penta
ID SYSTEMS

company profile

*success requires **vision***

There is **one** quality you have to process in success.
success requires **vision**

Because every client`s project poses its own set of unique challenges, it`s impossible to compose one system/solution that completely addresses everyone`s specific needs.

By passion and hard work, we as a team have become one of the leading system integrator developing automatic identification systems for greater business and energy efficiency, environmentaly acceptable.

Since our establishment in 1990., we are constantly investing in new technologies, building our capabilities, empowering our team in order to provide clients innovative solutions that will make their business more efficient, reliable and stronger. We aspire to be a partner of choice for our customers, suppliers and employees.

Mladen Pamic *CEO*

Who we are
What we do

PENTA d.o.o., Croatian IT company, founded in 1990., one of the leading system integrator in the automatic identification of persons and objects with a focus on advanced technologies (RFID, NFC, LoRaWAN, IoT, etc.).

Participating as a partner in Smart City projects in Croatia and region, Penta provides its own development, manufacture and servicing of electronic devices for automatic identification, registration and access control, but also in-house software development and maintenance of Auto ID systems. With continuous investment into new technologies, Penta creates rich portfolio of solutions, each adapted to the needs and requirements of users.

Our vision

To become a leading system integrator in the area of automatic identification systems development, offering market-recognized ICT solutions to current and potential customers, based on the world's leading technologies.

To be the company of choice in the provision of timely, innovative solutions.

Our mission

To be the leading IT solutions company for small to mid-sized business. Our mission is to provide our clients with IT solutions and services that help them to address the technology challenges in meeting their business objectives.

To provide custom-designed automatic identification systems that will reduce costs, increase profits, and improve business quality of our clients.

Think *innovatively*, *deliver* **effectively**

Company values

The greatest value, strength and basis of our success is our team of professionals that creates high-quality and recognizable ICT solutions. We care for the satisfaction of employees by creating a positive working environment and conditions in which every employee has an opportunity for personal and professional progress. We also give special attention stimulating innovativeness, therefore more than half of the professionals are working on the development of new solutions and services, and through continuous training, education accompanied by high motivation, we stimulate the creativity of all departments and achieve business excellence.

SOLUTIONS, NOT JUST PRODUCTS
Custom designed software, inhouse hardware development and service quality are the main benefits of our rich portfolio of IT solutions. Selling solution is no easy answer.

QUALITY AND BUSINESS EXCELLENCE
In each phase of development we apply a range of prevention measures to make the system as a final product fulfills expectations and customer requirements.
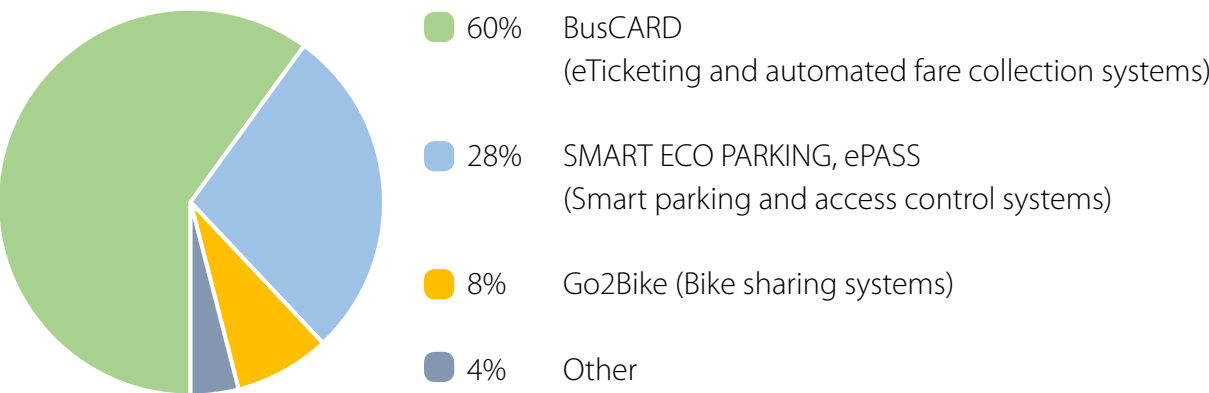
TEAMWORK AND EXPERTISE
Innovation is the main principle of our business, the mindset of our employees, as well as the starting point for each project that is being launched and managed.

# Company Statistics - PENTA by the numbers

Sales distribution

- 60% BusCARD
  (eTicketing and automated fare collection systems)

- 28% SMART ECO PARKING, ePASS
  (Smart parking and access control systems)

- 8% Go2Bike (Bike sharing systems)

- 4% Other

Sales revenue

Year	Amount
2015	€ 1.403.299,00
2016	€ 1.175.471,00
2017	€ 1.026.818,00
2018	€ 1.560.702,00
2019	€ 1.459.084,00
2020	€ 1.687.255,00
2021	€ 1.862.525,00
2022	€ 2.128.460,00
2023	€ 2.288.094,00
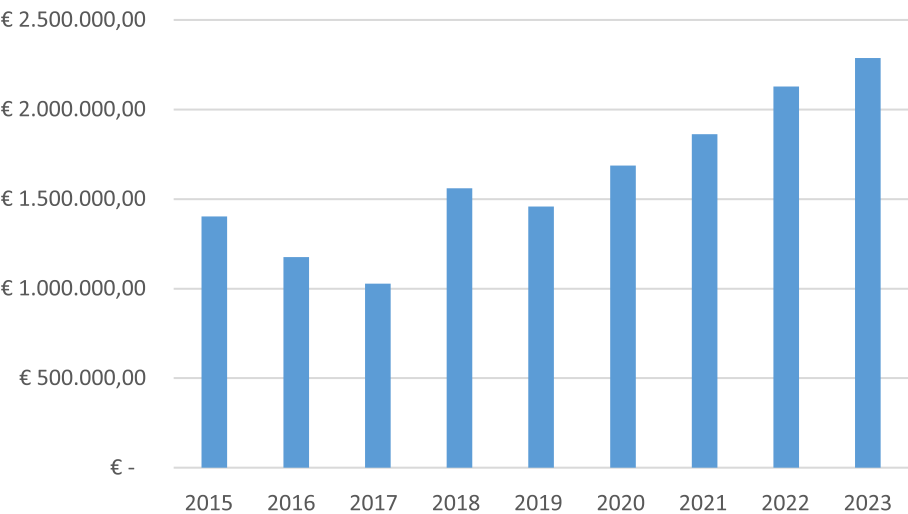
Profit

Year	Amount
2015	€ 207.290,00
2016	€ 187.958,00
2017	€ 189.902,00
2018	€ 294.194,00
2019	€ 286.161,00
2020	€ 266.646,00
2021	€ 199.956,00
2022	€ 279.360,00
2023	€ 305.960,00
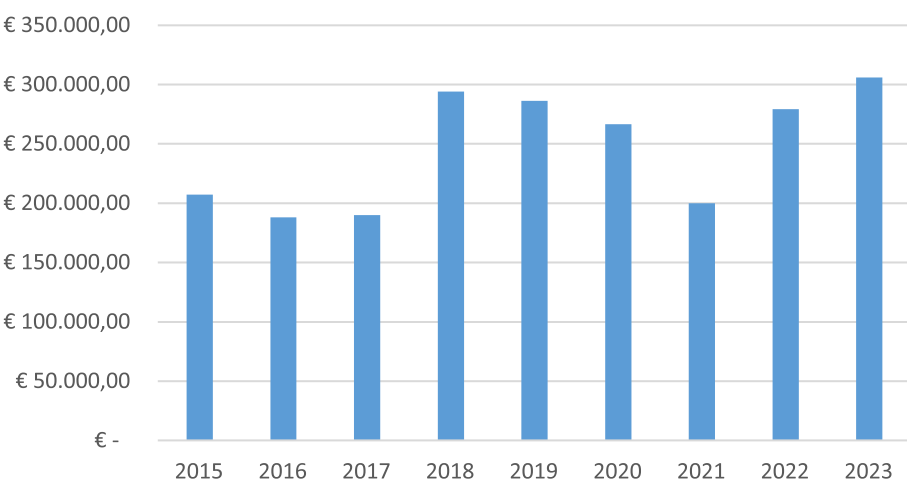
+250
+250
Delivered solutions

97%
97%
Client satisfaction

+30
Team of
+30 professionals

7
7
Locations

Pressence

We are present in 4 countries:
Croatia, Serbia, North Macedonia, Montenegro

Organisational structure

- CEO
- CTO
- Quality, Environment, Occupational Safety and Information Security Manager
- Administration
- EU Projects
- Research & SW Development
- Production, HW Development
- Help Desk & Support
- Finance / Accounting / HR
- Purchasing, Sales, Marketing
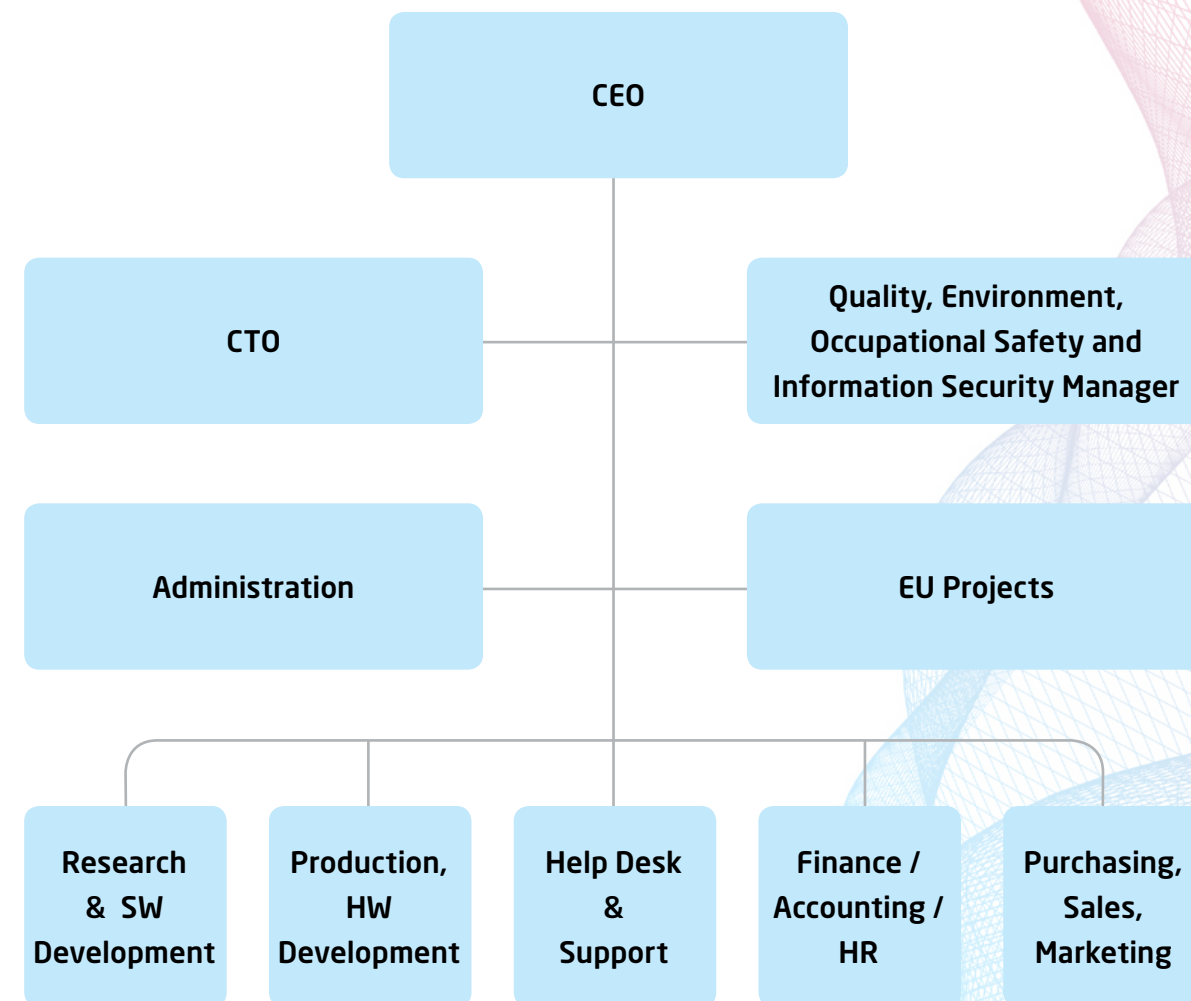
Milestones achieved

1990. Founding the Penta d.o.o. company

1994. Reached number of 25 users of time & attendance systems with magnetic cards, but even the 1st one in region based on the fingerprint

1998. The first RFID reader developed in own production for access control

2002. The 1st generation of RFID ticketing system based on EM4150-125 KHz implemented

2006. Transition to the 2nd generation of ticketing system based at NXP Mifare/Desfire tech.

2010. Move to the newly built own office building with the intent of expanding hardware production and market expansion

2013. The 1st NFC ticketing project in cooperation with VipNET and GPP Osijek

2015. Implemented first city card project in region - Rijeka CityCard in cooperation with Erste CardClub (Diners Card)

2018. Penta invested in industrial and experimental research and launched new product - Spark SENSE, smart parking (first in Croatia and region)

2019. First H2020 grant agreement for Electronic Smart System (ESS) - AutonoMous self powered miniAturized iNtelligent sensor for environmental sensing anD asset tracking in smArt IoT environments

2020. Implementation of "National Cultural Card of Montenegro" in cooperation with Crnogorski Telekom AD for the needs of the Ministry of Culture

2021. Development of Smart Eco Parking solution and expansion into the regional market

2022. Establishment of PENTA GRUPA d.o.o.

Our clients

Our client list speaks for itself. We are proud to work with public and private companies, cities and municipalities, organisations. Such valuable cooperation has always been a privilege and responsibility that we do not take lightly.

Here is a list of some of our key clients in Croatia and regional countries

BusCARD - eTicketing and Fare Collection systems

• CITY OF RIJEKA – Rijeka City Card
• OLD ROYAL CAPITAL CETINJE – Cetinje City Card
• PULAPROMET d.o.o., Pula
• GRADSKI PRIJEVOZ PUTNIKA d.o.o., Osijek
• ARRIVA Croatia
• AUTOTRANS d.o.o., Rijeka
• ČAZMATRANS- NOVA d.o.o., Čazma
• APP d.d., Požega
• PANTURIST d.d., Osijek
• KD AUTOTROLEJ d.o.o., Rijeka
• BRIONI d.d., Pula
• NEW LINE TECHNOLOGIES Kft., Budapest
• ATI d.o.o., Pula
• AUTOTRANSPORT d.d. Šibenik
• DD GRADSKI I PRIGRADSKI SAOBRAĆAJ, Tuzla
• BUS LOGIC d.o.o., Požarevac
• LITVATRANS D.D. Banovići
• SP LASTA AD, Beograd

Smart Parking

• LIDL, Zagreb
• LIDL, Rijeka
• PULA PARKING d.o.o., Pula
• CRNOGORSKI TELEKOM a.d., Podgorica
• PARKING SERVIS d.o.o., Podgorica
• PARKING SERVIS, Bijelo Polje
• PARKING SERVIS, Herceg Novi
• PARKING SERVIS, Ulcinj
• D.O.O. ČISTOĆA, Pljevlja
• SUPER VOLI, Podgorica
• TELEMONT d.o.o., Podgorica
• NORMAL COMPANY – Business Centre Hilton, Podgorica
• CONTRADA d.o.o., Vodnjan
• KOMUNELA d.o.o., Umag
• ARENA HOSPITALITY GROUP d.d., Pula
• JADRANKA KAMPOVI d.o.o., Mali Lošinj
• PULA SPORT d.o.o., Pula

ePASS - Access Control Systems

• NK ISTRA 1961 s.d.d., Pula
• MORAČA Sport Centre, Podgorica
• CRNOGORSKI TELEKOM a.d., Podgorica
• CITY OF PULA, Pula
• PULA PARKING d.o.o., Pula
• POBJEDA d.d., Tešanj
• THE CITY OF DUBROVNIK, Dubrovnik
• PANNONICA, Tuzla
• REGION OF ISTRIA, Pula

Key Clients

A satisfied client is the best business strategy of all

Strategic Partners

A true partnership is a two-way street

Business compliance

ISO Certified

All our business processes follow the **ISO 9001** (Quality Management), **ISO 27001** (Information Security Management), **ISO 14001** (Environmental Management), and **ISO 45001** (Occupational Health and Safety Management) international standards.

ISO 9001 certification helps us consistently provide products and services that meet our customers' needs and conform with applicable statutory and regulatory requirements. We are focused on enhancing customer satisfaction through continuous improvement

We successfully applied to be **ISO 27001** certified because we want our clients and partners to know that their information is safe with us. In our sector, we work with sensitive data. This certification communicates that we take information security seriously and that we are able to show it. The **ISO 14001** certification requires an environmental policy and action plan to manage our environmental impact. It helps us improve our performance, creating a more efficient business with less waste.

Obtaining **ISO 45001** guarantees that the company has implemented, among other requirements, a high-level structure with an adequate context analysis and a clear focus on risks and opportunities for workers' Health and Safety management.

Technical protection

We are authorised to perform technical protection and are registered for the design, construction, and supervision of IT security systems. Electrical engineers and installers who have passed the professional exam are authorised to provide technical protection services.

UNICERT
ISO 9001

UNICERT
ISO 14001

UNICERT
ISO 27001

UNICERT
ISO 45001

Services we provide

Progressing by leaps and bounds is impossible without any help from the best IT support companies. This indeed makes innovative solutions for businesses of any size an excellent business idea.

Following are the end to end IT solutions for the business transformation we provide:

SYSTEM ARCHITECTURE
Our experts will design for you the best IT solution that integrates hardware, software and business organisation.

QA & TESTING
We help define quality goals, then thoroughly examine each of them and define a set of steps to take to increase the quality of your software so that it meets its performance requirements.

PROJECT MANAGEMENT
We developed +250 IT solutions and can quickly anticipate and efficiently address a given project's problem and critical areas.

TRAINING
Each implementation of the offered solutions requires user training in order to use all functionalities productively. In case of a system upgrade, we provide additional training and support.

MAINTENANCE
The professionally trained team take care of the repair and maintenance of all our systems. We handle all updates and monitoring for you, so you'll know your system reliably works every single day.

HELPDESK & SUPPORT
Our technicians assist your users via phone, remote session, or office visits. Access quality tech support quickly.

IT Solutions

Our solutions for greater business efficiency and a sustainable future
Solutions that create a smarter mobility

BusCARD
e-ticketing solution custom-designed to meet the challenges of public transport and make it intelligent, efficient and reliable

ePASS
Access control for safety passages (ticket sales, control, management) and time attendance systems for companies, sports halls, stadiums, cultural institutions, nature parks etc.

CityPASS
City card solution – one card provides various services (public transport, parking, museums and libraries, sports facilities, bike sharing, selling points)

eKARTA
Ticket sales systems at kiosk/newspaper stand for passenger transport – sales of all types of tickets (one-way, return) and for all categories of passengers

Smart ECO Parking
Smart parking systems including "ticketless" barrier parking system, smart detection of parking space availability in real-time, and on-street parking system

Go2Bike
Bike sharing systems - a quick and easy way to use a bicycle as a means of transport, i.e. a means of sports and recreation without the need to own it.
It is intended for cities and municipalities, tourist destinations, universities and schools.

BusCARD

E-ticketing and automated fare collection system

We understand public transportation processes and know the market. To provide services in this area, we rely on our high-quality, forward-looking hardware and software solutions, many years of experience in the industry as well as a dedicated and motivated team of professionals. We always aim to fulfil our customers' requirements, and we have accomplished numerous projects in Croatian and regional markets with public transport authorities and operators of various sizes.

BusCARD solution offers efficient, accurate and reliable fare collection, faster transactions, cost-effective processes and integrates multiple functions to increase the quality of service for users of public urban, suburban or long-distance passenger transport.

Our e-ticketing solution ensures seamless travel in the city, improves life quality, and guarantees a better customer experience.

CityPASS

The City Card solution for urban services

CityPASS allows citizens to use a wide range of municipal services such as public transport, parking, bicycle rental or visit museums, libraries, sports facilities with just a single card/account. Cities can freely choose the services they wish to offer within the City Card.

Valued partner for smart city solutions

As many cities are struggling to cope with the current inflow of people, the private and public sectors need to create smart cities to make urban areas more liveable and genuinely sustainable. Smart city solutions are needful to provide a high quality of life for its citizens in a clean, energy-efficient and climate-friendly urban environment. Such projects bring together cities, research institutions, industry, experts and citizens.

The City Pass is a further step in creating the smart city of tomorrow. From a technical point of view City Card is based on contactless NXP - Mifare technology, with built-in triple fraud protection, meaning that data cannot be manipulated. Furthermore, various services providers can join CityPASS, enabling citizens to benefit from these services.
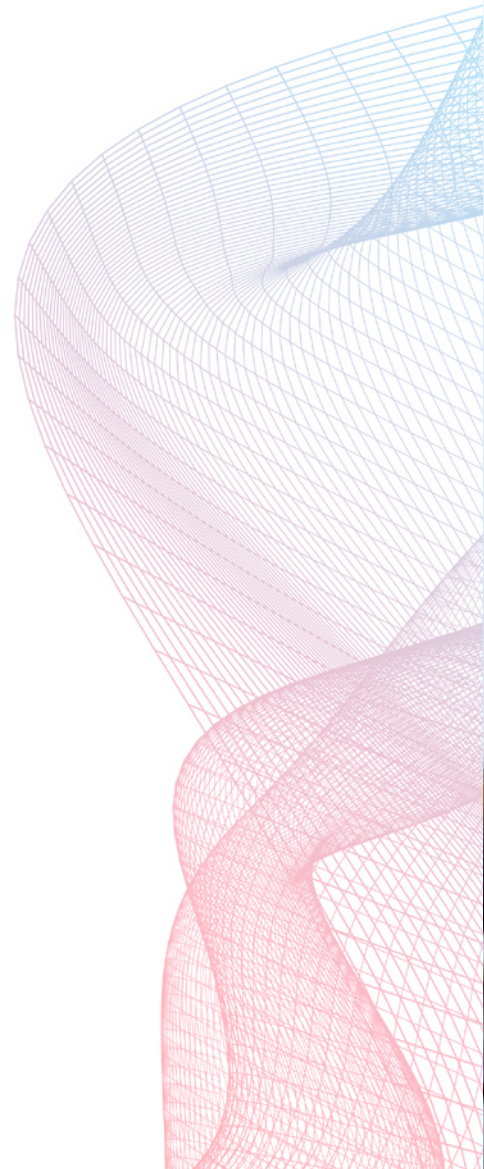
Smart Eco Parking

Smart parking solutions that create smart cities

If there's one thing that certainly stresses drivers, it's looking for a parking space in the city. This, however, is changing with the implementation of intelligent solutions. Wanting to combine innovation, functionality, and economy, our company offers parking solutions tailored to your needs to ease your parking facility's management and enable new business opportunities.

"Ticketless" parking system for collection and access control based on a camera for recognising vehicle registration plates. A parking solution without physical paper tickets is the future for parking garage operators and parking lot providers. With systems for license plate recognition, we offer a modern and cost-effective method for controlling entry and exit.

Detection of parking space availability in real-time, helping to optimise on-street parking in cities and parking garages or surface parking lots such as those in shopping malls, bus and train stations etc. Reserve and park, easy as it should be!

On-street parking system that allow drivers to easily pay for parking by cash or card. User-friendly parking terminals that ease parking lot payments, ticket purchasing and collection. It will save you time and costs.

eKARTA

e·karta

Solution that enables mobility and offers an efficient way to travel in urban areas

Are you looking for a solution for selling tickets at the newspaper stand, for regular passenger transport? eKarta system is flexible and enables sales of all passenger tickets (one-way and return) and for all categories of passengers with defined discounts.

The passenger needs to come to the nearest newspaper stand and tell the seller which day and which route he wants to travel. The seller then states the price of the ticket and the carrier to the passenger, and after his confirmation he prints and charges the ticket. The passenger arrives on the bus and drives carefree to the selected destination with the printed card.

Expanding sales channels and networks, reducing the cost of ticket sales through fewer commissions on the sold ticket, online overview of ticket sales and occupancy capacity or allotments given (WEB and e-mail), the ability to change daily sales capacity or allotment (online WEB or API) are just some of the numerous benefits for transport operators.
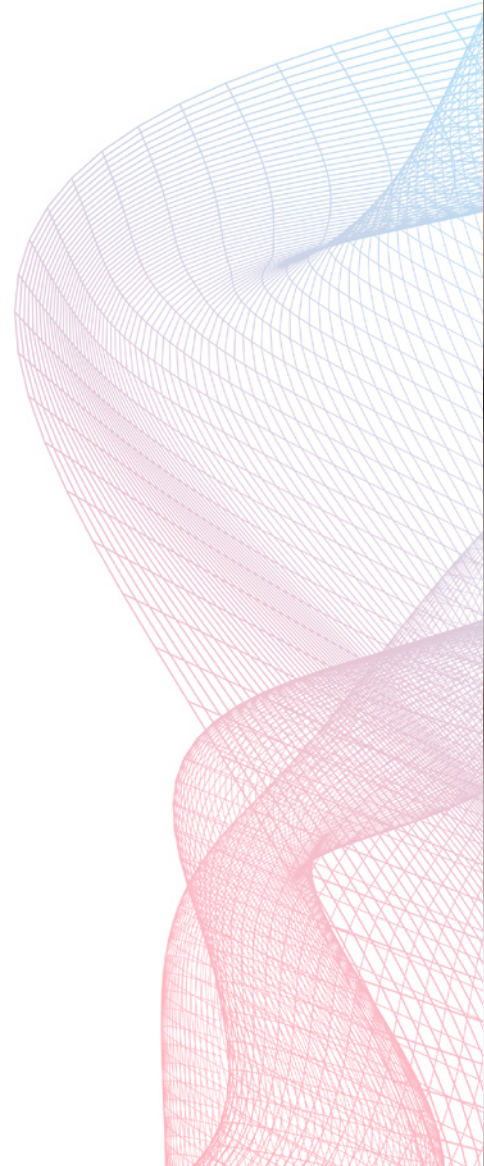
GO2BIKE

Bike sharing systems that cities need

Slowly but surely, bike sharing is taking over the world. Many sizable cities now have bike sharing programs that offer affordable short-term rentals throughout a defined area. These may be run by private companies, educational institutions, municipal agencies, or public-private partnerships. The specific features and quirks of bike sharing models vary from place to place, but the overarching goal is always the same: providing a fun, healthy, low-cost transportation option for locals and visitors alike.

Customisable according to your business needs

Bikes, stations and pylons are the most important physical elements of the systems. The system's branding also stands out, displaying corporate logos on bicycle frames. Depending on the system, the user buys an electronic code and writes it on the pylon to unlock and take the bike. Credit card is also the primary mode of the anti-theft system. If the user runs away with the bike, he will probably be charged a replacement.

The advantages of the GO2BIKE solution are high-performance hardware, low operating costs, intuitiveness and ease of use, flexibility - business model can easily be adapted to your needs, reliability, exciting and attractive design, and of course, great experience.
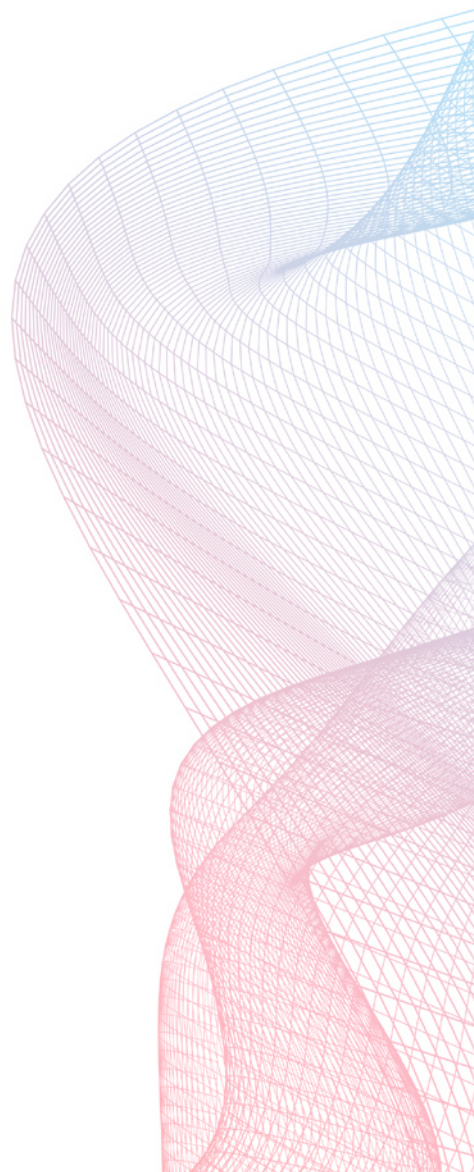
ePASS

Real-time protection for both property employees/visitors

Access control is the first and most powerful component of facility safety and security, and we offer you a comprehensive array of access control solutions. An access control system proactively monitors, manages access, and secures multiple entry and exit points in real-time for individuals from a single location. Door control links to many supporting systems, including video and offers complete data.

ePASS is a common name for access control systems, time registration or payment for closed objects (companies, clubs etc.), as well as for public objects such as stadiums, sport halls, ski resorts, and for the other objects where massive control and payment is required along with the security requirements imposed by the investor. Tripod turnstile, full height turnstile (double or single gates), speed gates are hardware we offer and can be easily integrated with an access control system. We offer customised full access control solutions.

Why choose ePASS?

- an effective solution for ticket sales and access control
- the platform is adapted to difficult working conditions
- electronic records and reports of all sales and controlled tickets in real-time
- ticket manipulation and reuse is reduced to a minimum
- system adapted to the requirements and needs of users, with the ability to upgrade
- the central system of ticket sales with an unlimited number of partners and external sales channels

EU Projects

AMANDA
AutonoMous self-powered miniAturised iNtelligent sensor for environmental sensing anD asset tracking in smArt IoT environments.

AMANDA is a European project funded under the Horizon 2020 programme, which focuses on developing an intelligent system with miniature dimensions and ultra-low-power consumption that can be easily installed or used as wearable and with a maintenance-free lifetime of more then ten years. Our motivation for research, development and innovation, i.e. implementation of the AMANDA project, comes from a growing need for a sophisticated approach to solving problems in smart cities (air quality monitoring, temperature, humidity, noise and occupancy), people and asset security (imaging, tracking, data privacy, cybersecurity) and the pandemic.

SUNSAFE IoT
The solution for a safe day at the beach.

The project aims to develop SUNSAFE IoT, an innovative device with an integrated round housing with an upper surface covered with photovoltaic cells, which is mounted on a parasol bar between two deck chairs on the beach. SUNSAFE IoT functions are connecting users to the wi-fi network, connection to other IoT devices on the beach and the central system through innovative software and applications in the cloud. The SUNSAFE IoT is innovative, intelligent, safe, robust and energy independent.

SMART ECO PARKING
Intelligent parking solutions that create smart cities.

The EU funded project represents the transition of the current urban mobility through the innovative service "SMART ECO PARKING" and the innovative product "SMART PARKING" offering intelligent transport solutions for urban and stationary traffic (parking) and the development of green infrastructure and reducing the impact of climate change in urban areas. The expected results of the project implementation are smart urban development, innovative use of parking lots with an emphasis on renewable energy sources and increasing the share of green infrastructure, reducing greenhouse gas emissions, and the impact on air quality in cities.

Become an innovation partner

We are open to new ideas.
If you have one, we want to hear about it!

We believe that the best way to scout and develop new ideas for innovation and sustainability is through cooperation with small and medium enterprises (SMEs), big companies, research centres, universities etc.

We are open to working with partners all over the world.

Contact us

Explore the full range of our solutions that
can advance your business and choose
which offer is best for you.

penta
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