



INTELLIGENT TRANSPORTATION IN COST ACTION IC1203 ENERGIC

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COST Action IC1203 ENERGIC

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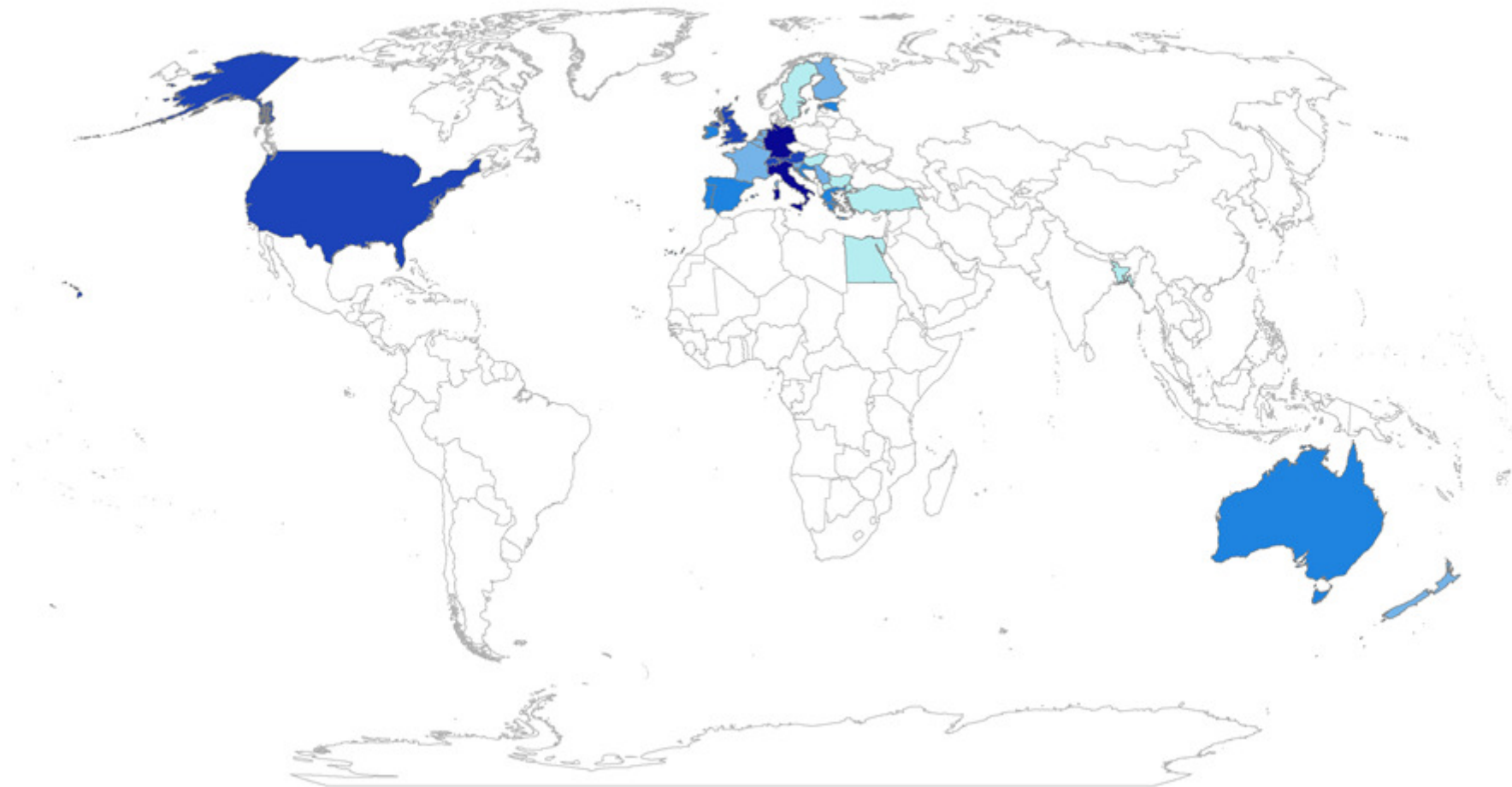
ITS 2016
Zilina, 2016.11.22.

- COST IC1203
ENERGIC
- ENERGIC Book 2016
 - ITS-related chapters
- Related projects and papers



- ENERGIC is short for ***E*uropean **N**etwork **E**xploring **R**esearch into **G**eospatial **I**nformation **C**rowdsourcing: software and methodologies for harnessing geographic information from the crowd**
 - Website: <http://vgibox.eu>
 - Start: December 5th, 2012
 - End: December 4th, 2016
 - Last event: WG1 meeting in Siena – Nov 24-25, 2016
 - Close cooperation with ICT COST Action TD1202 Mapping and the citizen sensor
- Working groups:
 - WG1 Societal and human aspects of VGI
 - WG2 Spatial data Quality and infrastructures
 - WG3 Data mining, semantics and VGI
- VGI = Volunteered Geographic Information

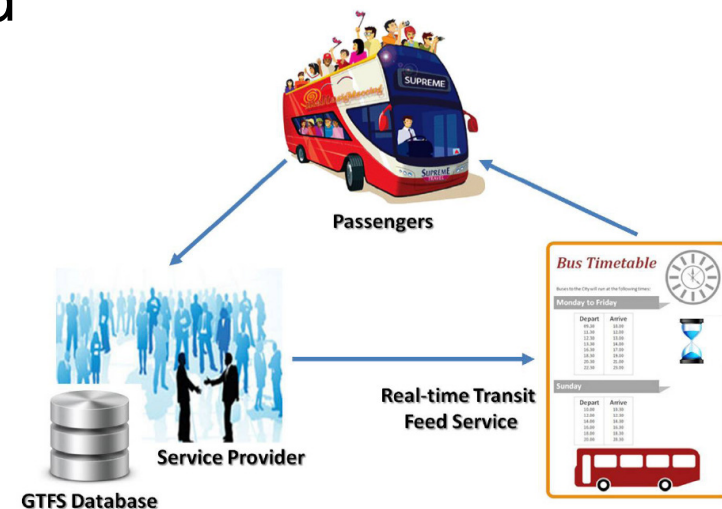
ENERGIC participants



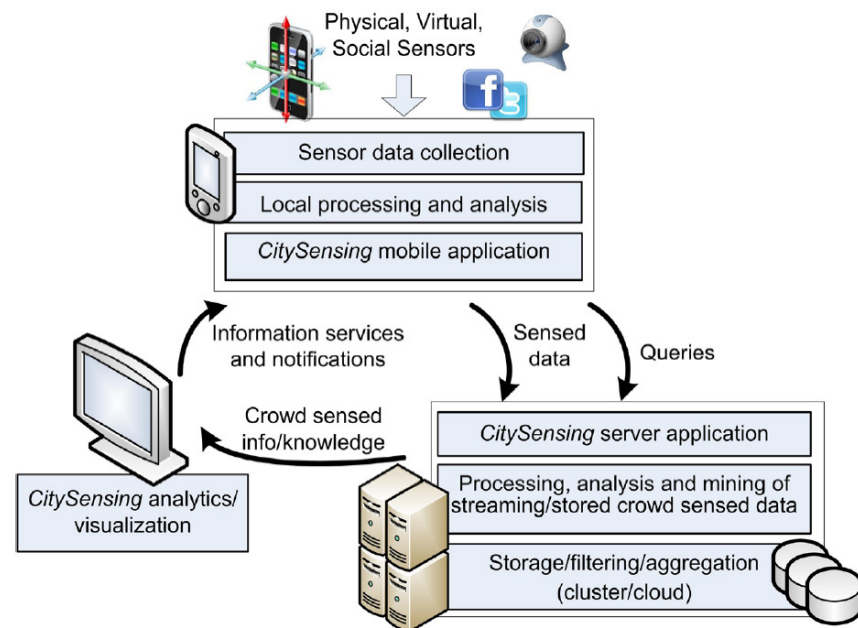
ENERGIC BOOK 2016

- ENERGIC Book is an open access book published by the Action
 - Title: European Handbook of Crowdsourced Geographic Information
 - Year: 2016
 - Editors: Cristina Capineri, Muki Haklay, Haosheng Huang, Vyron Antoniou, Juhani Kettunen, Frank Ostermann and Ross Purves
 - Link: <http://dx.doi.org/10.5334/bax>
- Contents
 - 31 chapters published by ENERGIC members and external subject matter experts
 - Glossary – jointly created with *ICT COST Action TD1202 Mapping and the citizen sensor*

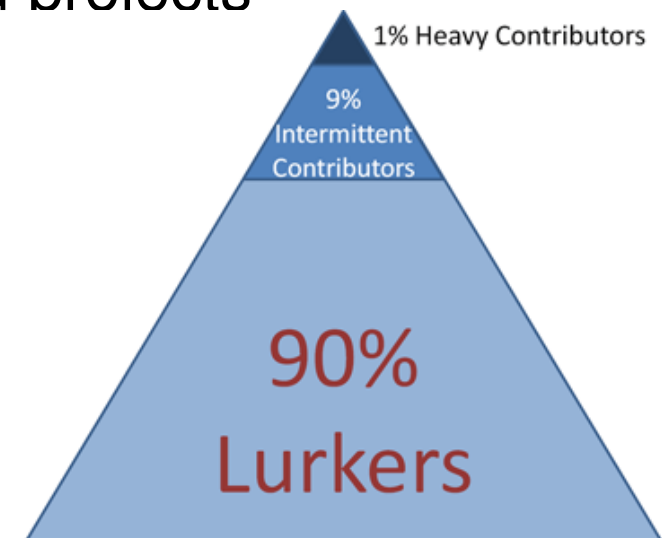
- **Author:** Károly Farkas, Hungary
- **Title:** Smart Timetable Service Based on Crowdsensed Data
- **Goal:** Develop a mobile crowdsensing-based system for creating a real-time timetable of public transportation lines (bus, metro, tram)
- **Inputs:** static Google Transit Feed Specification (GTFS) data, events generated by volunteer users
- **Output:** timetable updated in real-time



- **Author:** Dragan Stojanovic et al, Serbia
- **Title:** Mobile crowd sensing for smart urban mobility
- **Goal:** CitySensing framework for mobile crowdsensing in various urban mobility domains, e.g. traffic
- The DriveSense app detects and reports traffic-related events
 - Traffic condition (congestion)
 - Road state (potholes)
 - Dynamic events (lateral skidding)



- **Author:** Mordechai (Muki) Haklay, UK
- **Title:** Why is participation inequality important?
- **Goal:** Review of participation inequality in crowdsourced projects, especially in Volunteered Geographic Information (VGI)
- 90-9-1 phenomenon in crowdsourced projects
 - 90% of users never contribute
 - 9% of users contribute infrequently or fairly little
 - 1% of users contribute most of the information



OTHER ENERGIIC RESULTS

- **Author:** Maria Attard, Muki Haklay, Cristina Capineri
- **Title:** The Potential of Volunteered Geographic Information (VGI) in Future Transport Systems
- **Goal:** assess the potential of governments to use voluntary (crowdsourced) geographic information effectively to achieve sustainable mobility

Table 1. A typology of mobility services.

Service	Scale		Ownership		Type of Information		Mode of Transport	
	Global	Local (national)	Public Owned	Private Owned	Conventional	Crowd sourced or VGI	Personal	Shared
Taxi Hailing / Booking Services								
Gett	x			x	x		x	
Easy Taxi	x			x	x		x	
AddisonLee		x		x	x		x	
ecabs		x		x	x		x	
Ridesharing Services								
Uber	x			x		x	x	
Didi Dache		x		x	x		x	
Ola		x		x		x	x	
Lyft		x		x		x	x	
Blablacar	x			x		x	x	
Peer-to-Peer Car Renting								
Getaround		x		x		x	x	

OpenSpot failure

- **Author:** Imre Lendak
- **Title:** How many drivers does it take to spot an OpenSpot?
- **Goal:** Analyze the reasons which led to the 2012 failure of Google's OpenSpot application
 - OpenSpot was a crowdsourced parking spot monitoring application – users could mark parking spots when they free or occupy them
- Our results confirm the supposed reasons of failure:
 - Too few users → too few events → we show that without automated sensing, OpenSpot did not have a chance
 - Lack of fine-tuned event aging algorithm – parking spots were marked free for too long in urban environments
- Possible remedy: automated drive-by sensing by smart cars

- Short overview of COST IC1203 ENERGIC
- ENERGIC Book 2016 general information
- Introduction of chapters related to intelligent transportation systems
- A couple of other, relevant research results by ENERGIC members
- Way forward: COST Action CA15212 (Citizen Science)



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**THANK YOU FOR YOUR
ATTENTION!**