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Interchange and Journey Planning

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The Tri-modal Leisure Corridor Planning Multimodal Trips

Dave Lemberg, PhD, AICP and Matthew Borr, Department of Geography, Western Michigan University, USA, lemberg@wmich.edu

A Tri-Modal Leisure Corridor (TMLC) is a set of motorized (auto/bus – Road, Rail), non-motorized (biking, hiking, etc – Route/Path/Trail), and Nautical (paddling, sailing, boating – Rivers, Lakes, Ocean, Canals). A Linear TMLC can be Riparian (along a river or canal), or Shoreline (along a seashore or lakeshore). Loop TMLC's can be Internal (around a lakeshore or enclosed bay) or External (around an island). America's longest Loop TMLC is under development around Lake Michigan in the States of Michigan, Wisconsin, Illinois, and Indiana consisting of a highway route (the Lake Michigan Circle Tour), a bike route (U.S. Bike Routes 35, 10, 37, 36), and the Lake Michigan National Recreation Water Trail.

When planning journeys on a TMLC, one must take into account the differences between modes such as varying distances and travel speeds. As an example, biking and paddling speeds can vary with slope, waves and currents, headwinds and tailwinds, heat and chill, rain, fog),and fatigue. Calculating trip time must include these variable impacts on speed, as well as rest time and layovers for meals and attractions. Planning a multi-modal group trip on a TMLC presents the added complexity of intergroup rendezvous, adjusting the trip schedules of each travel group, with layover time or wait time to match destination arrival times at each rendezvous.

Michigan Map Standard



Visualizing a TMLC requires all three travel modes visible on the map at a scale permitting navigation. The Map Standard above lays out the nautical route, with navigation instructions for road and bike routes in text boxes). An online TMLC trip planning system is under development, as is a mobile phone app combining a trip diary / virtual passport, a travel activity data collector, a location-based coupon distributor, and an invasive plant inventory system. The end result of this research will be a novel system integrating multi-modal transport, tourism, economic development and citizen-based environmental monitoring.

Airports as New Types of Urban Centre

Anna Nikolaeva, PhD fellow, Aarhus University, Denmark, anja.nikolaeva@gmail.com

Case studies: Amsterdam Airport Schiphol and JFK International Airport, New York.



During the last couple of decades large international airports and train stations have developed into new types of built environments with diverse facilities for travellers, meeters, greeters and general public.

'More than just an airport' or 'AirportCity':

- Development of non-aviation facilities at and around the airport
- Potentially: an urban subcentre, a meeting place for businesses and people and job creator

Conditions:

- Good accessibility via public transport (multi-modal interchange)
- Facilities both for travellers and non-travellers: e.g retail, cafes, hotels and conference facilities, office space, panoramic terraces, museums, spaces for performances, facilities for kids
- People-friendly design: good way-finding, stress soothing atmosphere, enough space and daylight, sufficient free seating, creating identity (e.g. by art objects)
- Creating room for urban spectacle to unfold: e.g. indoor and outdoor plazas accessible for anyone

Challenges and possibilities. Interviews with planners, architects and managers in Amsterdam and New York, highlight both challenges and possibilities in attempts to convert a travel space into a diversified urban space and a destination in two different contexts.

Challenges include:

- Accessibility (JFK); or
- Tensions between commercial and operational functions (AMS).

Possibilities include:

- Creating an enjoyable cosmopolitan public space for passengers, non-travellers and airport workers;
- Attracting businesses and educational/research institutions (which may integrate into collaborative platforms); and
- Creating an internationally competitive region with a positive impact on local and national economy.

Delivering Interchange and Journey Planning with a Quality Partnership

Cecil, J.P.; Copsey, S.L.; Joseph, S.; Salter, M.; Walsh, S.J. & Southern, R.L.V., University of Hertfordshire, s.l.copsey@herts.ac.uk

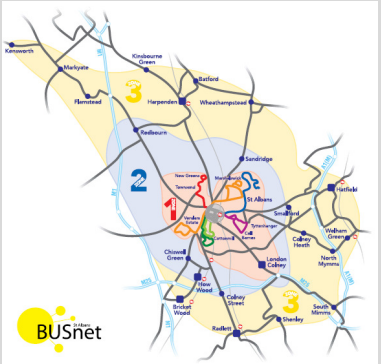
This is an archetype of a voluntary Quality Partnership set in St Albans, Hertfordshire. It facilitates and promotes local integrated sustainable travel options. The Partnership is structured by a steering group of primary partners through a non-binding Memorandum of Understanding and a community stakeholder group of associates. It is administered by the University of Hertfordshire, with the aim of developing an area wide network upgrade using a holistic transport strategy, including improved public transport and travel planning, to encourage behavioural change and carbon reduction.

Partnership has involved: facilitating and promoting integrated sustainable modes in an area wide network; branding 'Network St Albans'; re-branding city bus network routes; branded multi-operator zonal ticket (as illustrated on the map); real time & mobile ticketing; route & network marketing; increased route frequency; and infrastructure upgrades.

Behavioural change and carbon reduction has been enable through:

- Implementing 'Smarter Choices'
- Local air quality improvements
- Electric Vehicle (EV) infrastructure provision

www.networkstalbans.co.uk



'St Albans BUSnet': multi-operator zonal ticket network

Approaches include: business specific travel plans; traffic congestion modelling; personalised travel planning and route/corridor specific monitoring; and Geographical Information System plotting infrastructure improvements and congestion hot spots.

Monitoring assesses: partnership website visitor hits; multi-operator ticket purchases (by type); M-ticketing app downloads and ticket sales; QR code scans; remote monitoring of status; and use of electric vehicle charging points via GPRS.

Contribution to Economic Growth:

- Engaging businesses through EU funded 'Freshways to Work' – Travel Plan development and implementation
- Providing EU funded support for businesses to innovate in the field of low carbon transport
- Improving traffic flows
- Multi-modal interchange and journey planning

Funding Sources:
Department for Transport; European Union; Green Bus Fund; Section 106 funds; Office for Low Emission Vehicles; Hertfordshire County Council; St Albans City and District Council; Transport Operators.