



EUROPEAN COMMISSION
RESEARCH AND INNOVATION DG

Periodic Report

Project No: 244557

Project Acronym: SustainCity

Project Full Name: Micro-simulation for the prospective of sustainable cities in Europe

Periodic Report

Period covered: from 01/01/2010 to 30/06/2011

Date of preparation: 14/02/2012

Start date of project: 01/01/2010

Date of submission (SESAM): 27/03/2012

Project coordinator name:

Dr. Kay Axhausen

Project coordinator organisation name:

Eidgenössische Technische Hochschule Zürich

Version: 2

Periodic Report

PROJECT PERIODIC REPORT

Grant Agreement number:	244557
Project acronym:	SustainCity
Project title:	Micro-simulation for the prospective of sustainable cities in Europe
Funding Scheme:	FP7-CP-FP
Date of latest version of Annex I against which the assessment will be made:	06/04/2010
Period number:	1st
Period covered - start date:	01/01/2010
Period covered - end date:	30/06/2011
Name of the scientific representative of the project's coordinator and organisation:	Dr. Kay Axhausen Eidgenössische Technische Hochschule Zürich
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Declaration by the scientific representative of the project coordinator (1)

I, Dr. Kay Axhausen Eidgenössische Technische Hochschule Zürich , as scientific representative of the coordinator of the project SustainCity and in line with the obligations as stated in Article II.2.3 of the Grant Agreement declare that:

The project has achieved most of its objectives and technical goals for the period with relatively minor deviations.

The attached periodic report represents an accurate description of the work carried out in this project for this reporting period.

The public website is up to date.

To my best knowledge, the financial statements which are being submitted as part of this report are in line with the actual work carried out and are consistent with the report on the resources used for the project (section 6) and if applicable with the certificate on financial statement.

All beneficiaries, in particular non-profit public bodies, secondary and higher education establishments, research organisations and SMEs, have declared to have verified their legal status. Any changes have been reported under section 5 (Project Management) in accordance with Article II.3.f of the Grant Agreement.

Name	Dr. Kay Axhausen Eidgenössische Technische Hochschule Zürich
Date	27/03/2012

This declaration was visaed electronically by Kay AXHAUSEN (ECAS user name naxhauka) on 27/03/2012

1. Publishable summary

Summary description of project context and objectives

SustainCity - Micro-simulation for sustainable cities in Europe - is part of the 7th Framework Programme for Research of the European Commission (January 2011 to December 2012) . Increasing concerns about sustainable development and the growth of urban areas have brought forth in recent years a renewed enthusiasm and need for the use of quantitative models in the field of transportation and spatial planning. This project proposes to improve urban simulation models and their interaction with transport models. Unified operational models that favour a microscopic approach, such as UrbanSim and ILUTE (Integrated Land Use, Transportation, and Environment Modelling System) have recently gained a lot of interest both in the land use and transport communities. Nevertheless, in their current forms these models still require further development to support a comprehensive analysis of the main environmental and socio-economic questions of the sustainability of urban growth and the relevant public policies.

The aim of this project is to address the modelling and computational issues of integrating modern mobility simulations with the latest micro-simulation land use models. The project intends to advance the state-of-the-art in the field of the microsimulation of prospective integrated models of Land-Use and Transport (LUTI). On the modelling side, the main challenges are to integrate a demographic evolution module, to add an environmental module, to improve the overall consistency and, last but not least, to deal with the multi-scale aspects of the problem: several time horizons and spatial resolutions are involved.

The SustainCity project includes also three case studies to take advantage of the achievements of the other tasks in order to undertake an empirical analysis on three European agglomerations (Ile-de-France, Brussels and Zurich).

Description of work performed and main results

Figure 1 provides an overview of the Work Packages (WP) in the SustainCity project. After 18 months of work, the project is in line with expectations. WP2 State of the art already has been concluded in summer 2010 by publishing different working Papers focusing on the State of the Art of demographic issues, agent behaviour, firmographics, econometric models, and other subjects regarding land use modelling. Also WP3 to WP6 are in an advanced status: particularly, a software tool modelling demographic events has been developed (WP4) and the coupling of UrbanSim (urban simulation model) with MATSim (travel model) was set up (WP6). Indeed, this is still work in progress. The time consuming phase of data collecting and collating for WP7 Case Studies is broadly finished in all of the three case study areas Paris, Brussels, and Zurich. At the moment, the three teams are working on (simplified) first runs. Regarding WP9 Dissemination and Valorisation, the organisation of different workshops in Athens, Berlin and Zurich has to be mentioned. Aim of these workshops was to introduce a wide range of researchers in the application of UrbanSim, MATSim and METROPOLIS - particularly also researchers not involved in the SustainCity project. Additionally, the consortium organised also an academic conference on land use and transport to increase attendance. This conference will be part of the 51st ERSA Congress 2011 in Barcelona (30th August - 3rd September 2011).

The following publications document the work in this first period January 2010 to June 2011 - they all are available on the project website www.sustaincity.eu:

State of the art (Work package 2)

* Morand, E., L. Toulemon, S. Pennec, R. Baggio, and F. Billari (2010) Demographic modelling: the state of the art, SustainCity Working Paper, 2.1a, Ined, Paris.

* Flötteröd, G. and Nagel, K. (2010) Behavioral dimensions in transport microsimulations, SustainCity Working Paper, 2.1b, EPFL & TUB, Lausanne & Berlin.

* Coulombel, N., (2010) Residential choice and household behavior : State of the Art, SustainCity Working Paper, 2.2a, ENS Cachan.

* Proost S.(2010) The Role of Stakeholders, SustainCity Working Paper, 2.2b, CES-KULeuven, Belgium.

* Bodenmann, B.R. and K.W. Axhausen (2010) Synthesis report on the state of the art on firmographics, SustainCity Working Paper, 2.3, Institute for Transport Planning and Systems (IVT), ETH Zurich.

- * Picard, N., C. Antoniou and A. de Palma (2010) Econometric Models, SustainCity Working Paper, 2.4, THEMA, Université de Cergy-Pontoise.
- * Khademi, N., T.W. Nicolai, S. Zerguini, A. de Palma, K. Nagel, N. Picard, and P. Waddell (2010) Synthesis report on the state of the art on existing land use model-ling software, SustainCity Working Paper, 2.5, TUB, Berlin.
- * Pholo Bala, A. (2010) Descriptive and Geographical Data for European Cities, SustainCity Working Paper, 2.6, Université Catholique de Louvain, Belgium.
- * Hurtubia, R., O. Gallyay and M. Bierlaire (2010) Attributes of Households, Loca-tions and Real Estate Markets for Land Use Modeling, SustainCity Working Pa-per, 2.7, EPFL, Lausanne.
- Demographic Model (Work package 4)
- * Turci, L., A. Bringé, E. Morand, S. Penneç, L. Toulemon, R. Baggio and F. Billari (2010) Provisional demographic outline, SustainCity Working Paper, 4.1, INED, Paris.
- Econometric and other empirical issues (Work package 5)
- * Picard, N. and Antoniou, C. (2011) Econometric guidance, SustainCity Deliver-able, 5.1, THEMA. Software (Work package 6)
- * Nicolai, T.W., L. Wang, K. Nagel and P. Waddell (2011) Coupling an urban simulation model with a travel model - A first sensitivity test, SustainCity Work-ing Paper, 6.5, TU Berlin.
- * Nicolai, T.W. and K. Nagel (2011) Investigating accessibility indicators for feed-back from a travel to a land use model, SustainCity Working Paper, 6.4, TU Ber-lin.
- * Nicolai, T.W. and K. Nagel (2010) Coupling MATSim and UrbanSim: Software design issues, SustainCity Working Paper, 6.3, TU Berlin.
- Case studies (Work package 7)
- * Pholo Bala, A., Peeters, D. and Thomas, I. (2011) Spatial Issues on a Hedonic Es-timation of Rents in Brussels, SustainCity Deliverable, 7.1, Université Catholique de Louvain, Belgium.
- Additional papers at conferences
- * Hurtubia, R., and Bierlaire, M. (2011) Bid rent model for simultaneous determina-tion of location and rent in land use microsimulations. Proceedings of the Swiss Transport Research Conference May 11-13, 2011.
- * Wang, L. and P. Waddell (2011) A Parcel Level Real Estate Development Model Incorporating Latent Information, paper presented at 51st ERSA Conference, Bar-celona, September 2011.
- * Proost, S. and A. de Palma (2011) A small model of equilibrium mechanisms in a city, paper presented at 51th ERSA Conference, Barcelona, September 2011.
- * Nicolai, T. and K. Nagel (2011) Investigating accessibility indicators for feedback from a travel to a land use model, paper presented at 51st ERSA Conference, Bar-celona, September 2011.
- * Picard, N., A. de Palma and P.A. Chiappori (2011) Couple residential location and spouses workplaces, paper presented at 51st ERSA Conference, Barcelona, Sep-tember 2011.
- * Picard, N. and C. Antoniou (2011) Econometric guidance for developing Urban-Sim models. First lessons from the SustainCity project, paper presented at 51st ERSA Conference, Barcelona, September 2011.
- * Schirmer, P., C. Zöllig, K. Müller, B.R. Bodenmann and K.W. Axhausen (2011) The Zurich case study of UrbanSim, paper presented at 51st ERSA Conference, Barcelona, September 2011.
- * Bodenmann, B.R. (2011) Modelling firm (re)location choice in UrbanSim, paper presented at 51st ERSA Conference, Barcelona, September 2011.
- * Müller, K. and K.W. Axhausen (2011) Hierarchical IPF: Generating a synthetic population for Switzerland, paper presented at 51st ERSA Conference, Barcelona, September 2011.
- * Zöllig, C. and K.W. Axhausen (2011) A conceptual, agent-based model of land development for UrbanSim, paper presented at 51st ERSA Conference, Barcelona, September 2011.
- * Picard, N. M. de Lapparent and A. de Palma (2011) Household location, dwelling and tenure types in a dynamic context, paper presented at 51st ERSA Conference, Barcelona, September 2011.

Expected final results and potential impacts

One of the main outputs of this project is the development of a modelling platform adapted for the context of European cities. This platform will be based on the existing software Ur-banSim, which was originally developed for cities in the United States. Besides identifying new modelling approaches that could be used to improve the existing modelling platform, this review also aims at identifying geographical, social and economic characteristics of European cities that should be taken into account in the platform (from now on called UrbanSim-E).

UrbanSimE will provide the means to evaluate the impacts of policy measures in European cities.

With the sustainable development objective in mind, UrbanSimE will provide a quanti-tative

assessment of the trade-off between economic, environmental or social objectives in the development of cities.

Project public website address:

www.sustaincity.eu

2. Core of the report

Project objectives, Work progress and achievements, and project management during the period

The Project Summary Pdf document contains the core of the report.

3. Deliverables and milestones tables

Deliverables (excluding the periodic and final reports)										
Del. no.	Deliverable name	Version	WP no.	Lead beneficiary	Nature	Dissemination level	Delivery date from Annex I (proj month)	Actual / Forecast delivery date	Status	Comments
3	Mid-term report and financial statement	1.0	1	Eidgenössische Technische Hochschule Zürich	Report	CO	18	24/10/2011	Submitted	
1	State of the art	1.0	2	ECOLE POLYTECHNIQUE FEDERALE DE LAUSANNE	Report	PU	4	16/05/2011	Submitted	
2	Econometric guidance	1.0	5	UNIVERSITE DE CERGY-PONTOISE	Report	PU	14	03/08/2011	Submitted	
4	Spatial issues - Delineation of Brussels, Paris, and Zurich' Urban Agglomerations: towards Functional Urban Regions	1.0	7	KATHOLIEKE UNIVERSITEIT LEUVEN	Report	PU	20	12/12/2011	Submitted	

Milestones							
Milestone no.	Milestone name	Work package no	Lead beneficiary	Delivery date from Annex I	Achieved Yes/No	Actual / Forecast achievement date	Comments
11	Project website	1	ETHZ	31/03/2010	Yes	31/03/2010	
21	State of the art	2	EPFL	30/04/2010	Yes	30/04/2010	
31	Alternative equilibration mechanisms and selection criteria	3	KUL	31/10/2010	No	31/10/2011	see 4 Project management during the period
41	Provisional demographic outline	4	INED	31/10/2010	Yes	31/10/2010	
32	Qualitative data on behavioural patterns of	3	ETHZ	31/12/2010	No	31/08/2011	see 4 Project management during the

	real estate developers						period
81	UrbanSimE indicator module	8	KUL	31/12/2010	No	29/02/2012	see 4 Project management during the period
71	Database on the three cities (IDF, Brussels, Zurich)	7	STR	28/02/2011	Yes	28/02/2011	for details, see section 3.7.1
51	Econometric guidance	5	UCP	28/02/2011	Yes	28/02/2011	
92	First training course on METROPOLIS and MATSim	9	TUB	31/03/2011	Yes	31/03/2011	and, additionally, 17/05/2010
93	First training course on UrbanSimE	9	NTUA	30/06/2011	Yes	30/06/2011	and, additionally, 17/05/2010
62	UrbanSim upgrading modules	6	TUB	30/06/2011	Yes	30/06/2011	see also Working Papers WP6
42	Initial demographic module for UrbanSimE	4	INED	30/06/2011	Yes	30/06/2011	

4. Explanation of the use of the resources

Eidgenössische Technische Hochschule Zürich			
Work Package	Item description	Amount	Explanations
1,2,3,7,9	Personnel direct costs	215395.56	Dr. B.R. Bodenmann (Senior Researcher, 8.2PM); C. Zöllig (PHD Student, Researcher, 7.8PM); K. Müller (PHD Student, Researcher, 4.2PM); P. Schirmer (PHD Student, Researcher, 11.7PM); A. Zaugg (Researcher, 1.0PM); 5 Students (in total 1.7PM)
7	Data acquisition (consumables): new building projects	8339.46	Data acquisition of new building projects (addresses and other information) for 10 years 2000-2010 (supplied by Documedia)
7	Data acquisition (consumables): addresses of relocating households	2816.11	Data acquisition of addresses of relocating households (supplied by Schober)
3	Translations (consumables)	2543.41	Review of English language for working paper of SustainCity: Bodenmann, B.R. and K.W. Axhausen (2010) Synthesis report on the state of the art on firmographics, SustainCity Working Paper, Institute for Transport Planning and Systems (IVT), ETH Zurich.
1,2,3,7,9	Remaining Consumables	2822.04	others: UrbanSim Tutorial podcast, software licence for CityEngine Academics, remaining data acquisition, prints, office supplies contributed to the project
1,2,3,7,9	Travel	21840.62	Participation at Consortium Meetings: Leuven, 18/19 Feb. 2010 (K.W Axhausen, B.R. Bodenmann, C. Zöllig, P. Schirmer, K. Müller); Zurich, 20/21 May 2010 (K.W Axhausen, B.R. Bodenmann, C. Zöllig, P. Schirmer, K. Müller); Paris, 16/17 Sept. 2010 (K.W Axhausen, B.R. Bodenmann, P. Schirmer); Brussels, 10/11 Feb. 2011 (K.W Axhausen, B.R. Bodenmann, C. Zöllig), Travel grants for 11 students participating at MATSim Tutorial 2011 in Berlin, 4-8 April 2011)
1,2,3,7,9	Indirect costs	152254.32	Overhead general remark: Exchange rate EUR: CHF 1.22670 (ECB 01.07.2011)
	Total:	406011.52	

ECOLE NORMALE SUPERIEURE DE CACHAN

Work Package	Item description	Amount	Explanations
1, 2, 3, 5, 7	Personnel direct costs	232067.45	Salaries for 3 professors and 7 recruited for a total of 44.62 person-months Prof André de Palma (3.26 person-months for the internal project coordination, 5.47 person-months dedicated to WP 3) Prof Nicolas Drouhin (3.45 PM) Professor Harari Kermadec (4.42 PM) PhD Navid Kadhemi (11 PM) Researcher Seghir Zerguini (7, 5 PM) 2 Master students (Manuel de Palma and Aymeric Boulay; 2 PM) Engineer Amine Naouas (4 PM) Engineer Motamedi Pouneh (2.5 PM) Engineer Beaud Olivier (1 PM)
1, 2, 3, 5, 7	Travels	7088.28	The travel costs declared concerns mainly the project consortium meetings which took place in Brussels and Zurich and the participation of the

			scientific coordinator to conferences where SustainCity's papers were introduced. The travel costs mainly include: - 11 – 15 July 2010 in Lisbon - World Conference on Transportation Research – WCTR - André De Palma - 17-18th May 2010 Zurich: UrbanSim meeting and Metropolis course. Navid Khademi and André de Palma. - 16-17 september 2010 in Paris (INED) - N Navid Khademi and André de Palma. - 10-11 February 2011 in Brussels –André de Palma
7	PTV Software / equipment (Consumables)	3104.52	(Depreciation cost claimed – the whole value is 9825 €) PTV was paid in order to acquire a software VISUM (at a low academic price) used to run a static traffic models. This model is used in conjunction with METROPOLIS. ENS Cachan is responsible for the calibration of METROPOLIS (Working Paper 7.2: VISUM will be also useful for the ongoing task on the integration of METROPOLIS and URBANSIM.
5,7	Consumable	1429.37	Cote Callon data was bought to get the information on real estate prices needed to estimate price models for Paris Area. Such data are used for the deliverable 3.5 on Regime Switching Models: An application to the Real Estate Market in Ile-de-France, deliverable 3.2 on household location, dwelling and tenure choices in a dynamic context. They are used in UrbanSim: Université of Cergy-Pontoise and ENS Cachan are mainly responsible for this case study. 449, 85 € claimed. The OVH server is used to store data safely (preserving confidentiality) and to share these data within the Parisian teams (ENS Cachan, INED and Université of Cergy-Pontoise, mainly). All these data are needed for several deliverable (most of them) and to run the Paris case studies. 959, 88 € claimed.
1, 2, 3, 5, 7	Indirect costs	146213.77	Overhead
	Total:	389903.39	

INSTITUT NATIONAL D'ETUDES DEMOGRAPHIQUES

Work Package	Item description	Amount	Explanations
WP 1 – 2 – 4 -7.1	Personnel direct costs	74206.45	3 months Elisabeth Morand (Engineer); 10 months Lorenzo Turci (Chargé d'étude) ; 1,25 month Laurent Toulemon (Research Director) ; 0.75 month Sophie Pennec (Chargé de recherche); 0.5 month Arnaud Bringé (Engineer)
WP1 – 2 – 4 - 7	Major cost item "Participation to meetings"	2850.21	Participation to steering committee meeting Louvain la Neuve (February 2010, 2 persons); WP2 working meeting at INED (April 2010, lunch cost); Participation to constortium Zurich meeting (May 2010, 2 persons); Organisation of Steering Committee meeting at INED (Septembre 2010); Participation to working meeting with U. Bocconi in the framework of WP2 (septembre 2010, 1 person); Participation to steering committee meeting Bruxelles (January 2011, 2 persons);
WP1 – 2 – 4 - 7	Remaining direct costs	1866.55	WP2 working meeting at INED (lunch cost); Organisation of Steering Committee meeting at INED (Septembre 2010); IT softwares and material for recruited chargé de recherche
WP1 – 2 –	Indirect costs	47353.93	60%

4 - 7			
	Total:	126277.14	

UNIVERSITE CATHOLIQUE DE LOUVAIN

Work Package	Item description	Amount	Explanations
2, 7	Personnel direct costs	52143.34	Salaries of Alain Pholo Bala (Postdoctoral researcher) for 18 months
2, 7	Other Direct Costs	3499.20	Consumable : Equipment : HP6930p + cost of the SAS 9.2 Licence The laptop and the software licence are project specific. For the equipment this is in accordance with the UCL usual accountancy practices. Under 25000 euros for each equipment, the usual accountancy practice at UCL is to depreciate the equipment cost in one year. Travelling : Costs related to the participation in project meetings for Prof. Isabelle Thomas and Alain Pholo Bala (Zurich in May 2010, Paris in March and September 2010, Brussels in May 2010)
2, 7	Indirect costs	33385.52	Overhead
	Total:	89028.06	

KATHOLIEKE UNIVERSITEIT LEUVEN

Work Package	Item description	Amount	Explanations
2,3,8	Remaining direct costs	4955.60	4.142€ 18-19/02/2010. Sustainability - Stef Proost, 2 day project workshop; 720€ 12/05/2010 Registration fee for International conference of Regional Science and Urban Economics in Barcelona
2,3,8	Indirect costs	2973.36	Overhead
	Total:	7928.96	

STRATEC SA

Work Package	Item description	Amount	Explanations
7, 1	Personnel direct costs	63215.51	Salaries of the Stratec employees who worked on the project (8.23 PM): Hugues Duchâteau, manager (0.55 PM) Sylvie Gayda, project manager (3.77 PM) Perrine Fastré, economist (2.88 PM) Eléonore Baranger, engineer in urban planning (0.52 PM) Elise Boucq, economist (0,10 PM) Other employees of Stratec having contributed to the project (Nadège Duvivier, Annabel Monneaux, Louis Duvigneaud, Luc Moreau, Sophie Queeckers, Maud Grisart – total: 0.41 PM)
7, 1	Major cost item 'Travel'	1877.20	Travel expenses (consortium meetings): Travel expenses for the consortium meeting in Leuven (Sylvie Gayda – 18-19/02/2010) Travel expenses for the UrbanSim trainee in Zürich (Sylvie Gayda, Perrine Fastré – 18-20/05/2010) and for the consortium meeting in Zürich (Sylvie Gayda – 20-21/05/2010) Travel expenses for the consortium meeting in Paris (Sylvie Gayda –

			16-17/09/2010)
7, 1	Major cost item 'Consortium Meeting'	1344.85	Catering for the consortium meeting which was held in Brussels in February 2011 and was organised by Stratec
7, 1	Remaining direct costs	439.87	Registration to the UrbanSim trainee in Zürich for 2 persons (Sylvie Gayda, Perrine Fastré – 18-20/05/2010) Purchase of a statistics database (from the Service Public Fédéral Economie) Purchase of a book, Other miscellaneous expenses
7, 1	Indirect costs	49941.02	Overheads
	Total:	116818.45	

NATIONAL TECHNICAL UNIVERSITY OF ATHENS

Work Package	Item description	Amount	Explanations
2,5,8	Personnel direct costs	16500.00	Personnel cost of Dr. S. Mavromatis (0.6PM), as well as 4 research assistants (for a total of 3.4PM). Participation in WPs 1, 2, 5 and 8. Contribution to Deliverables D2.4 and D5.1 [During this period there is also unclaimed work of Prof. B. Psarianos and Assistant Prof. C. Antoniou (total of 2.6PM)]
1,2,5,8	Remaining direct costs	8810.14	Travel: Participation of Assist. Prof. C. Antoniou in the following SustainCity Consortium Meetings: Leuven, Feb. 2010 (Kick-off meeting); Zurich, May 2010; Paris, Sept. 2010; Brussels, Feb 2011, and in the MATSIM (software being used in the project) Tutorial in Berlin (April 2011). Participation of Mr. G. Kalambokis (research assistant working in the project) in the MATSIM Tutorial (Berlin, April, 2011). Equipment: One laptop computer for the development of the software products in the project. According to p. 65 of the Guide to Financial Issues relating to FP7 Indirect Actions (Version 16/01/2012): "To be considered as eligible, a cost must be determined according to the beneficiary's usual accounting practice and each beneficiary must apply its usual depreciation system for durable equipment..." Therefore, according to the NTUA internal regulation for Equipment Depreciation "For durable equipment of net value (excluding VAT) up to 10.000 €, the whole amount is charged within the period that the equipment is bought.". Consumables: Printing of color posters of the project results
1,2,5,8	Indirect costs	15186.09	Overhead
	Total:	40496.23	

TECHNISCHE UNIVERSITÄT BERLIN

Work Package	Item description	Amount	Explanations
1, 2, 6	Personnel direct costs	52090.39	Salary for Thomas Nicolai (scientist) for 13,55 PM and 500h in total for Ihab Kaddoura and Anne Schubert (student co-workers) Salary for Thomas Nicolai (scientist) for 0,45 PM
6	Major cost item 'Travel'	3955.10	UrbanSim Tutorial/User Meeting and METROPOLIS Tutorial at Zurich, Switzerland;

			16.-22.05.2010 for Thomas Nicolai SustainCity Consortium Meeting at Paris, France; 15.-17.09.2010 for Kai Nagel and Thomas Nicolai SustainCity Consortium Meeting at Brussel, Belgium; 09.-11.02.2011 for Kai Nagel and Thomas Nicolai
	Indirect costs	33627.30	60% of direct costs
	Total:	89672.79	

ECOLE POLYTECHNIQUE FEDERALE DE LAUSANNE

Work Package	Item description	Amount	Explanations
1, 2, 6, 7, 9	Personnel direct costs	172521.40	Ricardo Hurtubia Designation: PhD student (Full-time) Person months: 18 Dr. Gunnar Flötteröd Designation: Post doc (70%) Person months: 18*70% = 13.5
	Remaining direct costs	9406.98	Travel and conference attendance: NRP 65 meeting, Zurich, 15.02.2010, 1 participant FP7 Sustaincity Project meeting, Louvain, Belgium, 17-19.02.2010, 3 participants MatSim + UrbanSim, Zurich, 17-21.05.2010, 3 participants EURO XXIV, Lisbon, Portugal, 10-13.10.2010, 1 participant ETC 2012 - European Transport Conference, Glasgow, UK, 10-13.10.2010, 2 participants FP7 Sustaincity Project meeting, Paris, France, 15-17.09.2010, 2 participants Meeting with Stratec, Brussels, 04-05.10.2010, 1 participant FP7 Sustaincity Project meeting, Brussels, Belgium, 10-11.02.2011, 3 participants FP7 Sustaincity Project meeting, Zurich, 04-05.03.2011, 2 participants
	Indirect costs	109157.03	60% of total direct cost
	Total:	291085.41	

UNIVERSITA COMMERCIALE 'LUIGI BOCCONI'

Work Package	Item description	Amount	Explanations
2, 4	Personnel direct costs	15718.50	Francesco Billari senior scientist (0,4 PM) and Rodolfo Baggio researcher (3,6 PM)
2, 4	Major cost item travel costs'	1140.87	Participation of Rodolfo Baggio at Consortium meetings: Leuven, Feb. 2010 (Kick-off meeting); Paris, Sept. 2010; Brussels, Feb 2011.
	Indirect costs	10115.62	Overheads
	Total:	26974.99	

UNIVERSITE DE CERGY-PONTOISE

Work Package	Item description	Amount	Explanations
1,2,3,5,7	Personnel direct costs	138165.55	Salaries for 4 professors and 1 doctoral student for a total of 28.1 person-months: Professor Barthelemy (5 PM) Professor Donni (2.3 PM) Professor Picard (9.3 PM) Professor Prigent (2.5 PM) PhD student Chauveau (9 PM)
3,5,7	Major cost item 'Travel Cost	2231.30	Discrete Choice Analysis Training at Lausanne,

	DC Analysis Training'		Switzerland; 20-24 March 2011 for 1 doctoral student (L. Chauveau).
1,2,3,5,7	Major cost item 'Travel Cost Consortium Meeting'	916.90	participation to the consortium meetings and related tutorials and conferences: 17-18 may 2010 Zurich: UrbanSim meeting+Metropolis course (Nathalie Picard, Louis Chauveau, Hakim Ouaras) 16-17 septembre 2010 Paris (Nathalie Picard, Louis Chauveau, Delphine Drouet) 10-11 février 2011 Bruxelles (Nathalie Picard, Louis Chauveau, Kiarash Motamedi) 4-8 avril 2011 à Berlin: Atsim/UrbanSim tutorial & user meeting (Kiarash Motamedi)
5,7	Major cost item 'Others'	2376.18	Work meeting expenses: Corresponds to the dinner for the Paris consortium meeting which was hosted jointly by INED and UCP.
	Indirect costs	86213.96	Overheads
	Total:	229903.89	

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA

Work Package	Item description	Amount	Explanations
	Travel	2668.45	This includes travel to the SustainCity meeting May 17-20, 2010 in Zurich. This meeting included a training session on UrbanSim.
	Rent	835.45	This is a proportional allocation of the rent for projects coordinated by Paul Waddell, in off-campus space for these projects.
	Indirect costs	2102.34	Overheads
	Total:	5606.24	

Attachments	mid-term_report_v20.pdf, figure1.pdf
Grant Agreement number:	244557
Project acronym:	SustainCity
Project title:	Micro-simulation for the prospective of sustainable cities in Europe
Funding Scheme:	FP7-CP-FP
Project starting date:	01/01/2010
Project end date:	
Name of the scientific representative of the project's coordinator and organisation:	Dr. Kay Axhausen Eidgenössische Technische Hochschule Zürich
Period covered - start date:	01/01/2010
Period covered - end date:	30/06/2011
Name	
Date	27/03/2012

This declaration was visaed electronically by Kay AXHAUSEN (ECAS user name naxhauka) on 27/03/2012