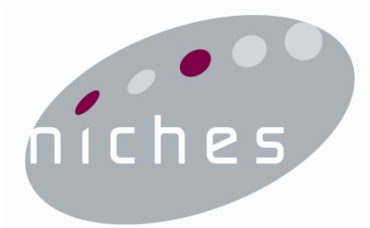




Innovative Concepts for Sustainable Transport in Cork City: the Niches+ Project

Ian Winning (Cork City Council)
Simon Edwards (Newcastle University)
Polis Conference
10th December 2009

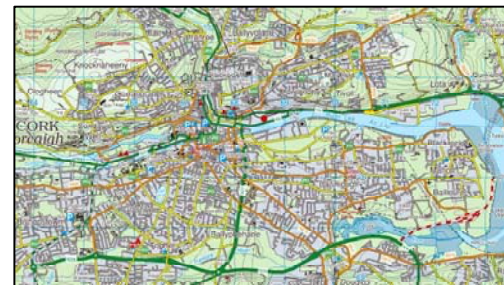


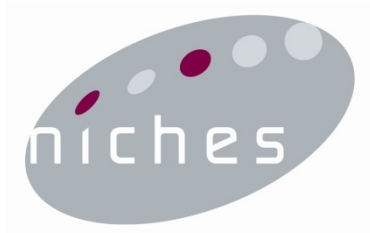


Cork City, Ireland

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

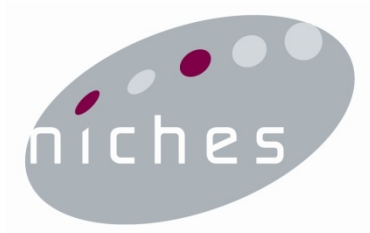




Vision & Objectives

- 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

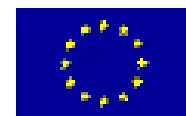
- Reduced funding from central government
- Reduced funding from developers
- Reduced planning gains
- Restrictions on recruitment
- Redefining of priorities by City Council





Existing Initiatives - Pedestrian

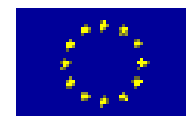
- Pedestrian Priority Zone in the city centre restricts access to vehicles on some of the narrow city centre streets using a time-based automatic rising bollards system
- The renewal of streets scheme combined with PPZ enhances the city centre street-scape and the pedestrian experience. It will be extended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

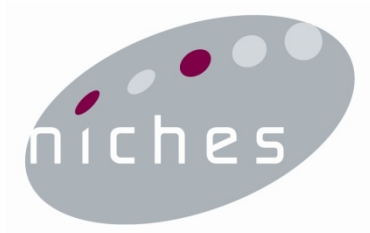




Existing Initiatives - Bus

- 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*



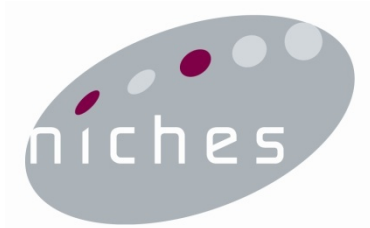


Existing Initiatives - Parking

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





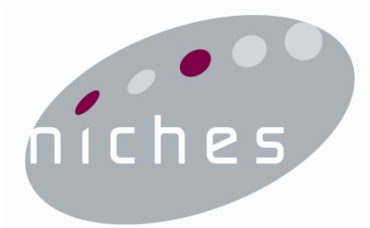
Mobility Management Centre

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



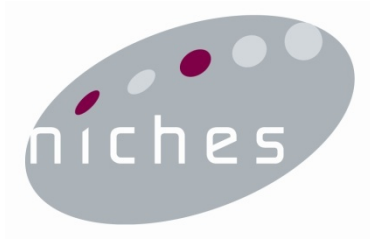


Niches+

“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



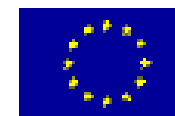
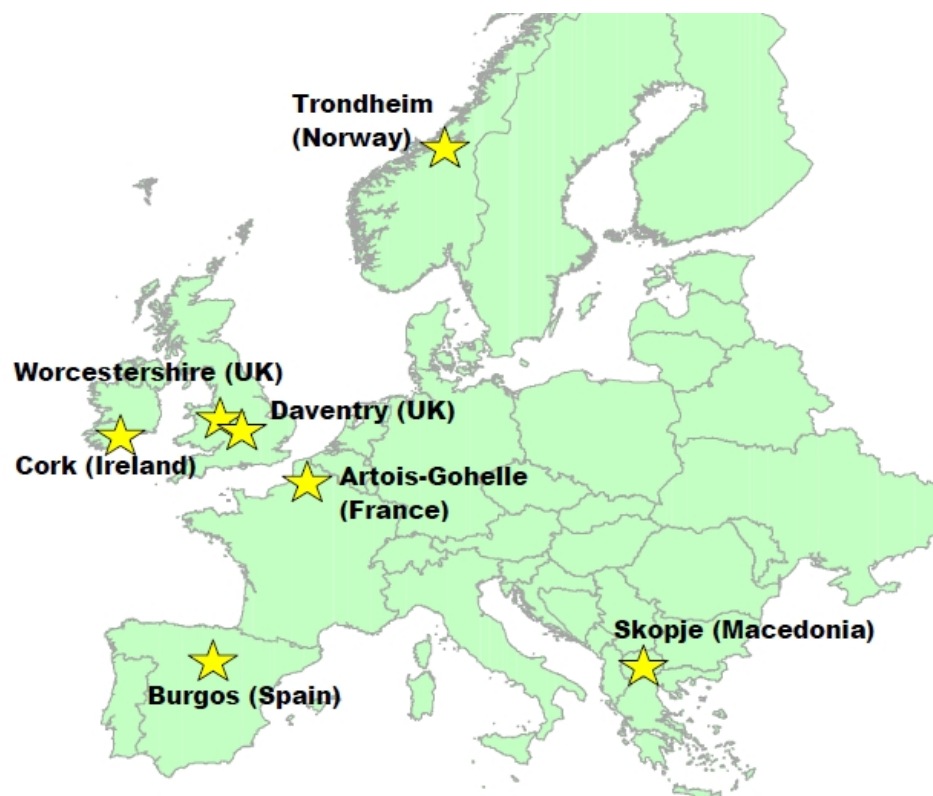
- 7 Champion cities

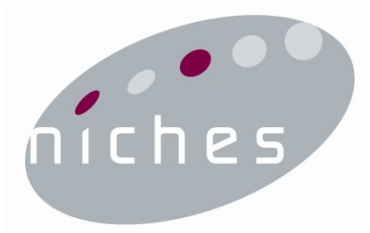




NICHES+ Champion Cities

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



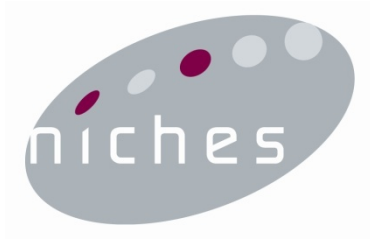


Working Groups

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

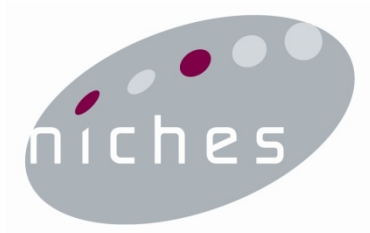
Mobile Travel Information Services (MTIS)

- 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)

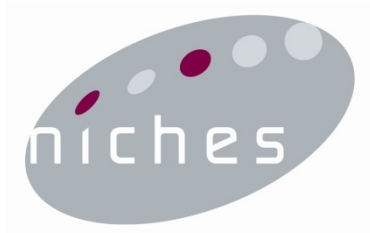




How will Niches+ Benefit Cork?

- 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

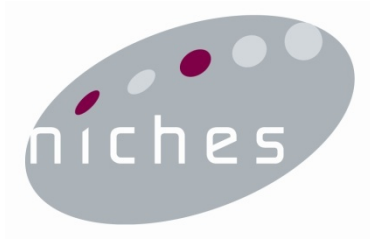




Concrete outcomes of NICHES+

- 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:

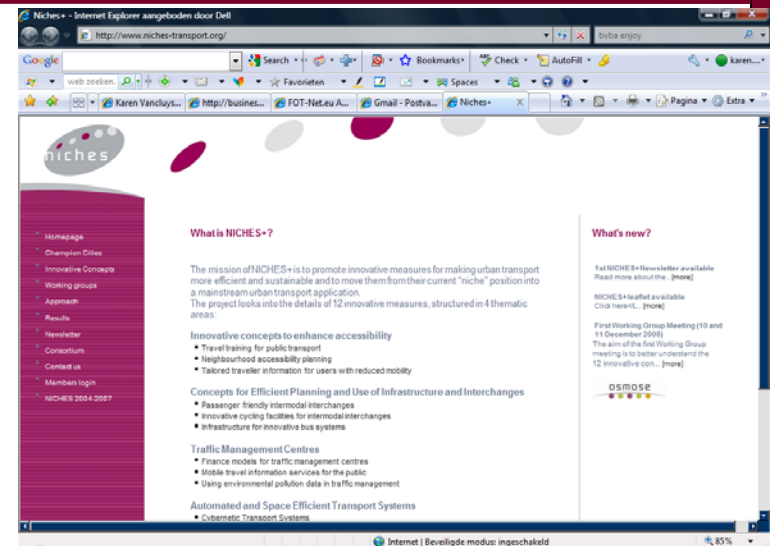
- “Urban Lift Sharing Services”: is consistent with Cork City Council’s commitment to providing an urban lift sharing service, administered by AVEGO
(<http://www.avego.com/st/index.php>)
- “City-Wide Campaign, Marketing and Branding”: Cork City Council’s campaigns, amongst others, will be to realise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



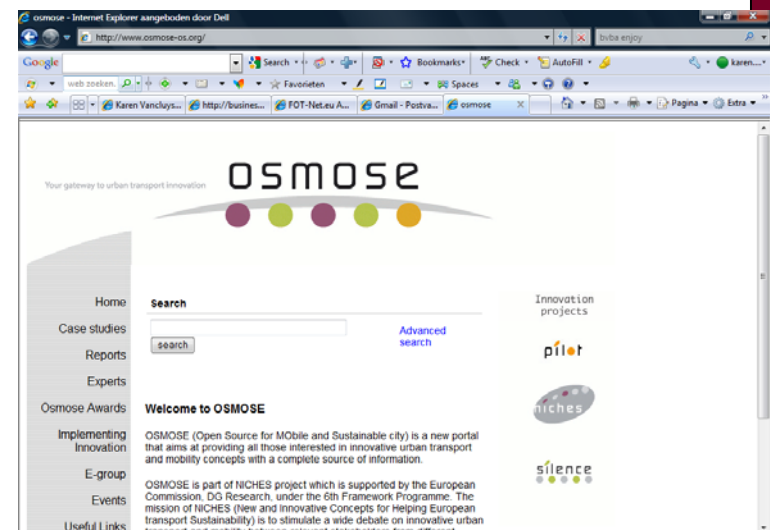


Project Websites

www.niches-transport.org



www.osmose-os.org





THANK YOU!

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