



SCATTER

Sprawling Cities And Transport: from Evaluation to Recommendations

Fifth Framework Programme

Thematic Programme:

Energy, Environment and Sustainable Development

Key Action:

City of Tomorrow and Cultural Heritage

STASA CASA LT CERTU TRT STRAFICA CETE de l'Ouest STRATEC

The consortium

- STRATEC (BE) **co-ordinator**
 - CASA – University College London (UK)
 - STASA (DE)
 - Trasporti e Territorio (IT)
 - LT Consultants (FIN)
 - Strafica (FIN)
 - CERTU (FR)
 - CETE de l'Ouest (FR)
-
- Scientific Officer of European Commission - DG Research:
Dr. Eric Ponthieu

Main objective

■ Starting point:

- regional-level public transport investments may launch a wave of urban sprawl

■ SCATTER objective:

- identify most appropriate policies to be implemented together with the public transport services, to reduce sprawl (and reinforce the positive effects of the new PT services)

Negative effects of sprawl

Effects related to transport	Effects related to land consumption (e.g. Brussels: +2%/year during the last 10 years)	Other socio-economic effects
Lengthening of the travel distances + higher use of car (about lengthening: see simulation results)	Loss of high value open space and agricultural space	Social segregation
Congestion on radial roads	Decrease of bio-diversity	Higher collective costs for infrastructures and equipments
Emissions (greenhouse gases and pollutants)	Change in the water streaming coefficient	

Overall approach and objectives

Phase 1

**Improving the understanding of the mechanisms
and effects of urban sprawl**



Phase 2

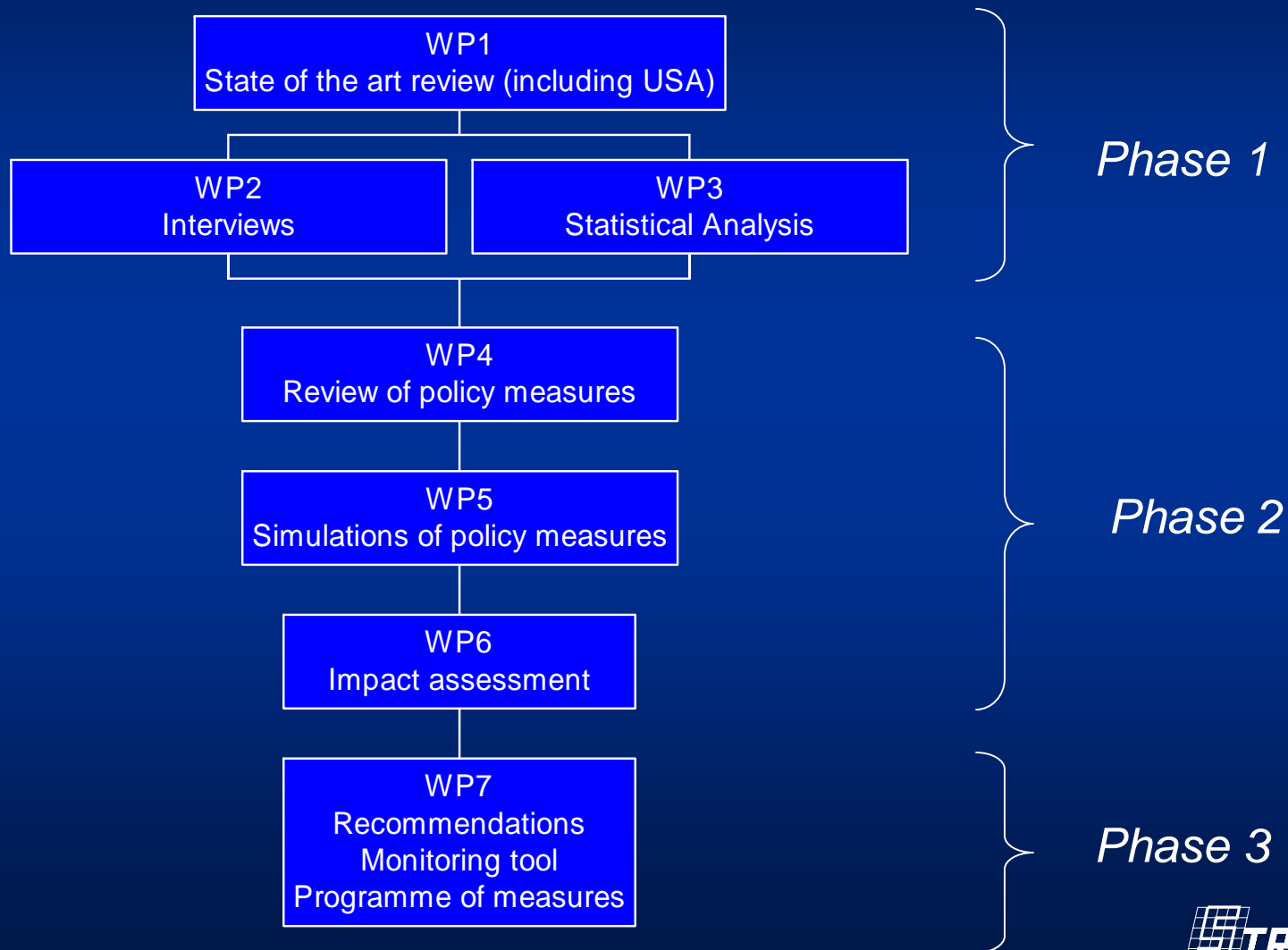
Reviewing policies and assessing their effects



Phase 3

Formulating recommendations

Project Flowchart



The 6 case cities



The 6 case cities

■ Population of the metropolitan areas:

- Milan: 3.8 millions inhabitants
- Brussels: 2.9 millions
- Stuttgart: 2.6 millions
- Helsinki: 900 000 inhabitants
- Bristol: 700 000 habitants
- Rennes: 300 000 habitants

Overall approach and objectives

Phase 1

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and effects of urban sprawl**



Phase 2

Reviewing policies and assessing their effects



Phase 3

Formulating recommendations

Overview of the main results

**State-of-the-art comprehensive report on urban sprawl available on Internet -
Maybe for the first time: review of both US and European literature**

Statistical analysis with a mix of classical (densities) and more sophisticated indicators : generalised shift-share analysis, H-measure, auto-correlation indicators – The analysis highlighted differences in sprawl experimented in the 6 cities

Qualitative evaluation of policies: 11 European case studies + 1 US case study (Portland, Oregon) – Review of all possible policies tackling urban sprawl or its negative effects - These case studies feed the policy database of the Internet exploratory tool

Overview of the main results (cont.)

Institutional issues and inter-institutional cooperation – The analysis highlighted two views: “only strong legitimate metropolitan authority can be effective” versus “also voluntary coordination is needed”, and “less formal organisations are useful”.

Quantitative evaluation of policies: policy simulation with land-use/transport models – Simulations confirmed that rail investments may generate urban sprawl – They led to select a package of 4 policies (including fiscal measures) as most efficient – SCATTER originality: effectiveness of fiscal measures was tested (versus transport pricing measures)

A set of clear policy recommendations addressed to local authorities, to tackle urban sprawl and its negative effects

Overview of the main results (end)

An Interactive tool available on Internet for supporting local authorities in building a strategy

A web site dedicated to urban sprawl