

Βιώσιμη Αστική Κινητικότητα - ΒΑΚ

Περιεχόμενα

1. Βιώσιμες μεταφορές
2. Έξυπνες λύσεις και σχέδια βιώσιμης αστικής κινητικότητας
3. Εκτίμηση κυκλοφοριακών επιπτώσεων
4. Εκτίμηση περιβαλλοντικών επιπτώσεων
5. Εκτίμηση ασφάλειας

Βιώσιμες μεταφορές

Ορισμός (1/2)

“Η αντιμετώπιση ή η υποβοήθηση στην αντιμετώπιση των αναγκών κινητικότητας του σήμερα, χωρίς να αποτρέπονται οι επόμενες γενεές να αντιμετωπίσουν τις δικές τους” (WCED, 1987)

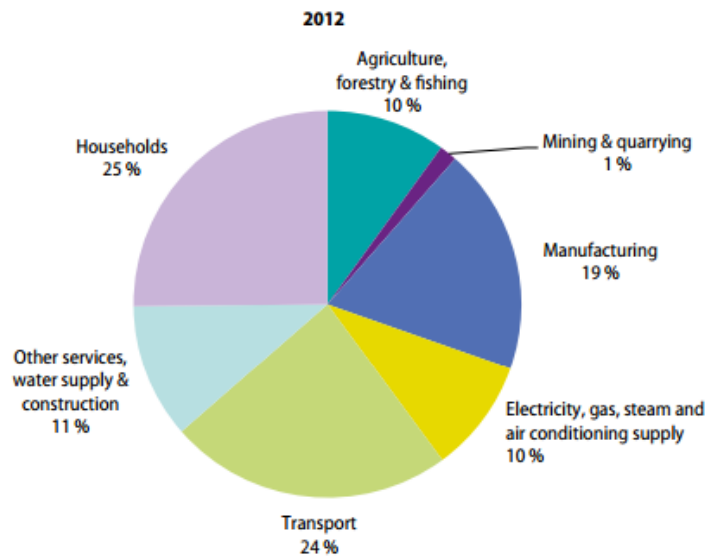
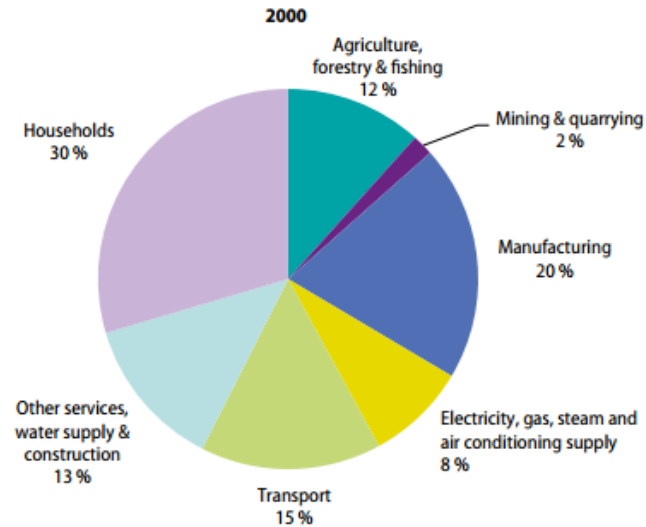
Ορισμός (2/2)

Από το Center of Sustainable Transportation (2002):

- ▶ Επιτρέπει τις βασικές ανάγκες των ατόμων και των κοινωνιών να αντιμετωπίζονται με ασφάλεια, με συνέπεια στην υγεία και στο οικοσύστημα και με ίση μεταχείριση μέσα στη σημερινή γενιά και μεταξύ γενεών
- ▶ Είναι οικονομικά ανεκτή, λειτουργεί αποδοτικά, προσφέρει επιλογές μετακίνησης (μέσο/διαδρομή) και υποστηρίζει τη ζωντανή οικονομία
- ▶ Περιορίζει τους ρύπους και τα απορίμματα ανάλογα με τη δυνατότητα του πλανήτη να τα απορροφήσει, ελαχιστοποιεί την κατανάλωση μη ανανεώσιμων πηγών ενέργειας, ξαναχρησιμοποιεί και ανακυκλώνει, ελαχιστοποιεί τη χρήση γης και την παραγωγή θορύβου

Γιατί ΒΑΚ (1/2)

Πηγές σχηματισμού ρύπων που επηρεάζουν το όζον



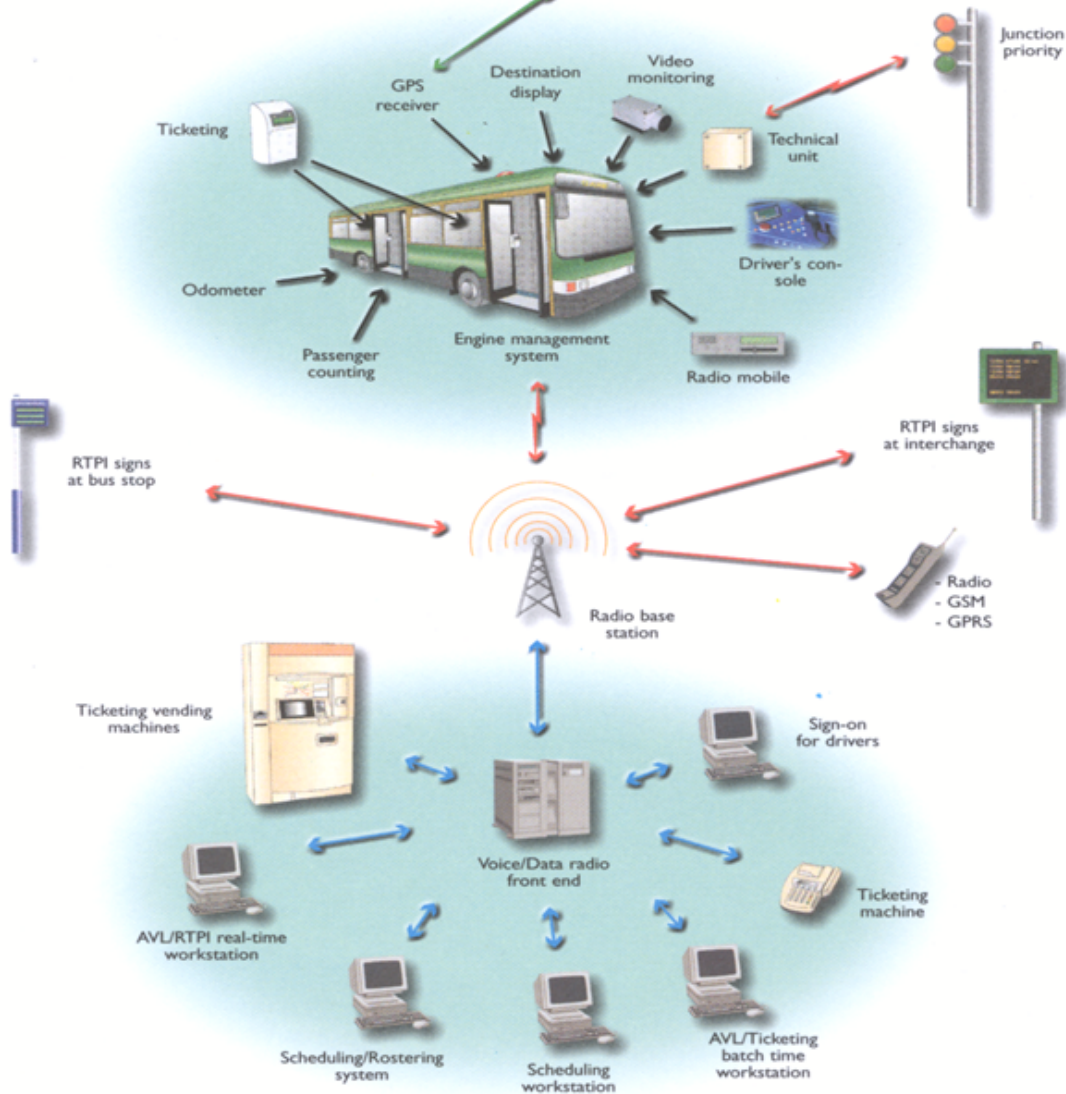
Γιατί ΒΑΚ? (2/2)

- ▶ Ρύποι θερμοκηπίου (GHG) EU- 28 → 4682.9 εκάτ. Τόνοι CO₂-equivalents (2012)
- ▶ Κατανάλωση καυσίμων → 23.2 % (2014)
- ▶ 17.9% μείωση CO₂ μεταξύ 1990 και 2011, λόγω βελτιώσεων στην απόδοση των οχημάτων και στις αλλαγές των συνηθειών μετακίνησης

Έξυπνες λύσεις

- ▶ **Νέες τεχνολογίες** → διαχείριση κυκλοφορίας και ζήτησης
- ▶ Συλλογή δεδομένων σε πραγματικό χρόνο, ανάλυση, οπτικοποίηση
- ▶ Χρήση δεδομένων στη λήψη αποφάσεων
- ▶ Ανοιχτά δεδομένα, αισθητήρες, crowdsourcing, κοινωνικά δίκτυα

Αναδυόμενες τεχνολογίες



Συνεργατικά συστήματα



Συντονισμός χρονοπρογραμματισμών

The screenshot displays the Voyages-sncf.com website interface for a search from London (Royaume-Uni) to Cormelles-en-Parisis (95, France) on 17/06/2014. The search results are filtered for '29 / 29 Résultats' and sorted by 'Prix'. The results are presented in a grid format with a time axis at the top ranging from 1h to 23h.

Search Details:
De Londres (Royaume-Uni) à Cormelles-en-Parisis (95, France) du 17/06/2014 au 09/07/2014 - 1 voyageur | [Modifier votre recherche](#)

Filters: Prix aller/retour (à partir de), Durée totale de l'aller, Nombre de changements, Transporteurs, Gares / Aéroports

Results:

- TRAJET EN VOITURE ET FERRY:** 05h46, 156€^{42.00}/_{77€}. Changement(s): 2. CO₂: 81 kg.
- DEPUIS LONDON, LUTON:** 06h31, 201€^{57.00}/_{77€}. Changement(s): 0. CO₂: 92 kg. [Vol low cost](#).
- DEPUIS LONDON ST-PANCRAS:** 03h52, 241€^{40.00}/_{77€}. Changement(s): 0. CO₂: 4 kg. [Voir conditions](#).
- DEPUIS LONDON ST-PANCRAS:** 04h11, 241€^{40.00}/_{77€}. Changement(s): 0. CO₂: 4 kg. [Voir conditions](#).
- DEPUIS LONDON ST-PANCRAS:** 04h11, 241€^{40.00}/_{77€}. Changement(s): 0. CO₂: 4 kg. [Voir conditions](#).
- DEPUIS LONDON ST-PANCRAS:** 04h17, 241€^{40.00}/_{77€}.

Each result includes a visual timeline showing the departure and arrival times at London and Cormelles-en-Parisis, along with icons for the transport modes used (car, train, plane, ferry).

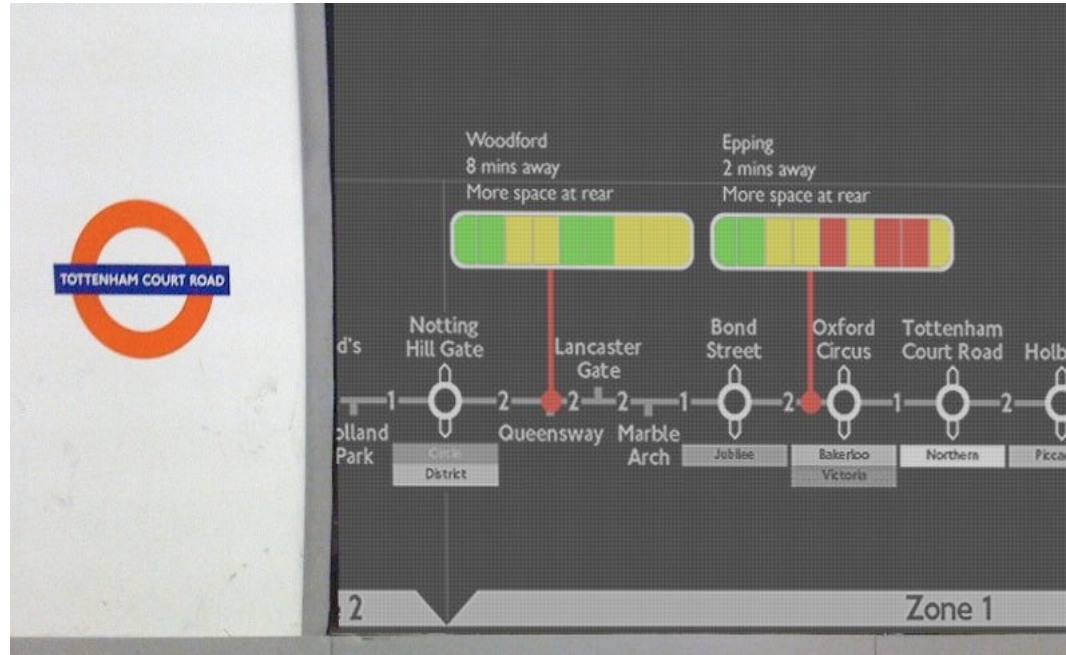
Πληροφόρηση



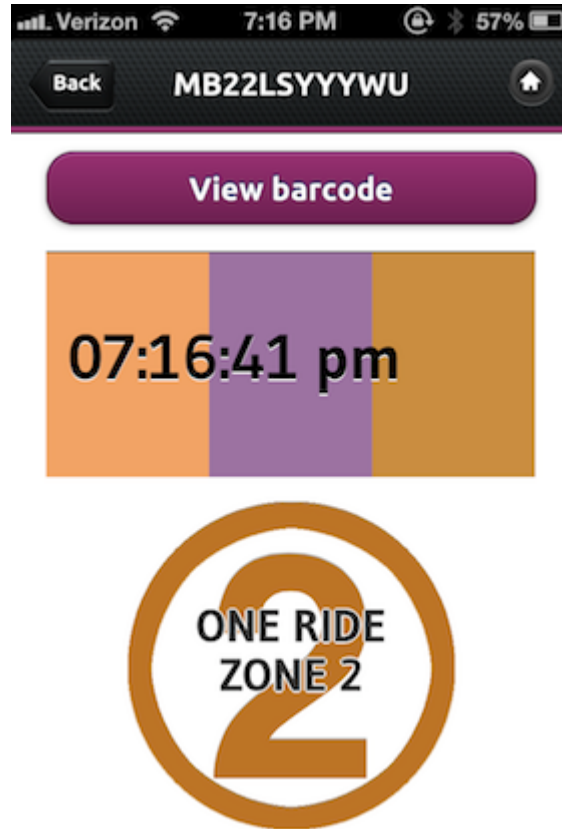
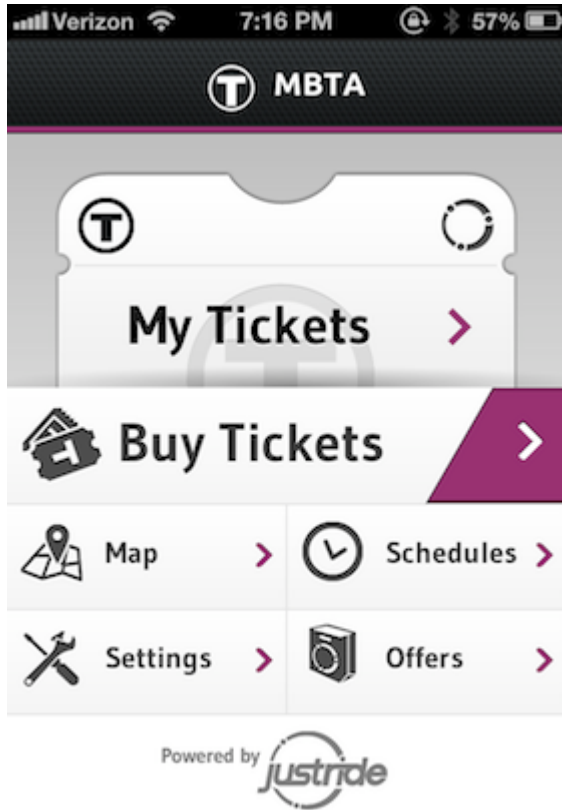
Ειδική πληροφόρηση

Arriving(min)	Next(min)	Bus	Arriving(min)	Ne
12♿	23♿	111	05	
06♿	16♿	123	03♿	
12	28	132	10	
06	18	174	06♿	
4π	08	502	05	

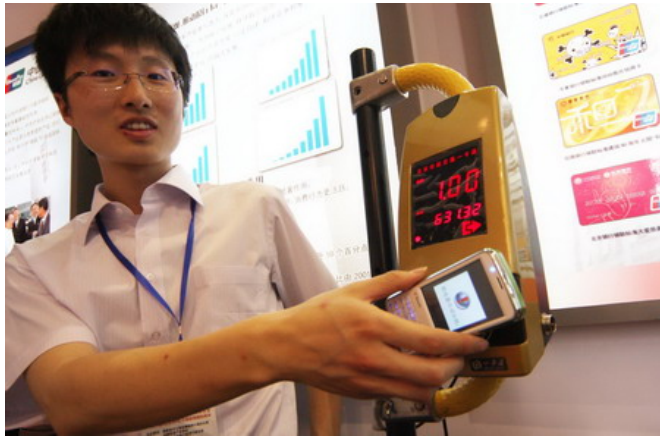
Information provided by SBS Transit &



Τιμολόγηση



Διευκόλυνση πληρωμής κομίστρου



Ηλεκτροκίνηση





Ασφάλεια

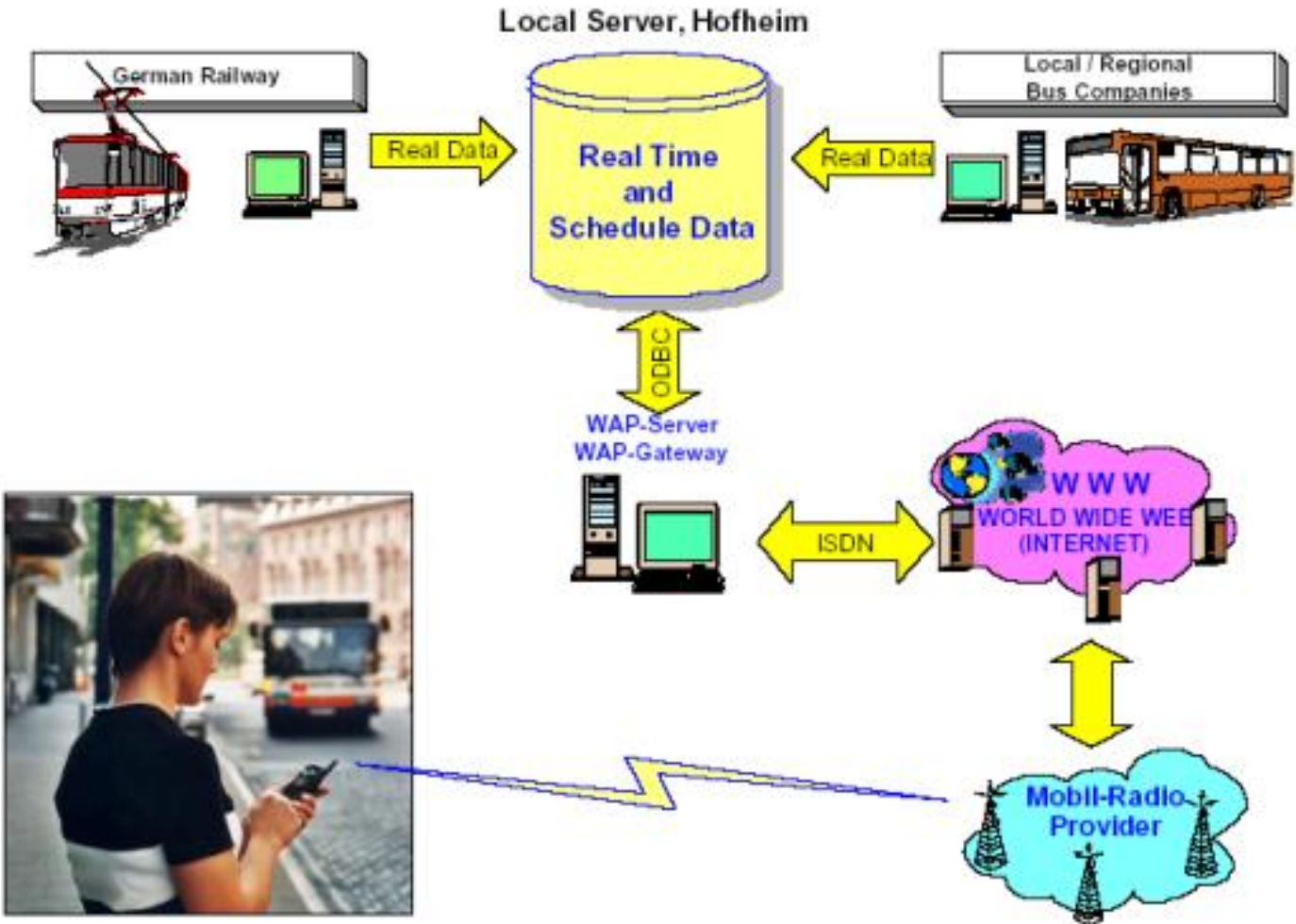


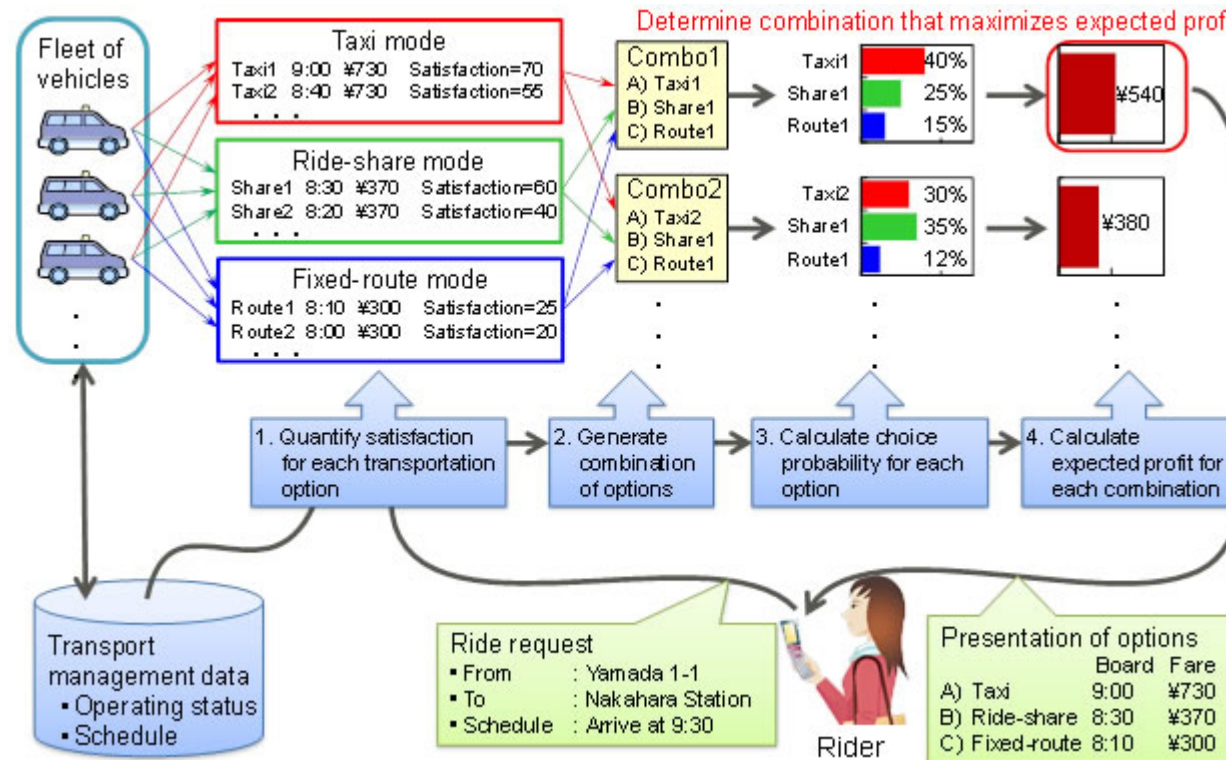
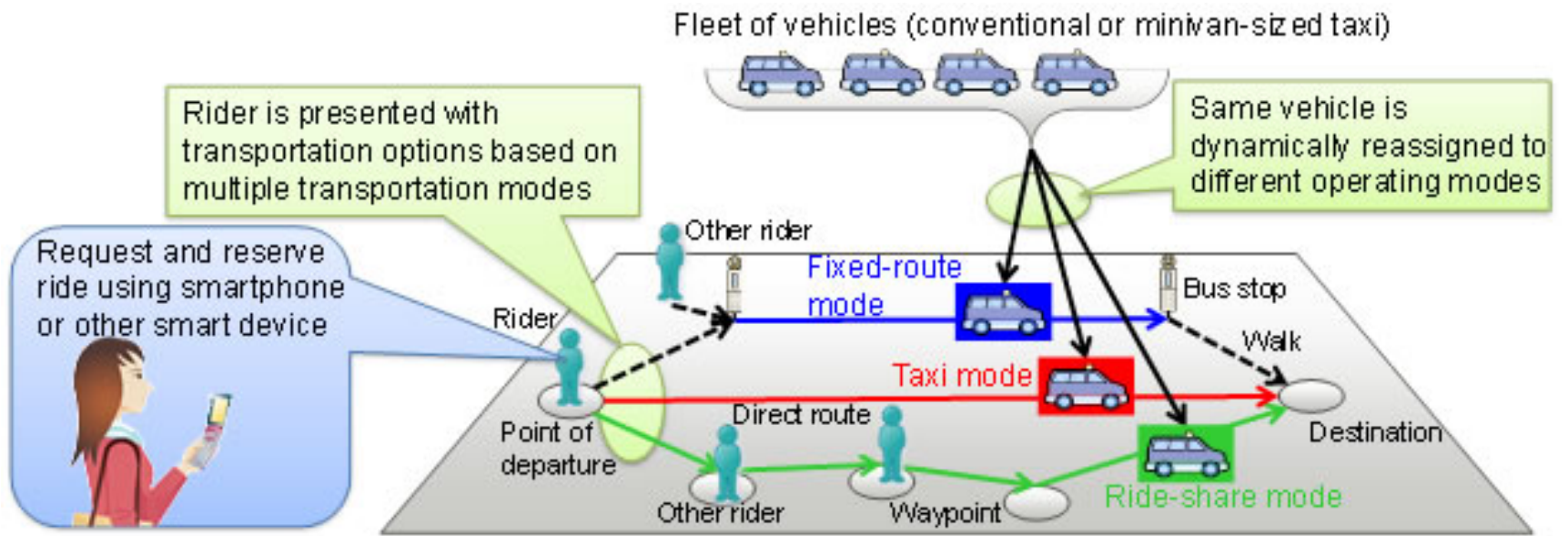
Natural surveillance and CCTV and Albany Interchange (Auckland Transport, 2013)



Natural surveillance at Birkenhead Bus Station, UK (NICHES, 2010)

Προσωποποιημένη πληροφορία





Αυτόνομα οχήματα



Smart solutions

- ▶ City-wide solutions to make effective use of existing infrastructure and promote smart urban mobility
- ▶ Demand management measures, identifying major (air) polluted zones due to traffic, ensuring the citizens' safety etc.
- ▶ Using smart cards, developing a passenger information system, tracking public transport vehicle, financial planning, etc.
- ▶ ITS Vendors - Identifying hardware and software requirements for compatibility and scalability
- ▶ Public transport systems are equipped with ITS technologies such as Global Positioning Systems (GPS) and Passenger Information Systems
- ▶ **Challenge**→ Data security and privacy associated with the use of communication technologies (mobile device data)
- ▶ **Challenge**→ High costs of data handling and storage, enabling tools and technology costs, lack of skills for operation and maintenance and institutional issues (government authorities, public transport operators, communication technology operators, users, etc.).

Εναλλακτικά καύσιμα

- ▶ Μεταξύ 2010 και 2015, αγοράστηκαν περίπου 210,000 ηλεκτρικά οχήματα με μπαταρία και 190,000 υβριδικά με τροφοδοσία (PHEVs) - Υπάρχουν 226 εκατομμύρια εγγεγραμμένα οχήματα (ΗΠΑ)
- ▶ Το 2015, διασχίστηκαν περισσότερα από 3 τρισεκατομμύρια μίλια (ΗΠΑ), ισοδύναμο με 16,000 φορές μετάβαση και επιστροφή στον ήλιο
- ▶ Εμβέλεια ηλεκτρικού οχήματος είναι μικρότερη από 100 μίλια, αλλά είναι αρκετό για περισσότερα από το 90% όλων των μετακινήσεων κοινοκυριών (ΗΠΑ)



Νέα οχήματα

Hydrogen-powered tram - China

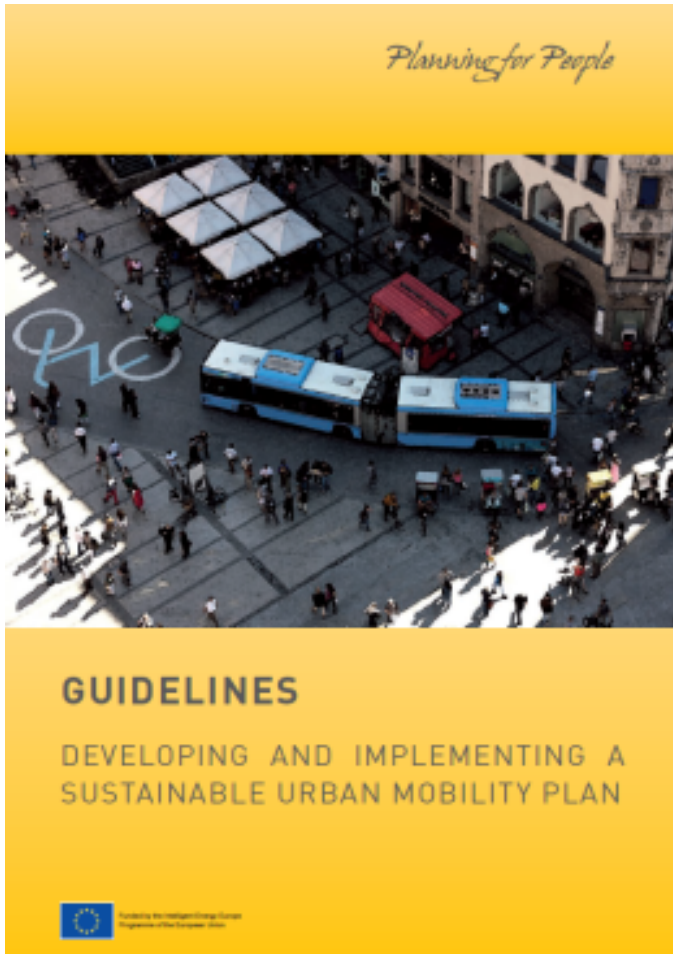


Top speed → 70 km/h and will be used in urban areas only.
Capacity → 380 passengers.



Σχέδιο Βιώσιμης Αστικής
Κινητικότητας ΣΒΑΚ - Sustainable
urban development and mobility
plan SUMP

SUMP (2010-13)



- ▶ Common understanding of Sustainable Urban Mobility Plans (SUMP)
- ▶ Seminars and workshops
- ▶ Guidelines on the process of *'Developing and Implementing a Sustainable Urban Mobility Plan'*
- ▶ Final version published 2013
- ▶ Referenced in DG MOVE's Urban Mobility Package of 2013

Mobility plans portal

Sustainable Urban Mobility Plans

Planning for People

About us | Helpdesk | Login | **AAA**

Home | Introduction | Benefits | Guidelines | Seminars | Examples | Library

A new way of planning
If you imagine your city in 20 years, what would you like it to look like? A place where children can play safely? Where the air is clean? Where you can walk to do your shopping? With lots of parks and green space? Where businesses can prosper?

But how do you realise such a vision? Sustainable urban mobility planning is planning for the future of your city with its people as the focus.

[Urban Mobility Package launched](#) | [European Platform on SUMP to be set up](#) | [Updated SUMP guidelines available](#) | [SUMP video - view](#)

Introduction | **Benefits** | **Guidelines**

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ELTIS | Part of **INTELLIGENT ENERGY EUROPE**

Mobility plans portal

A platform website to disseminate relevant information.

- ▶ Integrated in Eltis website
- ▶ Presenting SUMP background and concept
- ▶ Present key initiatives of EU-supported actions
- ▶ Mobility Plans database
- ▶ Access to information in Members States

The screenshot displays the Eltis website interface. At the top, the Eltis logo is on the left, and navigation links (Login, Become a Friend, Search, Contact us, Cookies, Legal notice) and a language dropdown (English) are on the right. A search bar is positioned below the navigation. The main header reads "The urban mobility observatory" with a "Home" link. Below the header are four large, colorful panels: "DISCOVER" (showing a woman on a phone), "RESOURCES" (showing a train), "PARTICIPATE" (showing a train and a person on a bicycle), and "MOBILITY PLANS" (showing a city skyline). The bottom section is divided into "Case studies" and "News". The "Case studies" section lists two articles: "Engaging citizens in Bristol on visions of a low-carbon future (UK)" dated 10 Jul 2014, and "Utrecht's sustainable freight transport (The Netherlands)" dated 03 Jul 2014. The "News" section lists three articles: "EU launches new innovative private-public rail project" dated 15 Jul 2014 - Policy, "Urban mobility initiative to offer funding to European cities" dated 15 Jul 2014 - Policy, and "Transport planning" dated 14 Jul 2014. On the right side, there is a "Friends of Eltis" section with a grid of user avatars and a list of actions: "Propose new content", "Get updates", "Take part in forum discussions", "Download photos and videos", and "Leave comments and vote".

Mobility plans portal



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English

The urban mobility observatory

[Home](#) > [Mobility Plans](#)

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[European platform](#)

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[Mobility tools](#)

[City database](#)

Platform on Sustainable Urban Mobility Plans

The Platform was established in response to the Commission's announcement in the Urban Mobility Package.

[More about the Platform](#)



[Guidelines](#)



Mobility Plan case studies



10 Jul 2014



Engaging citizens in Bristol on visions of a low-carbon future (UK)

Mobility Plan tools & resources



Policy development

TERM 2013: transport indicators tracking progress towards environmental targets in Europe

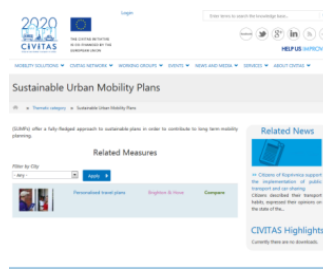
How can we help?

Get answers to your questions or simply share your suggestions.

[Contact us](#)



SUMP related projects and initiatives



European platform on SUMP

Objectives

- ▶ Support the further development of the SUMP concept and of necessary tools
- ▶ Provide interested parties with a "one-stop shop"
- ▶ Realise synergies from coordination and cooperation across the different actions
- ▶ Increase the visibility for EU-supported actions on Sustainable Urban Mobility Plans.



What is the scope?

- ▶ The policies and measures should address comprehensively all modes and forms of transport
- ▶ Sustainable Urban Mobility Plans builds on and expands existing plan documents

PROCESS



BENEFITS



Improved image of a city

A city engaged in sustainable urban mobility planning can project the image of being innovative and forward-looking.



A better quality of life

SUMP means planning for people rather than cars and traffic. It carries an emotional message expressed, for example, in the aim for higher quality public spaces or improved children's safety.



Improved mobility and accessibility

People-focused urban mobility planning ultimately results in improved citizen's mobility situation and facilitates access to urban areas and their services.



Environmental and health benefits

Working towards air quality improvements, noise reductions and climate change mitigation leads to positive health effects and significant savings in health-related costs.



Potential to reach more people

Sustainable urban mobility planning offers opportunities to reach more people and better respond to the needs of different user groups.



Citizen- & stakeholder supported decisions

Planning for people implies planning with people. Through citizens and other stakeholders, decisions for or against urban mobility measures can obtain a significant level of "public legitimacy".

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