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Potential for a Public Bikes Scheme in Limerick

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- Background on the international development of public-bike schemes

- Limerick
  - Potential for cycling
  - Demand predictions
  - Possible locations of docking stations
  - Sustainable transport in general
  - Next steps

Three generations of cycle hire schemes

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- 1960s Amsterdam

- 1970s to 90s (e.g. Bycyklen, Copenhagen)

- Third (and current) generation – combats vandalism/theft through technology and secure docking stations.
  - Rennes 1998
  - Major schemes in Paris and Barcelona 2007 credited with 'big bang' effect
  - First Ireland scheme: Dublin 2009
  - First UK scheme: London 2010

The world's biggest schemes

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- Velib in Paris was the world's largest when introduced in 2006 – over 20,000 bikes and over 100,000 trips per day
- Hangzhou, China (2008), now the largest with over 60,000 bikes
- For comparison, Dublinbikes (2009) has 550 bikes (as of Summer 2011)

The third generation of cycle hire schemes – key characteristics

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- Business model includes major advertising firms (JC Decaux in Paris), scheme sponsorship (Barclays), and car-park revenue (Barcelona)
- Bikes are available for a free half hour – beyond this period, prices rise sharply
- Different levels of subscription – daily, weekly and annual

The third generation of cycle hire schemes – key characteristics (2)

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- Large city schemes, journeys last 13-17 minutes on average (3km to 4km)

- Density of docking stations (Paris and London) approximately 8/km^2 or 1 station every 300m. Lower density in smaller places e.g. Calais 1.5/km^2

- Bikes have several essential characteristics
  - unique, **robust** parts to deter vandals, minimise maintenance and make visible
  - mudguards and chain-guards to enable use in **normal clothes**
  - permanently illuminated dynamo **lights**
  - easily **adjustable** saddle height suitable for most adults (1.5m -1.9m)


JCDecaux
JCDecaux

Obstacles to successful schemes

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European research project identified the following obstacles to a successful scheme

- **Existing high levels of cycle ownership and mode share**
- **Underestimated demand** causing low availability
- Competition with traditional hire
- **Vandalism/theft** in cities without a cycling culture
- Intensive use leading to **frequent breakdowns** damaging integrity of scheme
- **Empty or full stations** prevent hire or return of bikes - users waste time and lose trust in scheme
- Registration/rental fees don't cover costs – external revenues needed

Factors which influence demand

- Topography
- Congestion affecting motorised transport
- Limited availability and/or high cost of car parking
- Climate and weather

Focus on Limerick

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- Population of approximately 100,000 including 20,000 students
- Cycle commuting mode share is around 3%
- Cycle friendly topography – a relatively flat city particularly in the central areas
- There is little traffic congestion in the city, and it is relatively cheap and easy to park a car in the city centre.
- There is a considerable number of multi-lane one-way streets making journeys by bike more difficult.

Focus on Limerick (2)

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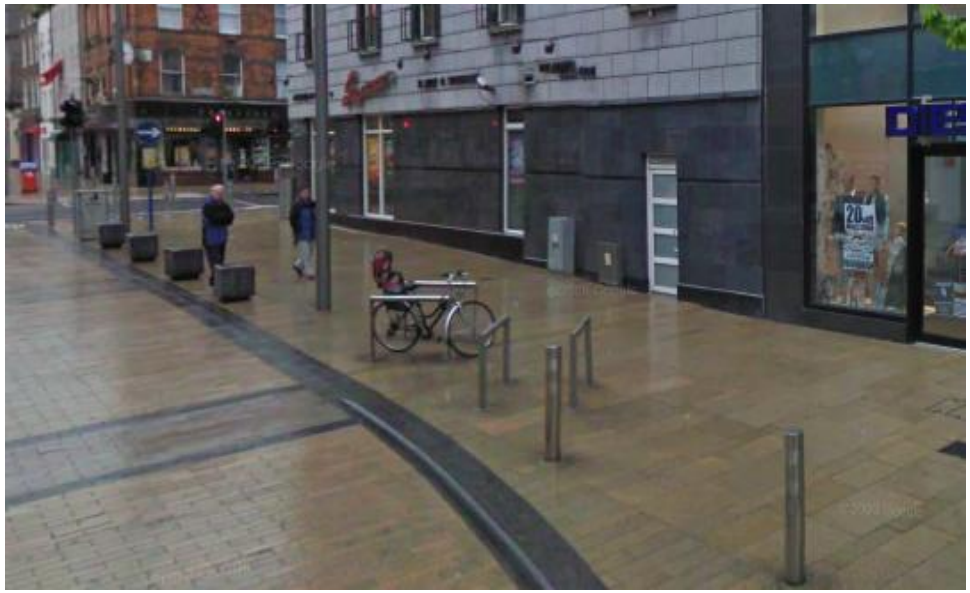
- Cycle parking is scarce and relatively little used – however, bikes parked to street furniture suggest stands are needed in other places



Demand predictions for bike-sharing scheme in Limerick

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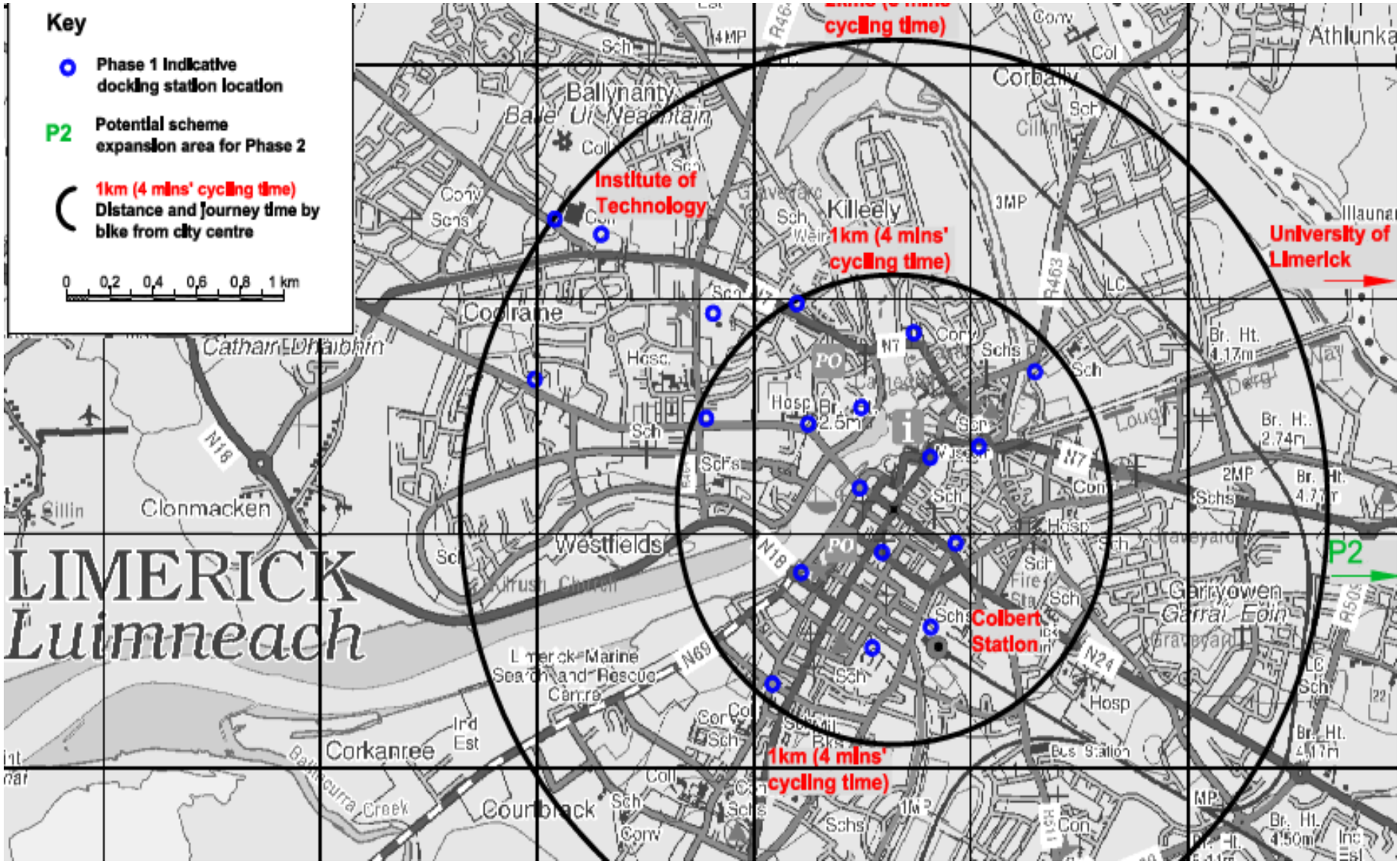
- A fleet of **150** bikes is recommended, distributed among **20** docking stations
- It is predicted that the scheme would attract up to **1500** members
- The proposed deployment area is mainly focused on the city centre and includes Colbert Station, with a spine towards the north west of the city to include the Institute of Technology

Potential locations for docking stations



Sustainable transport in Limerick – a bigger picture

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A bike scheme would complement other initiatives

- Traffic management grants supporting
  - Bus priority
  - Walking
  - Cycling
- A national cycle manual to guide best design
  - **www.cyclemanual.ie**
- Real time passenger information
- Optimisation of bus services

€2.341 million in grant funding to Limerick City Council in 2011

- administered by NTA on behalf of the Department of Transport, Tourism & Sport

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Bus Priority and Park & Ride projects - €650,000

1.	€550,000	Southern Green Route Phase 1
2.	€100,000	Eastern Green Route Phase 2

Bus Stop Accessibility - €101,000

1.	€ 15,000	Ennis Road
2.	€ 33,000	Vicinity of Colbert Station
3.	€ 20,000	Stop at Henry Street
4.	€ 33,000	Stop at Arthur's Quay

Jobs Initiative Fund - €1.59 million

1.	€50,000	Public Transport Way finder Signage
2.	€75,000	Speed Warning Control Signs
3.	€100,000	Cycle & Pedestrian Access Ramp from O'Callaghan St
4.	€120,000	Condell Rd Walking & Cycling Facility
5.	€150,000	Cycle Network Hazard Improvements
6.	€125,000	Regulate pedestrian upgrades to M.I.D. Standards
7.	€70,000	Orbital Route Phase 2 Provisions, directional & lane assignment signs
8.	€800,000	10 VMS & 26 Parking Signs
9.	€100,000	Provision of cycle advance stop lines at key junctions

€1.124 million in grant funding to Limerick County Council in 2011

- administered by NTA on behalf of the Department of Transport, Tourism & Sport

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Bus Priority and Park & Ride projects - €548,000

1.	€548,000	R445 Dublin Road Green Route Phase 2

Bus Stop Accessibility - €101,000

1.	€ 15,000	Ennis Road
2.	€ 33,000	Vicinity of Colbert Station
3.	€ 20,000	Stop at Henry Street
4.	€ 33,000	Stop at Arthur's Quay

Jobs Initiative Fund - €475,000

1.	€50,000	Groody Road & Kilmurray Road
2.	€55,000	Bus Shelter Programme
3.	€295000	Golf Links Road
4.	€50,000	Pedestrian & Cycle Crossing
5.	€25,000	Pedestrian Cycle Information

The Limerick Walking & Cycle Strategy 2010 - 2020 targets

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1.	Condell Road	2.47 km
2.	Corbally to University of Limerick	2.8 km
3.	City Centre to University of Limerick - Canal Bank	4.62 km
4.	Childers Road and Old Dublin Road to University of Limerick	2.0 km
5.	Coonagh to Knockalisheen Road Scheme	5.0 km
6.	The Childers Road	2.0 km
7.	Castletroy Area	15.0 km
8.	Dooradoyle/Raheen Area	5.0 km
9.	Great Southern Trail (Abbeyfeale to Rathkeale)	37.0km
10.	Limerick/ Nenagh Cycle way	54.0 km

1.1 Sustainable Safety

Cycling is a vulnerable mode in traffic terms. Safety is at the heart of all good design. The designer should ensure that the Principles of Sustainable Safety have been applied to all schemes.

The principles of Sustainable Safety were developed in 1992, and in the following years in the Netherlands. They underpin all road design and the adherence to those principles has contributed to the Netherlands leading record in road safety.

This manual subscribes to the principles of Sustainable Safety and has used them in the determination of content.

There are five principles as follows:

- 1.1.1 Functionality
- 1.1.2 Homogeneity
- 1.1.3 Legibility
- 1.1.4 Forgivingness
- 1.1.5 Self-awareness

Mandatory Lanes, Side Streets

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Box Turns

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Driveways / Crossover

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Left Hand Traffic Pocket

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Pedestrian Priority Shared Area

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RTPI Limerick

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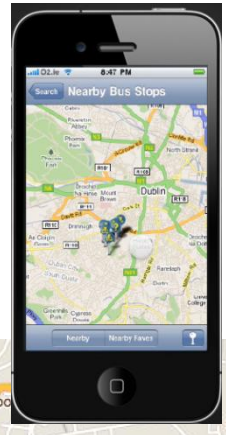
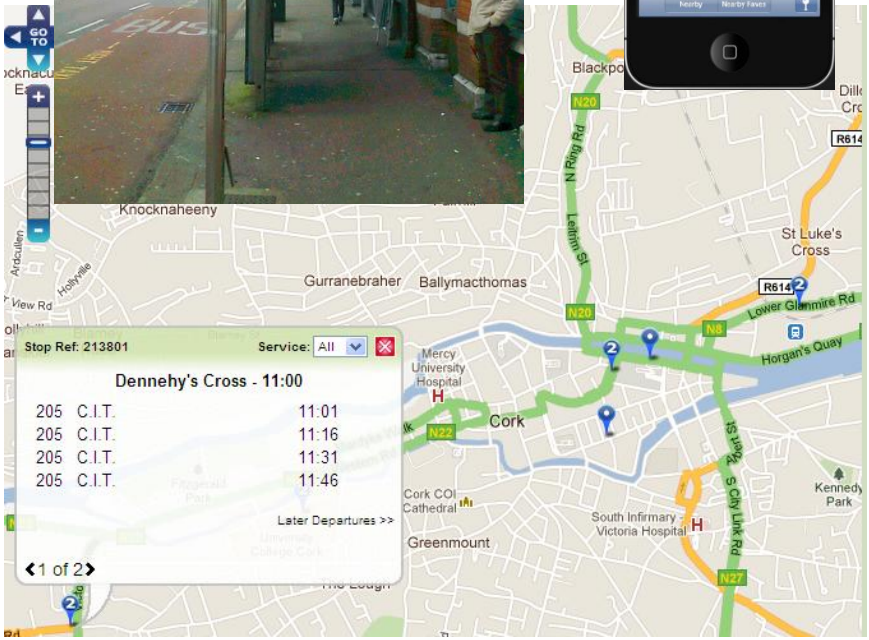
- First Bus Éireann Test Sign Up in Cork - Cork is the pilot for Bus Éireann signs
- When data is reliable it will enable a quick roll out to Limerick in 2012

When Data is dependable, information will be available for all Bus Éireann stops in Limerick via:

- Signs in busy locations (x approx.)
- Website www.TransportforIreland.ie
- Smart Phone Apps
- One SMS number for all real time bus services in the country





Next Bike scheme steps

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- Commercial analysis

- More detailed survey work
  - Likely take-up
  - Potential locations of docking stations

- Examine costs more closely and devise best VFM model

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