

cristal
by Lohr

Bimodal
transport solution

electric, economical
and digital





This 100% electric vehicle operates as a twin-use system: individual (self-service mode) and public (shuttle mode)



As **cristal** offers the option of being used as a public or private vehicle, offering a raft of services, it is a new way of sharing mobility, making journeys easier and ensuring optimum use of the vehicle.

This 100% electric vehicle is both compact and roomy, reducing its urban footprint while offering a large interior volume. **Cristal** provides 100% accessibility for people with reduced mobility and can accommodate up to 22 standing persons in shuttle mode (Cristal Cabin configuration).



Self-service mode

Vehicle driven by a user with an ordinary driving licence

- *User pre-registered with the system operator to check fleet availability and book a vehicle,*
- *dashboard access by the user, simple and self-explanatory,*
- *free route: vehicle taken and returned to a station by the user,*
- *vehicle fleet continually reorganised between stations depending on requirements through the shuttle mode.*



*Capacity: max. of 5 people (including the driver)
Maximum speed: 70 km/h*



Within the spectrum of our group's historic activities and its successes in the field of transport, **crystal** represents a new step towards the mobility of the future.



Robert LOHR - Chairman of the Lohr Group

Designed with public transport in mind, the **crystal** system is part of the full complementarity of forms of "mass" public transport (such as the underground, trams and buses), and ensures that the "last mile" is served.

It is innovative because it provides an integral offer. It is connected, shared, clean, and run by the same operator as the whole of the existing public transport network.



Same length and width as a city car,
but with standing, pavement-level access



Capacity: max. of 82 people
Maximum speed: 40 km/h



Shuttle mode

Professional driver employed by the operator

- *Answers a planned travel requirement, at a particular time and for a specific duration,*
- *2 to 4 vehicles coupled together,*
- *one single driver in the first vehicle,*
- *passengers cannot access the dashboards.*



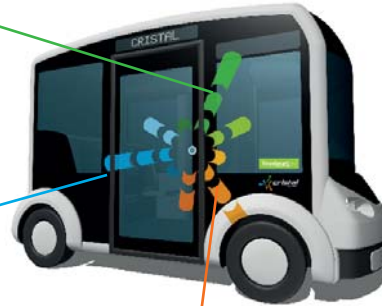
In shuttle mode the stations are permanently reorganised, with **cristal** vehicles rearranged according to requirements. Dual use allows the vehicles to be used more efficiently.



Information and reservation in real time by Smartphone to facilitate the use for users and the operator.



- Quiet and 100% electric vehicle,
- zero CO₂ and GHG emissions.



Social aspects

Comfortable, secure and fully accessible for people with reduced mobility.

Technical

- Automated coupling system following a single-lane trajectory,
- safety: no spaces between each shuttle module,
- on-board battery has enough power to run all day,
- slope: 18%,
- range: 120 km.

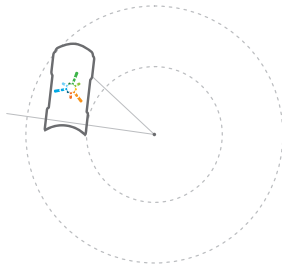


Turning diameter



Self-service mode

Turnin radius: 5,2 m



Shuttle mode

Turning radius: 7,6 to 8 m

