

Innovative Concepts for Sustainable Transport in Cork City: the Niches+ Project

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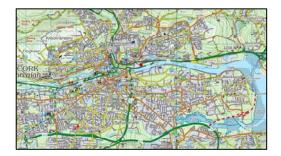


Cork City, Ireland Facts & Figures

- Land area (km²): 37.31km² (3,731 hectares)
- N° of inhabitants: 119,418 (2006) 250,000+ in Metropolitan Area
- **Population density:** 4,508 pop per km² (highest 8,722 pop per km²)
- Road network length: 420km
 - 34km National Routes
 - 37km Regional Routes
 - 349km Local Roads
 - 20km of cycle paths
- **Traffic volume:** 158,714 cars (city boundary, 12hr period)

Annual traffic compound volume growth rate 3.7%

- Modal split (%): 2006
 - Car: 49%
 - Public transport: 9%
 - Walking: 32%
 - Cycling: 2%
 - Other (motorcycle, etc.): 8%









Problem Definition

- Congested city centre
- Excessive dependence on private car for access to city centre
- Need to prioritise public transport systems



• HGVs travelling on routes adjacent to city centre







Vision & Objectives

- To specify & develop the Mobility Management Centre (MMC)
- To prioritise public transport systems
- To facilitate the provision of an integrated transport system, catering for the expansion in population and employment in the city and hinterland
- To prepare a Local Transport Plan (LTP) for the City that provides for real transport choice
- To provide high quality cycling and pedestrian facilities in the city
- To provide choice in terms of modal trips and introduce programmes that influence changes in road user behaviour



To enhance environmental quality





Context Conditions

- Reduced funding from central government
- Reduced funding from developers
- Reduced planning gains
- Restrictions on recruitment
- Redefining of priorities by City Council







Existing Initiatives -Pedestrian

- Pedestrian Priority Zone in the city centre restricts access to vehicles on some of the narrow city centre streets using a time-based automatic rising bollards system
- The renewal of streets scheme combined with PPZ enhances the city centre street-scape and the pedestrian experience. It will be extended further northwards following public consultation











Existing Initiatives - Bus

- Contra-flow bus lanes
- Bus priority at traffic signals, based on selective vehicle detection
- Bus-based P&R is available at the Black Ash site
 - First Purpose built P&R facility
 - 940 spaces Novel use of former landfill
 - Sustainable Development
 - Unique Livery, Logo & Route 111









Existing Initiatives -Parking

- Two On-street payment methods with integrated Enforcement:
- Parking Discs & Park Magic
- Flexible Payment options Public
- Improved Management Information – Local Authority
- Proposal to extend Park Magic to Black Ash P&R and use discounts to promote a shift to P&R and more sustainable modes











Mobility Management Centre

The MMC is central to Cork's future transport vision. It will:

- Enable fully integrated services and functions to support the development of a more sustainable, efficient and effective transportation system
- Identify mobility management strategies to improve transport operations, modal shift incentives and efficient land use management
- Develop systems and services that leverage the use of more sustainable transport modes to address Climate Change and reduce CO₂ emissions for the future

The MMC plays a crucial role in the Cork Area Strategic Plan (CASP) and Local Transport Plans (LTP), all within the Cork City Development Plan (2009-2015)







Delivering the MMC

The MMC will be delivered in three phases:

- 2009: Mobility Management Strategies
 - The Traffic Division is currently researching & developing possible mobility management strategies to improve transport, modal shift incentives & efficient land use management
- 2009: High Level Strategic Plan
 - A comprehensive strategic plan will be developed exploring the suitability of providing and operating a range of management functions from the MMC
- 2011: Full implementation of the MMC









"New and Innovative Concepts for Helping European Transport Sustainability – towards implementation"

Promotes the most promising new concepts, initiatives and projects from their current 'niche' position to a mainstream urban transport policy application







NICHES+ Facts

- Coordination Action funded under the 7th Framework Programme – DG Research
- 3 years (2008-2011)
- Coordinator: Polis



• 6 partners: Rupprecht Consult, Eurocities, Newcastle University, Transman, University of Southampton







and the Environment

School of Civil Engineering





7 Champion cities





NICHES+ Champion Cities

- Artois-Gohelle
- Burgos
- Cork
- Daventry
- Worcestershire
- Trondheim
- Skopje









Working Groups

- 1. Innovative concepts to enhance accessibility
- 2. Concepts for efficient planning and use of infrastructures and interchanges
- 3. Traffic Management Centres
- 4. Automated and space efficient transport systems

Each group contains 3 innovative concepts







NICHES+ in Cork

Mobile Travel Information Services (MTIS)

 Provision of complete (integrated), multi-modal transport information to trip-makers via the MMC (including real-time information) at stop, station, on board vehicle and hopefully to mobile device

Environmental Pollution Data (EPD)

- Irish Government (HEA-PRTL) funded project, NEMBES (2007-2010) develops wireless, embedded sensor networks
- Implementation of a wireless sensor network for environmental monitoring (noise, CO₂, etc.). Information will be processed within the MMC for future planning purposes, plus dissemination to commuters







Challenges

- Bringing together all the relevant multi-modal information into a one-stop-shop format;
- Delivering real-time information;
- Delivering alternative travel information in case of delay or accident;
- Delivering information to mobile devices (related technical issues, notably battery depletion, speed of data transfer, security and compatibility with different software)







How will Niches+ Benefit Cork?

- Develops an Implementation Strategy:
 - An assessment of Cork's chosen innovative concept(s), the context for its implementation, needs of users and stakeholders, the transferability of existing solutions to each adopting city, and action planning
- **Study tours** for officials from Cork:
 - Officials work with the project consortium and hand-picked international experts
- **Networking** opportunities:
 - Three NICHES+ Working Group meetings and further events create a "NICHES community" of experts







Concrete outcomes of NICHES+

- 7 local implementation scenarios, one for each city
- Policy notes on 12 innovative concepts
- 7 national events in champion cities
- Study tour catalogue
- Research recommendations







Learning from NICHES

Cork is also actively benefiting from Policy Notes produced for the original Niches project:

- "Urban Lift Sharing Services": is consistent with Cork City Council's commitment to providing an urban lift sharing service, administered by AVEGO (http://www.avego.com/st/index.php)
- "City-Wide Campaign, Marketing and Branding": Cork City Council's campaigns, amongst others, will be to realise the first ever Irish car sharing club - "GoCar" (<u>http://www.corkcity.ie/ourservices/roadstransportation/trafficdivis</u> ion/gocar/)







Project Websites

www.niches-transport.org

www.osmose-os.org



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Working groups	more efficient and sustainable and to move them from their current "niche" por a mainstream urban transport application.	sition into	Read more abo	rut the[more]
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Contact us	 Neighbourhood accessibility planning Tailored traveller information for users with reduced mobility 		12 innovative o	ion (more)
Members login	Concepts for Efficient Planning and Use of Infrastructure and Intercha	nges	osmos	e
NICHES 2004-2007	Passenger friendly intermodal interchanges Innovative cycling facilities for intermodal interchanges			
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	Traffic Management Centres			
	 Finance models for traffic management centres Mobile travel information services for the public 			
	 Using environmental pollution data in traffic management. 			
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