



SustainCity Consortium Meeting

ETH Zurich, 19th April 2013

REPORT OF THE SCIENTIFIC COORDINATOR



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Update and the Grand Paris project

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- Final run is ongoing
 - BAU and first policy scenarios are completed
 - Policy scenarios(pricing) will be tested next month (SR-LR)
- Simulation period 1999 to 2035, extended till 2050
 - UrbanSimE & **METROPOLIS** : prototype being tested
 - Integration of demographic model is under test
- Grand Paris project
 - Wider economic benefit
 - Implementation of the project
 - Test several scenarios to feed socio-economic studies

Major finding, major drawbacks (+/-)

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□ UrbanSim

Major finding, major drawbacks (+/-)

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- Finding and using adequate data
 - ... Issue with Zurich, Brussels and to a less extent to Paris.
 - Fine-tune models to the data **or** find the right data to fit the model?
 - Share the data Almost impossible

Major finding, major drawbacks (+/-)

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- Comparing Case Studies
- ... and comparing models

Major finding, major drawbacks (+/-)

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- Mastering the software UrbanSim
 - De-correlate modeling, econometrics , running and calibration → division of labor needed.
 - Open source

Major finding, major drawbacks (+/-)

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- Adapt Urbanism to European specificities: grid cells, and constraints (budget and excess demand), decision process within the family

Missing link (1 / 2)

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- The (missing) benefits
 - Benefit from variety (and route choice):
 - $E(\max U) - \text{Sum}[P^i U^i] = \text{Entropy} > 0$
 - Wider economic benefit: where are they?

Missing links (2/2)

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- Productivity of firms?
- General equilibrium dimension
 - ▣ 50 GE zones model **or** 1300 municipalities partial equilibrium model
- The boundary of the zone

Consistency

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- Welfare consistent with behaviors
 - Is Roy's identity satisfied?
- Need to start from clear econometric/microeconomic models
- Mistake to avoid:
 - Doubling counting
 - Adding pieces
- Dynamic consistency (or not?)

Actions...

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