CEDA

CEDA Intro

CEDA have been on the market since year 2000. We create, update and distribute maps and geodatabases, both as data and as map services (APIs), aggregate or provide real-time mobility data services (APIs).

Our main clients include global players such as Google, TomTom, Waze or Sygic, but we also supply data to firefighters, ambulances, police, regional authorities, ministries and companies.

We are engaged in research and development within regional and international grant projects, cooperating with many universities and research institutions.

We also try to support the mobility of the persons with movement impairments using the ROUTE4ALL platform developed by us.

CEDA has implemented a number of national and international R&D projects related to topics such as:

- Navigation for people with visual and mobility impairments
- Navigation and localization in areas without GNSS coverage
- Using HD maps for operation of autonomous vehicles or trams
- BIM of traffic structures
- Artificial intelligence and predictions in mobility
- Multimodal transportation, MaaS
- Green and ecological logistics platform
- Cyber-security in CCAM
- Aggregation and distribution of data about parking and charging spots

Products

Accessibility support

We are supporting the mobility of the persons with movement or visibility impairments.

Indoor localization & navigation

Even at a place where GPS can't reach, we will arrange navigation, maps, or movement analysis. Outside or inside tunnels, buildings, or parking lots.

Mobility as a service

Mobility-as-a-Service: efficient mobile solution for cities and regions. The comfort of a sustainable transport of the future.

Ultra HD mapping

Supporting the development and deployment of self-driving cars of the future.

Maps and APIs

Maps and APIs by CEDA, Google, HERE or TomTom. We will help you find a map solution for every project and maximize its potential.
+mapping on demand

Products are presented in more detail on the second page

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Indoor localization & navigation

Our technology makes it easy for visitors to find their way to a specific office, lecture hall or even a platform at a railway station.

- ✓ User localization at places where satellite navigation doesn't work
- ✓ Navigation to points of interest inside a building and around it
- ✓ Simple and straightforward information presentation

We will guide you through places without GPS signal such as underground spaces, tunnels or parking lots.

- ✓ Reduce the incidence of dangerous situations caused by poor vehicle positioning
- ✓ Locate a vehicle in emergency situations
- ✓ Improved traffic flow and safety

We will provide you with data on building attendance to optimize traffic, improve security, locate congested places and determine the number of visitors inside a building as well as specific business units.

- ✓ Real-time and GDPR-compliant tracking of visitor flow
- ✓ Analytical processing and visualization of attendance data
- ✓ Valuable information for innovation, reconstruction, restructuring

Our modern technologies will enable you to protect the health of visitors to your buildings. We will ensure timely notification in case of an emergency including guidance to the nearest exit.

- ✓ Manage visitor flow
- ✓ Adapt routes to users with reduced mobility (disabled, mothers with strollers)

Maps and APIs

We provide detailed data for regional governments as well as municipal police, firefighters and rescue teams to support their navigation routing.

- ✓ Maps for transport companies and integrated regional transport systems
- ✓ Urban planning data for designers
- ✓ Regional and municipal maps for visitor geoportals and mobile apps
- ✓ Regional environment data

We help to save lives and ensure smooth transport across Czechia and surrounding areas.

- ✓ Accurate data for the transmission of traffic information (NDIC) across the territory of Czechia and neighboring countries
- ✓ Freight traffic control (rest areas)
- ✓ Fast routing for 112 service vehicles
- ✓ Toll calculation data

We provide map data for network development and freight operations.

- ✓ Fleet tracking
- ✓ On-foot and bike delivery of goods

+ mapping on demand

Mobility as a service

We are able to combine public transport with walking, bike or car in an efficient and compelling way and also to include P+R parking and bike sharing.

- ✓ Local and network traffic considered (congested connections, delays, heavy traffic, limited parking availability)
- ✓ Aimed at increased use of public transport and fare collection
- ✓ Reduce parking stress with navigation to available spots
- ✓ Innovate public transport by introducing the Mobility as a Service concept

We provide user-friendly route planner that takes into account individual requirements. It finds the most suitable route combining different modes of transport to save time, stress and money.

- ✓ Modern approach to navigating cities and regions
- ✓ Better accessibility for tourist destinations and services
- ✓ Single place to pay for all modes of transport
- ✓ User needs are determined based on a thorough research
- ✓ Routes adapted to specific needs, e.g. for mothers with strollers, wheelchair users or drivers without a parking card

We are bringing the concept of mobility as a service that allows combining different modes of travel for comfort and environmental considerations.

- ✓ Create a transport system to connect all modes of transport
- ✓ Simplified payment for services used on the journey
- ✓ Relief for overloaded parking, roads and public transport
- ✓ Compelling alternative to car ownership
- ✓ Modern approach to providing transport services and parking

Accessibility support

ROUTE4ALL planner selects optimal routes not only for hikers or athletes but also supports navigation for wheelchair users, blind, elderly or parents with strollers.

- ✓ Routes adapted to specific needs, multiple option selection
- ✓ Easier city navigation for the disabled, elderly, parents with strollers and tourists with luggage
- ✓ Mapped barriers and landmarks
- ✓ Simple planner access using an API
- ✓ Straightforward integration with other apps

ROUTE4ALL and automated data capture

- ✓ Automated capture of data on pedestrian network and barriers
- ✓ Efficient walkway mapping for route planning or passporting
- ✓ Detailed data for the needs of the disabled and other population groups

Ultra HD mapping

Self-driving cars, trams and trains need to know their position and the surroundings accurately and safely. In addition to sensors, they rely on HD maps we are creating using state-of-the-art mobile mapping system.

- ✓ Reliable self-driving car positioning using a combination of super-precise maps and sensors
- ✓ Independent of satellite navigation
- ✓ Custom (Ultra) HD maps for autonomous system developers
- ✓ Accuracy, frequent updates, detailed descriptions of mapped objects
- ✓ Support for the introduction of self-driving vehicles into service
- ✓ Collaboration on the development of autonomous technologies and monitoring global trends

Using HD mobile mapping systems and processing huge amounts of data using artificial intelligence, we capture reality and convert it into valuable information in the form of passports, digital technical maps or road surface mapping.

- ✓ We use the most advanced mobile mapping technology available globally
- ✓ Efficient data capture and processing that delivers an incredible amount of information for various agendas
- ✓ Capturing and processing images and point clouds of the area of interest with an accuracy of less than 10 cm in 3D
- ✓ Collision detection for objects against vehicle or train profile
- ✓ Evaluation of defects on roads

New information concepts combine highly accurate maps with real-time information from sensors and devices. Virtual mirroring of the actual environment enables to better understand various processes and use simulations to model more efficient behavior of control systems or train self-driving cars. Vehicles fitted with sensors can report any differences between maps and the physical world.

- ✓ Virtually real-time map updates
- ✓ The highest possible traffic information density in a given location
- ✓ Environment for highly realistic traffic control and autonomous vehicle testing and debugging
- ✓ Transport system management across the entire lifecycle

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