mining possibilities and can be easily integrated into operators' existing systems.

I-CELL Mobilsoft
Private Company

COMPANY PROFILE

i-Cell Mobilsoft Private Company Limited by Shares, a private enterprise registered in Hungary under registration number 01-10-047546 with registered seat 5 Hungária köz, H-1143 Budapest, Hungary, VAT: HU 24132402 The foundation year is 2012.

The primary business activity is software development and design of complex systems.

ABOUT US

i-Cell provides smart and innovative software solutions and services in fields like Track & Trace, fleet management, payment solutions, collection of fees, taxes and payments. Thanks to our highly professional team, our flexible approach, and our ability to develop complex solutions quickly, we've become one of the most successful IT companies in the region. Our company has a large staff of professionals and we participate in various projects.

We work in the following areas:

- Software solutions for collection of tolls, fees and taxes
- Know-how in field of chargeable parking
- Solutions in field of trade control
- Mobile payment technology
- Hardware development
- System integration

MAIN SERVICES / SOLUTIONS:

Toll-Go

Is a ground-breaking electronic toll collection system and model, designed and developed by Hungarian engineers.

The whole solution was implemented in only 2.5 months, on a 6500km chargeable road network in Hungary.

Hungarian National Toll Payment Services Plc has been using the solution since 1 July 2013 to manage different toll collection and toll service processes.

Our role in the project was the design and development of Toll-Go – the core system of HU-GO – and the design and development of an entirely new concept and its internal processes.

HU-GO has received various awards and prizes for its innovative concept, including the Innovation Award from the Hungarian Chamber of Commerce and Industry, and the Project of the Year award from the Hungarian Association of Information and Communications Technologies.

For details please visit https://www.hu-go.hu/articles/category/news

Some facts about our projects and products:

- We hold the world record for the fastest implementation of a countrywide toll system. This complex solution was implemented in 2.5 months, on a 6500km chargeable road network

- Our solutions are used by 2,000,000 end users, and more than 40,000 companies in Hungary, Austria, Germany and China

- Our systems manage over 25,000,000 transactions yearly

- Thanks to our solutions, our clients have collected more than €5 000,000,000 since 2013

UNIQUE SELLING POINT, VALUES

- Thanks to a new concept, its implementation requires less financial resources and less time to implement. It is a distance-based free-flow system, based on GNSS technology.
- On-Board-Units are not mandatory and gantries are not used for toll collection in the model.
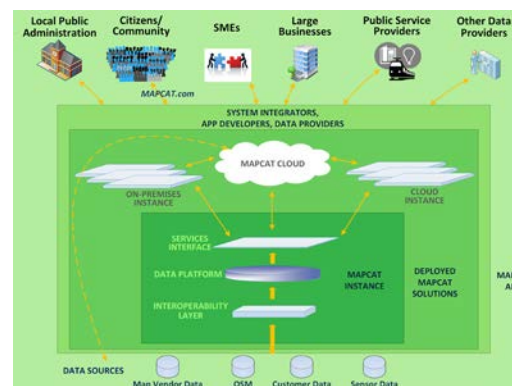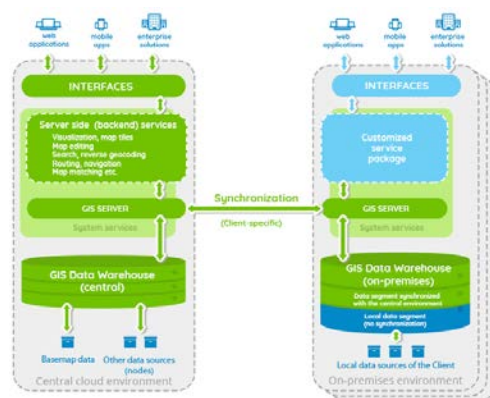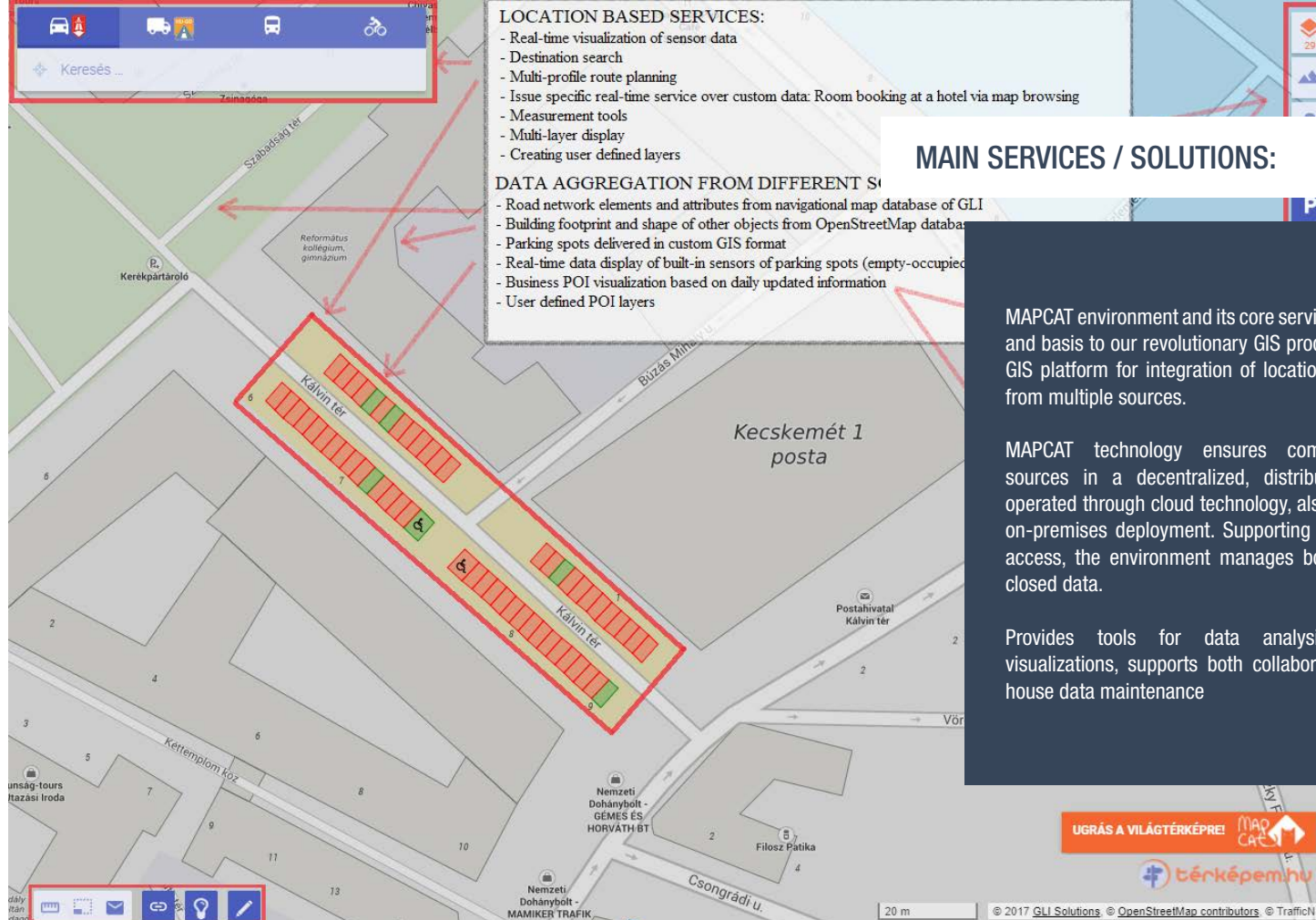
GLI SOLUTIONS LTD.

COMPANY PROFILE

H-1117 Budapest, Szerémi út 7/B 103.
www.gli-solutions.com

ABOUT US

GLI Solutions a group of professionals with expertise in Geographic Information System (GIS) Location Based Services and ITS. Our MAPCAT technology provides location intelligence services by using open/closed, custom, sensor, big data.

UNIQUE SELLING POINT, VALUES

- It serves commercial applications with competitive, cost-effective and easy-to-integrate B2B services, operating as a backend GIS technology for web, and mobile applications
- Multi-source GIS data integration (for example: water works or gas supplier firm, local council's camera system, urban transport company, etc.)
- GIS data as input, location based service as output
- Real-time data visualization and utilization of data, triggering events, decisions
- Real-time collaborative editing of data
- MAPCAT offers global map, global services, but delivers local solutions e.g.: fully supported internationalization for visualization and search
- Organization independent
- Customized, user-defined map solutions

LOCATION BASED SERVICES:
- Real-time visualization of sensor data
- Destination search
- Multi-profile route planning
- Issue specific real-time service over custom data: Room booking at a hotel via map browsing
- Measurement tools
- Multi-layer display
- Creating user defined layers

DATA AGGREGATION FROM DIFFERENT S(
- Road network elements and attributes from navigational map database of GLI
- Building footprint and shape of other objects from OpenStreetMap databas
- Parking spots delivered in custom GIS format
- Real-time data display of built-in sensors of parking spots (empty-occupied)
- Business POI visualization based on daily updated information
- User defined POI layers

MAIN SERVICES / SOLUTIONS:

MAPCAT environment and its core services are frame and basis to our revolutionary GIS product: MAPCAT GIS platform for integration of location based data from multiple sources.

MAPCAT technology ensures compatibility of sources in a decentralized, distributed system, operated through cloud technology, also suitable for on-premises deployment. Supporting differentiated access, the environment manages both open and closed data.

Provides tools for data analysis, thematic visualizations, supports both collaborative and in-house data maintenance

- Big data handling
- On-premises, cloud and mobile deployment
- Real time sensor data integration
- Location based services using data platform enables the implementation of smart city concept

NETVISOR COMPANY

COMPANY PROFILE

NETvisor IT and Communications Private Company Limited by Shares
www.netvisor.hu
Petzval J. u 56, H1119, Budapest

Industry: IT and Communication System integration

ABOUT US

NETvisor implement IT and operation support systems and other innovatve solutions to improve the quality and efficiency of the customers' core activity through advanced IT and communicaton infrastructure and services.

UNIQUE SELLING POINT, VALUES

- Smartpoles are principal platforms for Smart Cities
- Functions scalable pole by pole to customer needs and project budget
- Our Smartpole solution offers optimized functions with high reliability
- Central management for many smartpoles through the SmartPole Control Center component

Intelligent Street Lighting Post

ONE POST – MULTI FEATURES

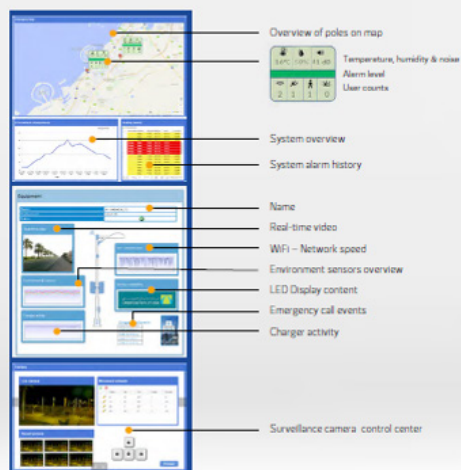Integrated lighting poles for various customers and applications
- Citizens and tourists
- E-vehicle owners
- Municipal authorities
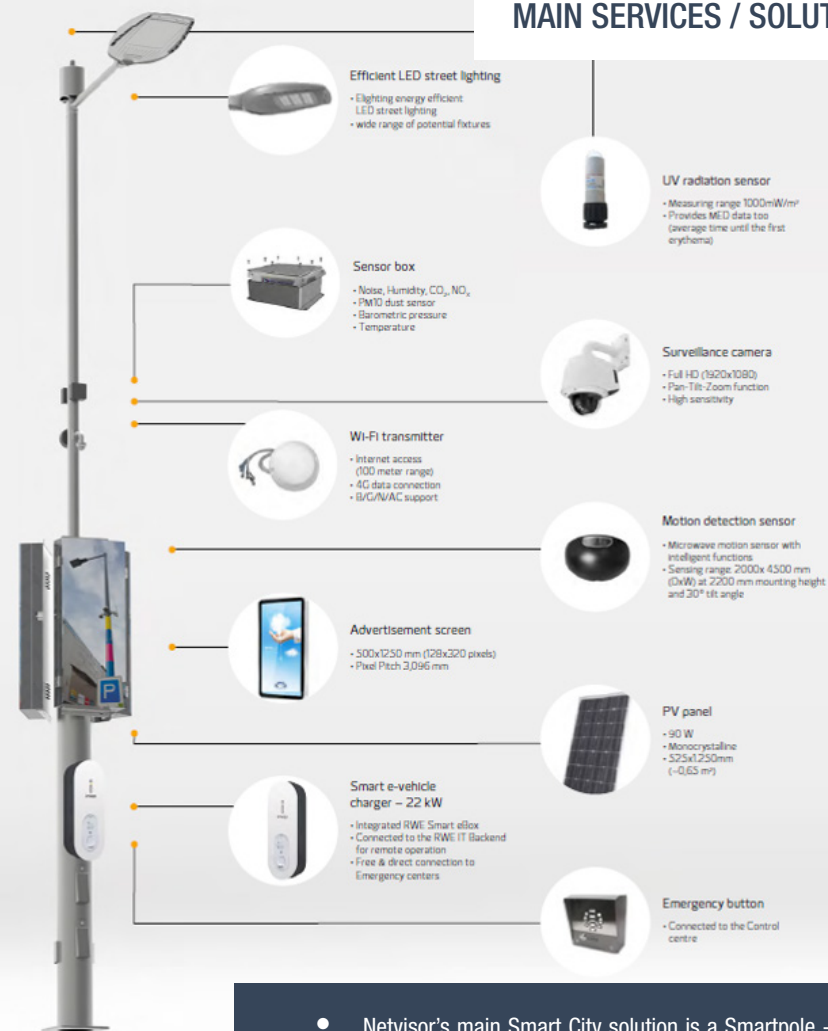- Security services

Environmental protection
- by efficient LED lighting
- by integrated e-mobility infrastructure to enable the spread of carbon free transport

CSR
- Social inclusion
- Improvement of security
- Free Wi-Fi for citizens to be connected

Overview of poles on map
Temperature, humidity & noise
Alarm level
User counts

System overview
System alarm history

Name
Real-time video
WiFi – Network speed
Environment sensors overview
LED Display content
Emergency call events
Charger activity

Surveillance camera control center

Efficient LED street lighting
- Elighting energy efficient LED street lighting
- wide range of potential fixtures

UV radiation sensor
- Measuring range 1000mW/m²
- Provides MED data too (average time until the first erythema)

Sensor box
- Noise, Humidity, CO₂, NOₓ,
- PM10 dust sensor
- Barometric pressure
- Temperature

Surveillance camera
- Full HD (1920x1080)
- Pan-Tilt-Zoom function
- High sensitivity

Wi-Fi transmitter
- Internet access (100 meter range)
- 4G data connection
- B/G/N/AC support

Motion detection sensor
- Microwave motion sensor with intelligent functions
- Sensing range 2000x 4500 mm (DxW) at 2200 mm mounting height and 30° tilt angle

Advertisement screen
- 500x1250 mm (128x320 pixels)
- Pixel Pitch 3,096 mm

PV panel
- 90 W
- Monocrystalline
- 525x1250mm (~0,65 m²)

Smart e-vehicle charger – 22 kW
- Integrated RWE Smart eBox
- Connected to the RWE IT Backend for remote operation
- Free & direct connection to Emergency centers

Emergency button
- Connected to the Control centre

MAIN SERVICES / SOLUTIONS:

- Netvisor's main Smart City solution is a Smartpole - developed for the Budapest Electrical Works –, a modern LED-powered street ligting post with advanced features like
- EV charger
- Environmental sensors
- Cameras for security, traffic control or statistical analysis.
- Electronic billboards
- WiFi services
- Intelligent area control of dimmable lighting
- Emergency communication system
- Interactive information services

PLEZINTOR Ltd.

ABOUT US

Plezintor Ltd. is a major player of the wireless market in Hungary, providing radio network planning and optimization services.
Our experts with more than 15 years of international and Hungarian experience have competence in a wide area of wireless telecommunication technologies, including GSM, GSM-R, UMTS, LTE, TETRA, WIFI systems.
Our customers incorporate public mobile telecommunication companies as well as the governmental sector.
See more on www.plezintor.com website

UNIQUE SELLING POINT, VALUES

Highly educated and experienced engineering team
International personal references from many countries
Integrated services (planning + optimisation + measurement)
Reliable business behaviour

MAIN SERVICES / SOLUTIONS:

Engineering services for mobile telecommunication companies:

- radio network planning (ROLL-OUT, cell, capacity, frequency, code, repeater, indoor DAS, etc.)
- radio network optimisation
- radio network measurement
- propagation model tuning
- performance management tool development and support
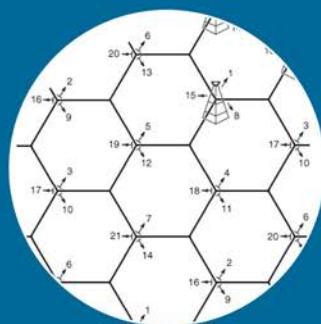
Radio Network Design — Radio Network Optimization — Radio Network Measurement
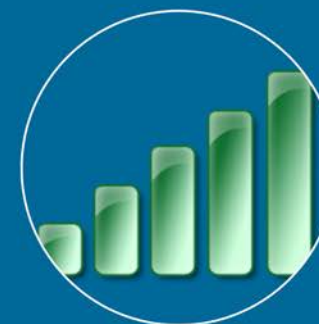
PROJECT MANAGEMENT AND TECHNOLOGY INTRODUCTION

Tenzor Tech Ltd.

COMPANY PROFILE

Adress: Montevideo u 16/a 1037 Budapest Hungary

Tel : +36 1 445 2622
Fax : +36 1 445 2622
Web page : www.tenzortech.hu

ABOUT US

Since 1994 the Company has been helping customers overcome operational, regulatory and consumer driven challenges by capturing the advantages and benefits of technology.

Our Research and Development Center is in Budapest with deploying cutting-edge technology and we are focusing on developing the future smart city and smart village solutions.
We have a strong partnership with SagemCom.

MAIN PRODUCTS / SERVICES / SOLUTIONS

- Smart City solution
- Smart Village solution
- Integration and application of smart electricity/gas/water meters (single and three phase, point-to-point and PLC meters), pre-paid meters

SMART GRID MANAGEMENT SOLUTIONS
Head-End-System is our core system focusing on managing data concentrators and multi-utility meters, with its main features of provisioning, authentication and technical configuration management.

Smart City solution is an integrated system focusing on energy issues, adaptive to the environment, and offering sustainable operation. Key significance of the platform: integrating renewable energy resources into satisfying local demand, global energy market sources, and the sustainable management of balancing production and usage.

Smart Village solution is an area specific nanogrid development, and its software modules provide metering and controlling functions for water production, street lighting and for objects equipped with smart metering devices. A smart village solution is a saleable, complex grid solution that is be able to collect and cluster information generated by energy services and nanogrids. The platform locally processes the collected data and provides the necessary real time feedbacks, warnings and potential interventions.

THERMOWATT LTD.

COMPANY PROFILE

Company website: www.thermowatt-global.com
Employee: 4
Founded: 2007.
Contact name: Kiss Pál
Contact phone number: +36 1 430 36 43
Contact e-mail: info@thermowatt.hu

Industry: Renewable energy, heat pump

ABOUT US

Our company was established in 2007 to implement, manage and operate systems based on its proprietary invention.

The "Method and Circuit Agreement for Recovering Heat from Wastewaters" has been patented in Hungary and filed globally.

Our technology was first recognized with the Spanish Aqualia Award for Innovation in 2013 and has received the Abu Dhabi based Water & Energy Award in 2014. It has also received the Abu Dhabi based First Place Innovator in the Water for Real Estate Sector award in 2015.

MAIN SERVICES / SOLUTIONS:

Our company entered the renewable energy sector with a new solution, unknown in the global market, which uses waste heat recovered from wastewater as a new source of energy generation.

Utilizing wastewater heat comes with several advantages:

- Due to its virtually constant temperature, wastewater heat offers much better energy efficiency than soil heat or groundwater.
- The system can be used both in heating and cooling modes and connects easily to the existing heating/cooling systems.
- Low operational costs even with urban city centre installation, is possible.
- Does not consume water unlike other heat exchange systems.
- No size limit in scale as the only limit is the volume of available wastewater streams.

Thermowatt serves clients in Europe, Latin America, the Middle East and Russia.

In Hungary we have several reference projects including:
- Budapest Sewage Works
- Hungarian Armed Forces Medical Centre – Military Hospital
- MOM Cultural Centre heating and cooling system
- University of Szeged

We are currently have patents in Hungary, Russia and the Ukraine with patents pending in the EU, USA and China for our "Method and Circuit Arrangement for Recovering Heat from Wastewaters."

FLASHNET HUNGARY LTD.

COMPANY PROFILE

Company website: www.intelilight.hu/
Employee: 5
Founded: 2011.
Contact name: dr. Bottyán Balázs
Contact phone number: +36 1 801 20 02
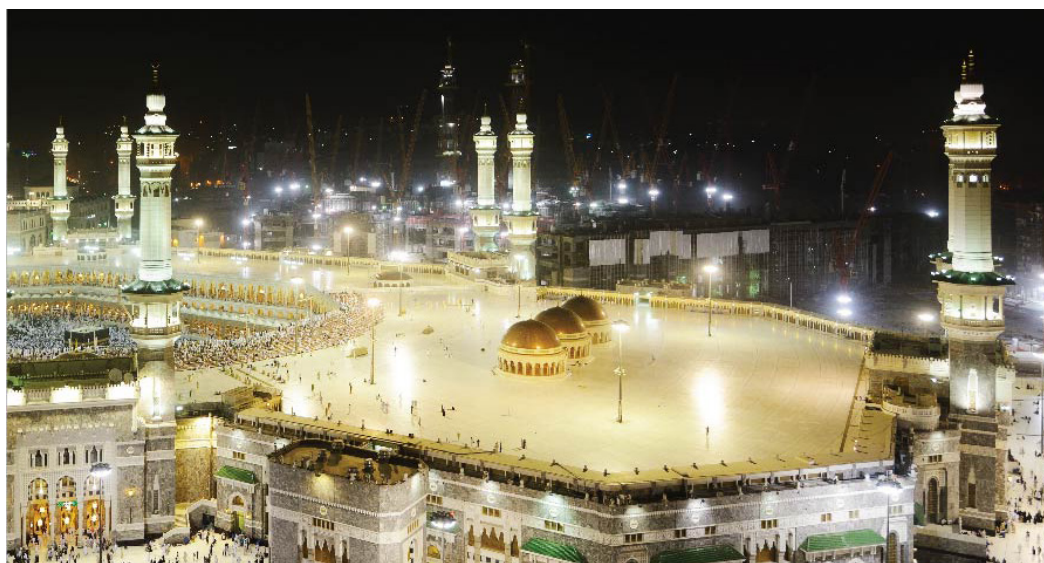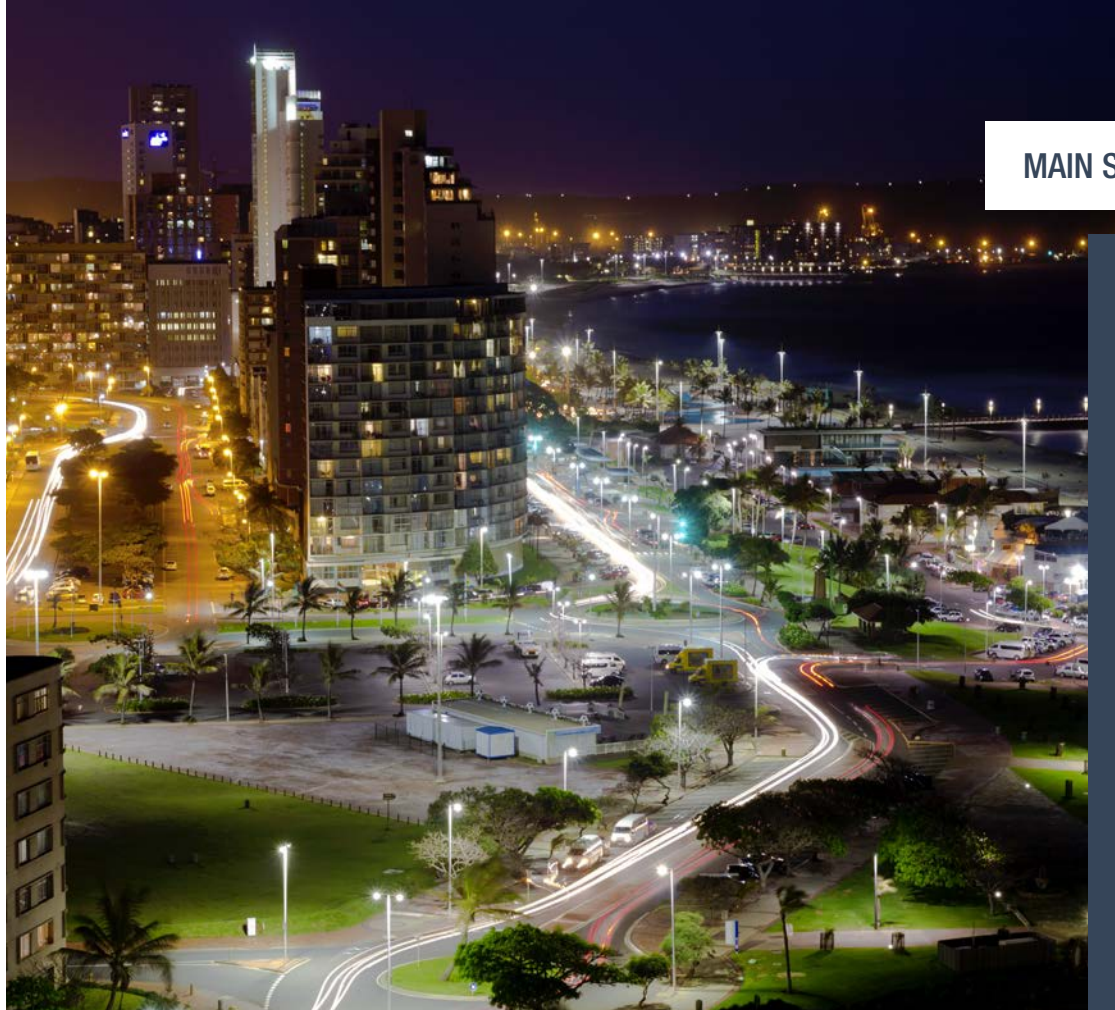Contact e-mail: balazs.bottyan@intelilight.hu

Industry: Smart City, street lighting

ABOUT US

With 10 years of international experience, we are experts in small and large scale deployment of smart city technologies.

In our offices in Hungary and Romania, our in-house research and development team is dedicated to integrate the newest applications and value added functionalities to our proprietary remote management solutions.

Our solutions are certified in accordance with the following international standards.

Remote street lighting management systems with intelligent value added sensors and functionalities.

„Innovative and energy efficient city lighting management solutions with almost unlimited integrated smart city functionalities."

Our solutions work easily and effectively in existing lighting systems. No need to change lamp posts or fixtures, or the costly construction often needed to build intelligent infrastructure.

- Adaptive light brightness control is independent: motion sensors at each pole allow for substantial energy saving and significant reduction in light pollution.

- Our fully scalable solution are ideal for small, corporate installations as well as large, metropolitan projects.

- The flexibility of our sensors [video, temperature, light, pollution] and modules [e.g. electric vehicle charger or Wi-Fi) suits an unlimited range of application.

- Smart interfaces and analytical software tools are used to unlimited opportunities to partner with powerful applications in health, safety and other areas.

CONTROLSOFT LTD.

COMPANY PROFILE

Company website: www.controlsoft.hu
Employee: 31
Founded: 1991.
Contact name: dr. Berzsenyi Miklós
Contact phone number: +36 30 268 87 71
Contact e-mail: berzsenyi.miklos@controlsoft.hu

Industry: ICT, control and data system

ABOUT US

Controlsoft has been established in 1991. These 25 years of professional experience allows us to provide premium quality services and solutions to our customers.

Our dedicated R&D department delivers cutting edge solutions for optimizing operational costs.

As a general electrical contracting company, we offer full-scale systems and solutions. We offer full range of services including design, manufacturing, installation, commissioning and maintenance.
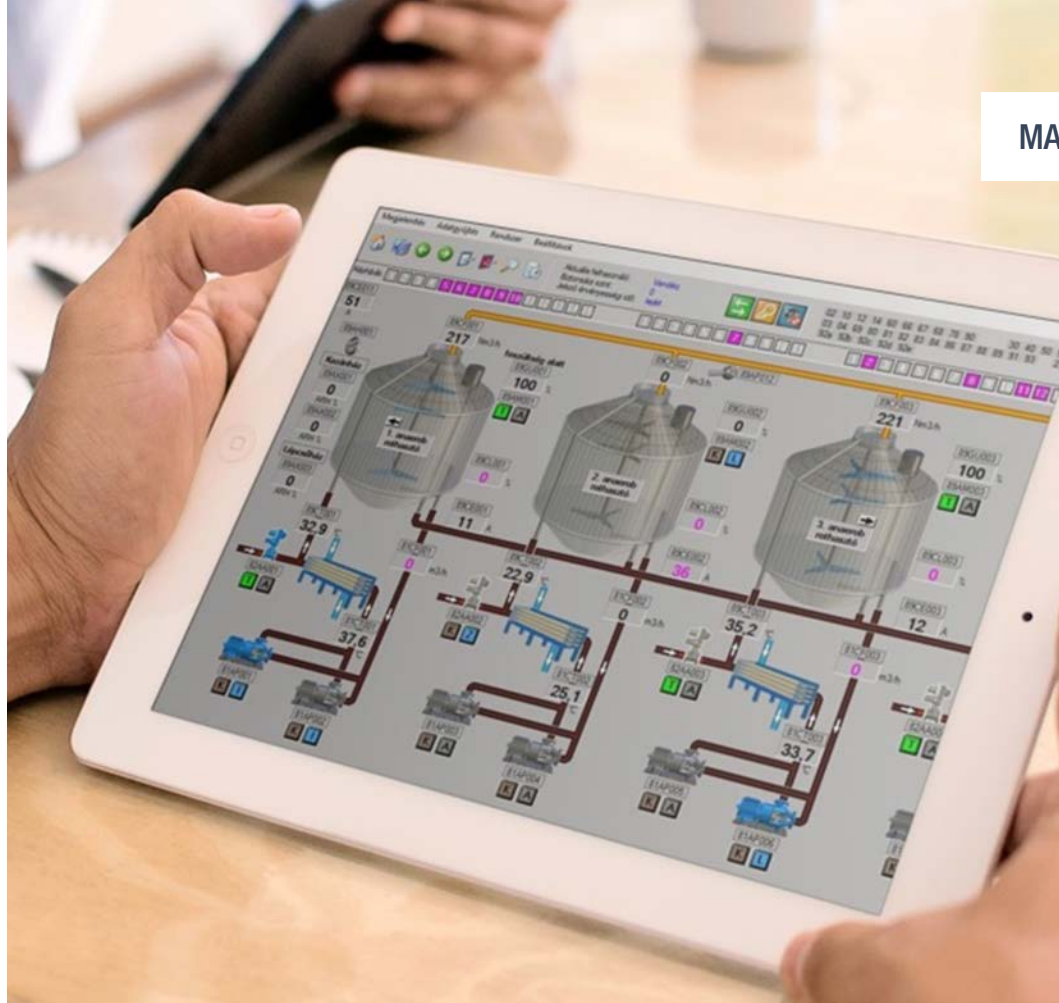
MAIN SERVICES / SOLUTIONS:

Design and implementation of high voltage systems for public lighting, buildings and industrial applications.

- 0.4 kV and medium voltage electrical distributors.
- Low voltage security, fire and CO_2 alarms, access control systems.
- Electric drives, process control management systems.
- Instrumentation and custom electronics manufacturing.
- Supervisory Control and Data Acquisition systems.
- Technical Information systems.
- Portal-based Information systems.

,,Experts in System Integration"

We help our customers to achieve safe, reliable, cost-effective, optimized and environmental friendly operation of their plants, buildings and cities.

Our technologies provide customized, efficient and cost-effective solutions. We offer better value for money, maintaining high quality standards and providing a stable background support.

BUDAPEST WATERWORKS

BUDAPEST
WATERWORKS Plc.

COMPANY PROFILE

Company website: www.vizmuvek.hu

Industry: Water utility service

Employee: 1770

Founded: 1949.

Contact name: dr. Haranghy Csaba

Contact phone number: +36 1 465 29 44

Contact e-mail: nikoletta.lonyi@vizmuvek.hu

ABOUT US

The core activities of the almost 150-year-old Fővárosi Vízművek Plc. (Budapest Waterworks) include potable water treatment, potable water production, pipe network operation and potable water services, as well as sewage treatment and the related services, activities which are supported by world standard technologies.

The design and construction knowledge resting on operational experience and the extensive practice gained in this field are indispensable in helping us develop and operate the sizeable water utility assets we manage in the longterm, thus satisfying even the highest expectations; and to reconstruct them to meet the expected level of efficiency.

The excellent Hungarian engineer training system, our experienced and knowledgeable technical professionals provide the Company with a very good and reliable background to the technical development projects on which it has embarked in the recent years.

Main Pumping Station
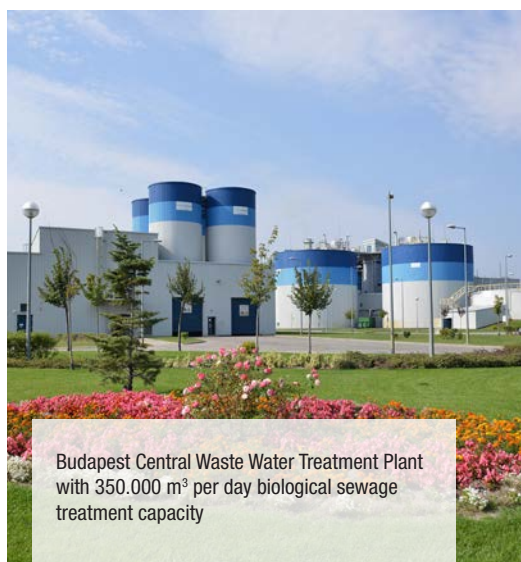
Budapest Central Waste Water Treatment Plant with 350.000 m^3 per day biological sewage treatment capacity

MAIN SERVICES / SOLUTIONS:

Budapest Waterworks, founded in 1868, supplies 2 million people with healthy potable water or sanitation services in Budapest and in the conurbation area.

Having undergone major transformations, developing from a socialist city potable water utility to internationally recognized regional company operating water and sewage systems, we are ready to share our experience in restructuring operations; implementation, integration and development of cutting-edge technologies; construction projects, and in reorganisation and process management of customer service processes and non-revenue water management beside many more areas.

Besides offering our expertise to potable or wastewater supply companies, utility companies, as well as municipalities, governmental and non-governmental institutions searching for ways to reform and improve their water related utility services, Budapest Waterworks can provide operational expertise, consultancy and background to water utility related infrastructure development and construction projects.

Our Company not only designs and partly implements its own projects with its own capacities and with the involvement of subcontractors, but also accepts more and more external project orders all over the world.

Biogas Holders at Budapest Central Waste Water Treatment Plant

NOTES

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