Detecting Cyclist in Dublin City

Karen Hosie,
Oisín Devilly, Petra Cooling, Christopher K Manzira
Dublin City – Cycling

Cordon Count

Challenges

People’s perception in relation to Cycling in Dublin

• Weather

• Safety

Cycling increased 2.33 to 5.72%
Dublin City – Weather

4 Seasons in One Day

It’s Grand – Just buy a rain coat
Dublin City – Layout

Georgian Dublin

Modern Dublin

Modern City – A mixture of a medieval city with georgian quarters
Lane layout

Junction Geometry

• Varying junction design and crossing width

• Mainly on road cycle lanes

• Small but increasing number of segregated routes
Traffic Management

Traffic Control Centre

• SCATS – Over 850 Sites in Dublin and surrounding areas

• Adjusts signal timings in response to detector demands

• But not all bicycles are detected
Challenges for Cycle Detection

Reliable Detection of Cyclists

• Accurate detection and classification

• Reliability

• Cycle lanes in shared areas
Smart Micro Technology

Project Objectives

• Registering cyclist as the approach

• Extension of the minimum green time

• Allow extra time to clear
Site Installation

Conyngham Road and Exiting the Phoenix Park

Approx. 60m
Signal Operation

Phase A: SG1 Losing, SG3 Gaining

Intergreen:
- Vehicle Intergreen
- Cyclist Intergreen – Using the Smart Micro device

Phase B:
3 Seconds
5 Seconds
3 Seconds
9 Seconds
Video of Smart Micro Unit

Short Video of the Unit Operating
Results – Morning Peak

Conyngham Road
• 156 Cyclist Detected
• 9 All Red increased

Exiting the Phoenix Park
• 161 Cyclist Detected
• 10 All Red increased

Morning Peak 8.30 to 9.30
Thank You and enjoy your trip to Dublin