



VAUBAN INFRASTRUCTURE PARTNERS' CAR PARK MANAGEMENT STRATEGY

WHY CAR PARK INFRASTRUCTURE
WILL CONTINUE TO BE AN ESSENTIAL
ASSET FOR THE FUTURE OF LOCAL MOBILITY

JULY 2023



VAUBAN
INFRASTRUCTURE PARTNERS

VAUBAN IP'S CAR PARK MANAGEMENT STRATEGY: INVESTING IN A SECTOR ESSENTIAL FOR A CIRCULAR ECONOMY



Underground car parks, developed in the late 1960s in Europe through a concession model, were historically built to prevent important historical sites from being overrun by cars. An underground park allows for significant and underestimated surface area, thus proving to be the best choice for parking cars. Today, the Parking infrastructure industry remains a flourishing market benefiting from multiple tailwinds such as an increase in urbanization, vehicle utilization rate, population, and GDP per capita.

The car park market can be segmented by (i) location (off-street and on-street market), (ii) economic model (long term concession contracts and ownership, or short-term lease and management contract), (iii) nature of revenues (hourly or subscription), (iv) segment (city center, rail stations, shopping centers, entertainment), or (v) nature of owner (public or private). The different combination of these segments leads to various risk-return profiles. **Infrastructure contracts present EBITDA margins** across the full spectrum of car park business models. If they are exposed to traffic risk, they also benefit from (i) **protective contract schemes** and **inflation-linked tariffs**, (ii) very long term contracts generating high resiliency across market cycles, and (iii) **supportive and stable regulation**.

A STABLE AND RESILIENT INDUSTRY
The parking infrastructure industry benefits from stable regulation due to the long term nature of its investments and the sharing of revenues between operators and car park owners. For example, over the last ten years, **French legislation has supported the parking industry** through various amendments, including the implementation of per-quarter billing and the outsourcing of on-street enforcement to car parking operators.

The car park sector has all of the key characteristics that demonstrate strong resilience to today's inflationary environment, and it is likely that car park operators could benefit from this environment as generally (i) its CPI-linked revenues and OPEX enable margin protection, (ii) energy costs may be controlled through secured PPAs, and (iii) financing costs generally benefit from a long term fixed rate.

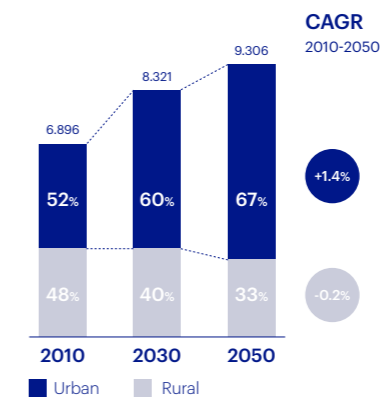
ADAPTING TO SUSTAINABLE DEVELOPMENT
In line with its long term growth trajectory, the car park sector is showing **impressive agility to adapt** its core business model **to ensure sustainable value**. Most car park actors have developed a state-of-the-art

environmental approach notably through Environment and Health Safety Policy to minimize environmental impact (waste and water management), and reduce energy consumption and GhG emissions. As part of this strong commitment, deployment of EV charging points is key; natural customers can be found from existing car parks subscribers, especially in cities where on-street parking constraints are rising. In addition to their part in the energy transition, car park operators also have a key role to play in the **mobility transition**. Keeping cities resilient, accessible, inclusive, and livable with both individual and collective modes of sustainable transport requires complex system integrations (digital tools, platforms and interface implementation wherever possible) by a variety of public and private sector organizations. Due to their prime location in urban city centers, car parks infrastructures have also benefited from the opportunity to do more than simply vehicle storage: they can become strong **multimodal platforms**, hubs between low-GhG emitting mobility types (self-service bicycle, light motorcycle or electric vehicles charging in self-service car parks charging stations).

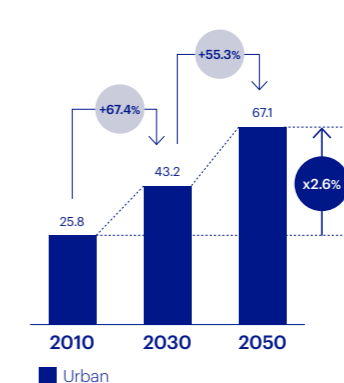
EXPLORING NEW OPPORTUNITIES
In the context of new build and urban land scarcity, car parks infrastructures benefit from strategic urban locations with large, partially unused spaces. These areas can be used for **several alternative purposes**. E-commerce and at-home delivery services are booming, which is creating an opportunity to leverage existing infrastructure to offer **last-mile logistics platforms and**

INCREASING DEMOGRAPHY AND URBANIZATION WILL DRIVE DEMAND FOR URBAN MOBILITY

Urban and rural population shares (Millions of people, 2010-2050, global)



Urban mobility demand (Tn pkm p.a., 2010-2050, global)



Sources: U.N. population division, Schefer/Victor 2000, Cosgrove/Cargrett 2017, Arthur D. Little, Kerney

solutions as an attractive alternative use case. Unused areas can be dedicated to install **data centers, fitness clubs, dark stores, dark kitchens, healthcare platforms, automobile repair shops, cultural facilities, or even urban farms**. These alternative use cases will strengthen the inherent features of car parks by (i) providing additional sustainable growth drivers, (ii) by strengthening the asset's resiliency thanks to its inflation-linked and traffic-independent revenues and (iii) by generating positive externalities by, for example, promoting environmentally friendly transportation modes by reserving spaces for any shared mobility service.

The car park infrastructure industry's strong commitment to **optimizing the urban landscape** highlights its **critical contribution to the "circular transition" of dense cities**. Beyond the alternative uses mentioned above, car parks are also applying key circular economy principles to their business plans, including eco-designing structures, recycling waste with innovative technologies, and housing collection points for recycling. **Vauban IP is currently analyzing and assessing the sustainable value creation opportunities offered by these circular services as part of its open research study on "circular infrastructure"**.

Benefits

- GROWTH**
 - Limited-to-no substitution with existing car park revenues, especially in the context of mixed car parks with first levels for alternative purposes and other levels for cars
 - Underlying sectors (EV charging, last-mile logistics, storage, etc.) benefiting from strong underlying growth drivers
 - Ability to propose car parks mixing traditional car-related activities with alternative usage
- RESILIENCE**
 - At this stage, the business model for alternative usage seems to be the car park operator leasing levels or areas to operators of alternative usage, thus providing a rent revenue stream that is inflation-linked and traffic independent
 - Alternative usage is exposing car parks to diverse underlying sectors (logistics, energy, retail, technology, etc.) providing diversification vs. transport/urban mobility
- ESG**
 - Using available parking spaces for alternative purposes could also be a relevant solution to improve the sustainable development of cities, notably by acting as small warehouses for last-mile distribution to combat excessive delivery van traffic, supporting the transition toward low-polluting vehicles by making EV charging stations available, or promoting environmentally friendly transportation modes by reserving spaces for any shared mobility service

Alternative use cases could strengthen the inherent features of car parks, provide them with growth drivers, and contribute to sustainable cities.

The car park industry

A

B

3 macro trends support long term car park market growth...

... and major shifts in urban mobility create opportunities

Growing GDP per capita is driving purchasing power, hence potential for **car ownership development**

Uninterrupted increase in urbanization

Constrained public spending pushing for **outsourcing of car park operations** and **limiting investment in public transportation**

Strong off-street car park revenue growth

Additional business opportunities around creation of **urban mobility hubs** (shared cars, charging stations, etc.)

Usage disruptions

- Shared mobility
- On-demand mobility
- Multimodal mobility

Technological disruptions

- Connected mobility
- Autonomous mobility

Urban policies

- Zero-emission mobility
- Infrastructure deployment
- Public spending constraints

	GREENFIELD	YELLOWFIELD	BROWNFIELD
Description	<ul style="list-style-type: none"> - New parking facility designed, financed and constructed from scratch by the operator - Site is then delivered to the owner (essentially public institutions & local authorities) against the exclusive right to operate the facilities until the end of the concession term 	<ul style="list-style-type: none"> - Secondary stage projects, where the investment is related to significant renewals, refurbishment or a substantial expansion of the existing infrastructure - Increasing interest on the market for this type of project 	<ul style="list-style-type: none"> - Existing parking facility, requiring a new operator either upon expiration of a Greenfield concession or for already operated facilities - Local authorities seek out operators to provide investment capital, typically for heavy or light refurbishing work
Exposure to Traffic	✓	✓	✓
Revenue Model	<ul style="list-style-type: none"> - Remuneration after financing of construction, operations and investments with a fixed or % royalties calc. on revenues 	<ul style="list-style-type: none"> - Remuneration after financing of expansion, operations and investments with a fixed or % royalties calc. on revenues 	<ul style="list-style-type: none"> - The concession owner receives fixed or percentage royalties calc. on car park revenues
Contract Term	<ul style="list-style-type: none"> - Long term contracts typically > 25 / 30 years 	<ul style="list-style-type: none"> - Mid to long term contracts between 15 / 20 years 	<ul style="list-style-type: none"> - Mid to long term contracts between 10 / 20 years
Operator Roles	<ul style="list-style-type: none"> - The operator is responsible for the management, operation, and maintenance of the facilities 	<ul style="list-style-type: none"> - The operator is responsible for the management, operation, and maintenance of the facilities 	<ul style="list-style-type: none"> - Car parking operators are responsible for the refurbishment and operation of the facility

