



**PUBLISHABLE EXECUTIVE SUMMARY**  
**corresponding to 5<sup>th</sup> Periodic Activity Report**  
**YEAR 5**

*CONCERTO INITIATIVE*  
**RENAISSANCE**

**Renewable ENergy Acting In SuStainable And**  
**Novel Community Enterprises**

Instrument (e.g. Integrated Project)  
Thematic Priority

**Period covered – 5<sup>th</sup> Period**

From 18/10/2009 to 17/10/2010

**Start date of project:** 18th October 2005

**Author/ contact:** Sylvain Koch-Mathian

**Email:** [sylvain.koch-mathian@hespul.org](mailto:sylvain.koch-mathian@hespul.org)

**Tel:** +33 04 37 47 80 90

**Project coordinator:** Sylvain Koch-Mathian

Hespul, énergies renouvelables & efficacité énergétique

114 bd du 11 novembre

F-69 100 Villeurbanne

**Date of preparation:**

14/12/2010

**Duration:** 5 years

**Revision:**



*CONCERTO is co-funded by the European Commission and aims to create a more sustainable future for Europe's energy needs.*



# PUBLISABLE EXECUTIVE SUMMARY

## 1 RENAISSANCE OBJECTIVES AND CHARACTERISTICS

RENAISSANCE aims to demonstrate that strong local political commitment to sustainable development, social involvement, and public-private partnership can lead to energy high performance and replicable urban regeneration projects in two large cities of contrasting character; Grand Lyon conurbation and Zaragoza. The Region of Lombardy is also participating, with the objectives to share the development of these innovative best practices on urban planning and on local renewable energy sources supplies.

RENAISSANCE involves 2 demonstration projects in Grand Lyon and Zaragoza that focus on achieving exceptional standards in rational use of energy (RUE) and use of renewable energy systems (RES) in an integrated way, across 2 of their urban regeneration programmes. These 2 urban projects aim to achieve drastic reductions in conventional energy consumption up to more than 70%, thanks to innovative eco-building design & architectural approaches and an important increase in the supply of integrated Renewable Energies. RENAISSANCE project objective is also to have reasonable costs and acceptable financial risks on energy saving investments, near to market proposals, to demonstrate its high potential of replication across the rest of Europe.

As showcases, RENAISSANCE includes a comprehensive programme of Research and Technical Development (RTD), coupled with active and widespread dissemination activities.

The integration of the research elements will produce hard data and new knowledge regarding public attitudes to new energy futures, planning policy development, building design, monitoring energy systems; commercial energy structures and local fuel supply chains. This information will be of significant value to the research community and to policy makers.

In total, there are 19 participants in this project, involving a large range of diverse stakeholders, from local authorities to technical & socio-economical experts, non-profit organisations, Universities and businesses.

## 2 PROJECT PARTNERS

N°	Name of Project coordinator	Coordination Contact person
16	Communauté urbaine du Grand-Lyon (Grand-Lyon) 20 rue du Lac ; F- 69 003 Lyon	Sylvain Koch-Mathian <a href="mailto:Sylvain.koch-mathian@hespul.org">Sylvain.koch-mathian@hespul.org</a>
18	Hespul, Energies renouvelables & efficacité énergétique 114 bd du 11 novembre; F-69 100 Villeurbanne	Tel: +33 (0)4 37 47 80 90

N°	Full Name	Acronym	Country
8	Zaragoza City Council, Environment Department	Ayto-Zaragoza	Spain
9	Sociedad Municipal de Rehabilitación Urbana y Promoción de la Edificación de Zaragoza, S.L. => Sociedad Municipal Zaragoza Vivienda, S.L.U (23/05/2008)	Ex-SMRUZ/SMZV	Spain
10	Fundación Ecología y Desarrollo- WITHDRAWN Mid-Year 3 (end of April 2008)	ECODES	Spain
11	Ecociudad Valdespartera Zaragoza	EVZ	Spain
12	Endesa Energía, S.A.	EDE	Spain
13	Centro Nacional de Energías Renovables	CENER	Spain
14	University of Zaragoza	UdZ	Spain
15	URBIC Engineering	URBIC	Spain
16	Communauté urbaine du Grand-Lyon	Grand-Lyon	France
17	SEM Lyon-Confluence => SPLA Lyon-Confluence (31/01/2008)	Lyon-Confluence	France
18	Hespul	HESPUL	France
19	Agence Locale de l'Energie de l'Agglomération Lyonnaise	ALE	France
20	Enertech	Enertech	France
21	INSA de Lyon (CETHIL)	INSA-CETHIL	France
22	SCI Lyon Confluence La Presqu'île (Lot A)	LOT A	France
23	SCI Lyon Islands (Lot B)	LOT B	France
24	La Confluence-Ilot C (Lot C)	LOT C	France
25	University of Barcelona WITHDRAWN END of Year 2	UB	Spain
26	Region of Lombardy	LOM	Italy
27	Endesa Cogeneración y Renovables S.A.	ECyR	Spain

### 3 WORK PERFORMED & RESULTS ACHIEVED TO DATE (OCT. 2010)

During this 5<sup>th</sup> year of implementation, Renaissance project has accomplished a considerable step toward a successful completion since almost all demonstration activities have been completed both in Grand Lyon and Zaragoza communities. In total 83% of the project budget has been claimed. Monitoring and some RTD activities (mainly socio-economic ones) that were pending to the completion of the demonstration works, have started along Year 5 and will be completed during Year 6 and 7 as scheduled in the documents related to request for extension.

#### 3.1 Consortium Management

During previous year (Year 4), significant efforts had been carried out by project coordination in order to **strengthen the management structure and to improve the reporting process and quality**. Local coordinators have been strengthened and are now the pillars of project management. In parallel, project partners did improve their reporting capability compared to previous years, even if many key documents have been submitted very late. The strength of the whole management structure has been an invaluable advantage **to guarantee the continuity of the project management during transition period implied by the change of the person in charge of project coordination**.










This **change that occurred just before the 5<sup>th</sup> reporting period (summer 2010) revealed one of the most challenging issues for Year 5**. In addition to familiarize himself with project objectives and partners, project coordinator had to complete Amndt 4 submission, to prepare Amndt 5, including developing an alternative plan following the late cancellation of PV objectives in Zaragoza and to coordinate Year 5 reporting period.

In addition, all RENAISSANCE partners suffered from external financial audits ordered by the European Commission. These audits consumed lots of time to the partners as well as to local and project coordinators in order to answer partners questions and to solve several legal issues in cooperation with DG ENER both financial and juridical units for the following partners: INSA, Lot A, Lot B, Lot C, Ayto, SMVZ, EVZ and UB.
















All these changes as well as the request for a 7<sup>th</sup> Year prolongation implied significant efforts in order **to present to DG ENER a comprehensive proposal for Amendment 5** including: (1) details of all activities to be carried out during Years 6 and 7, (2) major budget and activities shifts due to cancellation of some activities and (3) modification of legal and model cost issues as a result of external audits. Two meetings had to be held with DG ENER for validating contents of amendment 5 (14/10/2010 in Lyon and 07/12/2010 in Brussels).

### 3.2 Demonstration activities progress

All demonstration activities have achieved significant progress since they are almost completed both in Grand Lyon and Zaragoza communities. Uncompleted works only involve refurbishment in Piccaral district (Zaragoza) that developed slower than foreseen, due mainly to complicated decision processes. The only negative point is related to PV installations (Zaragoza) introduced in Amendment 4. Due to recent changes in Spanish regulation on PV, including lower feed-in-tariffs and annual capping capacity to be installed, PV installations planned in ZAR had to be cancelled.

<b>Eco-buildings (RUE &amp; RES demonstration activities)</b>				
<b>GRAND LYON</b>			<b>State of progress</b>	
<b>Lot A (Block A)</b>	<p>19.590 m<sup>2</sup> built (100% achievement) All dwellings delivered to owners</p> <p><u>Wood fuel boiler</u>: 540 kW <u>Photovoltaic panels</u>: 79 kWp installed.</p>		<b>Building</b>	<b>RES</b>
			100%	100%
				
<b>Lot B (Block B)</b>	<p>527.481 m<sup>2</sup> of news dwellings and 2.660 m<sup>2</sup> of offices (100% achievement).</p> <p><u>Photovoltaic panels</u>: 121,2 kWp (all arrays not commissioned yet, due to delays with grid-connection). <u>Solar collectors</u>: 239 m<sup>2</sup> <u>Wood fuel boilers</u>: 2 wood fuel boilers, 540 kW each</p>		100%	100%
				
<b>Lot C (Block C)</b>	<p>12.594 m<sup>2</sup> of news dwellings and 15.418 m<sup>2</sup> of offices and retails</p> <p><u>Photovoltaic panels</u>: 73,15 kWp <u>Solar collectors</u>: 250 m<sup>2</sup> <u>Wood fuel boiler</u>: 540 kW</p>		100%	100%
				



<b>ZARAGOZA</b>			<b>State of progress</b>	
			<b>Building</b>	<b>RES</b>
<b>Valdespartera Blocks 12 &amp; 17.</b>	<b>Bioclimatic blocks nº 12</b> (164 residential flats – 16.950m <sup>2</sup> ; 165 m <sup>2</sup> solar thermal panels installed) <b>and nº 17</b> (164 residential flats - 16 892m <sup>2</sup> ; 165 m <sup>2</sup> solar thermal panels installed) <b>are completed</b> (end 2008/early 2009).		<b>100%</b> 	<b>100%</b> 
<b>Valdespartera Blocks 18 &amp; 13</b>	<b>Bioclimatic block nº 18</b> (144 residential flats- 15.525 m <sup>2</sup> ; 144 m <sup>2</sup> solar thermal panels installed) <b>is completed</b> (by June 2009).  <b>Bioclimatic block nº 13</b> (144 residential flats- 14.659,31 m <sup>2</sup> ; 180 m <sup>2</sup> solar thermal panels installed) <b>has just been finished</b> (by April 2010).		<b>100%</b> 	<b>100%</b> 
<b>Valdespartera (CUS)</b>	<b>The Exhibition Centre</b> , now named Centro de Urbanismo Sostenible (Sustainable urban planning Centre), CUS, <b>was opened</b> (by June 2010) with a total area of 1.543 m <sup>2</sup> . It is equipped with a wood fuel boiler (48,5 kW) and a geothermal reversible water-water heat pump (45 kW).		<b>100%</b> 	<b>100%</b> 
<b>El Picarral – social housings</b>	<ul style="list-style-type: none"> <li>▪ <b>Anzánigo 10-12</b> (30 flats): refurbishment completed.</li> <li>▪ <b>General Yagüe 2-4-6-8</b> (40 flats): refurbishment almost done (november 2010).</li> <li>▪ <b>Anzánigo 2-4-6-8-14</b> (90 flats): project is done, pending on municipal license.</li> <li>▪ <b>Crucero Baleares 14-16</b> (16 flats): project is done, pending on municipal license.</li> <li>▪ <b>Batalla del Ebro 2-4</b> (20 flats): Contract are signed, have asked for budgets and are deciding on the Architect.</li> </ul>		<b>40%</b> 	<b>31%</b> 
<b>El Picarral - Public School Cándido Domingo</b>	All works completed (6.000 m <sup>2</sup> and installation of 18 kWp roof mounted PV array). Photovoltaic panels aren't connected and pending on the license from the Ministry of Industry.		<b>100%</b> 	<b>98%</b>  <i>To be connected</i>

### 3.3 RTD/innovation, dissemination and training results

In addition to progress made in demonstration activities and international/local management of the consortium, a particular effort has been made on collaborative works as well between Renaissance Communities as through external partnerships, focused on the following areas:

- Feedback on influence of Renaissance on Urban planning policies (WP1.1)
- Quality control as a whole, including design of tools adapted to low-energy buildings (WP1.2), on-site tests at delivery stage and certification procedures (WP2.2)
- Technical monitoring, including finalisation of design (W2.1), but also system implementation, first data acquisition, system adjustments and first proceedings (WP2.2)
- Socio-economic activities, including operation contracts preparation (WP1.3), economic studies (WP1.4), and social support and monitoring (WP1.5)
- Dissemination and promotion activities at local/national level (WP4.1) and international level (WP4.2), including active participation in Concerto Plus initiative.
- Training activities, including contents and tools design (WP5.1) and training sessions (WP5.2)

The main outputs from these activities are:

- Assessing in practical cases application of the normative on Energy Efficient for Zaragoza Municipality (See WP1.1 Annual report)
- Introduction of bioclimatic parameters in Spanish regulation and related usual software. Development of software for evaluation and optimization of urban plans (see WP1.2 Annual report)
- Publication of 2 studies related the potential of Short Rotation Forestry (SFR) for fuel-wood supply in Lombardia. Development of a good practice guide in French for installation of wood-fuel boilers, based on RENAISSANCE experiences (see WP1.3 Annual report)
- Feasibility study of ESCO in Zaragoza (heating and cooling heat pump) and Lombardia (see WP1.4 Annual report)
- The awareness activities are addressed to the inhabitants of both El Picarral and Valdespartera districts. Two general training sessions have been organized with blocks A and B inhabitants in Lyon (see WP1.5 Annual report)
- Completion and first operation of the centralised monitoring network in Zaragoza;
- Significant progress in the development of an innovative PV-plants monitoring system in Lyon (see WP2.1 Annual Report)
- Development of on-site quality control activities through regular inspection visits at works stage in Lyon and a series of sophisticated tests at buildings delivery in Zaragoza (See WP2.2 Annual Report).
- Numerous publications in media (press, newspapers, magazines, internet, TV and radio), with significant and encouraging results, following the completion of demonstration works and in order to disseminate first results of RTD activities listed above (See WP4 Annual report)
- Progresses and finalisation of high level technical training materials (i.e. bilingual manual about bioclimatic architecture and sustainable urban planning, CD-ROM for training courses on air-tightness for trainers from professional training centres, etc.) and implementation of related training courses targeted to different categories of trainees, both in Spain and France (see WP5 Annual report)

All Annual Reports are available at: <http://www.renaissance-project.eu>

## 4 EXPECTED END RESULTS AND INTENTIONS FOR USE AND IMPACT

The principal end result of RENAISSANCE will be the demonstration that **high level of energy performance in new and refurbished buildings** can be achieved at reasonable costs, with existing technological solutions if applied appropriately.

The second expected and ambitious impact is **accelerated replication of this know-how**, by continuously influencing both **policy makers** (in their Energy & urban planning policy approaches at local, regional, national & European levels) and the **building sector** (including low-energy refurbishment, social housings and tertiary branches).

The third expected end result is to highlight **the importance of the appropriation process** of numerous changes resulting from ambitious energy performance for all stakeholders, including developers, architects, engineers, constructors, building operators and end users, and as a consequence the need of developing **appropriate information, training and technical supports**.

More details can be found on the project website: <http://www.renaissance-project.eu>



