**TaxiUP University Mobility Service Proposal**

### Executive Summary

TaxiUP is a forward-thinking, sustainable electric micro-mobility solution designed to serve the transportation needs of over 40,000 students and 4,000 staff members on a 25-hectare university campus. Through a fleet of strategically placed electric carts, TaxiUP enables quick, accessible, and weather-resistant transportation across campus, while complementing and enhancing existing services like the university’s Green Route.

Our proposal positions TaxiUP as a university-branded, minimally co-branded service that promotes student welfare, sustainability, safety, and operational efficiency. The plan covers all aspects including phased implementation, insurance, staffing, cart operation, infrastructure, integration, financial sustainability, and a clear break-even model. It also presents a forward-looking vision for accessibility, innovation, and inclusivity, making the university a benchmark in modern campus mobility solutions.

### 1. Vision & Strategic Alignment

TaxiUP aligns directly with the university’s long-term goals:

* **Accessibility**: Removing barriers for mobility-impaired, blind, and visually impaired students.
* **Sustainability**: A zero-emissions fleet that supports Green Route and carbon neutrality goals.
* **Efficiency**: Minimizing staff time lost moving between departments and facilities.
* **Digital Transformation**: Enhancing digital infrastructure via smart ride scheduling.
* **Safety**: Seamless integration with Green Route services during night-time hours.
* **Student Development**: Offering employment opportunities that are safe, flexible, and meaningful.

### 2. Service Overview

* **Users**: Free for staff; free or subsidized for students.
* **Vehicles**: Starting with 5 carts (soft launch), scaling to 30+ as needed.
* **Operating Hours**: 07:00–18:00 daily.
* **Wait Time Goal**: 30 seconds–4 minutes (low traffic); 4–8 minutes during peak hours.
* **Trip Duration**: 1–4 minutes average.
* **Pickup/Drop-Off Points**: Over 100 digitally marked nodes (lecture halls, libraries, cafés, hostels).
* **Route Logic**: Dynamic routing favoring main roads and safe paths; carts stationed strategically for load-balancing.

### 3. Demand Estimation & Service Modeling

#### 3.1 Campus Population

* **Area**: 25 hectares
* **Students**: ~40,000
* **Staff**: ~4,000
* **Conservative Daily Use Estimate**:
  + Students: 5% → ~2,000/day
  + Staff: 15% → ~600/day
  + **Total Daily Rides**: ~5,200 (assuming 2 trips per user)

#### 3.2 Cart & Trip Efficiency

* **Cart Capacity**: 4 passengers
* **Trip Duration**: ~4 minutes
* **Trips per Hour per Cart**: ~12
* **Operating Hours**: 11/day
* **Cart Utilization**: ~130–150 passengers/day/cart

#### 3.3 Fleet Size Projection

* **Ideal Fleet**: 105 carts (zero wait); impractical
* **Conservative Model**: 25–30 carts achieve 75–85% demand satisfaction with moderate wait
* **Soft Launch**: 5 carts = 10% coverage

### 4. Booking System & Digital Experience

* **Platform**: Web-first; future mobile app
* **Core Features**:
  + GPS auto-location
  + Destination input, time estimation
  + Driver/passenger code-match system
  + Accessible features for blind/mobility-impaired
  + Feedback rating post-trip
* **Data Collection**: Driver efficiency, trip metrics, user demand, and anonymized heatmaps
* **Privacy**:
  + Drivers see only passenger name, trip code, and accessibility tags
  + No unnecessary personal data is shared

### 5. Driver & Staffing Model

* **Eligibility**: Student drivers with valid licenses
* **Recruitment**: Through Student Employment Centre
* **Shifts**: 3–6 hours/day, based on class schedules
* **Monitoring**: Real-time GPS, speed logs, route data

#### 5.1 Compensation Structure

* **Base Pay**: R32/hour
* **Shift Bonus**: R20 if on time
* **Rain Bonus**: R15/shift during poor weather
* **Monthly Income Potential**: R1,920–R3000 (based on 60–80 hours excl. bonuses)

#### 5.2 Staffing Requirements

* **Soft Launch**: 12–15 drivers (5 carts, rotation)
* **Full Operation**: 45–60 drivers (includes relief and sick cover)

### 6. Infrastructure, Charging & Weather Readiness

#### 6.1 Charging Stations

* **Setup**: 4 campus-based stations
* **Energy Use**:
  + Per Cart: 6 kWh/day
  + 5 Carts: 30 kWh → ~R2,700/month
  + 30 Carts: 180 kWh → ~R16,000/month

#### 6.2 All-Weather Readiness

* **Rain Gear**: Onboard storage; includes ponchos and seat covers
* **Sanitization**: Wipes and cleaning after weather exposure
* **Operational Priority**: Rain increases ride demand → high availability focus

### 7. Insurance Framework

* **General Liability**: R50,000/year
* **Public Passenger Liability**: Covers injury during transit
* **Asset Coverage**: Theft/damage – R2,000/cart/year
* **Employer Liability**: Covers student drivers for job-related incidents
* **Cyber & Data**: Future addition for digital platform

**Total Insurance Estimate (Full Rollout)**: R200,000–R250,000/year

### 8. Financial Model & Break-Even Analysis

#### 8.1 Operating Costs

| Category | Soft Launch (5 Carts) | Full Rollout (30 Carts) |
| --- | --- | --- |
| Driver Wages | R39,000 | R240,000 |
| Insurance | R12,500 | R25,000 |
| Electricity | R2,700 (free?) | R16,000 (free?) |
| Maintenance | R5,000 | R25,000 |
| Admin & Support | R1,000 | R35,000 |
| **Total** | **R56,200** | **R281,000** |

#### 8.2 Revenue Streams

* University sponsorship (target 45–100% coverage)
* Per-trip fares (R3–R8 based on distance, subscription)
* Monthly ride passes (R50–R120)
* Corporate/cart sponsorships (inside cart signage)
* Sustainability mobility grants

#### 8.3 Break-Even Forecast

* **Soft Launch**: 12–14 months (with 60% sponsorship)
* **Full Rollout**: 18–24 months (blended funding + fare revenue)

### 9. Sponsorship Tiers & Benefits

| **Support Package** | **Monthly Contribution** | **Coverage Scope** | **Institutional Return** |
| --- | --- | --- | --- |
| **Soft Launch Package** | R55,000 – R70,000 | Covers 5 vehicles, up to 15 student drivers (part-time), basic maintenance and charging needs | - Pilot testing of operations and demand- Service visibility without full infrastructure- Minimal upfront commitment, with full performance reporting- Foundation for evaluating expansion to full service |
| **Operational Support Package** | R90,000 – R120,000 | Covers ~40–50% of full rollout monthly operating costs, including staffing, maintenance, and scheduling support | - Faster movement across campus- Reduces bottlenecks between lecture halls and libraries- Demonstrable value for academic time efficiency and faculty productivity |
| **Mobility Access Package** | R130,000 – R170,000 | Covers ~70–85% of all operating costs, including robust student employment and route coverage | - Improves student access to campus facilities- Ensures consistent availability, including during adverse weather- Boosts campus-wide accessibility compliance and student service reputation |
| **Institutional Partnership Package** | R200,000 – R250,000 | Covers 100% of TaxiUP’s operating costs, staffing, training, insurance, and fleet logistics | - Fully university-owned service- Free or minimal-cost rides for staff and students- Direct alignment with student support and mobility innovation goals- Integrated with Green Route, academic departments, and administration |

### 10. Integration with University Services

* **Green Route**: Post-6pm safety rides continue; TaxiUP hands over at 18:00, website still available
* **Class Timetables**: Coordinated high-traffic timing support
* **Student Portal Integration**: Bookings directly from portal

### 11. Value Proposition Summary

| Category | Benefit |
| --- | --- |
| **Welfare** | No-stress travel between distant venues |
| **Staff Efficiency** | Reduced inter-building travel time |
| **Sustainability** | Zero emissions, grid-monitored energy use |
| **Inclusivity** | Reliable aid for visually/mobility-impaired |
| **Employment** | Flexible, fair student work opportunities |
| **PR & Reputation** | Proof of proactive campus transformation |

### 12. Research & Data Opportunities

* Real-time mobility data for GIS and campus planning
* Impact metrics for student welfare services
* Driver performance dashboards for workforce research
* Infrastructure effectiveness evaluation (charging vs. wait time)

### 13. Project Timeline & Milestones

| Phase | Period | Deliverables |
| --- | --- | --- |
| Proposal Presentation | July 2025 | Committee stakeholder approval |
| Setup Phase | Aug–Sept 2025 | Charging hubs, insurance, recruitment |
| Soft Launch | Oct–Nov 2025 | 5-cart test service, feedback collection |
| Evaluation | Jan–Feb 2026 | Usage review, peak time analysis |
| Full Rollout | March 2026 | 25–30 carts, expanded service & promo launch |

### Contact

TaxiUP Project Team  
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Let’s transform the campus mobility experience — together.