London Luton Airport - FTVG AI Options

BARE ANALYSIS
THE ANSWERS YOUR BUSINESS NEEDS

Geppetto Consulting.

Problem

Core Challenges:

- Incentive Management
- Communication Systems

LLA is suffering a **30 year** technology gap.

The **communication** opportunity:

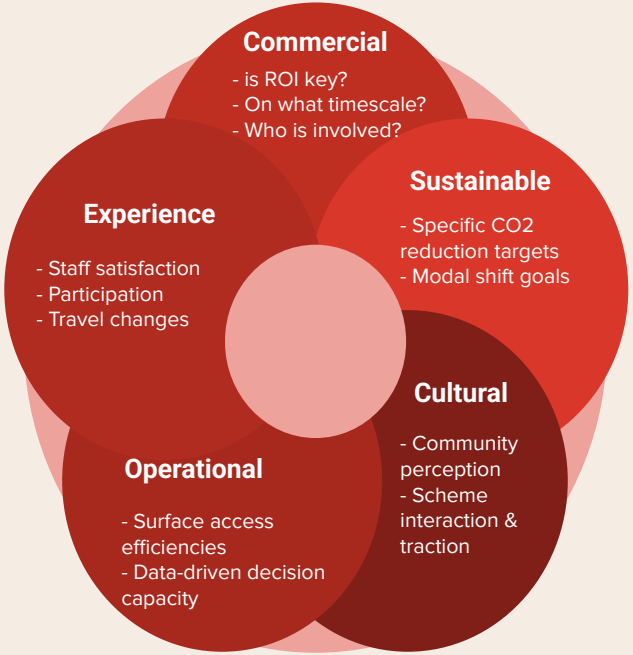
- Disseminate travel information
- Facilitate travel scheme interaction

Agenda

1. **Discussion:** Digital Success
2. **Options**
3. **Implementation Risks & Opportunities**
4. **Discussion:** Potential Roadmaps
5. Roadmaps & Next-steps

Defining Success: Digital Travel at LLA

How would you measure the impact of a successful digital travel product?



Examples:

- From a staff experience & sustainability perspective, average travel times should be reduced whilst increasing the overall sustainability of staff commutes across all of their journeys.
- Culturally, staff should feel that they have a variety of options for a sustainable commute, each as easy to execute or learn more about as the others.

Solutions

Building Blocks

AI and other interesting things

With digital foundations in place we can begin to innovate on behalf of the user and upgrade their travel experience. AI, gamification and integrations with external travel providers.

Digital infrastructure sets the scene

A digital heart of the travel product. Centralising staff personal data, information on travel schemes & incentives, and a 2-way communication system for keeping a finger on the pulse.

User research and understanding

Projects such as FTVG and further user experience research & discovery build a foundational picture of the problem to be solved by a digital travel product.

Personal Travel Assistant

Personalised and context-dependant travel recommendations delivered through smart notifications.

System Overview

1. **User Data** — Personal information spanning location, demographics & working patterns build a picture of our user.
2. **AI Persona Matching** — An AI workflow matching profiles to personas and predicts their travel pattern.
3. **Recommendations** — A Hybrid AI system makes travel recommendations based on available information & LLA objectives.

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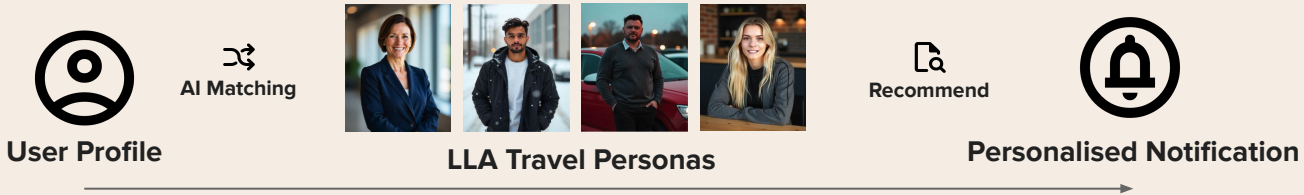
Transport Provider Integrations

Increase the information available to a recommendation system with transport provider integrations: Bus timetables & availability, DART timings & ticketing, other travel incentives available.

Wider Travel Data Collection

Expand data collection capabilities to fully map the user travel pattern.

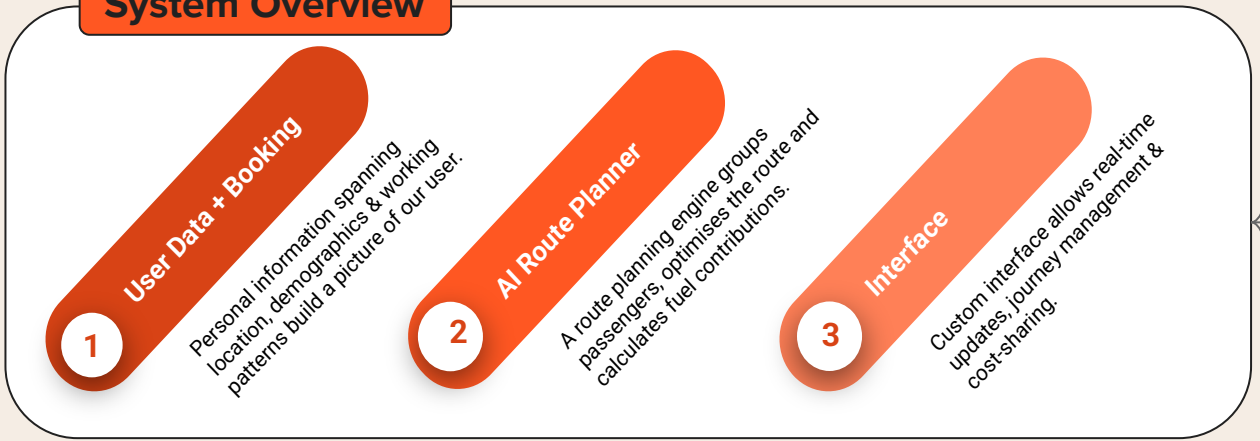
BetterPoints are a provider of similar technology and could provide a PoC.



AI-Powered Ridesharing

Optimised commuter matching and route planning.
Multiple implementation options provide flexibility in cost and sophistication.

System Overview



Custom Proof-of-Concept

- Basic AI routing
- Digital Signup system
- Human-in-the-loop manages testing: costs, groupings, etc

Mid-Market Integration

- Essential features provided
- Controlled roll-out & testing
- Higher automation & cost

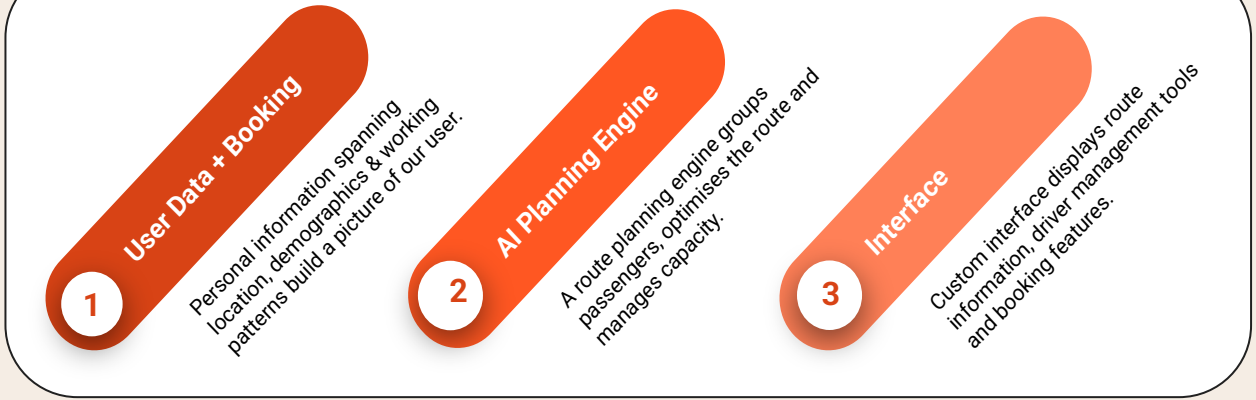
Enterprise Solution

- White labelled off-the-shelf solution
- Full feature set
- Comprehensive support

Demand Responsive Transport

Dynamic route optimisation based on real-time staff demand.

System Overview



Phased Implementation

1. Proof-of-Concept

- Basic AI routing
- Digital Signup system
- Human-in-the-loop booking taxi service

2. Service Expansion

- Additional routes
- Automated booking system
- Performance analytics and wider AI feature set

3. Full Integration

- Real-time fleet optimisation
- Predictive scheduling
- Roll-out to wider industry

Implementation Risks & Opportunities

Risks

Technical Implementation

- Data security
- System Integrations
- Technical debt
- Scaling limitations

Organisational

- Resource allocation
- Staff training requirements
- Operational disruption

User Adoption

- Digital literacy barriers
- Resistance to change
- Inconsistent engagement
- Trust issues & alienation

Opportunities

Immediate Benefits

- Streamlined communications
- Real-time travel data
- Cohesive experience

Strategic Advantages

- Data-driven decisions
- Future-proofed service
- Enhanced sustainability insights

Growth Potential

- Cross-departmental model for innovation
- Industry leadership and knowledge sharing
- Scalable platform for future innovation

Charting Paths: Routes to Implementation

How do we bridge a 30-year technology gap while creating opportunities and minimising risks?

Phase 1

Digital Foundations & User Understanding

- Build core communication capacity
- Store basic user information
- Ensure strong staff relationship

Phase 2

Incentive Digitisation & User Adoption

- Progress user adoption strategies
- Test initiatives & proof-of-concepts
- Explore provider and 3rd party integrations

Phase 3

Advanced Features & Innovation

- Full digital travel product for all communication needs
- Wider adoption and scaling plans
- Advanced analytics & surface access operations features

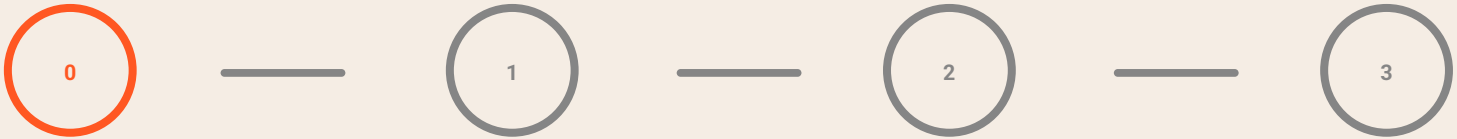
Example of a phased approach

Examples:

- Target staff travel personas who are easier to shift between modes early
- Focus on disseminating information before facilitating interaction
- Digitise already popular schemes, or focus on new ones?

Digitisation Road Map

The longer term next-steps for a successful digital travel product.



Research

Continue to define the digitisation problem. Understand user perspectives and what digitisation success looks like. Engage communication specialists.

Roadmap

Develop technical roadmap options based on the user research and success criteria. Include wider stakeholder objectives.

Evaluate

Identify the risks and opportunities of specific roadmaps. How do certain directions interact with wider airport objectives?

Develop

Start small and continually please the user. Build iteratively on top of successful research & testing. Continuously poll staff to understand progress on success metrics.

Next Steps: Persona-Based Notifications PoC

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Technical Scoping

Design a system architecture and understand AI matching capabilities. Discuss approaches with potential collaborators BetterPoints.

1

Data Preparation

Define the example user profile data points & persona matching system. Generate example staff profiles for matching exercises.

2

PoC Development

Develop the persona matching AI pipeline and communication templates. Design a feedback and assessment system for scoring capabilities.

3

Testing & Validation

Complete testing across example data and assess outcomes and performance. Use outputs to understand possible next steps.