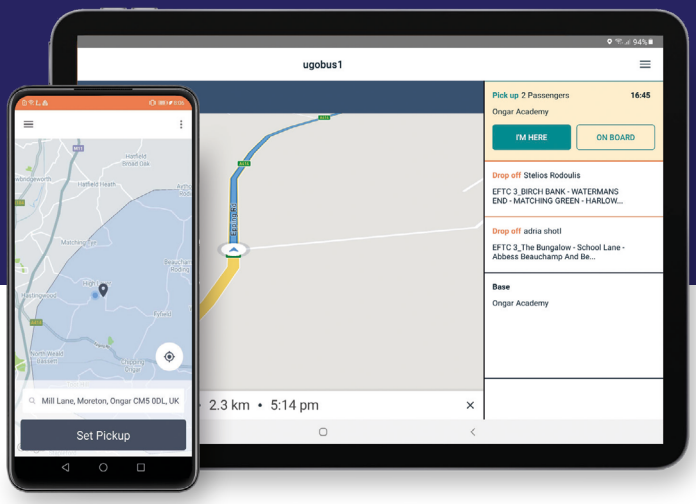
Home to School



A rural school with big mobility needs

On paper, fixed-route-and-schedule transit is perfect for schools. After all, timetables, routes and passengers are the same day in, day out. Easy to plan for, easy to program, right? Nevertheless, every year finds cash-strapped local authorities juggling increasingly tight budgets with the need to provide safe, reliable and efficient services. In rural areas, the problem is compounded by large catchment areas with scattered populations, making optimizing linear routes and sticking to strict timetables a challenge.

This was certainly the case for Ongar Academy in Essex, UK, which had to move some 130 students over an area of nearly 200 sq km with only a handful of minibuses. And when the school expanded in 2019, the pressure only increased. Having already exhausted all options to cut costs, Essex County Council reached out to Jacobs Consultancy. Jacobs then partnered with Swvl, challenging us to **find an innovative solution to the school's growing mobility needs while still keeping costs down.**

The school

Ongar Academy has a more convenient mobility solution saving the time and effort involved in programming repeat rides. It also benefits from improved data to offer a better mobility service to families.

Bus operator

Has a more efficient, cost-effective digital solution, a direct communication channel with users and better data-based insights. Cancellations or changes are available via a single access point.

The local council

Has successfully applied smart city technology to a rural area and fulfilled its mandate to provide improved home-to-school transport at no extra cost. It has made Ongar an easier, more attractive place to live.

Parents

Get an instant communication channel with the bus operator, a more personalized service for their kids and the greater peace of mind that comes with real-time ride tracking.

Solution

Using the existing fleet of 7 minibuses, we adapted our algorithm and on-demand platform to meet the strict pick-up and drop-off-time requirements of home-to-school transit. Rides were pre-programed in bulk and students collected from virtual stops placed at the optimal distance between each home. Phase II of the pilot gave parents the flexibility to cancel unwanted rides via the Passenger App.

We provided the Passenger App, Driver App, Central Control Console, driver and user training, marketing materials and support. Essex County Council funded the service and provided drivers and vehicles.

Passenger App
allows parents and students to get real-time pick-up and drop-off estimate updates and a more convenient, personalized service that adapts to their needs, not the other way round.

Driver App
alerts drivers to changes and cancellations in real-time, directs them to virtual pick-up and drop-off points and allows them to monitor on-board capacity.

Algorithms
constantly optimize all passenger bookings and vehicles routes to provide the best possible service for all users.

Dashboard
to set service parameters, monitor operations in real time via the Control Panel and get detailed data and analytics on user behavior, taking the guesswork out of getting it right.

With a widely distributed population and growing mobility needs, Ongar Academy was the perfect place to adapt our on-demand solution for home-to-school transit. Two successful pilots demonstrate the potential to optimize routes, improve efficiency and deliver a better service for less.

> *"Static supply and demand-led transport planning is increasingly incompatible with new perceptions of mobility and public appetite for digital services. The dynamic nature of on-demand transportation offers an opportunity to enhance public transport and attract new users."*

Essex County Council

Results

- Introducing a data-driven approach allowed us to optimize school bus routes, making home-to-school services more efficient.
- The two pilot phases demonstrated the technical feasibility of on-demand transit and that a similar service is theoretically achievable with fewer vehicles.
- The delivery of these two pilots established confidence in the technology and provided Essex County Council with valuable lessons on how to deploy on-demand services.
- The real-time ride tracking functionality was highly valued by service administrators, parents and students.

195 Km²
Area covered

130
Students transported daily

65%
User engagement via App

10
Vehicles

60
Virtual stops

6
After 6 months of service

Real Time
Pre Booking
Door to door
Data Analytics
Payments & Ticketing
PRM
AV
Maas API
White Label
Package Delivery

To learn more about how Swvl can transform mobility in your area or to schedule a demo, please contact us.