

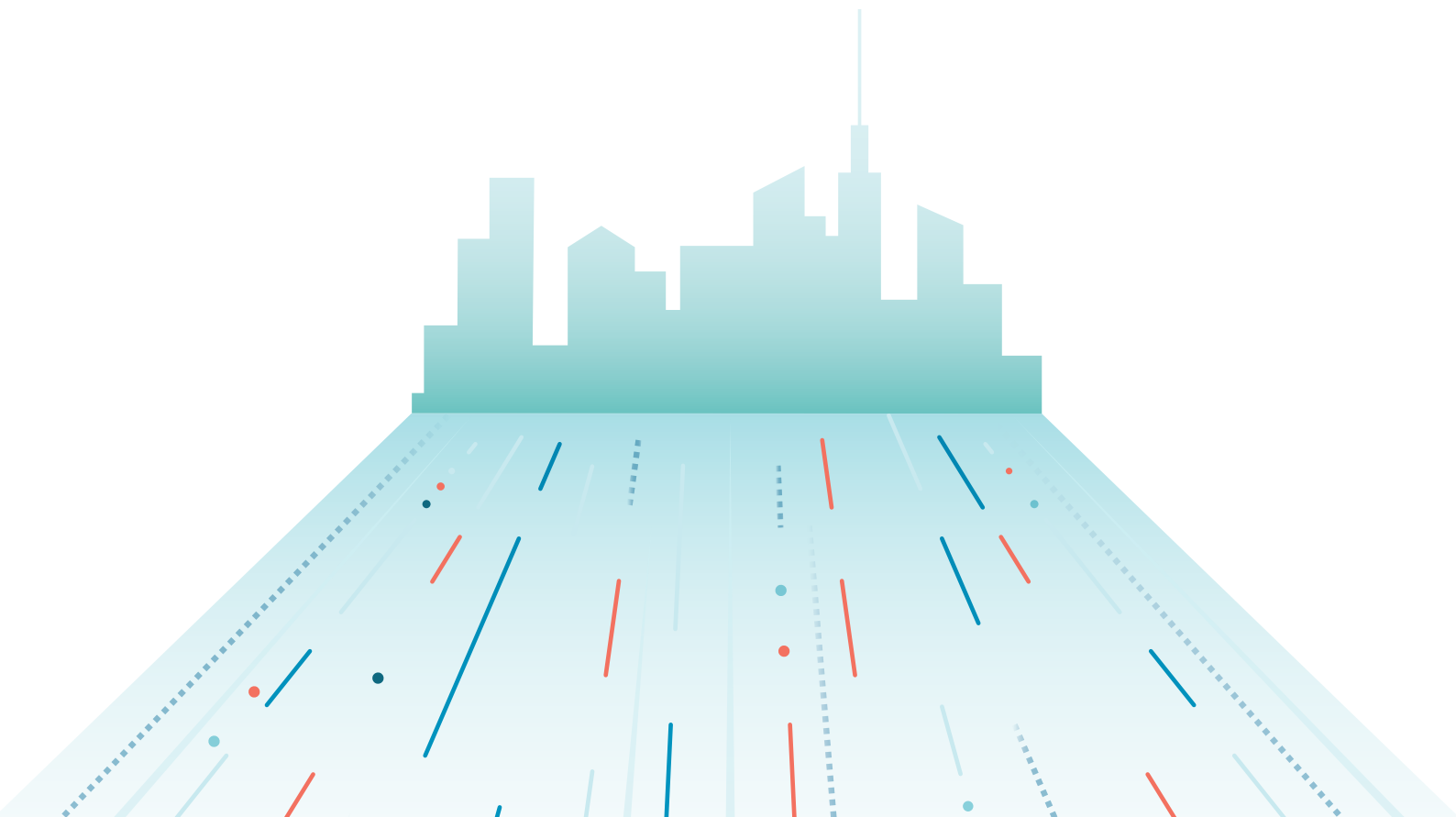


Unlock the full potential of your parking assets with the Capacity Platform

A guide for parking asset owners
and facility managers

In tomorrow's smart cities, parking space will be scarce and expensive. This opens up a whole range of opportunities for forward-thinking businesses, campuses and project developers.

Because why not make the best possible use of your existing and future parking assets? Cegeka's Capacity Platform helps you do exactly that.



1. Breaking out of your shell: from single-purpose car park to multi-purpose mobility hub

Cities are under pressure to redefine themselves, and to do so fast. The percentage of city dwellers is expected to rise to a stunning 60% by 2030. Add to that the reality of climate change and the need to reduce emissions, and it's fast becoming clear why urban mobility is the number one issue to solve.

But how? We all agree that the 'lets-build-another-lane' mindset is not a viable option. Adding more layers of concrete to our cities is often unfeasible, undesirable, unecological or all three. Also: it does not address the heart of the problem.

One step towards solving this problem is to rethink and redesign existing parking assets, and turn them into vibrant and profitable mobility 'hubs'. The key to doing that? The willingness and ability to think 'beyond original purpose'.

The original purpose of almost every 'old-school' private parking asset is to offer parking space to its primary tenants or users, whether it's employees, visitors, businesses, staff, students or residential occupants. Nothing more, nothing less.

But the demand for parking space is on the rise, especially in urban areas. Add to that the increase in electric vehicles, the evolution from ownership to use, the success of ride-share options and the emergence of e-steps and e-bikes, and you see that the mobility landscape is changing fast.

The question you should ask yourself is: what exciting new role can you play in a world where mobility is expected to become smarter and to become smarter fast? There are several answers to that question, and they all involve thinking 'beyond original purpose.'



This is what could happen:

1. **You could make your parking assets more people-centric, by ensuring smooth entry and exit (through ANPR that actually works) and easy digital payment (cashless and automatic);**
2. **You could open up capacity to a much wider public and/or new tenants, and to do so 'dynamically', at a time and a price of your own choosing;**
3. **You could offer users extra services such as e-charging for electrical vehicles, but also maintenance, cleaning, valeting etc;**
4. **You could accommodate upcoming (micro) mobility services such as bike-sharing, step-sharing or car-sharing;**
5. **You could install smart lockers, and thus allow logistics handlers to use your parking asset as a point of retrieval and destination, or an intermediate point of interception;**
6. **You could allow ride-share services - such as Uber and Lyft - to use your parking asset as a pick-up or drop-off zone.**

Pie in the sky? Not at all. All of the above scenario's are currently being deployed in smart cities all over the globe. The further down the list, the more you evolve from 'smart parking' to 'mobility hub'.

Cegeka's Capacity Platform can help you with the entire journey, from stage 1 to stage 6.

Mobility hubs

In today's mobility landscape, the boundaries between public and private transport, as well as those between car ownership versus use, are getting increasingly blurred. Mobility hubs are built with this premise in mind. They can be places of arrival, departure or transit. Often, they are located on the outskirts of a city or near an activity centre with lots of points of interest, and as such play an important role in helping cities keep cars and other polluting traffic out of the centre. Mobility hubs are a crucial link in the chain that allows people go from A to B in a way that is fast, safe, clean, predictable and reliable, first and last miles included.

2. Cegeka Capacity platform: start monetizing your parking assets today

As owner or facility manager of a (or more) parking assets, you are well aware of the challenges that come with managing and monetizing these assets today

- High operational costs, both for parking software systems (which are often fragmented and managed decentrally) and complex hardware (which is high-maintenance and rapidly outdated);
- High labour costs and excessive troubleshooting by facility managers and reception desk employees, e.g. malfunctioning hardware such as barriers, ANPR cameras and access and ticketing hardware are a recurring problem;
- Hardware vendor lock-in and a dependency on hardware vendors' roadmaps;
- Inability to offer users an obstacle-free parking experience, from invitation and pre-registration to payment and exit;
- Little or no real-time management capabilities, dynamic pricing options or new ways of driving visitors via dynamic capacity management, and thus missed revenue.



Enter the Cegeka Capacity Platform.

Cegeka Capacity Platform in a nutshell

The Capacity Platform is a cloud-based platform solution, that enables you to turn your existing car park asset into a smart(er) car parks and ultimately, a profitable mobility hub. Capacity is hardware agnostic and able to bring together state-of-the-art technology and partners into a single ecosystem. Capacity is built with people-centricity top-of-mind.

1. Cloud-based PaaS

The Cegeka Capacity Platform is a software platform solution (also known as PaaS – or Platform as a Service) that runs in the public cloud. This means that the solution can be developed, run and managed without extra investments in complex hardware. It also means that you pay-per-use, and scale as you grow. The licence fee model is straightforward and transparent, without hidden costs.

2. Hardware-agnostic

The Cegeka Capacity Platform is designed from a digital-first perspective. It is hardware-agnostic, which means it does not rely on specific hardware suppliers, and can connect to almost any device. Even better: we strive to give your existing infrastructure a second life, helping you reduce cost to a minimum and safeguard the profitability of your investment.

3. Ecosystem

We firmly believe that ecosystem thinking is the key to unlocking the value of your existing assets. Our Capacity platform is an ever-evolving and hyperconnected digital ecosystem or 'hub' that brings together state-of-the-art technology (from DI to AI, from Cloud Computing to Edge Computing) and multiple partners in various fields (apps, tech and IT, mobility). For support, you can rely on round-the-clock 24/7 assistance from a dedicated and multi-lingual team.

4. People-centricity

Our Capacity Platform is developed from a 'people-first' mindset. This means it is designed and developed with a deep understanding of you, our customer, but also of the end user, your customer, both tenants and users. Ease-of-use, scalability, reliability, security and privacy/GDPR compliance are guaranteed. We have a laserlike focus on creating smooth and frictionless digital experiences for everyone involved and on any device.

One million smart parking spaces

During the past few years, we have successfully built a custom smart parking platform for one of Europe's leading parking companies. The platform digitizes the handling and exploitation of one million paid parking spaces in 10 EU countries.

3. Capacity platform features: diving under the hood

The following capabilities are available today:

1. Easy-to-use multi-tenant software

The Capacity Platform enables you and your tenants to manage several parking assets with a maximum of insight and a minimum of fuss. Features include:

- **Mobility Hub Management:** set up and manage all your parking facilities centrally (opening hours, number and type of parking spots, e-charging stations etc.);
- **Capacity Management:** manage the capacity of all your parking facilities for all of your tenants and visitors;
- **Access Management:** control access for all of your parking facilities by means of easy-to-set-up 'smart' rules and ANPR-based entry/exit;
- **Tenant Management:** manage rental agreements per tenant, and allow tenants to manage and organise their own parking spaces;
- **Product Management:** define and manage your own parking products either in a rental agreement format for your tenants or short term parking based for unknown or sporadic visitors;
- **Customer Assistance:** get 360 degree information per each parking session at your facilities and have the possibility to execute multiple operational services remotely (such as starting or closing a session and opening the barrier)
- **Data Intelligence:** get insight into occupancy rates, duration of parking sessions and other useful metrics per location and/or per tenant or driver types/parking spot types.

2. Smart algorithms

The Capacity Platform's smart algorithms allow you to take capacity management and access management to a higher level – by making sense of real-time and historical data

- Blacklist license plates of drivers that are abusing your parking rules automatically based on historical data;
- When your parkings are not occupied during the evenings or weekends, you're able to unlock them for potential new customers such as residents or visitors of nearby Points of Interest.
- Provide certain driver types such as disabled or electrical vehicles dedicated parking spots

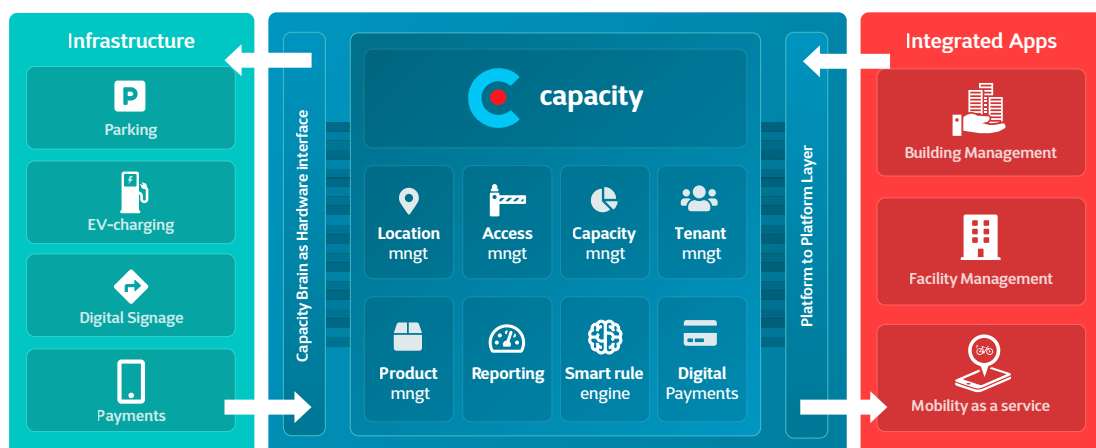
3. Hardware agnostic integration services

The Capacity Platform is hardware agnostic and can be integrated with a wide range of devices such as:

- Smart parking barriers and car detection loops
- Intercom systems
- ANPR cameras
- Capacity sensors
- Parking information displays
- Badge readers
- Ticketless and paperless payment stations

4. Edge computing

The Capacity Platform runs in the edge. Edge computing brings computation and data storage closer to the devices where it's being gathered. As such, the platform is capable to deliver fast, reliable and scalable operations, 24/7.



The following capabilities are integrated in the 2020-2022 roadmap

1. Dynamic pricing

The Capacity Platform is able to increase (or decrease) pricing for parking spots depending on the available capacity and demand. In other words:

- When demand surpasses capacity, the system can be set to automatically increase the fee. For instance: there is a sports event nearby and demand for secure parking spots is high.
- When capacity surpasses demand, the system can be set to automatically decrease the fee. For instance: in the evening or during the weekends, underused parking spots are cheaper.

2. Ecosystem building

The Capacity Platform enables parking owners to evolve towards an ecosystem where various modes of transport, data and services seamlessly blend together. By doing so, owners can unlock many possibilities in the field of mobility, electrification and managed connectivity. Some examples:

- Manage bike parkings at your hub centrally, manage access fully digital and monitor operations real-time;
- Manage e-charging consumption at your hub efficiently and get all the tooling to invoice the right party being either the tenant and/or the driver/owner of the car/bike;
- Connect your hub digitally to new digital sales channels such as apps, event organisations and other parties to further monetize your assets.

In this ecosystem, partners from various field can play a key role. They include:

- Service and product providers along the entire mobility spectrum
- Technology and infrastructure partners
- MaaS (Mobility as a Service) app developers
- Events organizations
- Smart city data platforms

3. MaaS applications

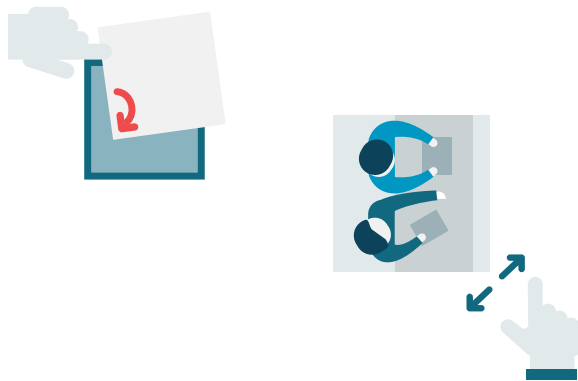
The Capacity Platform can be unlocked to and integrated with Mobility-as-a-Service apps which help the customer at various points in his/her customer journey. These MaaS apps can:

- Attract a new type of user (in the case of an existing app, such as Waze);
- Direct users towards the mobility hub in order to help them avoid traffic jams;
- Direct users from the hub towards other means of transport, such as public transport, shuttle buses, steps or bikes;
- Allow users to book parking spaces, charge their vehicle, pick up a bike or step, drop off or retrieve a package;
- Give users accurate and realtime information on travel times, parking space availability and pricing, connected modes of transportation etc.;
- Proactively inform users when certain steps in his/her chosen journey are subject to change;
- Allow users to pay through connected bank apps for parking sessions or subscriptions.

4. Why work with us

We like to work with you

As a family-owned, no-nonsense company, we prefer working in close collaboration with your team throughout the entire process: from assessing your needs to optimizing your hub.



We are vendor independent

As we work with many different business and cloud partners, we are not tied to a specific platform or service. That means we can choose the solutions that best meet your needs.

Combining experience with a continuous quest to learn

With more than 25 years of experience in complex IT solutions and a continuous focus on learning, the latest technology and mobility developments hold no secrets for our experts.



We make IT work (but think beyond it)

We're not too keen on innovation for innovation's sake. Aiming for business impact above all, we are pragmatic, focusing on results and delivery in both the short and long term.

Contact us

Do you want to unlock the true potential of your assets and join the evolution towards mobility hubs? Send an email to:

creatingcapacity@cegeka.com

WWW.CEGEKA.COM/CAPACITY