

# **SUCCESSFUL BICYCLE PLANNING:**

## **APPLYING LESSONS FROM THE USA TO GREECE**

**Theodoros Natsinas**

Transportation Planner

Lecturer, Technological Educational Institute of Thessaloniki

**Velo-City 2007, Munich**

# Presentation Structure

---

- 1. Introduction: Bicycling in Greece**
- 2. Successful Bicycle Planning in the USA**
- 3. Comparison of basic conditions in the USA, North, West, & Central Europe, and Greece**
- 4. Some basic transportation data from Greece**
- 5. Conclusions**

# 1. Bicycling in Greece

## General Remarks (1/2)

---

- **General level of cycling low**
  - Less than 1% [Data not trustworthy; uncertainty]
- **Some bright exceptions**
  - e.g. City of Karditsa: 22% of daily trips
- **There are indications of improvement**
- **However, cycling remains marginal**
  - Urban areas with high bicycle use are areas traditionally with high bicycle use
  - No examples of Greek cities or LAs achieving significant cycling levels starting from scratch

# 1. Bicycling in Greece

## General Remarks (2/2)

---

- **Efforts to promote cycling**
  - Before 2000 mostly a few local, limited efforts
  - Bicycle related publications and guidelines 1999 – 2002 (Vlastos, Birbili, Ministry for the Environment, Physical Planning & Public Works [MEPP], etc)
  - Since 2002 several efforts:
    - 2002: nationwide infrastructure funding programme
    - 2005: Cities & LAs with interest in bike use form network
    - 2005: Critical mass rides & “state-run” version in 2007
- **“Role model”**
  - North, West, and Central Europe (NWCE) has been the most commonly referred “role model”
  - However, the USA can also offer applicable useful lessons

Vlastos, T, T. Birbili & N. Barbopoulos. 1999. *The bicycle in Greek cities: Policies for its incorporation*. (in Greek). MEPP, Athens, Greece.

Vlastos, T & T. Birbili. 2000. *Infrastructure and policies for bicycle's incorporation in the Greek cities*. (in Greek). MEPP, EU DG XI, etc, Athens, Greece.

Vlastos, T & T. Birbili. 2001. *Shaping cities for bikes*. (in Greek). EU DG Environment, Athens Municipality, etc, Athens, Greece.

Ministry for the Environment, Physical Planning & Public Works (MEPP). 2002. *General guidelines for bike ways*. (in Greek). MEPP, Athens, Greece.

---

## 2. Successful Bicycle Planning in the USA (1/7)

---

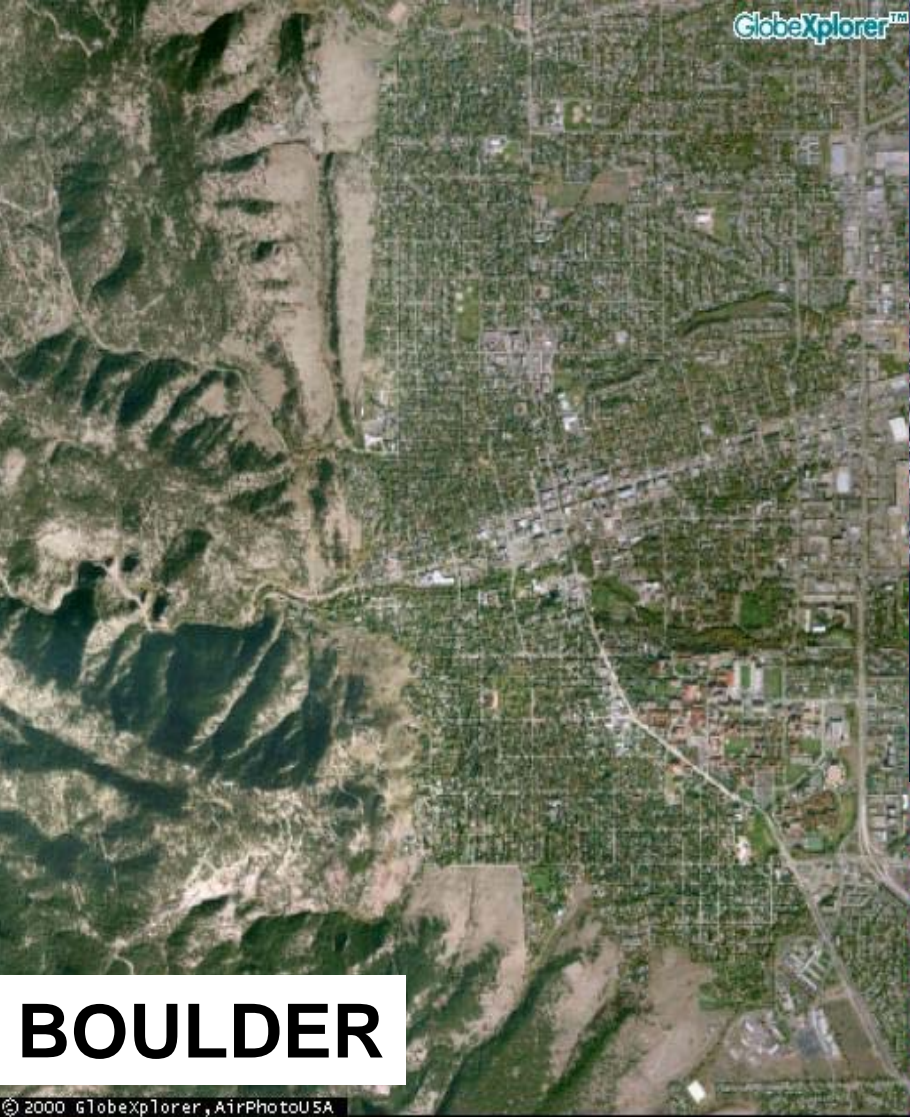
- **Research in Ann Arbor, MI, USA**

- While Ann Arbor up to the 1980s was considered a major bicycling community; its standing in the 1990s diminished
- The impetus of the study was a decision to achieve again high levels of bike use in Ann Arbor
- What were Boulder, CO and Madison, WI (similar communities to AA) doing that Ann Arbor could emulate?

## 2. Successful Bicycle Planning in the USA (2/7)

---

- **Some of the main findings – 1**
  - Transforming a “disadvantage” into an opportunity
  - Political commitment to multi-modal transportation and popular support (4/3/0.5)
  - Existence of an alternative transportation system that is visible, viable and extensive
  - Significant investment in promotion, education and enforcement



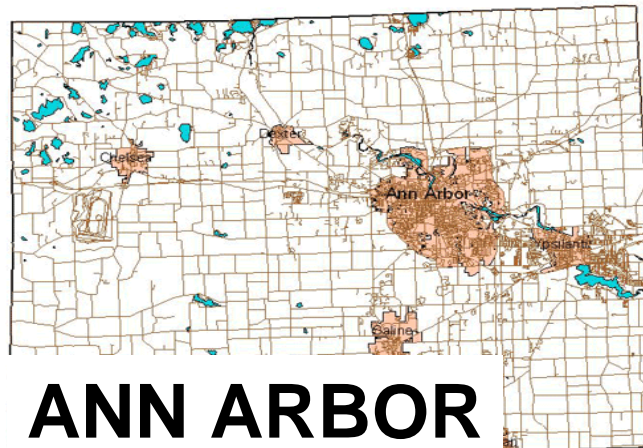
**BOULDER**





© 2000 GlobeXplorer, AirPhotoUSA

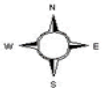
**MADISON**



**Washtenaw County**



-  Streets
-  Water bodies
-  Urban areas
-  Washtenaw County



**ANN ARBOR**



14/09/2007

Natsinas; Vel  
G

# BOULDER



14/09/2007

Natsinas; Velo-city 2007; US - Greece

# MADISON



14/09/2007

Natsinas; Velo-city 2007; US - Greece

# ANN ARBOR



## 2. Successful Bicycle Planning in the USA (6/7)

---

### Literature review

- Automobile culture and dependence in the USA is a major obstacle to increased bike use

Goldsmith & Lagerwey, 2000; Pucher & Buehler, 2006.

“Carrots” (incentives to promote biking, including facilities) unlikely to induce substantial mode shift;

“Sticks” (policies to deter car use) would be more effective but automobile culture and political cost make them not feasible

Goldsmith, Stuart and Peter Lagerwey. 2000. “Jumpstarting Bicycle Transportation in the United States: The Carrot or the Stick?”. *Velomondial 2000 Conference*. Amsterdam, Netherlands.

Pucher, John and Ralph Buehler. 2006. “Why Canadians cycle more than Americans: A comparative analysis of bicycling trends and policies”. *Transport Policy* 13 (2006) 265-279.

## 2. Successful Bicycle Planning in the USA (7/7)

---

- Specifically, to “jumpstart bicycle transportation”
  1. **Local government** committed to alternative transportation  
**Transportation planning** considering all alternative modes at least of equal importance as the “mainstream” ones  
**Personnel** dedicated to alternative modes
  2. **Popular support** (very useful; can be the source and initial impetus; but, supportive LAs can also nurture it)
  3. **Sticks** (restrictions to road expansion and car use)  
**Carrots** (infrastructure, facilities, incentives)
    - Madison’s case demonstrated that this can be achieved starting from a low cycling level
    - Infrastructure provision should occur at a suitable point in the process

# 3. USA, NWC Europe and Greece (1/3)

---

Car restrictions	NWCE, <b>EL</b> : Extensive	USA: very limited
Density	NWCE, <b>EL</b> : High	USA: Low
Land-use mix	NWCE, <b>EL</b> : High	USA: Low
Car use	NWCE, <b>EL</b> : Relatively high	USA: Very high
Bike use level	NWCE: High	USA, <b>EL</b> : Low
Institutionalisation	NWCE: Significant	USA, <b>EL</b> : Ignored
Popular opinion	NWCE: Accepted	USA, <b>EL</b> : Hostile
Infrastructure	NWCE: Extensive	USA, <b>EL</b> : Little

# 3. USA, NWC Europe and Greece (2/3)

---

- **Findings by some of the major EU programs**

“This catalogue assumes that a municipality has already allowed sufficient space for cyclists and pedestrians in its city planning or restructuring, and that decisions have already been made in regard to the locations for new cycle and pedestrian routes. Once this has been established, individual measures, such as the ones presented here, can be considered.”

**ADONIS, Best practice to promote cycling and walking, 1998, p. 4**

“In a survey of European cities, the most common measures were found to be the extension and improvement of pedestrian areas and cycle lanes.”

**WALCYNG, Result Summary, 2003**

---

# 3. USA, NWC Europe and Greece (3/3)

---

- Experience from NWC European countries not necessarily the most suitable for most Greek urban areas
- Experience from the USA can also be very relevant

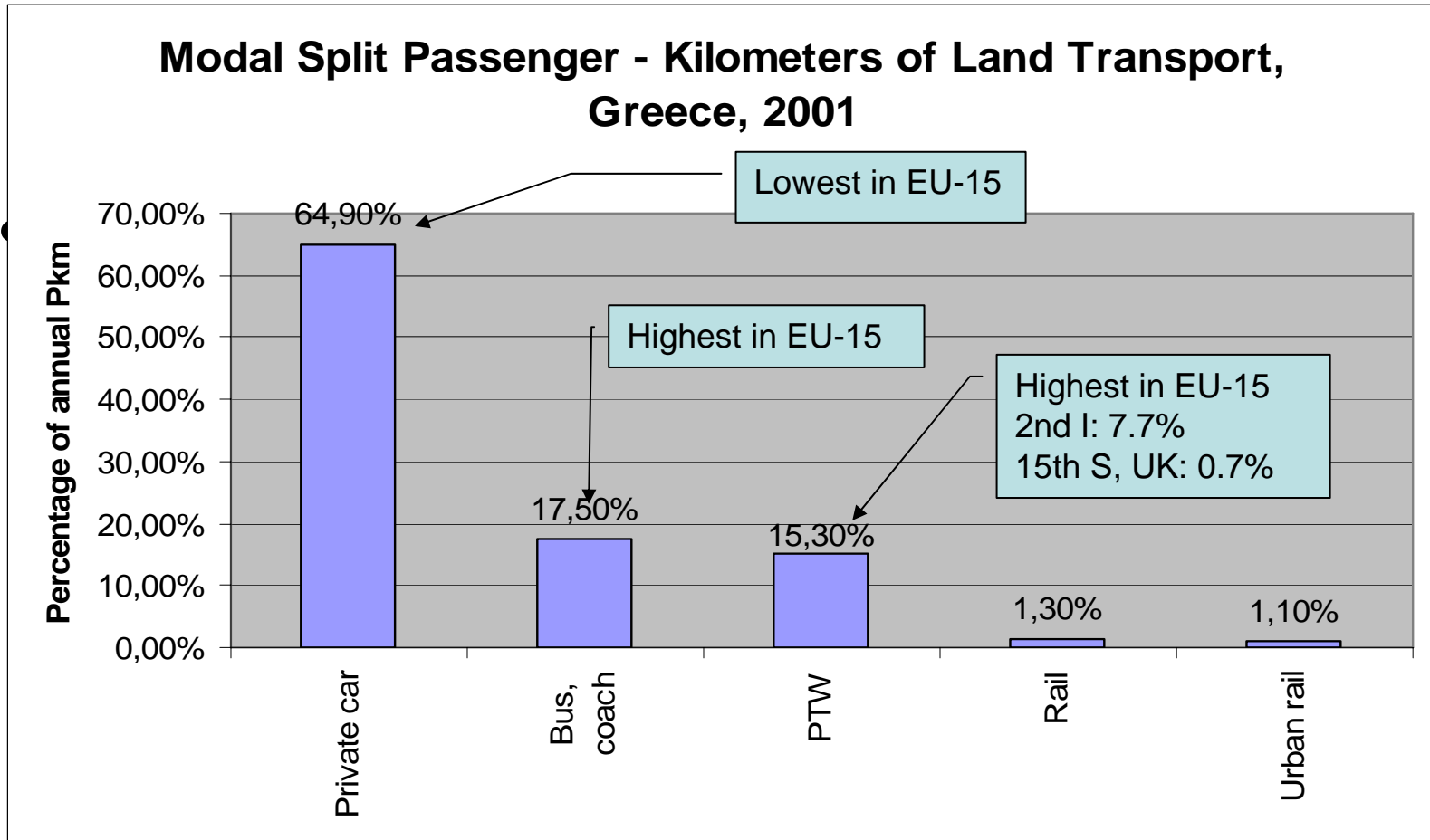
# 4. Some data from Greece (1/5)

---

## Situation in Thessaloniki: Bicycle Use

- Thessaloniki Metropolitan Area
  - Generally very low bicycle use
    - 0,4% of total daily trips, 1989
    - 0,2% of total daily trips, 1998
  - Athens-Piraeus Greater Area
    - 1996 study did not report bicycle trips (None? Not recorded?)
- Karditsa
  - 22% of daily trips (2006)
- Nationally
  - 0.6% of annual passenger-kilometres

# 4. Some data from Greece (2/5)



# 4. Some data from Greece (3/5)

---

## Thessaloniki

- High Density (Municipality: 21.631 p/km<sup>2</sup>)
- Land use mix: the central area (even the CBD) has residential, commercial, entertainment and office uses
- There have been efforts to facilitate pedestrian and PT; but piecemeal
- Transportation planning without clear direction: e.g. several central roads pedestrianised; new metro but also really major, large scale road projects
- No data for trip length but 42.6% of car trips are of less than 15 min duration

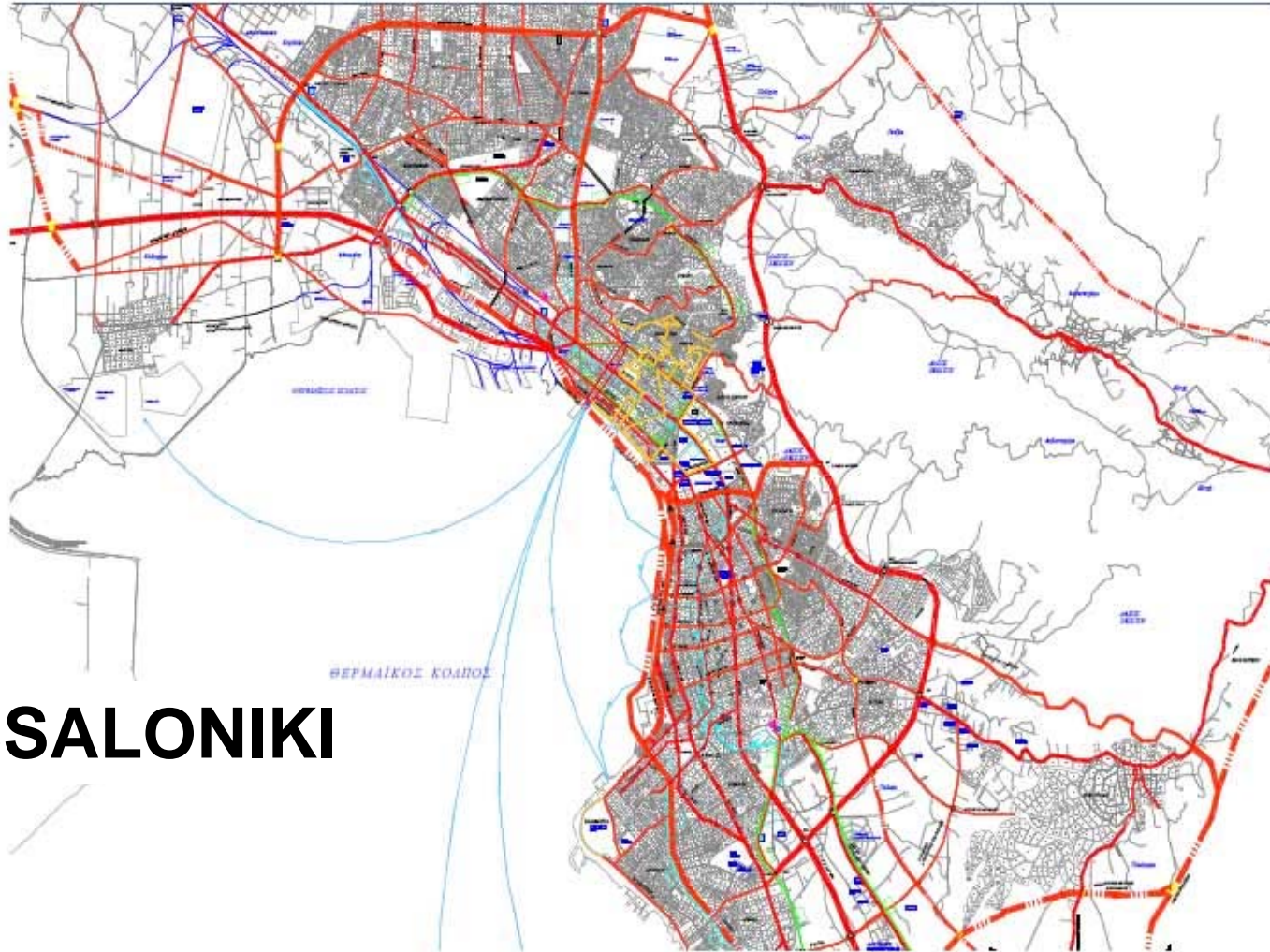
# 4. Some data from Greece (4/5)

---

## Thessaloniki

- Limited road space, congestion & low speeds (down to 3 – 4 km/hr)
- High PTW use; dispersion of uses to suburbs
- Proposals for building a new partially underwater highway and metro (commenced)
- Auto culture: Institutional and popular agreement in considering car traffic as paramount
- Lenient highway code enforcement: Double parking; Sidewalk occupation; Illegal use
- Limited local government support for non-motorized transport; no obligation for LA transportation plans
- Limited personnel in LAs for transportation generally, non for NMT
- Citizen body divided; mostly pro-car; support for alternatives is growing but still minority

# 4. Some data from Greece (4/5)



**THESSALONIKI**

# 4. Some data from Greece (5/5)

---

## Thessaloniki Metropolitan Area

Experience from infrastructure construction

- Several studies carried out and approved
- Few actually implemented – funds?
- Some of the implementation problematic
- No before and after studies; no obvious effect; considered by some a waste of money



# 5. Conclusions (1/3)

---

- Applying the USA study four principal findings
  1. A major “disadvantage” exists that can be turned into an opportunity
  2. Elements of alternative transportation system exist but general policy contradictory
  3. Limited LA and popular support (though growing)
  4. Limited promotion, education and enforcement activities
- **Sticks and carrots**
  1. Some sticks exist, even if not planned
  2. Carrots – facilities – not successful – not suitable at this juncture?

# 5. Conclusions (2/3)

---

## SPECIFIC CONCLUSIONS

1. PTW: Connections between bikes & PTWs; form coordinated plan (Vlastos 2003; Rietveld, 2001)
2. Institutionalisation: LAs plans; personnel; design standards and requirements; data
3. Major Construction Projects:
  1. Underwater highway: Even if built an alternative transportation system can be developed and should be demanded
  2. Metro: Allow bicycles on the metro

Vlastos, T. 2003. *The two-wheelers in the tomorrow's Greek city*. (in Greek) Ministry of Transport and Communications, Athens, Greece.

Rietveld, P. 2001. "Biking and Walking: The Position of Non-Motorised Transport Modes in Transport Systems". *Tinbergen Institute Discussion Paper* TI2001-111/3.

# 5. Conclusions (3/3)

---

## Is there hope for improvement?

- Some cities have high cycling rates; therefore, low level of cycling is not “inherent” to Greece.
- Opportunities (so-called “disadvantages”) exist but they need to be exploited: Adopt clear and firm pro-NMT policies; exploit and strengthen the “sticks”; initiate “carrots”
- Most local politicians do not seem ready to initiate changes.
- If an alternative transportation system can be developed in Thessaloniki the direction will be “bottom-up”. The opposition to the underwater highway and the critical mass organisers can become a permanent citizens’ movement and influence development.
- A first effort in Thessaloniki can be the issue of bikes on the metro (also of symbolic value); already partially successful in Athens.

# SUCCESSFUL BICYCLE PLANNING

---

## APPLYING LESSONS FROM THE USA TO GREECE

Theodoros Natsinas, Transportation Planner, Lecturer, T.E.I.Th.

Thank you! – Danke schön! – Efharisto!

