

## Ireland National Interoperability Overview

Kevin O'Sullivan Arup  
20<sup>th</sup> October 2014



## At the outset there were two main reasons for promoting ETC interoperability

- Firstly, it was noted that that full interoperability would be of **significant benefit to road users** in general and in particular to regular and strategic users of the new motorway network;
- Secondly, the introduction of interoperability was viewed as a **'springboard' to deliver increasingly ambitious levels of Electronic Toll Collection (ETC) on the network;**
- It was also argued that from the road user's perspective interoperability should be considered a 'necessity';

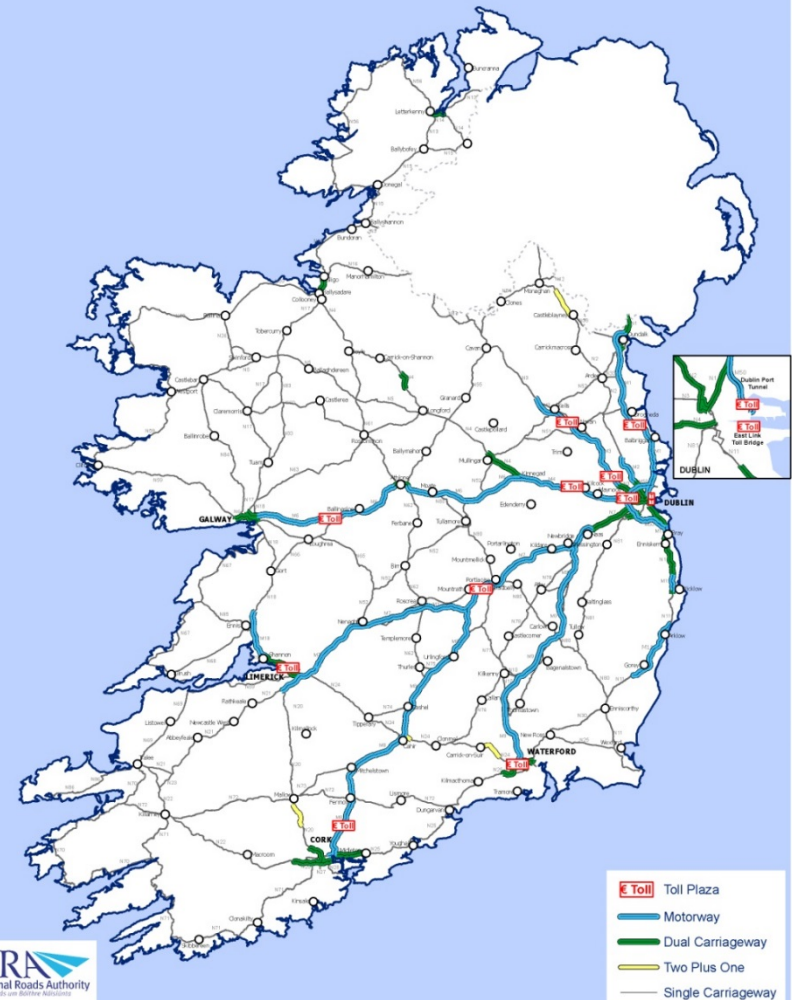
## The current situation is influenced by many changes over the past decade

- 2003–2010 - New motorway network with toll roads;
- 2007 – Appointment of 1<sup>st</sup> Interoperability Management Service Provider;
- 2008 - Introduction of ORT free flow on M50;
- 2008 - Introduction of National Toll Service Providers ;
- 2012 – Tender for 2<sup>nd</sup> Generation Interoperability Management Service Provider;
- 2014 - Implementation of 2nd Generation IMSP
- Ongoing – Preparation for European Interoperability;

## Irish Network

- There are currently ten toll roads on the national network and one on the local network;
- The majority of the toll roads have been funded using Public Private Partnerships. Others Operator model
- Virtually all Ireland's commerce and industry depends on road links
- Roads carry 96% of passenger traffic and over 98% of internal freight
- Population increased 8% since 2006 to 4.6m;
- Car ownership ~ 2.5 million;

### Toll Plaza Locations 2010



## Irish Tolling System

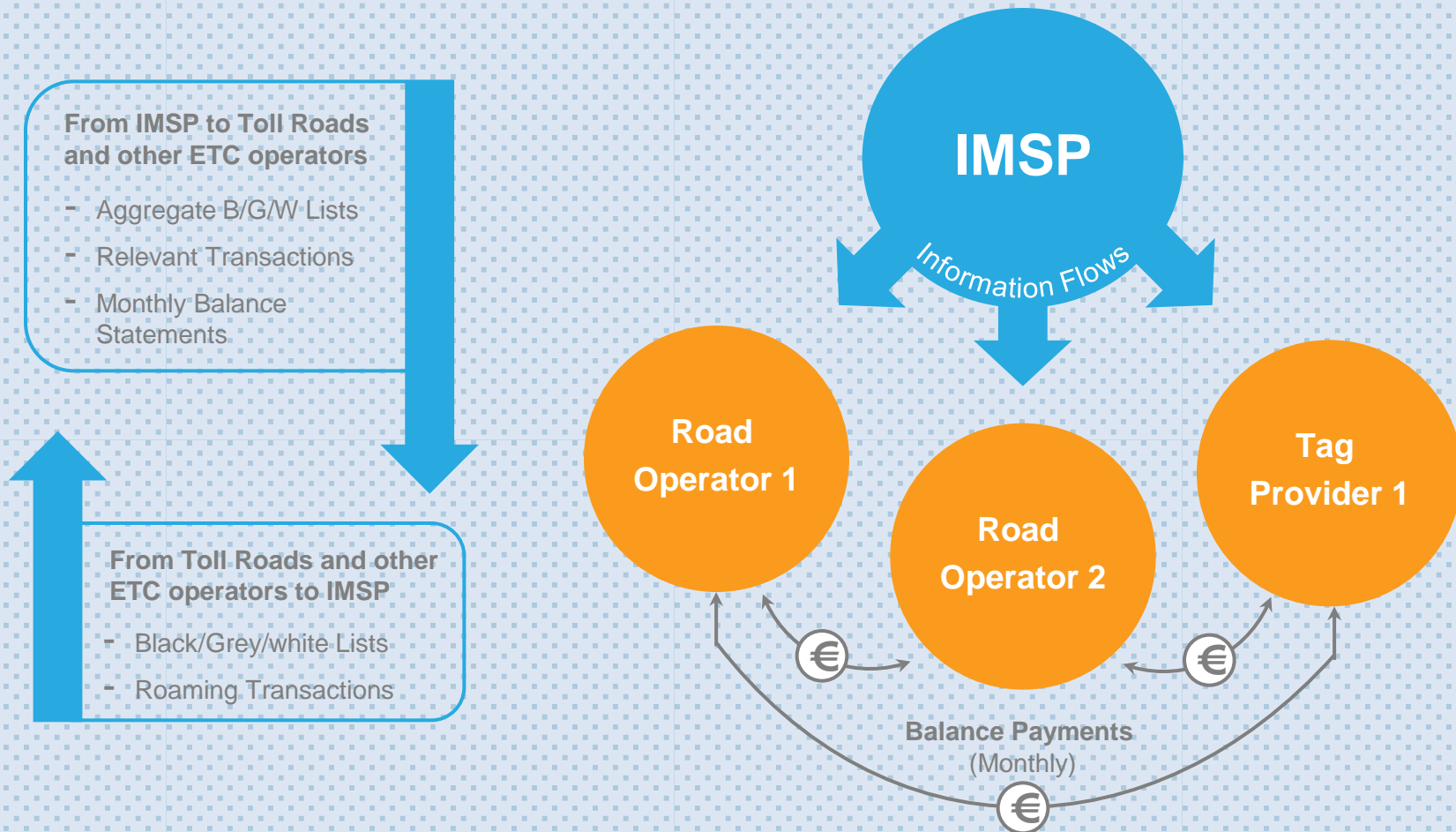


- Single-point tolling;
- Standard toll plazas;
- ETC options and express lanes.
- Open-road tolling;
- DSRC.

## STAKEHOLDERS



## Central Clearing House: “hub and spoke” solution to Interoperable ETC



## Independent [Toll] Service Providers enter market

- Step-change in market
- Now ETC accounts for 50% of all tolling transactions
- IMSP processed €95M interoperable tolling transactions in 2013
- Cheaper toll collection for Toll Chargers
- Continuing obligation to be interoperable with each other



## The basic business case is positive for the tolling sector

Annual National Estimates (2011)	€ millions
ETC Toll Revenue	€120
User Contribution (Admin Fees) - Revenue	€5
ETC Operating Costs*	- €15

*\*Costs split between Road Users and Tolling Sector approx. 33% : 67%*

## Funding Arrangements – who pays today?

- Network Manager (NRA):
  - Funds Interoperability Management Infrastructure and Systems (e.g. operating payments and capital for interoperability management service provide );
- Toll Road Companies:
  - Interoperability costs (e.g. systems and operations costs);
- Independent EETS Style Tag Providers:
  - System and Operational costs
  - Pay IMSP usage fees;
- Users / Motorists / Customers;
  - Account Administration Charge (next slide);

## Charges to Users / Motorists are relatively low in current environment

- Current Policy on User Charges:
  - Administration Charge – to cover cost of supply of OBU and account management function. Some tag / service providers charge a fixed fee (e.g. €1 per month per OBU) and some charge a percentage fee (e.g. 5% of the toll charge);
  - No uplift in Toll charge for ETC – despite “better product” for road user;
  - Reduce Fees for ORT
  - No additional roaming charges to users for interoperability – unlike mobile phone model;

## Developing the Model

- Lessons learnt – how can we improve?
- Flexibility and market-oriented approach
- Contractual model to allow companies assume greater autonomy and responsibility
- A technical solution to facilitate flexibility and improved performance
- Facilitate migration to new standards
- Provision for EETS?

## New Technical Solution (IMSP)

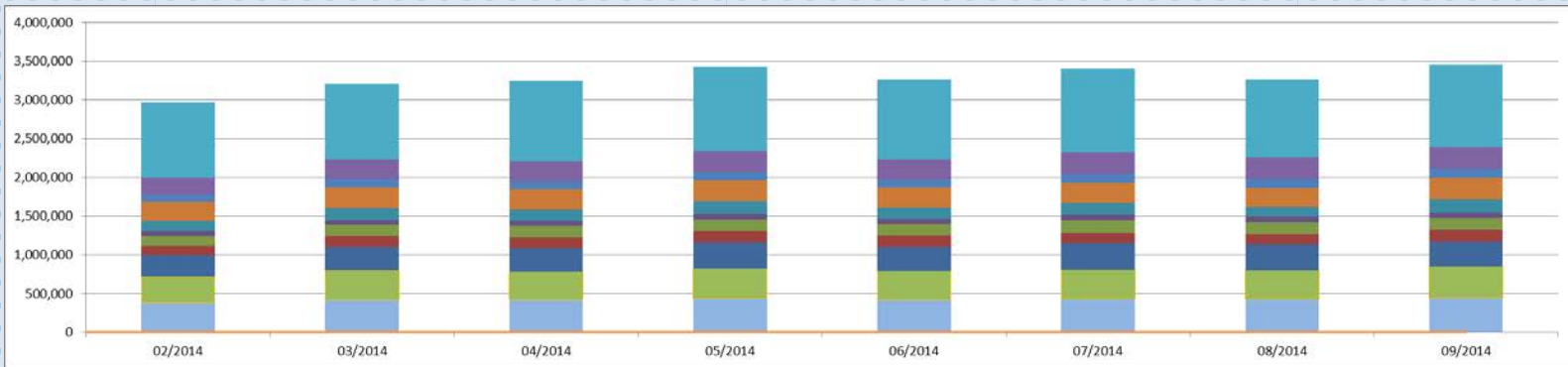
- Selective interoperability
- Performance and reporting
- Bilateral agreements
- Retention of basic system of information exchange with enhancements
- Flexibility in standards employed

## IMSP New Contractual Framework

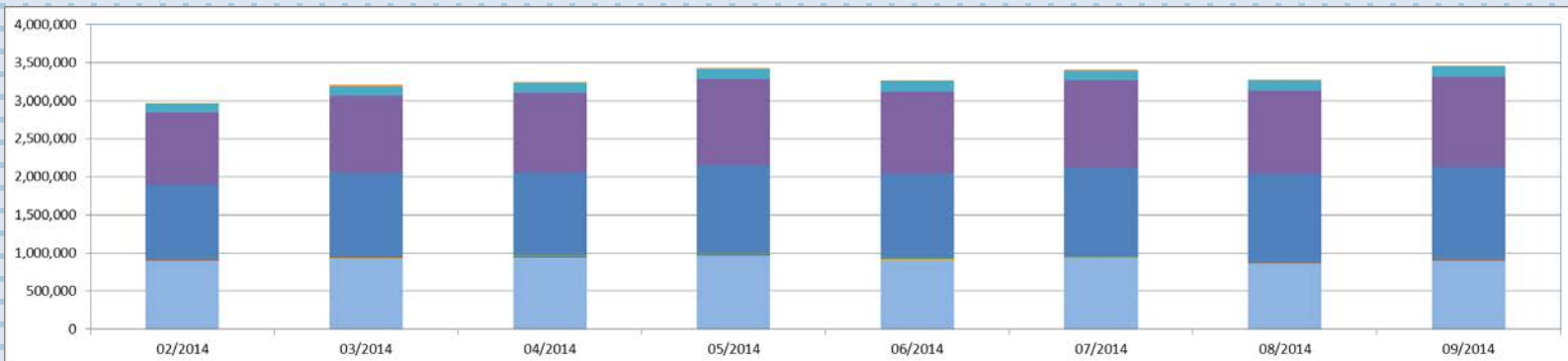
- Market-oriented
  - No obligation to be interoperable
  - Commercial decision on the basis of open market forces
  - Commercial matters to be agreed bilaterally
- Base framework of information exchange for consistency
- Future-oriented:
  - Open with respect to standards
  - Facilitation of expansion and growth of interoperability market
  - Facilitation of European interoperability

## IMSP

### ■ Transactions Per Month By Toll Changer



### ■ Transactions Per Month By Toll Service Provider



# Thank You

Kevin O'Sullivan

Arup

[kevin-n.osullivan@arup.com](mailto:kevin-n.osullivan@arup.com)