Parking trend



international

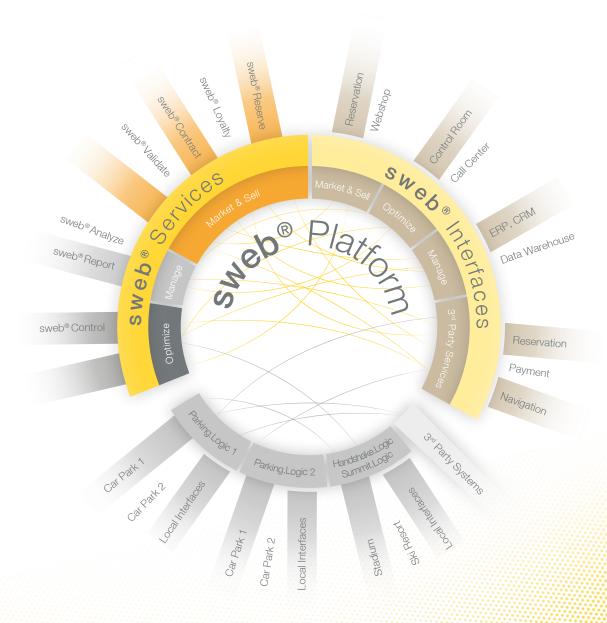
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Dear Colleagues,

we closed 2020 and have begun 2021 with the conviction that there is still an uphill ride before we get over the top.

This first consideration was made evident through direct exchanges with almost all the representatives of our national association members, in confirming that the 20th EPA Congress in Brussels in October this year was not going to be possible. The EPA Board, the Board of the hosting Country and The Belgian Parking Federation unanimously decided to postpone the event to next year, same time, same place. Given the importance of our 20th Event in Brussels, we need to be sure of holding an impressive event to showcase the quality and potential of our European service industry.

In the last edition 4/2020 we illustrated the agreement and cooperation between APDS and Datex. This is OUR contribution to a standardised integration of our services with the many mobility stakeholders - public and private entities are already operative and steaming ahead. We are enabling the link between what our sector can do and the multiple new mobility functions essential for the national access points and the future mobility platforms. At the moment we are using our unique insight to demonstrate our activity and expertise to the EU Commissions, indicating the opportunities that can be derived for all in integrating urban mobility services. EPA will produce a workplan, in consultation with representatives of the Transmodel/ NeTEx, DATEX II and APDS communities, that will create a roadmap towards the alignment of the three data standards relating to parking (noting that APDS and DATEX are already working towards a full alignment). The workplan will take into account the views and needs of the communities directly concerned and those of the wider landscape of related interests. The latter includes traffic management; kerbside management; the exchange and management of traffic regulations/UVAR; connected and autonomous vehicles and services including automated valet parking; the freight, fleet and logistics sector; mobile payment providers as well as the integrated mobility community. Parking is present in all of these areas.

At the end of last year EPA formed a partnership to submit a Proposal to the European Automobile Manufacturers' Association ("ACEA") and the European Association of Automotive Suppliers ("CLEPA") for the delivery of a market study for Automated Valet Parking – AVP. The objective of this study is to build the industry's business case for a successful deployment of AVP technology in different markets, to contextualise AVP in terms of market potential and associated conditions.

As the leaders of the parking industry, we are acutely aware of the transformative and disruptive forces that the mobility sector is facing and consider it a key part of our mission to facilitate the ability of our member operators to adapt, innovate and adopt new paradigms and ways of working. It was for this very reason that we submitted a proposal based on a collaborative effort between the two sectors. Our proposal was not the winner but it opened up our awareness of just how fast things are moving forward .

We will follow up with webinars and discussion sessions on these themes this year.

With our very best wishes,



Nigel Williams
Vice President – European Parking Association
Chairman – Alliance for Parking Data Standards



Laurence BannermanPresident – European Parking Association





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Autopay

Autopay with acquisitions in Berlin and Jönköping

Autopay has been chosen for the Tegel Quartier parking garage located close to the new modern pedestrian zone Gorkistraße in the Tegel Quartier of Berlin.

By 2021, the new pedestrian zone will be built in Berlin-Tegel. It comprises approximately 100 shops on about 36,000 square metres retail space, as well as around 28,000 square metres office space and 320 car and

200 bicycle parking spaces. The traditional market hall Tegel, which looks back on 100 years of history, will be reintegrated into the pedestrian zone. The project is one of the first central refurbishments of a complete shopping street in Germany. Autopay's proprietary ANPR technology is to make parking easier, both for customers and landlords. Customers are debited automatically from

their registered Autopay profile and landlords manage everything digitally.

Asecs is located in Jönköping in central Sweden and is owned by Alecta, a long time owner dating back to the opening in 1987. Asecs is one of Sweden's largest shopping centres with over 90 shops, restaurants and cafés spread over more than 69,000 square metres. Autopay will start out by regulating the northern parking zones. All customers receive two hours free parking and members of the Asecs Friends loyalty programme receive an additional free hour.

Autopay offers a technologically advanced and customer-friendly way to park that gives customers a stress-free visit while getting rid of those who want to use the car park for long-term parking. The days of barriers, queues, tickets and fines are over, replaced by a seamless customer-friendly parking solution. This project is set up and operated by experienced Autopay Parking operator Parkman.



The car park in the new pedestrian zone in Berlin will also have bicycle parking spaces.



Investments in digitalisation and new properties in Germany

Q-Park Germany is investing extensively in the digital infrastructure of 65 car parks and underground garages. The goal: completely contactless parking. A total of 232 entry and exit systems are to be renewed, as well as 124 door, gate and drive-through readers. Furthermore, the project includes 100 new pay stations with cash and card payment as well as 77 more where only cashless payment is possible. The project aims at further digitalisation. In this context, the company's own solution PaSS enables mobility service providers, vehicle manufacturers and other partners to be connected via standardised interfaces and to provide their customers with access to the Q-Park houses. "The digital upgrade of our car parks enables us to offer advance reservation of the parking space for all properties via our own website," says Frank Meyer, Managing Director of Q-Park Germany.

Q-Park also announced new acquisitions. The operator is taking over the management of the former Karstadt underground car park in Düsseldorf's city centre. The underground car park has six levels with a total of 519 parking spaces. In addition, Q-Park has re-

cently been managing the P1 and P2 car parks of the "Rathaus Galerie" in Essen. Since 2019, the owners have been the European private equity company Henderson Park and HBB Hanseatische Betreuungs- und Beteiligungsgesellschaft mbH from Hamburg.



The underground car park in Düsseldorf has 519 parking spaces on six levels.

CAME T PARKARE

CAME equips parking facility with new parking technology

CAME has implemented the parking system for the Don Calabria Hospital in Negrar, in the province of Verona, making over 300 parking spaces on three underground levels accessible from two different ramps and an open floor available to patients, visitors and employees. In addition, the use of dedicated signs and 233 ultrasonic sensors allows users to locate available parking spaces and operators to detect vehicles parked in irregular positions.

The new parking area of the Hospital is fully operational. It was built as part of the construction of the new entrance and was created by CAME, a multinational company based in Treviso and a leader in the supply of integrated technological solutions. Furthermore displays have been installed near the access ramp of each floor to indicate the number of available spaces, with particular attention to spaces dedicated to the disabled people.

The parking facility is equipped with Telepass system for two entrances and two exits on the second and third level, in order to facilitate and speed up the users transit eliminating the manual payment step, which takes place fully automatically for



CAME installed 233 ultrasonic sensors to facilitate the search for parking spaces.

maximum security of users. This is complemented by contactless payment methods and personal tools such as proximity cards or paper tickets for hospital users and visitors. The centerpiece of the parking solution is the innovative PKE system of the CAME Parkare brand, which makes users transit easier and faster.



TKH Security acquires three new companies

Park Assist, ParkEyes and Aasset Security become part of TKH Security. The three companies, which specialise in parking guidance systems and video security solutions, were already members of TKH Group NV.

"It's our vision to develop industry-leading smart, security, safety and parking technologies that are easy to install and use worldwide", says Timme Grijpink, CEO of TKH Security. "With incorporating Parking Guidance solutions and the expertise and product range of Aasset Security, we can offer our current and prospective customers worldwide a complete parking solution, improve security and safety and optimize our customer experience."

The Park Assist and ParkEyes brands will be retained for the complete parking guidance product range, such as license plate recognition systems, video inspection systems, lighting, sensors, wayfinding signage, vehicle locator and alerts. The Aasset Security products will become part of the TKH Security product range and can be bought depending on the region you are located in. All these products are complementary to the TKH Security product range, encompassing security management, video surveillance, parking facility management, parking guidance and asset & site management solutions.



The companies Park Assist, ParkEyes and Aasset Security become part of TKH Security.





FAAC cooperates with TIBA Group

FAAC, an Italian supplier in the field of automation, vehicle and pedestrian access control, has announced that it has signed a binding agreement whereby it will acquire from the Israeli private equity fund TENE Capital, the Afcon Group and a number of minority shareholders all the shares of the TIBA Group, a leading international operator in the supply of complete paid parking management systems.

In particular, the TIBA Group develops, manufactures, distributes and supports flexible, reliable and state-of-the-art solutions for all off-street paid parking management requirements. The company's headquarters and research and development centre are located in Tel Aviv. The company generates most of its turnover in the North American market, where it has succeeded in a few years in taking the lead with over 20 percent market share. It is expected to close 2020



Through its cooperation with the TIBA Group, FAAC claims to be the market leader in North America.

with a turnover of over 60 million dollars, representing an average annual growth of 30 percent over the last five years.

Andrea Marcellan, CEO of FAAC says: "The acquisition of TIBA has a very strong strategic value for us as it allows us to intensify the investment in a business area with volumes that have not been optimal for us so far, but which is essential from our point of view as it will allow us to strengthen ourselves in the largest and most profitable market in the world."



SITA and Parkos launch strategic partnership

The aim of the collaboration is to offer the modern Six-story parking garage, called PARKVOGEL ISS Dome to the large German and Dutch customer base of Parkos.

Customers will be able to book the modern parking garage, with free shuttle transfers throughout the year. Parkos provides travellers affordable parking options and seamless

PARK VOGEL IDR

The PARKVOGEL parking garage is only six minutes away from the Düsseldorf Airport.

online-booking processes. The booking platform offers airport parking providers an online sales channel, which connects parking providers with customers and travel agencies.

The PARKVOGEL parking garage is located only six minutes from Düsseldorf Airport and provides travellers with yearlong low parking fares. "PARKVOGEL fits perfectly into our portfolio of parking partners in Düsseldorf", says Country Manager Germany Luis Frey.

Guido Meyer, General Manager of SITA Airport IT, says: "With our PARKVOGEL brand, we have succeeded in establishing top-quality parking services at Düsseldorf Airport. Many customers have known and trusted our service for years. With our partner Parkos, we now have the opportunity to attract even more potential customers to us and to address our Dutch customers in particular in an even more targeted manner."





Nyköping gets a new parking system

PThe city of Nyköping is located about 100 kilometres south-west of the capital Stockholm along the Baltic Sea. The coastal city is also the home of Stockholm Skavsta Airport, which is located less than ten kilometers from the city center. There are approximately 56,000 inhabitants of which most are living in the urban area of Nyköping.

The city offers several different options for driving visitors. There are various onstreet and off-street parking options to choose from. The city has chosen Portier parking guidance solutions to help drivers locating an available parking space in the city center. Several calculation points are collecting the data from different parking locations which is shown in the Portier parking guidance displays along the streets. This service prevents unnecessary driving around the city area, decreasing pollution



The city of Nyköping is getting a parking guidance system from Portier.

and keeping traffic running smoothly. There is also one parking garage which is equipped with Portier space specific parking sensors. Before entering the garage, drivers see the number of free spaces in the facility from the Portier parking guidance

display in front of the building. Inside the garage Portier space specific parking sensors indicate with green LEDs all free parking spaces.

The project was completed together with Portier's partner Blinkfyrar AB.



Primevest Capital Partners acquires two car parks in Vienna

The two car parks were bought for 20 million Euros from Rhomberg Bau. The multistorey car parks "Hauptbahnhof Ost 1&2" with more than 800 parking spaces are located in Vienna's new Sonnwendviertel district and are leased on a long-term basis to the car park operator GOLDBECK Parking.

The Sonnwendviertel is located in the "Favoriten" district, one of the most densely populated parts of the city with over 200,000 inhabitants. The two multi-storey car parks will mainly meet local demand as the main parking facilities for the neighbourhood. In the future, they could also support the nearby new Vienna Central Station.

Bas Magielse, fund manager of Primevest Capital Partners, said: "The traditional role of car parks as purely a place to park vehicles is changing. They are evolving into centres with a broader range of services and are increasingly integrated into the urban infrastructure as the availability of expensive onstreet parking decreases and municipalities restrict vehicle access to city centres."

Martin Summer, Managing Director of Rhomberg Bau in Vienna, explained: "Car parks are very purpose-driven in their function, but that didn't stop us from placing great emphasis on aesthetics and sustainability when developing this project. The aim was to 'future-proof' our investment by securing and maximising its value for years to come. The design of the façades, for example, was the result of an architectural competition, and the sides of the car parks facing the residential buildings are partially greened. We have also equipped the roof areas with a photovoltaic system that supplies the parking operations with electricity and can feed surplus energy into the public grid."



The elevated garages "Hauptbahnhof 1&2" will predominantly meet local demand.





Innova Systems equips 13 Spanish airports with license plate recognition

Innova Systems Group cooperates with AENA, one of the world's leading airport operators regarding the number of passengers. Innova installed their automatic license plate recognition system in 13 Spanish airports. The ALPR OCR5 technological solution responds to the demands of the sector with a success rate greater than 99 percent, maximizing the effectiveness and efficiency of access control systems at airports.

The airport sector faces different challenges when it comes to ensuring the improvement of the user experience at its facilities such as providing an effective response to security and infrastructure issues. The application of services such as parking guidance systems, vehicle type control, pay-by-plate payment system, dynamic access/ exit and touchless interaction systems make their way to maximize economic results. The need to find AL-

PR technological solutions that give a 360 degree response to the sector becomes a priority.

Thanks to the nature of OCR5, the solution of Innova guarantees compatibility and integration with any protocol, versatility in its edge installation and a technological deployment in record time. Together with their partner CAME PARKARE, Innova have managed to stimulate and maximize results in parking management at different airports in Spain.

Airports with LPR

- Alicante Airport
- Almería Airport
- · Airport of Barcelona
- · Fuerteventura Airport
- Girona Airport
- Granada Airport
- Ibiza Airport
- La Palma Airport
- Malaga Airport
- Melilla Airport
- Murcia Airport
- · Santiago de Compostela Airport
- · Tenerife South Airport



Airport of Malaga: OCR5 is going to be installed here.



Freight forwarders can book truck parking spaces in Tournan en Brie near Paris via the Bosch Secure Truck Parking digital booking platform.

BOSCH with Secure Truck Parking in France

Bosch Secure Truck Parking, a digital booking platform for truck parking spaces, is expanding its presence in Europe. After the first French location in Calais, there is now another site with nearly 25 parking spaces in Tournan en Brie near Paris, where drivers can now reserve truck parking spaces digitally.

The added car park on the grounds of the BSH warehouse is a hub for deliveries from all French locations. Delivering drivers should always have the possibility to park their trucks, bridge waiting times and take a break. At the same time, it should be possible to flexibly rent out unused parking spaces to other

haulage companies. This is made possible by integration into the Bosch digital booking platform, which shows the availability of the parking spaces in real time and shows an overview of free parking spaces.

"Bosch Secure Truck Parking is an ideal solution for us. On the one hand, we can utilise our parking spaces to the full and make unused parking spaces available to freight forwarders who urgently need them. On the other hand, we remain flexible so that the drivers of our fleets can also find a parking space to rest in when needed", says Gabriel Schumacher, Logistics Manager of BSH.



Parking guidance system at Croatian ski resort

The Sljeme-Zagreb ski resort is located just a few kilometres from Zagreb and is situated at the foot of the Medvednica Mountains, which are part of the nature park of the same name, measuring an area of about 228 square metres. The new five-kilometre-long Sljeme-Zagreb cable car will replace the old cable car and is considered one of the most important projects in the city of Zagreb. In 84 gondolas, each carrying up to ten people, skiers and hikers will be taken to the top within 16 minutes. The route of the new cable car is illuminated and video-monitored, the cabins are equipped with seat heating and Wi-Fi. The total value of the investment is over 70 million euros.

The valley station of the cable car consists of six floors, equipped with all amenities, such as toilets and waiting rooms for passengers, kiosks, souvenir shop, coffee bar and sports equipment shop, as well as

parking and maintenance facilities for the gondolas.

The lower level has 214 parking spaces on 8,500 square metres. The car park is equipped with a stationary gas warning system in accordance with European standards EN 50545-1 and EN 50271. The CO gas sensors monitor the carbon monoxide content in the air and thus protect people and the facility from dangerous situations in the car park.

In addition, the multi-storey car park is equipped with an intelligent parking guidance system from MSR-Traffic, which is designed to shorten passengers' search for parking spaces while reducing the operator's ventilation and environmental costs. Ultrasonic sensors mounted on the ceiling are to detect the availability of each parking space and manage it with the help of a master computer. This information is in turn relayed in real time to all LED infor-

mation boards on the access levels and at the intersections within the car park. This way, the customer receives quick directions to parking spaces that are somewhat more difficult to access. These can now be managed more frequently and more easily through guidance systems.

All changes to the parking and gas sensors, the ventilation status and the status of the LED directional signs are to be visualised in the master computer via the SCA-DA software – ParkGard Control Center (PGCC). The operator would have the option of reserving individual parking spaces, zones or the entire parking level. Access to the central computer and the SCADA software is also possible from remote computers and tablets via a web interface with the assignment of several authorisation levels. The system is able to indicate long-term parked vehicles with a visual display on the screen.



The new cable car contains 84 gondolas, which bring the up to ten people to the mountains within 16 minutes.



Exemplary projects

Parking solutions for sustainable mobility in different European cities

Parking space is a scarce resource. And because of climate change and the associated goals of countries and cities to become climate neutral, urban planners are developing creative ideas together with parking operators and mobility providers on how to make parking sustainable.

ustainability is one of the most important issues of our time. More and more ideas and innovations are being developed to reduce pollution and make our cities greener. As multi-storey car parks are a central part of the urban infrastructure – and are usually more commonly known as concrete bunkers – new designs and features are being developed for these types of buildings. Green roofs and side walls are increasingly being installed on existing properties. But what are the benefits of "green car parks" and how have cities in different countries made their car parks greener?

Advantages of sustainable car parks

From an economic point of view, greened parking spaces sometimes even have lower maintenance costs than normal parking spaces. According to proponents, this is partly due to the fact that graffiti is avoided. Less graffiti means less cleaning costs and ultimately lower maintenance costs. However, the main arguments are on the climate and environmental side: a greened car park reduces emissions and

increases biodiversity. Green roofs and side walls allow the car park to absorb rainwater and they are able to bind harmful pollutants from the air. That improves the air quality. It also increases the insulating effect and improves the indoor climate through oxygen production. Especially the last point is important, as a better climate improves the "parking experience" for the customer.

Another aspect that enhances the customer experience is that the green side walls absorb traffic noise, while the roof reduces noise from birds or rain. They reduce sound reverberation by three decibels. The noise level can be reduced by up to ten decibels.

Green Parking in England

One example from the UK is the company Green Parking, which has been managing car parks for 20 years. For example, they put solar panels on car parks. According to Green Parking, the panels can protect parking spaces and cars from the elements, while the excess energy can be fed into the grid or sold to nearby customers.



The future? A concept of a full sustainable car park with shopping possibilities from France.



Green Parking promotes the use of solar panels to provide power for car parks.

Another big topic is electric vehicles (EVs). As the number of EVs is expected to increase in the future, charging stations in car parks will become necessary. A lack of charging stations could lead to unoccupied parking spaces, as it is likely that sustainable energy will gradually replace fossil-based vehicle production.

Another important point when it comes to sustainability is recycling. The Chartered Institute of Waste Managers (CIWM), of which Green Parking is a member, ensures that waste prevention and disposal is professionally managed at the sites they list. This includes electronic parking tickets and paperless parking via mobile phone-based technology, as well as recycling of paper, plastic and glass waste in special collection bins at the car parks. To increase recycling, bins are provided directly at the car park to encourage customers to recycle waste directly at the car park instead of throwing it into the municipal bins destined for the landfill. Another important environmental aspect is the conservation of resources. This is supported by discounted parking rates for car sharing, linking social media with the corporate website to optimise the search for parking spaces.

Car Parks 2.0 in France

In France, 66,600 tonnes of pesticides are used in agriculture and 4.5 million tonnes of plastic are produced per year. Only 22 per cent of the plastic is recycled. Like other countries in Europe, the French government has not yet managed to significantly reduce air pollution.

This is where the French architecture firm "Studio NAB" comes in, which has designed so-called "Car Parks 2.0". Conventional parking spaces are transformed into a sustainable place, ecological car parks are created in combination with urban gardens. Here, the design studio transforms the car parks into autonomous green spaces and recycles the asphalt surfaces into natural terrains where biodiversity becomes possible. Designated areas are converted into agricultural and food sectors. These areas can be rented and used by people to grow home-grown and "package-free" vegetables, to consume themselves or even to sell in the neighbouring hypermarket.

Both the hypermarket and the car park are supplied with electricity by solar cells installed on site. The surplus energy generated is sold on to neighbouring households, generating additional income and providing sustainable energy to the area surrounding the car park. Rainwater is recovered and filtered in the natural soil, and organic waste is recycled.

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More space on the surface: Underground parking creates new ways of designing inner cities - e.g. in Paris by Indigo.

→ Saving surface space with Indigo in Paris

Another example from France comes from Indigo. The car park operator has been dealing with the issue of sustainability for years. One of their most ambitious projects is an underground car park in Meaux, in the north-east of Paris. According to Indigo, underground car parks offer numerous advantages, especially in hot spots of cities. For example, the public space above ground can be used for residential or office properties, and the traffic routes can be extended for shared use by cars, pedestrians and cyclists.

Indigo is redesigning the city centre of Meaux. The elimination of parking spaces will create space for trees and pedestrians. A new 160-space underground car park will be located under the town hall, allowing for a large recreational space above. Indigo says the potential of the ground beneath the surface of cities is often largely untapped. Architect Dominique Perrault has designed "Groundscape", a concept that offers a new approach to underground architecture. The model consists of five levels, with the surface being the highest level. Here, there would be space for places with a high quality of stay, retail shops, green spaces and sustainable mobility. Below the surface are charging stations, last-mile logistics, garages and mobility and service hubs. This level becomes the "new surface", especially with cultural offerings. On the "-2" level, parking begins: The lowest level contains energy storage facilities fed by geothermal energy, for example.But that is not the only aspect of Indigo's preliminary plans. Another aspect is the connection of Indigo's other car parks to the neighbourhood. One solution is to convert a parking garage terrace into a garden. This would serve educational and recreational

The final part of Indigo's plans in Meaux is the transformation of the station car park. All of Indigo's car parks are connected via the OpnGO app and offer dynamic parking guidance systems to reduce parking search traffic, which reduces emissions.

But Indigo is not only sustainable in underground car parks. Above-ground examples of sustainability from the Indigo portfolio: The Hautepierre Hospital car park in Strasbourg is clad in bamboo. The city hall car park in Dieppe uses skylights and natural ventilation to reduce energy consumption. And the Jardin de l'Ars car park in Bordeaux has a green roof.

Zero-energy car park in Finland

Cities in Finland are taking a similar approach: the Toriparkki multi-storey car park in Turku is being built directly under the central market square of the south-western Finnish coastal city. The special feature: The underground car park is characterised by wide angled parking spaces and spacious one-way streets. Another special feature of Toriparkki is that it is a zero-energy property. This means that Toriparkki produces the amount of energy it consumes itself. This is made possible by solar panels on the surface of the marketplace. The collected solar heat is used to heat the car park. The underground car park will have 836 parking spaces when it is completed in 2022, 20 of which will have charging stations for electric cars. Toriparkki has two levels, the upper level K1 and the lower level K2. At K1 the maximum height for a car is three metres, at K2 it is 2.30 metres. The parking fees are identical to the rates for onstreet parking in the city centre.

Structural change in Swedish Malmö

Our sustainable journey continues to the Swedish city of Malmö. Back in the late 1980s, Malmö was a typical industrial city. Now, just a few decades later, it is internationally acclaimed for its work on sustainable development, has won the award on Sustainable Urban Mobility at the European Mobility Week in 2016 and has become Sweden's top bicycle city. This represents a radical change from traditional car-oriented urban planning towards a more sustainable approach.

In 2016, Malmö adopted its first Sustainable Urban Mobility Plan (SUMP). One of the aspects addressed in the SUMP is the problem of commuting. In 2013, 62 percent of people in Malmö commuted by car, while only 33 percent used public transport. This leads to high air pollution and problems with traffic safety



Malmö Central Station Bicycle Park



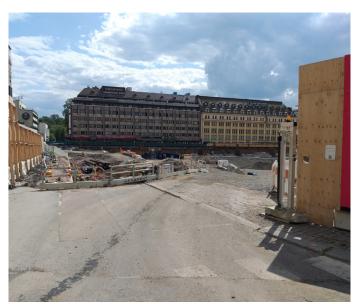
Lots of bikes parked near Malmo central station

and road surface requirements. So the modal split is a big deal in Sweden's third largest city.

Malmö has two scenarios for 2030: Scenario A expects 70,000 commuters, Scenario B 80,000. In both scenarios, the share of cars is reduced, from 62 to 57 per cent in Scenario A and even to 50 per cent in the even more ambitious Scenario B. The city's modal split is also reduced. To make either of these scenarios a reality, measures need to be taken that target modes of transport such as cycling and public transport. This would increase the attractiveness of alternative modes of transport compared to the car. Better mobility through walking, cycling and public transport can contribute to the development of the local labour market while reducing negative impacts on the environment, such as air pollution.

However, one of the most important issues for the green travel plans is the creation of sufficient bicycle parking facilities. This is hoped to provide additional incentives to switch to cycling. Another aspect that has a major impact on the choice of transport is access to free parking close to workplaces, so regulation and introduction of pricing for parking is needed in these areas. The underlying SUMP proposes to map parking facilities. This means that facilities can only be used by certain groups, for example tourists or professionals. With this model, the future management of parking policy would be easier. Another way to reduce access to free parking is to introduce resident parking. This reduces commuting on street spaces and creates more flexibility for residents.

According to the experts in Malmö, part of sustainable urban development is also a safe traffic environment. The main factor here is the moderate speed of motor vehicles, they say. Slower speed on the roads leads to a better environment for the residents. The next step in Malmö is to build new collaborations that more clearly link social sustainability with mobility management measures, for example through cycling rights for citizens.





Completion planned for 2022: Construction site and visualisation of Toriparkki in Turku, Finland.

Parking trend international no. 1-2021

Parking trend international reader survey 2020/21

Appreciation and valuable suggestions

Almost 100 readers took part in the Parking trend survey. More than half of the participants are car park operators. The second largest group comes from the supply industry, followed by consultants. Here is what they think about the publication of the European Parking Association.

e believe that the survey results represent the mix of our readers quite realistically. Thus, the opinions are representative and help in the further development of the magazine in terms of the readers and their professional interests.

The combined professional experience of the survey participants is enormous. On average, respondents have almost 20 years of professional experience. The average age of the participants was just over 50. Just under 14 percent indicated female as their gender, the rest of the participants were male.

Reading behaviours

Significantly more than half of the respondents read every (27%) or almost every (32.6%) issue. Only a few said they never (4.5%) or hardly ever (7.9%) read PTI. Concerning the reading time: Pretty much a third of PTI recipients read the magazine in less than 15 minutes per issue. The rest say they read it for longer: Almost half a quarter of an hour to half an hour. One in five reads Parking Trend for 30 to 60 minutes.

In terms of reading behaviour, the answers testify to the character of the journal as a specialist medium. Only 12.5% simply leaf through the magazine. The vast majority, almost two thirds, read specifically selected articles. Almost a quarter of the readers even read almost the entire issue or even the entire issue.

Layout and contents

16

The magazine's layout is well received. 86 percent give positive marks from 1 to 3 on a scale from 1 = "high class" to "6 = poor". The worse ratings of 4 to 6 come to only 8.2 percentage points. Just under half chose a "2", the top mark of 1 was chosen by just under 7 percent.

The magazine performs similarly well in terms of content. Thus, 81 percent give it marks from 1 to 3 and only 13 percent give it worse marks. A proud 15.3 percent of respondents gave Parking trend's content the highest grade.

The picture is mixed when it comes to the favoured categories. The readers show the greatest interest in the topics "Innovation" and "Best Practice", while the other categories are more or less equal in terms of reader interest. We also asked if readers would like to see a new section. The vast majority of 78% see no need for it. Nevertheless, suggestions for new sections were made by the others, which serve as inspiration for the editorial team. As far as the length of the texts is concerned, this is right for most readers (70%). Some (16%) think the articles could be shorter.

Comments and suggestions

In addition to the comment that the short translations into four languages for longer articles are not really helpful, we received several dozen suggestions for topics, some of which the editors will certainly take up.

There were also helpful hints on how Parking trend could reach new target groups and readerships. This could also contribute to the public relations work of the association and support the positive perception of the parking industry on an international level.

Big thanks for the participation!

The editorial team of Parking trend would like to thank all participants of the survey and the associated commitment to our magazine. Thanks to your ratings, we know



that we are on the right track. Nevertheless, there is always something to improve. As far as the content is concerned, you have given us valuable tips that we are happy to take up. As far as the distribution of the magazine is concerned, there are now different preferences: Some prefer a printed magazine, others prefer the digital, paperless version. We take this into account with our e-paper. Furthermore, we see opportunities to reach new target groups with the help of the association's magazine and thus to strengthen the European Parking Association as a representation of the industry's interests.

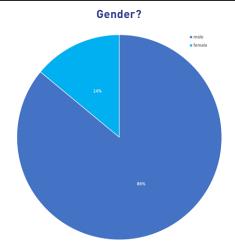
Marko Ruh

Chief editor Parking trend international

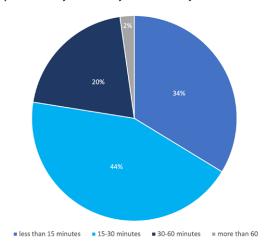
Parking trend digital edition

Parking trend is also available as an e-paper since last year.

At https://www.europeanparking.eu/en/magazine/ you can read the digital version of the magazine free of charge.

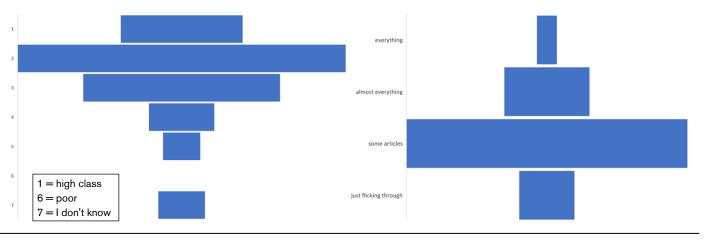


For approximately how many minutes do you read each issue?



How do you evaluate the content of the magazine according to your professional experience?





20th EPA Congress & Exhibition

Postponed to autumn 2022

times. The 20th EPA Congress and Exhibition should be a memorable event and we feel that, under the current circumstances, we will not be able to provide you with the kind of congress we had in mind in line with the phenomenal historical moments. Therefore, after long and thorough consideration, the EPA Board and the Belgian Parking Federation have decided to postpone the congress to autumn 2022. The destination remains Brussels, Belgium.

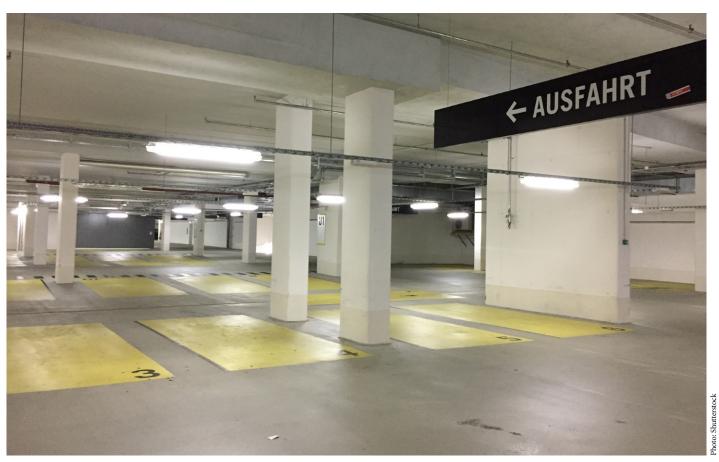
The uncertainty linked to the global COVID-19 pandemic and the delays or differences in the vaccination advancement in our EPA countries made us question the impact and ability to conduct and ensure a well-attended safe international parking and mobility congress. We recognise that even as the situation is likely to improve in the coming months, routine travel and giving priority to international professional events will likely continue to be very limited.

We look forward to seeing all of you in 2022, when we will finally be able to get



together again in real life and discuss the latest developments in the parking and mobility service industry.

We thank you for your unwavering support. Keep an eye on our website for the latest updates on the congress. The Steering Committee, the Scientific Committee and the organising team will keep on going ahead preparing a truly memorable 20th EPA Congress and Exhibition.



Empty garages: Corona poses major financial problems for car park operators all over Europe.

Statement by Bundesverband Parken e. V.

Call for state support

In a statement dated 12th January 2021, the Bundesverband Parken e.V. calls for government support for its members. A press release published on 27th January names "4 good reasons why car parks make an important contribution". Especially in Corona times, "safe mobility" is a priority.

ven during the first lockdown, car park operators suffered a drop in turnover of up to 90 percent. Unfortunately, figures of this magnitude did not remain an isolated case: In January 2021, turnover with short-term parkers plummeted again by 85 to 90 percent, as reported by the Bundesverband Parken (Federal German Parking Association). This is largely due to the extension of the ban on commercial parking for restaurants, the event sector and large parts of the retail trade.

The Bundesverband Parken is therefore calling for car park operators to be recog-

nised as indirectly affected by the lockdown. This goes hand in hand with the demand for state subsidies for current rents, leases and operating costs. The background: around 70 percent of the revenues generated in the parking industry are spent by operators on rents and leases, i.e. they are fixed monthly costs. Due to the Corona crisis, a large part of this money is missing, which could lead to insolvencies and closures.

Individual traffic gains importance

"Especially now, however, car parks play a key role in guaranteeing our individual mobility," emphasised Chairman of the Board Michael Kesseler. In terms of avoiding the risk of infection, the car is the safest means of transport in these pandemic times. In the long term, car parks also make a significant contribution to lively city centres and to the efficient and sustainable use of parking space.

In addition to financial support, the Federal German Parking Association also demands clear statements and an "exit strategy" from the government. This is supposed to be essential for the plannability of economic action.

Associate Members of the European Parking Association







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30. Skidata

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31. UNIP www.unip.biz



32. White Label RAP www.wl-rap.com

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APCOA wants to combine physical infrastructures and digital services in its car parks to form urban hubs in the future. Strategic partners in the areas of mobility, electrification, logistics and on-demand services will be given access to the parking operator's areas for this purpose. In total, more than 1.5 million parking spaces and over 1.9 million square metres of logistics space under APCOA management could be considered for additional uses across Europe.

hat happened in lockdown times rather out of necessity in many abandoned car parks, APCOA wants to make a virtue of permanently. If parking spaces are not used for their actual purpose, they could at least be temporarily used for other services – be it mobile vaccination stations, car park concerts or a drive-in art exhibition. Of course, such charity actions during the Corona pandemic do not replace a solid business model, but they do show: Alternative uses to parking can also take place on underutilised sites.

APCOA wants to systematise precisely this with partners and create an integrated ecosystem for the sustainable use of parking spaces. With "URBAN HUBS", a separate brand has been created for this purpose. Frank van der Sant, Chief Commercial Operator, emphasises in a background talk with Parking Trend: "Parking remains the core business. But beyond that, there are numerous ideas that

are now being tested – mostly in the B2B area, but also partly in B2C. With 11,500 locations throughout Europe, APCOA has an excellent infrastructure for new offers, primarily in the areas of mobility, e-charging and logistics. In times of urban densification, many partners are desperately looking for space, and APCOA has it." Thanks to an already existing digital infrastructure and networking, many things are possible. If, for example, a car park tends to peak in the afternoon and at weekends, it can be used differently at night or in the morning by means of variable access authorisations, for example for residents' parking.

Contribution to the Smart City

APCOA could thus make a contribution to the Smart City. Restricting on-street parking could be accompanied by a reduction in unwanted parking search traffic by intelligently directing vehicles to



Together with partners, APCOA has already launched various pilot projects in the areas of mobility and electrification.





Freight bike for the last mile, intelligent traffic routing through precise data.

off-street parking facilities. Because, according to Frank van der Sant, "There ae actually enough parking spaces." To be more precise, there is even an oversupply of parking facilities in most cities, it's just that they are not managed efficiently. The result: unnecessary parking search traffic, high land consumption in attractive city centre locations and, in some places, even "anarchic parking". Frank van der Sant would like to change this: "We see ourselves in a pioneering role. But improving systems also starts with signage." With the help of digital displays, dynamic components can be added to show occupancy rates. If this data is also fed into navigation systems – coupled with accurate geodata of the car parks – some traffic flows could be avoided and emissions reduced.

Strategic considerations

APCOA has grown strongly in the last four years, with an increase of more than 1,000 new locations per year. The strategic focus has been on locations that are not located in the very city centre, but rather "on the ring road". The goal is the car park as an "urban hub", from where the last mile is accessed via other means of transport, e.g. with e-scooters for visitors to the city centres or cargo bikes for delivery traffic to the final addressee.

The pressure on cities is great because free land is scarce and at the same time there is a shortage of housing, offices and commercial space. From the real estate industry's point of view, digital contingent management and an expanded use of existing space therefore make sense.

APCOA also wants to promote electromobility. City dwellers and commuters without their own parking space or charging station could find a suitable offer in the URBAN HUBS. Only with guaranteed access to this infrastructure would the purchase of an electric vehicle become attractive.

Strong partners

Van der Sant describes how a conventional car park becomes a hub: "A charging station alone is not enough." Several use cases would have to come together for one to be able to speak of a mobility hub. In the first step, these hubs will certainly not be "money printing machines", but they want to make a start together with partners. APCOA's strategic partners currently include Bosch, BVG (Berlin Transport Company), Daimler, E.ON, HERE Technologies, Sixt and UFO Drive. Numerous pilot projects are already underway and others are in the pipeline. According to van der Sant, the roll-out will begin in APCOA's core markets, i.e. Germany, Austria, Italy, England and Scandinavia.

In the strategic reorientation of the entire industry – from pure parking garages to multifunctional mobility hubs – van der Sant sees good support from the parking associations: "The EPA is strongly on the way with this topic."



SKIDATA repositions itself / Interview with CEO David Luken

"By welcoming every user, we

help increase recurring visits and

grow business for operators."

"We change the World of welcoming people"

In order to place more focus on the needs and requirements of end customers, SKIDATA has recently defined a new purpose: "We change the World of welcoming people". This serves as a promise to turn access into a warm welcome while fulfilling end customers' essential need for convenience and safety in all situations.

Mr. Luken, why has SKIDATA launched the new brand campaign now?

David Luken: SKIDATA is at the forefront of driving innovation in its core customer segments. We recognize that the world is changing rapidly, accelerated in many ways due to Covid-19, and therefore our customers' needs are changing. As the global leader in access and revenue management solutions, we aim to stay at the forefront of this change. Since it is key for our customers, our organization and employees to all have a common understanding of purpose, we

asked ourselves the question: Why are we doing this? The answer we came up with is, 'We change the world

of welcoming people'. This perfectly encompasses both our longstanding commitment to innovation while emphasizing our increased focus on the end-customer experience. A friendly welcome is the first step to a successful customer journey. For example, the perfect ski day starts without waiting in line because you already booked your ski pass on the go allowing you to head straight to the lift with your ski pass on your phone. We strive to achieve these perfect 'welcomes' by partnering with our customers to assure skiers, fans, families and parkers have a fantastic start to their experience. To live up to this promise SKIDATA is becoming a more agile, globally connected organization giving us the ability to adapt to dynamic market environments

What is the meaning of "We change the world of welcoming people"?

Our company purpose summarizes SKIDA-TA's DNA and represents the reason why the company and we, as the SKIDATA family, exist: We are more than a technology company, we strive to understand the needs of customers' customer – and we satisfy these needs with an agile approach. For us the meaning of 'we' is important. 'We' does not mean SKIDATA alone. 'We' means the combined effort of our customers, our strategic partners and SKIDATA as an organization – working together – to transform 'access' into a 'warm welcome'. It is this collective effort which truly improves end-customer value. As the world's leading provider of access and revenue management solutions, we serve nearly 100 countries working towards our local customer's goals. This presence

enables us to reinforce our customers' trust by providing world-class on-site service. With our consultative ap-

proach and our leading cloud-based infrastructure, we are changing the way innovative solutions are delivered to our customers. We are customer-focused and human-centered advisors offering our customers complete solutions in co-operation with best of breed partners through a comprehensive range of interfaces and integrations.

How do your business customers – the operators of parking facilities, mountain destinations, amusement parks or stadiums – benefit from your new purpose?

What is the best way to say "welcome"? Over the past few years, demand for web-based, safe access in parking facilities, skiing destinations and event venues has increased – and Covid-19 has accelerated this trend. SKIDATA provides solutions for future customer requirements derived from relevant industry trends such as transition to the cloud, sustainability and increased security. By offering turnkey, integrated solutions for our customers, we establish a seamless experience to welcome end users to the respec-

tive facility. By welcoming every user, we help increase recurring visits and grow business for operators which is how we ultimately deliver true value in the eyes of our customers.

How do the end customers benefit from your solutions?

The end customer's behavior is the intrinsic driver of our innovations. That's why we literally take the driver's seat: What is important for the end customers? What is convenient for them? Everybody wants to feel welcome. Everybody wants transactions to be convenient. And everybody wants to feel safe. Our solutions exactly fulfill these needs. From purchasing your ticket online, to getting seamless access into a venue, to having the possibility to recharge one's EV during a city tour, to using a smartphone to pay for your parking; all these contribute to convenience and feeling welcome and safe.

How does SKIDATA manage the transformation to the purpose "We change the world of welcoming people"?

There are multiple examples where we've already innovated with the end customers in mind. From creating the first hands-free access for skiing resorts more than 40 years ago to touch free parking experiences and the world's first NFC-ticket access to stadiums. So, in many ways we've been living this purpose for as long as we've been around. Going forward we'll continue to transform our processes so that we're better positioned to further improve the way people are welcomed. We already have a variety of new ways to enhance the entry experience in the pipeline. For example, we're revolutionizing the ski-experience with the world's first mobile access solution which allows skiers purchase their lift ticket and access the ski resort using just their smartphone.





Interview with Christian Grzona, Director Sales & Marketing, evopark

"Essential part of the mobility chain"



Christian Grzona

Networking is core business for the provider of a platform. In an interview, Christian Grzona describes how successful he was in his search for partners in the very special year 2020. It could be an important key to the success of digital parking services.

You have been Director of Sales & Marketing at evopark since 1st January 2020 and have taken on the task of strengthening evopark's market position internationally. Have you had any successes in the past year despite the difficult situation?

Christian Grzona: 2020 was a challenging year for the entire parking industry. Especially during the period of the first lockdown and towards the end of the year, parking transaction numbers plummeted. This made it all the more important to adopt new approaches that focus on customer security, for example. The demand for digital, contactless solutions for parking infrastructure has increased enormously in recent months. We have had many very positive discussions and workshops with interested customers and are entering the new year full of confidence. In the middle of the

crisis, we were able to take an important step towards internationalisation with the implementation of easy CONTRACT for Boston Logan Airport. As an expert for digital solutions and a holistic platform provider, we were able to further consolidate our strengths. We have used 2020 to optimise our structures and

"2020 was a challenging year for the entire parking industry."

processes and design them for growth, as well as to sharpen our product portfolio.

Other countries are already much further ahead in the digitalisation of parking, it is said time and again. Is that in line with your experience in international sales, for example

in the Asia-Pacific region?

You can't say that as a general rule. There are certainly countries that are already a bit further ahead than Germany. For example, Singapore has been using fully integrated and contactless antenna technology since 2007, which is also used for road tolls. In Hongkong, the use of cash for parking has also been history for many years thanks to the Octopus card. In other countries, on the other hand, automation is only at the beginning, as the labour wage is often very low and often does not justify the purchase of expensive machines - at least not perceived to be so. It is exciting to see how these countries sometimes skip an entire technology generation and go straight for digital technologies. All in all, however, I see Germany on a good and solid path towards a digital future of parking. Smart city initiatives in





Digital platforms in the field of parking contribute significantly to the optimisation of traffic.

particular will also change the role of parking spaces in the city centre and in peripheral locations. If a city centre becomes car-free, the peripheral locations will gain relevance, for example as a mobility hub. If parking areas are displaced from the street edge to create more space for cycle paths, unused parking areas in private spaces gain relevance. Smart technology is indispensable to manage these requirements efficiently and transparently.

Was or is Corona a catalyst for digitalisation in the parking industry?

Quite clearly yes. While digital products were often met with a great deal of scepticism before the crisis, this has changed completely in the course of 2020. Contactless and cashless technologies are now very high on the agenda - and this applies not only to operators, but especially to inventory holders. It is great to see that the market is gradually catching up. At evopark, we never see 'parking' as a self-sufficient microcosm, but always in a smart city context. We are convinced that the future belongs to cross-mobility solutions that understand parking as an essential part of the mobility chain. With our SaaS solutions evopark GO and easy CONTRACT, as well as newly developed solutions for existing owners, we have developed a strong portfolio with which we can decisively advance the digitalisation of parking.

Is Germany catching up?

Yes, many companies are now rethinking and moving out of their comfort zone. It's high time for that, because all the lights are green, for small and large companies alike. Even for car parks with only ten spaces, possibilities for new mobility concepts are opening up thanks to SaaS technologies. For example, company car parks can simply be converted into residents' car parks at night or surplus allotments can be temporarily marketed elsewhere. Depending on the duration of the second lockdown, I expect 2021 to be a decisive year in the digitalisation of parking in Germany.

Are mobility apps on the rise or do people rather rely on fixed systems in the navigation system or media such as RFID or number plates?

One does not exclude the other. Here, too, we have to free ourselves from thinking in rigid structures. Our partners in the field of mobility apps are often completely open when it comes to the authentication medium. For example, it is possible to link several authentication media (number plate, RFID, QR code) to one account. Via Car-Play and other services, these apps are already firmly established in the car anyway. Personally, I expect a clear orientation towards completely digital media, i.e. media for which production and shipping are no longer necessary.

Platform is often a buzzword, I find. You offer one. To what extent are you a pioneer in the industry?

In addition to our SaaS products easy CON-TRACT for long-term parking management and evopark GO for handling registered short-





term parkers, we have set ourselves the goal of establishing mobility CONNECT, the largest platform for interaction between mobility providers and car park operators in Europe. In doing so, we are setting new standards. We can easily integrate new partners and offer open interfaces to mobility providers and system manufacturers. Technology is only one side of the coin. Other advantages are our in-depth industry knowledge and a well-cultivated community of interest that jointly drives this marketplace forward. Over the past seven years, evopark has evolved from a start-up to an important link between various stakeholders around the dormant space. And these stakeholders have one thing in common: they have realised that if they want to be successful in the future, they are not just backing one horse. Now it's a matter of networking and cleverly combining digital services. Whether end customer, mobility provider, operator or owner - everyone can benefit together if we manage to address interests across sectors. evopark is the decisive multiplier here.

A stumbling block from the customer's point of view: EasyPark & Co. are often not even available in the on-street area - especially in smaller cities. Off-street, different, partly proprietary systems and media compete. What way out do you see? Do we need a monopolist like Google for the parking industry?

I am absolutely no friend of monopolists quite the opposite: as we know, a healthy market stimulates business. One must not forget that we are still at the beginning of a market transformation with regard to digitalisation. I am firmly convinced that in two to five years we will see a considerably greater coverage of services in Germany. The mobility providers will play a decisive role in this with their commitment in the on-street sector. Once digital services are established on-street, it is much easier to extend them to off-street parking areas. At the same time, recognition technologies are becoming more and more efficient and affordable and thus also offer an ever larger group of operators an attractive alternative and/or supplement to their established, conventional services.

The multi-storey car park and the car park are increasingly becoming a mobility hub: value-added services available there offer added value for customers. But where is the (added) value on the provider or owner side? Isn't the following rule of three looming: the more services, the less return there is for the individual?

I see it a little differently. I am convinced that customers are always willing to pay for good service at the right time. Digitalisation offers a significant opportunity not only to make services more visible, but also to measure and optimise them better. In international comparison, Germany often lags far behind in terms of parking rates. Digitalisation makes it much easier to implement concepts such as "dynamic pricing", for example, which also offers advantages for end customers, as a market-oriented price is charged for a service that is very much dependent on supply and demand. At the same time, many conventional operating costs can be saved through digital technologies; mechanical parts in pay stations and media such as tickets are only a small part of this. Our easy CONTRACT management solution, for example, replaces most paperbased processes and increases efficiency in long-term parking management. evopark GO is an elegant and streamlined way to quickly provide digital access to short-term parkers while gaining valuable insights into parking behaviour. Customers can be targeted more effectively and parking utilisation can be optimised. That is why I believe that digitalisation is more likely to increase the return on investment.

They describe evopark mobility CONNECT as the largest network of mobility providers in Europe. Understandable in view of the cooperating mobility providers*. On the part of car park operators, however, there still seems to be a lot of room for improvement - perhaps precisely because of the previous question?

Of course, for a long time we had to struggle with the well-known "chicken and egg" problem: many wanted a large network of digital parking facilities for their customers, but did not want to take the first step. Currently, however, it is becoming apparent that we will reach a critical mass, especially in urban centres. It will be exciting to see to what extent the large operators are willing to open up their stock to other mobility services. We are of the opinion that this new form of parking will soon be

perceived as more "normal" than the classic ticketing and the walk to the pay station.

How is the number of users of your platform developing?

Together with our partners, we were able to record good increases in end-user transactions despite the difficult Corona year. What is striking here is that the actual acceptance is very much dependent on a "buy in" from the respective operators. The more opportunities we have to promote the technology together with the operator, the faster customers register for the service.

When you took office, you said: "Managing external stakeholders will be the key to success. Which stakeholders did you mean exactly?

In my role, I am responsible for the expansion of a distribution network outside of Germany. We have a lot of plans for the next few years and want to internationalise the positive experiences and our know-how. As I mentioned, we have already had some successes in this regard. In addition, our Managing Director Henk de Bruin and I are continuously working on new partnerships and cooperations with mobility providers and system manufacturers. Together with our car park operator customers, these are the external stakeholders I was talking about when I took office just over a year ago.

Have you made any progress with this?

The appetite is very big on all sides. We have won some new partners in 2020 and are already in final negotiations with many more about a cooperation.

* As of 01/2021: PARK NOW (subsidiary of the BMW Group), Mercedes Benz Parkkarte, Porsche Parken Plus, PayByPhone – sunhill technologies (subsidiaries of Volkswagen Financial Services), EasyPark, Parkamo



Norway

A milestone for e-mobility

For the first time in its history, Norway has sold more electric cars than fossil- and hybrid-powered cars. The Norwegian Road Transport Association stated that 54.3 percent of cars sold in 2020 were electric, while fossil-based cars barely made it to ten percent

orway is the first country in the world with an e-car rate of over 50 percent. This is an increase of 11.9 percent compared to 2019, when the rate was 42.4 percent. One of the reasons for this high rate is that electrically powered cars are tax-free in Norway. This allows them to keep up with diesel and petrol cars in terms of price. The energy for the e-cars comes almost entirely from hydropower. The mostsold car in Norway in 2020 was the Audi e-Tron, followed by the Model 3 from Tesla and the Volkswagen ID.3.

Numerous preferences

Additional, owners of electric cars have a range of preferences, for example free parking on municipal parking spaces and bus

lanes. Furthermore, owners of e-cars travel free of charge on ferries and pay less road toll than the holder of a petrol-powered car. Another reason is the infrastructure for emobility: According to the Norwegian Electric Vehicle Association, a lobby organisation for e-mobility, at all important interregional connecting roads are two charging stations for e-cars within a distance of 50 kilometres.

Andreas Radics, car expert of the the management consulting Berrylls, said in an interview: "In Norway, we already traditionally have a very well-developed infrastructure for e-mobility." He pointed out that most Norwegian households already have an electricity connection. Because of the harsh winters, they heat their cars with these sockets. These devices are now used to charge the e-cars.

Ambition versus criticism

The ambitious goal of the Scandinavian state is to sell only electric cars from 2025. For this year, the Road Transport Association expects a further increase in market share in percentage terms. : "We currently expect electric cars to reach a market share of over 65 percent in 2021", says Christina Bau from the Norwegian Electric Vehicle Association.

Critics say that the massive investions in e-mobility are only possible because of the exports of oil and gas. Norwegian environmentalists criticise that the state earns its money by "exporting climate change".



The Audi e-Tron was the best-selling car in Norway in 2020.



EasyPark and Recharge added more than 1,600 charging stations in Sweden, Finland and Norway.

EasyPark / Recharge

Increasing the coverage for electric vehicle charging in the scandinavian countries

EasyPark adds the possibility to pay for electric vehicle charging via Recharge. Recharge is a company previously known as Fortum Charge & Drive network and is one of the largest operators of charging stations in the nordic countries. EasyPark has offered a payment solution for electric vehicle charging for many years and is now expanding its offering and coverage in Norway, Sweden and Finland.

he number of stations added through the new partnership is over 1,600, spread across Norway, Finland and Sweden. Among new cars sold, electric cars already have a 54 percent market share in Norway. As the country leads the global development, EasyPark sees the market as a pioneer for what is to come elsewhere.

Parking and electric charging is getting more important

"Parking and electric charging is increasingly becoming synonymous and finding poles with high parking availability is getting more and more important. When on the road it must be easy to find and manage both parking and charging, and this demands user-friendly infrastructure which is our area of expertise," says Johan Birgersson, CEO of EasyPark Group.

In addition to parking and charging electric vehicles, EasyPark offers other services, such as the "find" function in the app, which allows drivers to find streets, garages and charging stations with high availability, reducing search time for free spaces, congestion and emissions.

"EasyPark has a great coverage in the Nordics both within parking and electric vehicle charging, as we are integrated to a majority of the different providers. Thanks to this additional partnership with Recharge we can contribute even more in our strive for a more sustainable world," concludes Johan Birgersson.

Take the stress out of EV driving

Recharge is a leading provider of charging points in the Nordic region and sees the cooperation with EasyPark as an opportunity to

increase the user-friendliness of its offering. "EasyPark is well known among drivers for its user-friendly parking app, and we are very pleased to be able to work with Easy-Park as a service provider for charging. Recharge's ambition is to take the stress out of EV driving, focusing on expanding our open network and making the transition from fossil to electric easy and convenient," says Annika Hoffner, CEO of Recharge.

"We strongly believe that an open network and partnerships with experienced service providers like EasyPark will improve the EV driver experience. We want the drivers to be able to choose the service provider that best suits their needs when charging in the Recharge network, and we look forward to EasyPark joining us on the mission to make EV charging easier," Hoffner continues.



Max Bögl Group

Parking garage for Amazon vans

In a construction period of around ten months, the Max Bögl group of companies plans to build a new distribution centre with a size of around 5,600 square metres in Straubing in southern Germany. The scope of work also includes a transporter car park, for which a new car park system has been developed. The client for the project is the real estate developer Goodman, and the subsequent user of the building will be the online retailer Amazon.

he Max Bögl group of companies has been commissioned by project developer Goodman Group to build a new distribution centre in Straubing. Amazon wants to expand its existing capacities in this part of Bavaria.

Short construction time

In a main construction period of about ten months, the group of companies will build a turnkey logistics centre with about 5,600 square metres. This corresponds to the size of a football field. The offices for the administration are located on the mezzanine floor of the hall. Logistics processes can be coordinated there on a good 2,000 square metres.

"With 750,000 sqm of realised space and more than 12 joint projects in Germany, we can already speak of a well-coordinated team and a long-standing partnership with Amazon. Sustainability plays an important role in this project in Straubing. For example, the future-oriented 5,600 sqm property will have a heating system powered by biogas. A solar system will be installed on the hall roof and the entire project will receive a gold certificate from the German Sustainable Building Council," says Christof Prange, Head of Business Development at Goodman Germany.

In order to keep the completion date on time for the Christmas business, Max Bögl also relies on its proven hall system for this project. All components of the construction are prefabricated in a prefabrication plant, which is only 120 km away, and then delivered just-in-time to the construction site. There, the components are then assembled. According to Max Bögl, this construction method not only saves time, but also minimises construction waste and noise on the construction site. In addition to the logistics centre, the scope of work also includes a

multi-storey car park for vans. The building in the steel composite system is the first of its kind and was specially developed by the Max Bögl group of companies due to the special requirements in terms of weight and storey height.

Space for about 465 vans – each weighing about 3.5 tons

In Straubing, there will be space for about 465 vans, each weighing about 3.5 tons, on four parking levels. The parking spaces of 3.00×6.50 m are also adapted to the special needs of vans. Each level will have a clear height of 3.2 m.

The components for the multi-storey car park are also prefabricated – as was the case with the construction of the distribution centre – and delivered to the construction site. The entire plant in Straubing is scheduled to go into operation as early as autumn 2021.



Rendering of the van parking garage (right) and the distribution centre in Straubing, Germany



Nedap / Avitech

lasi in Romania improves on-street-parking

The city of lasi in Romania has chosen Nedap and Avitech to improve on-street-parking in its city centre. The project will be launched to optimize existing parking capacity in paid parking zones in lasi city centre and reduce traffic congestion. Nedap's smart parking sensors will be used to monitor, control and provide real-time parking data.

nformation on the availability of parking spaces, disabled parking spaces and EV charging stations is available to drivers to improve service and enable them to easily find a suitable free parking space. Business partner Avitech integrates real-time occupancy data from SENSIT into its UP-PARK Parking App to manage parking spaces.

Iasi is the second largest city in Romania and is located in the north-east of the country, in the region of Moldova. Currently, drivers have difficulties finding free parking spaces in the city centre of Iasi. This leads to increased exhaust emissions and dangerous situations due to traffic

jams. Therefore, Iasi is looking for a solution to avoid traffic problems and make it easier to find a free parking space.

Optimize parking capacity with real-time parking data

The goal of the city is to manage the traffic congestion by using the existing capacity of the parking spaces in the city in the most optimal way. By displaying real-time occupancy via Avitech's UPPARK mobile app, drivers can find free parking spaces in the city and guided to the nearest available parking spaces. In this way, the smart parking system in Iasi optimizes the use of existing parking capacity, reduces search traffic

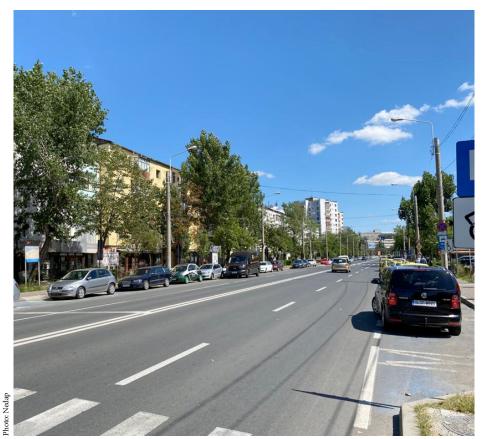
and CO₂ emissions and collect valuable data about the traffic flow in the city of Iasi.

"We chose to collaborate with Nedap in the realization of this project and not only, as a supplier of sensors for parking lots, due to the special quality of the range of products offered. The efficiency of the product production process is also appropriate to our execution schedules for our company's objectives. At the same time, Nedap's team consisting of professionals, has always offered support in choosing the best options and solutions for our requests. We are delighted that together we will be able to offer the citizens of Iasi a better traffic experience and a more pleasant living environment", says Marius Miroslav, Sales Manager at Avitech.

Optimal use of parking capacities

Nedap's SENSIT provided a parking occupancy detection platform that uses robust, accurate and cost-effective IoT-based inground parking sensors. The real-time parking data from SENSIT is integrated into Avitech's UPPARK Parking App. Based on the parking data, a continuous and proactive improvement of the parking policy ensures an optimal use of the available parking capacities.

Jan Hofman, Business Development Manager for smart parking & mobility at Nedap, says: "Avitech is a loyal partner who fully implemented our parking sensor portfolio into their on-street parking management platform. We are pleased that the Iasi authorities also recognize the accuracy of Nedap's parking data for the digitalization of their urban parking management. The city of Iasi joins a long list of municipalities from all parts of the world, where parking data based on Nedap's in-ground sensors was successfully implemented for their Smart Parking management ambitions."



The project aims towards an optimization of the existing parking capacity and the reduction of traffic congestion.





Green and red lights inform the customers about the availability of a parking space.

Portier

New intelligent cameras at Helsinki airport

Portier, Finavia's partner in parking for more than a decade, has installed new cameras in the parking garage P2 of the Helsinki airport. The Vision space specific cameras are the latest technology in parking guidance products.

The cameras units monitors individual parking spaces and detect the presence or absence of vehicles. When the camera detects a vehicle, space status is changed, and the unit automatically captures the license plate. Green or red led stripes in each vision camera inform drivers about the availability With the new vision cameras, the operator can monitor the parking spaces and check the recorded video for movement around the parked vehicles, providing an additional monitoring tool for the car park. An additional service for customers is provided by the Find My Car kiosks, which help drivers find the correct location of the parked car based on the number plate information.

Customer care already begins when arriving at the airport by car. Large signs inform drivers about the occupancy rate

of the individual parking facilities around the terminal buildings. Parking guidance displays in front of each car park and on different levels show the number of available spaces in each building, level or floor section. In some areas, special parking sensors in certain car parks indicate the availability of parking spaces for trips with green or red LEDs.

Different parking options are targeted at different customer groups and the segmentation of these different options is supported by different porter parking guidance products. All parking guidance systems of the individual car parks are connected to a parking guidance platform. This platform gives the operator an overview of the entire parking guidance system at Helsinki Airport with the possibility of receiving useful reports from the system.

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MSR-Traffic

Holiday resort gets new parking guidance system

MSR-Austria GmbH equips the holiday resort in Salzkammergut with over 200 outdoor sensors and a dynamic parking guidance system from MSR-Traffic Germany. With the help of wireless magnetic field sensors installed in the floor of the parking spaces, the occupancy status can be transmitted to the ParkGard Control Center (PGCC) within seconds via gateway and range amplifier. In addition, information signs indicate free capacities and ensure precise traffic routing.

he intelligent parking guidance system for the climatic health resort of Altaussee is intended to cushion the parking pressure that has arisen in recent years. MSR-Traffic developed the parking guidance system with the aim of better guiding tourist traffic and reducing the volume of traffic searching for parking spaces. A query has been programmed in the PGCC that sends an automated message by e-mail to the customer if three adjacent parking spaces are occupied at the same time within a short period of time – so the probability is very high that it is a bus that has parked across at least three spaces.

Wireless magnetic sensors detect the occupancy of parking space

The magnetic field sensor, which has a detection accuracy of 98 percent, is durable and weather-resistant. It detects the occupancy of the parking space and records how long the parking bay was occupied by a vehicle. As the



These sensors from MSR-Traffic detect the occupancy of parking spaces.

vehicle detection system reacts immediately and reliably to any change in parking space usage, it is suitable for outdoor parking and on-street applications and helps to optimise parking space management.

The data from the magnetic field sensors are transmitted from the road to the cloud

platform via a multi-sensor network. There, a sophisticated algorithm detects in real time whether a vehicle has entered or left the parking bay. Multiple sensor data can be transmitted simultaneously.

The goal: Optimal use of the parking capacities

The PGCC is used to control, visualize and manage one or more parking guidance systems from MSR-Traffic. For example, it can be used to determine unauthorized long-term parkers or parking offenders. The PGCC is responsible for controlling the parking guidance system, storing historical data, generating statistics, visualising current operation and communicating with other systems. All configuration data, parking data and statistics are stored in an SQL database. The PGCC works as a web server and can be operated worldwide on any PC with a web browser, provided the local PC is connected to the Internet.





Overollic Most Traffic

The ParkGard Control Center (PGCC) can manage multiple parking guidance systems.





The new ticketless parking system in Hoorn will be equipped with the latest ANPR technology. It also includes contactless payment.

WPS

Ticketless parking in the Dutch city of Hoorn

WPS have won the European Tender of the city of Hoorn. Early 2021, the municipal parking facilities 't Jeudje and Schouwburg Het Park will be equipped with a brand new ParkiD parking management system with ParkAdvance parking equipment.

arking is part of every destination. To give customers a good feeling, a smooth and friendly parking experience is necessary. The new solution in the city of Hoorn will be completely ticketless. The system is equipped with the latest ANPR technology, contactless payment, an online discount platform and is connected to the reservation platform of operator P1.

Number plates as identification system

The car's number plate serves as an identification feature. When returning to the car park, the driver types in his number plate on the large touch screen either at the pay station or directly at the exit station. He identifies himself and pays the parking fee. When leaving the car park, the Speedgate opens automatically. At the same time, he can identify



Hoorn wants to give customers a good feeling about parking.

himself with his bank card on entry and also pay on exit. Drivers who have a subscription with a pay-by-phone parking provider such as ParkMobile can also use the parking facilities and then pay via their subscription.

Online discount platform

The theatre can use the online discount platform ValiD to offer discounts on parking to its guests. In the future, business owners in the vicinity of the parking spaces will also be able to use this platform and offer their paying visitors a discount on parking. With the push of a button, the discount is granted and immediately processed in the parking management system.

Account manager Robin Wijnen says: "We are very pleased with this new order. It adds the municipality of Hoorn to our growing list of local governments we serve with our parking solutions. We look forward to the start of the project and a long and enjoyable collaboration with the municipality of Hoorn and P1 in the years to come."

Lödige Industries

Underground parking in Amsterdam

Lödige Industries, a leading supplier of automated parking systems, is setting up its 30th parking system in Amsterdam. It will be installed in "The Artesia", a conversion project that will transform several buildings in Amsterdam's prestigious Herengracht and adjacent streets into one cohesive building complex. The project was developed by REB Projects from Amsterdam.

ödige will integrate the automatic parking system into the historic building structures. To avoid damage to surrounding buildings, and to limit the impact on traffic, the system will be built above ground, to be lowered into its final location once completed. The system is a turnkey solution that includes planning, final design, production, installation and commissioning. It uses Lödige Industries' 5BY2 technology: The vehicles are simply parked on a pallet in the parking cabin. Each vehicle pallet can be moved to any place in the system. The garage offers 23 parking spaces, half of which are equipped with chargers for electric vehicles. These can later be easily expanded to all slots if desired. Lödige Industries had already prepared the system for this expansion and ensured that no additional power supplies were needed for the additional charging capacities. To make this possible, Lödige had set the system in such a way that the charging process would only be carried out when the parking system itself was not in operation and the electricity was therefore available for charging. This also ensures low operating costs for the building owner and ensures that the system can always operate reliably. Users can access the system via an app for convenient and quick access from street level.

Complex construction project

"The Artesia" is surrounded by historic buildings and is located on one of Amsterdam's most important canals, the Herengracht. Therefore, parking space is extremely limited and the project requirements complex. Arthur van Brink, Managing Director of Lödige Industries Benelux, says of the project: "Challenges motivate us to find the best possible solutions for the client. In this case, we have to build the new parking

system between the historic buildings and the canal. Therefore, the project developer and the client decided to build the basement with parking system above ground in order to sink it into its final position after its completion. This is not only the safest way, but will also reduce the impact of the building process on the surrounding area."

Christian Kanters from REB Projects says: "Working with Lödige on the Artesia is exactly what we needed to realise our plans for the complex project. We looked very closely at the different technologies available. In the end, it was the extremely space-saving design of Lödige Industries' 5BY2 technology that convinced us. Almost as important as the design of the solution was the extensive experience gained from previous systems in Amsterdam and around the world."

Construction is scheduled to start in August 2021 and is expected to be completed in March 2022.



The new parking system in Amsterdam's Herengracht is to be completely underground.

Quercus Technologies

"Light Per Space"-System detects number plates

Quercus Technologies proposes a system that indicates the availability of parking spaces with occupancy lights on each one. The system is called Light per Space and allows drivers to be guided to available spaces very efficiently.

he key to the system are RGB pilots that are installed in each parking space in the car park. These LED lights are connected to the Spot Control central unit, which reads the number plates when the lights are off and detects the presence of the vehicles, sending the information to the parking system and changing the colours of each light when the space is occupied or free.

This system is an advance for parking assistance with number plate recognition in each parking space and now with availability indication in each space. Customers are thus provided with personalised information without having to sacrifice the video surveillance and Big Data of Quercus Technologies' Spot Control sensors. With the intention of improving mobility and orientation within parks, the matrix displays are fully customisable. The different panel types allow for multiple combinations, in nite colours, different levels and personalised dynamic or static messages.

The BirdWatch parking suite centralises and interprets the parking availability information received from the Spot Control sensors and displays it in real time on the panels to increase mobility within the car park. It is a global, centralised solution that allows complete control of the facilities in an intuitive and automatic way.



Fixing screws can lead to confusion of numbers by the cameras.

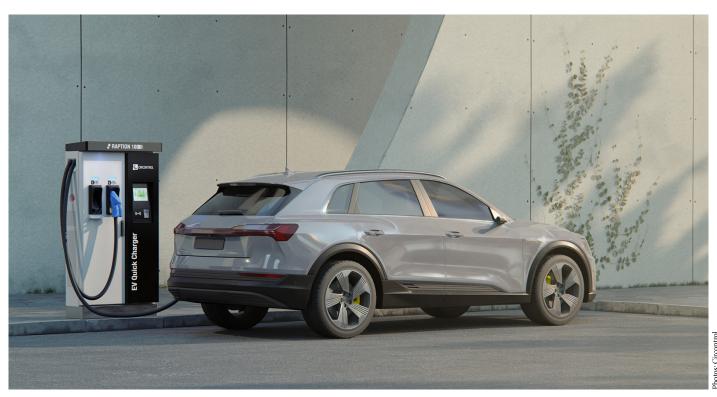
Placement of screws can become a problem

Quercus Technologies continues to improve its number plate recognition in the regions and countries where it recognises number plates and aims to expand the list further, including in response to new customer requirements. The SmartLPR Access number plate recognition cameras, which control access to numerous car parks around the world, have proven their high reliability with a 99.7 percent success rate after analysing a sample of over 3,000 UK number plates.

This rate was calculated by discarding only those detections that resulted in an error regarding a single character due to the placement of dark-coloured fixing screws on the UK panels, i.e. one percent of the total. This shows that in the case of using an n-1 comparison for automatic access, the process would be optimal and the probabilities of being correct are infinitely higher than the probabilities of an unauthorised vehicle accessing the facilities.

It is known that the placement of the fixing screws in the UK causes changes in the ANPR parking systems. As can be seen in the picture, part of the sample is the case where an "S" is interpreted as a "G" due to the position of the fixing screw.

Throughout the year, Quercus Technologies' R&D and Customer Service departments work to improve the recognition rates of their products in all regions and continue to create new recognised countries. Some of the highlights this year are the improvements in number plates corresponding to Belgium, Germany, Australia, Russia, Mexico and some states of the USA, such as Arizona or Colorado, as well as the integration of new number plate models into the Quercus reading machine from countries such as Iceland, Sri Lanka, Nebraska or Mexico City, among many other regions of the world.



The new Raption 100 charging station doubles the charging power compared to the Raption 50.

New charging station

Circontrol launches Raption 100

Circontrol has launched a 100 kW fast charger, the Raption 100. It is a fast charging station that has been very well received by the market thanks to its ease of use, reliability and compact and elegant design that can be fully personalised.

he new station is designed to meet the fast-charging needs of new electric vehicle models with larger batteries that offer a longer range, but without sacrificing the design and most of the features that distinguished its predecessor, the Raption 50: modular power technology, elegant yet robust design, ease of use and reliability. All this makes the Raption 100 a good charging option for restaurants, petrol stations, shopping centres, airports and intercity areas.

Meeting the fast charging needs of new electric vehicles

The Raption 100 charging station doubles the charging power compared to the previous model, the Raption 50.

As Circontrol CEO Joan Hinojo says, "the modular technology has been main-

tained and the performance of the charging modules has been increased". This means that the charging station can deliver twice the power while maintaining its compact external appearance, an aspect that is highly appreciated by the market.

Scalability and flexibility

The modular architecture of the Raption 100 units allows for power scalability of 25 kW, 50 kW or 100 kW, depending on the contracted power and installation requirements. This also means that it can be adapted to the growing battery sizes of new EV models. In addition, this also guarantees high uptime, as if one of the modules fails, the others will continue to operate. In this respect, the Raption 100 also retains the unique plug maintenance concept with the plug interlock and float-



ing cable design, another highly appreciated aspect of the previous model that makes the unit safer and reduces maintenance costs.

In addition, the Raption 100 can act as a master in multi-point installations, combining DC and AC charging. This solution also leads to significant energy savings, as the master unit distributes the available power according to the number of charging points used.

Quick, easy and accessible Charging

Just like the 50 kW model, the new fast charging station offers a simple and intuitive charging experience. It features an eight-inch colour touch screen, voice control, interior lighting and an integrated contactless card payment system.

Kur- und Kongreß-GmbH joins mobility CONNECT

Bad Homburg extends digital parking services

The Kur- und Kongreß-GmbH has launched a new parking service in Bad Homburg v. d. Höhe. Seven car parks can now be used digitally. For this new parking service, the operator has joined evopark mobility CONNECT, an open, manufacturer-independent mobility platform, that forms an interface between car park operators and mobility providers.

he website www.mobility-connect.info offers end customers an overview of all mobility providers connected to mobility CONNECT. They can then click on the company of their choice, are redirected to its website and can book the service there. Users can choose between the services of PARK NOW, EasyPark, PayBy-Phone, Mercedes me and Porsche Parken Plus.

The software-as-a-service provider evopark acts as a technical service provider for all partners involved. End customers receive their access medium conveniently by post. Registered users can use their access medium to enter connected car parks contactlessly and pay their parking costs digi-

tally. Entry and exit times are registered to calculate the parking fee. Drivers can view the incurred costs at any time via the customer account of their chosen service provider.

The digital parking system is already implemented

"We are pleased to have taken another step towards a digital Bad Homburg. With the help of this new solution, we see a significant improvement in service for our citizens," says Alexander Hetjes, Lord Mayor of Bad Homburg. "Thanks to the electronic parking card, drivers no longer have to pull out a paper ticket. On the one hand, this is good for the environment and at the same

time gives us the opportunity to avoid contact points," says Holger Reuter, Managing Director of Kur- und Kongreß-GmbH. The digital parking system has already been implemented in some car parks in Bad Homburg, like the Casino car park and the town hall car park.

"With Kur- und Kongreß-GmbH, we have gained another valuable operating partner for mobility CONNECT. In 2021, we will continue to significantly expand the platform," says Henk de Bruin, Managing Director of evopark. Mobility service providers and car park operators from over 50 cities in Germany, Finland, England and the Netherlands are already partners of mobility CONNECT.



Alexander Hetjes, Lord Mayor of the City of Bad Homburg v. d. Höhe and Holger Reuter, Kurdirektor and Managing Director of Kur- und Kongreß-GmbH (from left to right).

Events

Intertraffic Amsterdam rescheduled to March 2022

ollowing the global impact of the Corona virus spread, Intertraffic and RAI Amsterdam have rescheduled Intertraffic Amsterdam. The in-person event will now run from the 29th of

March to the 1st of April

2022. Given recent announcements on the timeline for vaccine deploy-



person contact is irreplaceable, virtual proximity can open new doors in anticipation of our industry reunion in 2022. We will shortly launch our

online event, due to be broadcasted in March 2021."

to coincide with our 50th Intertraffic brand anni-

versary, we look forward to pulling out all the stops.

In the meantime, we will provide our community

with complementary formats to connect, share

knowledge, network and

do business. Though in-

ment, Intertraffic has been rescheduled so it can live up to its large scale international standard. The new dates have been selected to adhere to the industry event calendar and Intertraffic's spring time frame.

Personal contact irreplaceable

Joyce de Winter, Exhibition Manager of Intertraffic Amsterdam adds: "We eagerly anticipate to reunite the Intertraffic community face-to-face in Amsterdam in March 2022. These new dates give us confidence to tick all the boxes again. As 2022 happens

New event: Intertraffic Live & Online

Intertraffic Live & Online is on air in March 2021. The new virtual & online format is set out to drive business, providing a mix of engaging components, such as expert sessions, solution pitches, best practices and start-up opportunities. A full-fledged intelligent matchmaking programme is integrated to stimulate valuable new connections.

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Non-binding calendar of events

For 2021 as well, the following still applies: Please note that the events listed here may not all necessarily take place as planned. This depends on the further course of the COVID19 pandemic and local regulations.

2021

March 3-4

Parking Scotland Conference

Online

mww.britishparking.co.uk

March 17-18

AOS Conference 2021

Online

mww.britishparking.co.uk

May 19-21

18th Parkon Conference

Hotel "IZVOR" Arandelovac, Serbia

mww.parkon.rs/en/

June 15-17 **Parkex**

Hall 5, NEC

Birmingham, England

mww.parkex.net/

Postponed:

PARKEN

New date: 28-29th June 2023

narken.mesago.com

June 27-30

IPMI Conference & Expo

Florida, USA

hwww.parking-mobility.org

September 1-3

SVEPARK Annual Conference

"The combined travel" Helsingborg, Sweden

◆ svepark.se/

November 16-18

Smart City Expo World

Congress

Barcelona, Spain

Mww.smartcityexpo.com/en/home

2022

May 23-26

P-Days

Florence, Italy

www.pdays.eu/pdays/

/ SMART PARKING SOLUTIONS





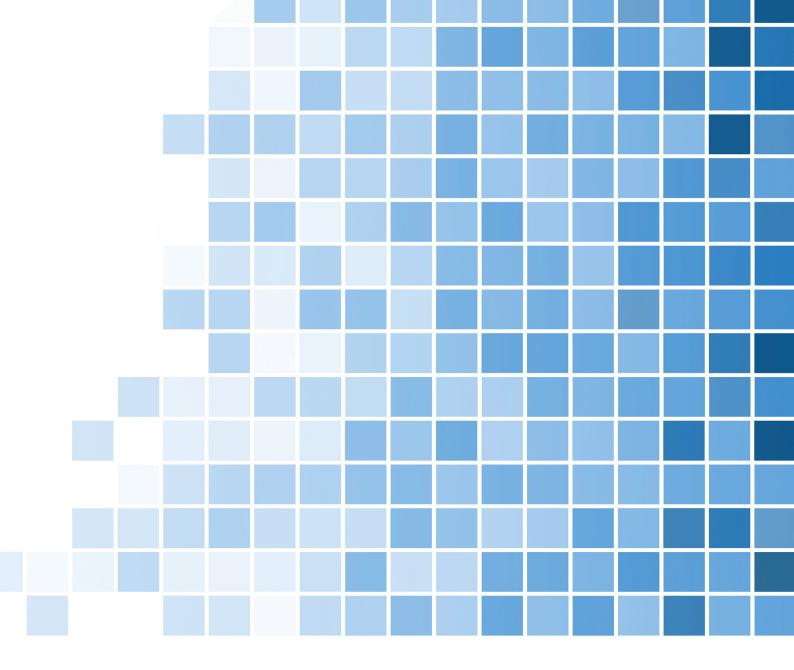






Due to the Corona pandemie the world is changing. In our daily lives new buzzwords are *touchless* and *keep distance*. Based on this, the acceptance of digitale products is higher than ever and will be also the new normal in the parking industry.

Scheidt & Bachmann offers a comprehensive product portfolio. Discover our digital world!



NEXT SOLUTION

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Like most sectors, the parking industry is also influenced by industrial transformation. Digitalisation shortens the time span for innovation cycles and development. Digital thinking requires more flexibility and digital-based solutions. Digitalisation will reveal new ways for parking management systems to make parking and mobility as convenient as possible for the user and of making your business more cost-efficient. Integrate the new possibilities into your business.

