

# A city's view on C-ITS deployment

## Experience gained from the Compass4D - project



Brussels, 20 November 2015 – POLIS Conference  
Gert Blom – Strategic advisor mobility





# Mobility policy Helmond

## Helmond Mobiel 2015



**Optimizing the use  
of existing infrastructure**

**Urban traffic solutions  
technology driven: ITS**

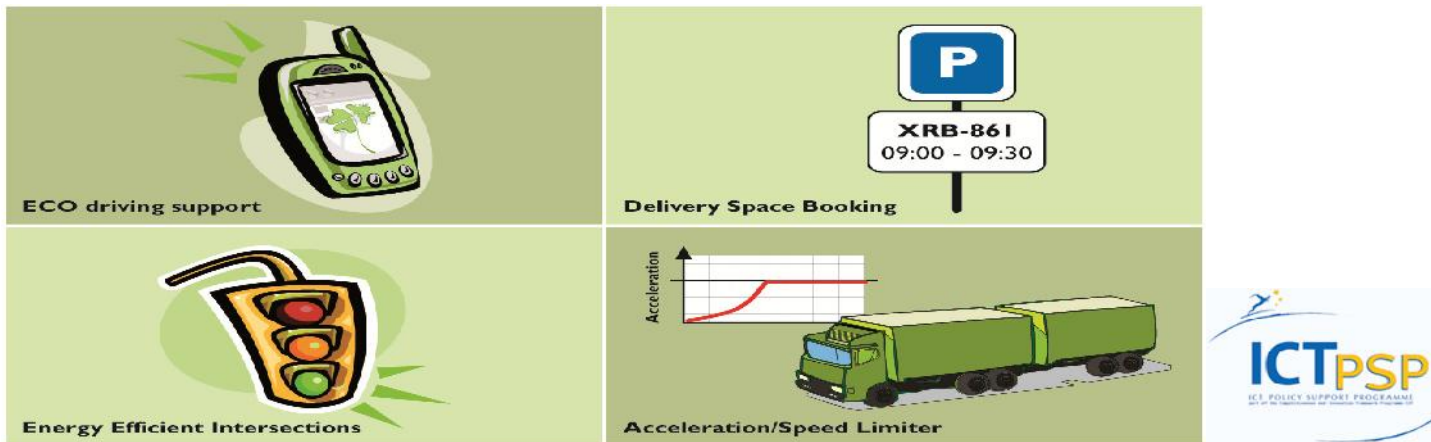
**Active support of smart  
mobility pilots and  
showcases**

# European FREILOT project

Duration: 2009 – 2013

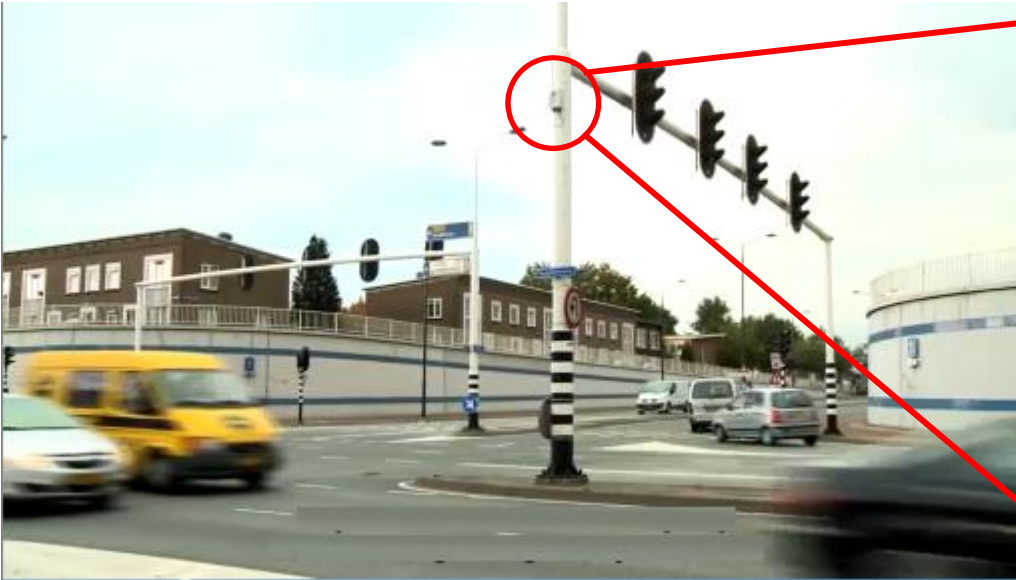
4 European cities (Lyon, Krakow, Bilbao, Helmond)

**Objective: reducing up to 25% of fuel on equipped trucks in urban areas**



# Energy Efficient Intersection Service Helmond

Priority at intersections – speed & time-to-green advice



# Energy Efficient Intersection Service

## The example of Helmond (NL)

Source: FREILOT project



14 equipped intersections in urban zone

Period	Number of crossings	Number of stops	% of stops
Baseline	408	52	13%
Pilot	343	20	6%

Number of crossings and stops in both periods

	Baseline	Pilot	Rate of change
CO <sub>2</sub> emissions (g/km)	644	562	-13%
NO <sub>x</sub> emissions (g/km)	3.87	3.33	-14%
Fuel consumption (l/100km)	24	21	-13%
Speed (km/h)	35	36	+2.6%

Emissions, consumption and speed variations

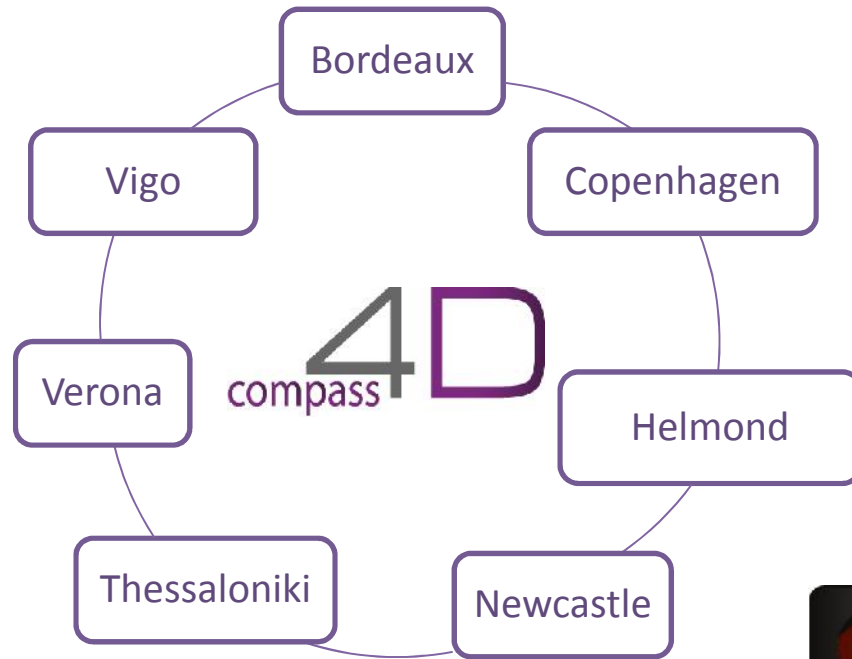
## After the project ...

- Continuation of the services



- Upgrading of RSU's from pre-production to production version
- Extension of installed road network (city ringroad)
- Using C-ITS as instrument to manage HGV-traffic flows
- Next step: more users – more cities !

# Compass4D -overview



Compass4D pilot sites

> 600 vehicles, > 1200 drivers

Vehicles / pilot site	Bordeaux	Copenhagen	Helmond	Newcastle	Thessaloniki	Verona	Vigo	Total
Trucks	40		7	5				52
				vans				
Cars	34		25	5	7	10	10	91
			electric	electric				
Buses		100	5			10	20	135
Emergency vehicles	6		5					13
Taxis					35		8	43
Total vehicles	80	100	42	10	42	20	10	334

Services:



Energy Efficient Intersection

Road Hazard Warning

Red Light Violation Warning



# Compass4D early results

- First proof of benefits for different stakeholder types
  - Heavy Vehicles (Buses, HGV): less stops, better keep time schedules, lower emissions
  - Emergency Services: less stops, quicker interventions, improved work conditions, increased safety
  - Light Vehicles (Taxis, private cars): traffic more fluid, quicker & less stressful journeys, increased safety



**The story goes on ! Continuation in 2016 after the project phase !**

**Compass4D-consortium meeting Newcastle 25<sup>th</sup> – 27<sup>th</sup> of November 2015**





TILBURG



21 crossroads

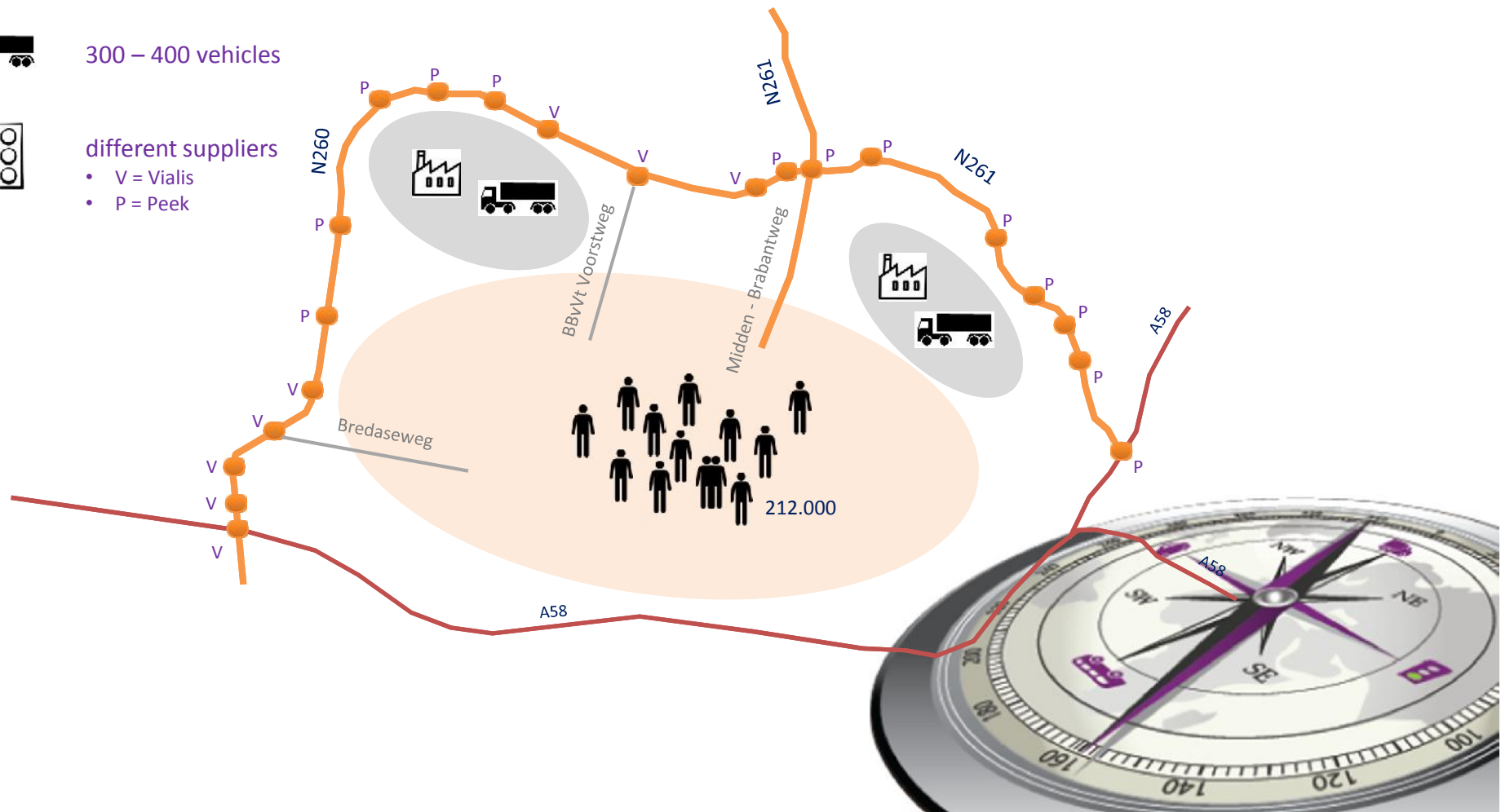


300 – 400 vehicles



different suppliers

- V = Vialis
- P = Peek



# Towards deployment of C-ITS

## Some lessons learnt from Compass4D & FREILOT (EEIS)

- What if the pilot is successful...?
- Potentially large interest from public authorities (Compass4D)
- Huge potential contribution of C-ITS to policy goals
- C-ITS is not for free ...
  - Investment in systems, maintenance & people instead of asphalt
- For professional users there seems to be a business case
  - But large deployment base of cities required
- Business case for cities/road authorities more difficult
  - Smart procurement & combination of users and services and societal goals

## Still some deployment issues ...

- Market readiness ?
- Tailor made solutions vs standardization & interoperability
- Cyber security
- Technology 3G/4G or Wifi ?
- Financial constraints local authorities – unclear benefits
- Image ITS: only car-oriented vs mobility policy

# C-ITS deployment opportunities some statements ...

- C-ITS as a requirement for level 4/5 road automation ...
- LTE vs G5 discussion is a non-issue ...
- Traffic Management & ITS as a service (TMaaS) ...
- Day 1 application: EEIS/priority at intersections: deploy ! ...
- Day 2: focus on C-ITS for Road Safety ...
- Day 2 (afternoon): more focus on C-ITS for VRU's ...

# The real C-ITS challenge ...



**For more information please contact**

[www.drivenbyhelmond.nl](http://www.drivenbyhelmond.nl)

[www.compass4d.eu](http://www.compass4d.eu)

[g.blom@helmond.nl](mailto:g.blom@helmond.nl)

Mobile: + 31 6 53 21 48 51



**Driven™**  
Helmond City of Smart Mobility