Alma Mater Studiorum – University of Bologna
DA – Department of Architecture

Department of Architecture is a young department within the long history of Alma Mater Studiorum – University of Bologna. It has been build upon the previous Department of Architecture and Spatial Planning, having a strong tradition in urban and regional planning research.

The main focus of Department of Architecture research activities is the different scales of the built environment. Specifically it affects:

- sustainable design and planning of urban systems
- composition and architectural and urban design;
- technical architecture and analysis of building types;
- construction techniques, recovery and maintenance of building systems;
- history of architecture and urbanism.

UNIBO has a well-known experience in European project. In FP7, it has presented over 1100 projects, achieving total funding of about € 73 million for 228 projects, acting as coordinators in 44 of them.

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Moreover, the team of researchers coordinated by prof. Simona Tondelli actively works on several territorial cooperation projects in the field of sustainable urban planning.

Among recent projects:

Title	**Addressing the divide between EU indications and their practical implementation in the green construction and eco-social re-qualification of residential areas in South East Europe regions**
Acronym	**BUILD SEE**
Funding Source	South East Europe Transnational Cooperation Programme (85%) State contribution (15%)
Unibo role	PARTNER
Start/Ending date	24/01/2013 31/12/2014
Project objectives	The setting up of toolkits and actions to develop a green building management model of city for supporting sustainable urban developments in terms of new constructions and regeneration, and for creating a successful model for citizenships involvement and participation.

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Title	**External Costs of Transport and Land Equalisation**
Acronym	**ECOTALE**
Funding Source	INTERREG IVC (75%) State contribution (25%)
Unibo role	COORDINATOR
Start/Ending date	01/01/2012 30/06/2014
Project objectives	To integrate the traditional approach based on the "economic" (or marked-based) internalization of external costs (i.e. pricing measures) by introducing criteria and policies for a wider internalization approach considering land use and environmental planning as well.

Title	**Spatial planning and housing policies: creating community living spaces**
Acronym	**HOUSING-PLAN**
Funding Source	LLP Erasmus Intensive Programme
Unibo role	COORDINATOR
Start/Ending date	05/03/2014 16/03/2014
Project objectives	The main objectives for students are to develop a critical reflection on the role of spatial planning in housing policies with close attention to the economic, environmental and social issues and to develop innovative proposals for creating community living spaces.

H2020 WASTE-6b-2015

WASTE-6-2015 - Promoting eco-innovative waste management and prevention as part of sustainable urban development b) Eco-innovative strategies

Factsheet

- **Type of Action:** RIA – Research & Innovation Action
- **1st stage deadline:** 21st April 2015
- **2nd stage deadline:** 8th September 2015
- **Budget:** EUR 4-5 million → **2 projects**

Development of innovative and sustainable strategies for waste prevention and management in urban and peri-urban areas.

Proposals should highlight how urban patterns, drivers, consumer behaviour, lifestyles, culture, architecture and socio-economic issues can influence the metabolism of cities.

Proposals should highlight the possible benefits to be derived from ecosystems services and green infrastructure, and their gender sensitive application.

H2020 WASTE-6b-2015

WASTE-6-2015 - Promoting eco-innovative waste management and prevention as part of sustainable urban development b) Eco-innovative strategies

Specific challenge

The growing waste produced in Europe, particularly in urban areas, where the vast majority of the world population are expected to live by 2050, represents a cost for society and a burden on the environment and, at the same time, a valuable stock of resources that can be exploited.

Boosting eco-innovative solutions to prevent waste generation and promote the use of waste as a resource, in line with the objectives of the EU Resource Efficiency Roadmap and the Waste Framework Directive, can enhance the natural and living environment in urban and peri-urban areas. Developing and demonstrating such solutions in real-life environments will enhance their market uptake and contribute to sustainable urbanisation worldwide.

H2020 WASTE-6b-2015

WASTE-6-2015 - Promoting eco-innovative waste management and prevention as part of sustainable urban development b) Eco-innovative strategies

Scope

Proposals should adopt an integrated urban metabolism approach and interdisciplinary research and innovation and take into account the gender dimension where relevant. Proposals should involve active engagement of local authorities, citizens and other relevant stakeholders, using innovative concepts such as mobilisation and mutual learning.

H2020 WASTE-6b-2015

WASTE-6-2015 - Promoting eco-innovative waste management and prevention as part of sustainable urban development b) Eco-innovative strategies

Impact

Significant measurable improvements in the state of the art in waste management in urban and peri-urban areas, and in the operationalisation of the urban metabolism approach for sustainable urban development and reduction of environmental hazards in cities.

Demonstrable improvement in the short/medium term in the participatory and science-based decision-making and planning for waste management, risk prevention and land-use as an integral part of urban development. Collectively-built, gender-sensitive solutions to promote eco-innovative urban management and re-naturing cities, measurable by qualitative and quantitative indicators. Significant increased competitiveness of soilecology-construction-waste treatment-related industries.

H2020 WASTE-6b-2015
We4Cities project idea

We4Cities - Increase Waste Management Efficiency for Living Sustainable Cities

Main objectives:

- to promote eco-innovative waste management policies and projects that can foster the socio-ecological transition;
- to promote repair and reuse as a means of self-sustaining and ecological living;
- to foster community-based waste management initiatives involving recycling and organic composting, taking into account the gender dimension.

Home and backyard composting, waste shopping, household items and WEEE

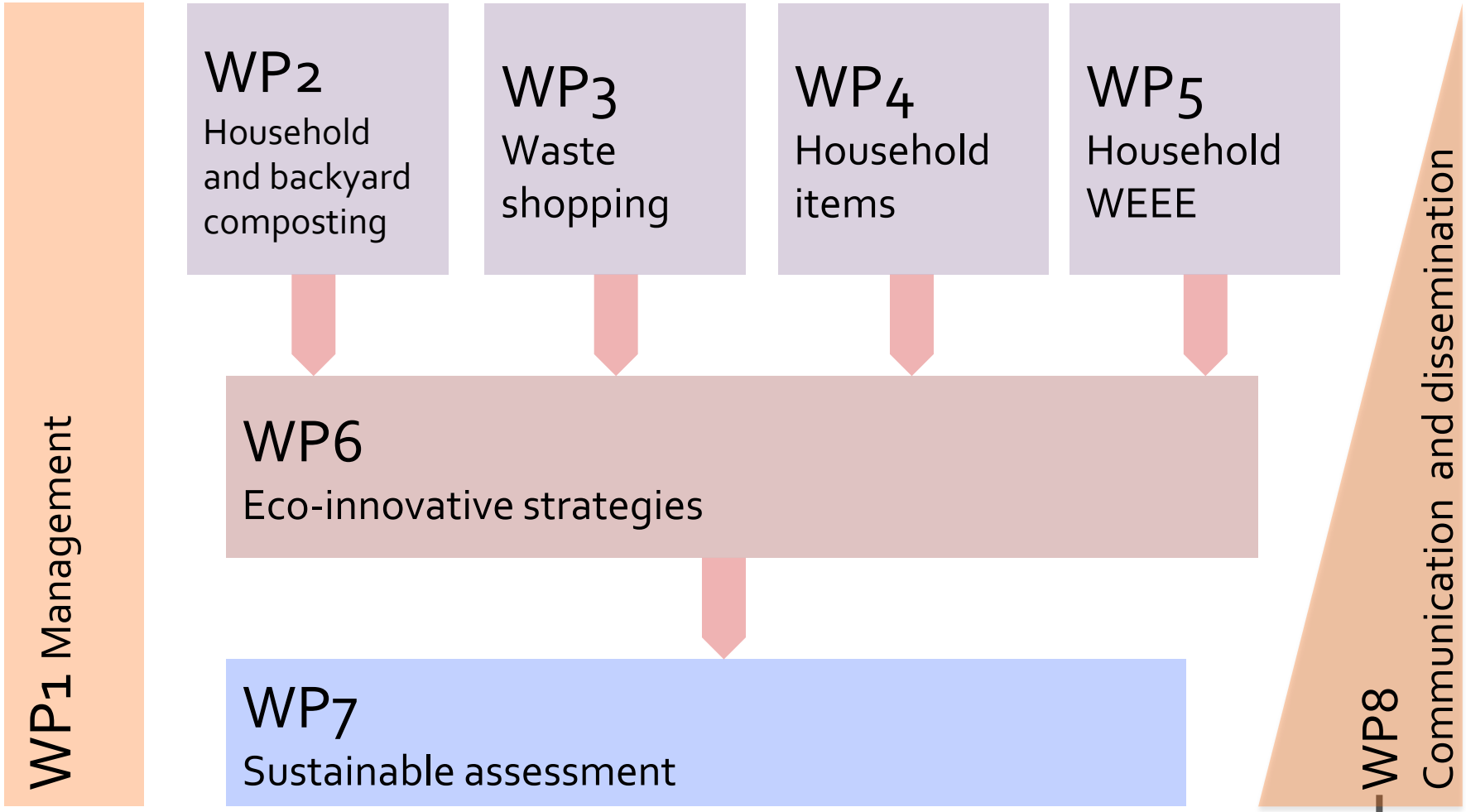
Emphasis on waste management at households-community level in urban areas

Coordinator: Alma Mater Studiorum – University of Bologna, Department of Architecture

H2020 WASTE-6b-2015
We4Cities Work Packages-draft

- **WP1** MANAGEMENT
- **WP2** HOME AND BACKYARD COMPOSTING
- **WP3** WASTE SHOPPING
- **WP4** HOUSEHOLD ITEMS
- **WP5** HOUSEHOLD WEEE
- **WP6** ECO-INNOVATIVE STRATEGIES
- **WP7** SUSTAINABLE ASSESSMENT
- **WP8** COMMUNICATION, DISSEMINATION AND EXPLOITATION

H2020 WASTE-6b-2015
We4Cities Work Pert Chart-draft



H2020 WASTE-6b-2015
We4Cities Work Packages-draft

WP2 **HOME AND BACKYARD COMPOSTING**

(kitchen and yard waste, diapers, household waste water…)

Overall aims: to define innovative strategies for the management of organic waste at household/community level and to foster the greening of urban areas.

Key words: consumer behaviour, treatment technologies, urban metabolism, eco-innovative urban management, green infrastructures, ecosystem services, urban patterns, re-naturing cities, environment resilience, gender issue.

H2020 WASTE-6b-2015
We4Cities Work Packages-draft

WP3 **WASTE SHOPPING**

(packaging, dispenser, wrapping…)

Overall aim: to prevent waste packaging (refilling groceries) and reuse unneeded containers making them available for others.

Key words: social economic issue, consumer and stakeholders behaviour, lifestyles, green jobs, gender issue.

H2020 WASTE-6b-2015
We4Cities Work Packages-draft

WP4 **HOUSEHOLD ITEMS**

(furnitures, cloths, toys…)

Overall aims: to promote repair as a means of reducing waste production in urban areas; to promote product reuse and material recycling strategies by providing tools, knowledge, exchange platforms and urban regeneration; to arise awareness and to mobilize local authorities, citizens and stakeholders through their active engagement.

Key words: consumer behaviour, green jobs, innovative concepts (i.e. mutual learning, repair centers and networks), reuse as social driver.

H2020 WASTE-6b-2015
We4Cities Work Packages-draft

WP5 HOUSEHOLD WEEE

Overall aims: to promote exchange and repair as a means of reducing waste production and increase social cohesion; to implement the exchange of know-how and skills; to promote eco-innovation in WEEE treatment-related industries.

Key words: social economic issue, green jobs, reuse as social driver, innovative concepts (i.e. mutual learning, repair centers and networks), gender issue.

H2020 WASTE-6b-2015
We4Cities Work Packages-draft

WP6 ECO-INNOVATIVE STRATEGIES

The project will focus on reduction, reuse and waste management at household level, due to the role of primary groups (i.e. family, small community) as key players and drivers for positively influencing the metabolism of cities.
In order to promote a systemic approach for waste prevention and management in urban and peri-urban areas, the project aims at defining strategies both for the reuse of goods before the end of their life and the eco-innovative urban management of waste.

H2020 WASTE-6b-2015
We4Cities Work Packages-draft

WP7 SUSTAINABLE ASSESSMENT

Life cycle approaches for measuring sustainability of the various types of waste and related strategies: Life Cycle Assessment (LCA), Life Cycle Costing (LCC) and Social Life Cycle Assessment (SLCA)

H2020 WASTE-6b-2015
We4Cities – next steps

Next steps are:

– to close the consortium before 22nd December
– to define the **best practices (BP)** showcasing advanced approaches;
– to decide the technologies we would like to use and/or implement;
– to identify the **local case-studies (LCS)** to be developed in some (or all) of the participating countries (where and how we would like to implement innovative waste management solutions).

According to this last point, eligible local case-studies would be those ones that include a multi- stakeholder partnerships as, for example: research institute + local authority + SME or NGO + waste treatment-related industries.

H2020 WASTE-6b-2015
We4Cities – next steps

BEST PRACTICES

TITLE Where (City, country) and who (main actors)	Brief description (aims, methodology, stakeholders involved, issues involved, impact)	Selling point(s) (strengths, innovative aspects, replicability…)	Technologies	WP

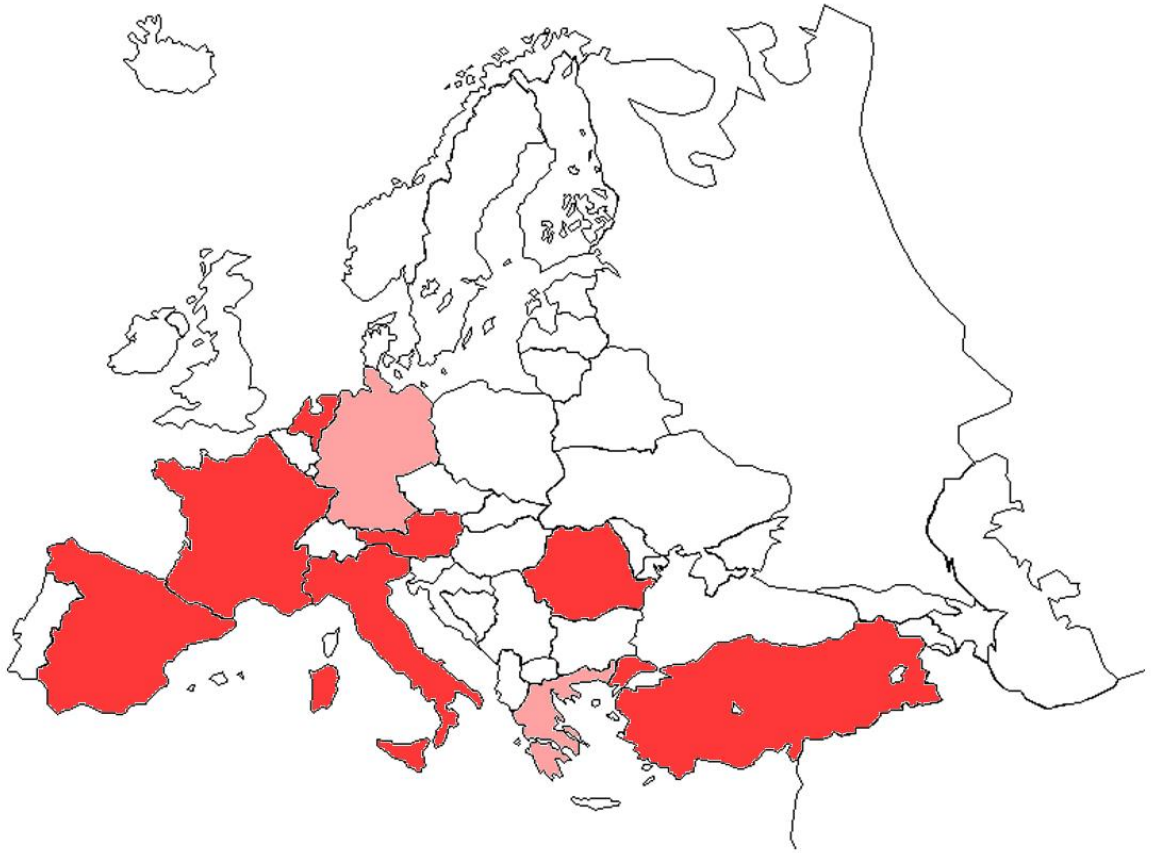
H2020 WASTE-6b-2015
We4Cities – next steps

LOCAL CASE STUDIES

TITLE Where (City, country) and who (partners on board)	Brief description (aims, methodology, stakeholders involved, issues involved)	Expected impacts	Technologies (which innovations, innovation potential…)	Contribution to policy/ies	WP

H2020 WASTE-6b-2015
We4Cities – next steps

PARTNERSHIP



countries on board

partnership still under discussion

Project idea for Central Europe 2016 call

LOW CARBON 9

ENERGY EFFICIENCY AND SOCIAL INNOVATION IN SOCIAL HOUSING SECTOR

The project idea focuses on defying and implementing sustainable energy measures in the field of social housing, where the environmental issue is not the only one to be classified as of general interest. The project aims to demonstrate that energy efficiency is not only a result of technology, but goes through the proactive involvement of public and private parties for the implementation of environmental policies. In particular, within the social rental sector, the share of energy information between housing companies and tenants and the education to new technologies is desirable for building a more responsible behaviour, in order to achieve as energy purposes as social goals. Thus public authorities do not achieve energy efficiency in their public housing stock all by themselves. They are dependent on the expertise and knowledge of other parties in the construction, maintenance and management chain. The involvement of certain stakeholders in the implementation of sustainability process and actions has a key role for the success of sustainable energy policies and measures. Furthermore, the impact of energy-efficiency measures on lowering energy use should also connect with the spatial and density attributes of communities and cities in general. Residential density, mixed-use developments, efficient and effective public transport facilities and integrated district co-generation systems are believed to be important factors in improving energy efficiency.

Project idea for Central Europe 2016 call

Specific objective	To develop and implement solutions for increasing energy efficiency and renewable energy usage in public infrastructures
Expected results	Planned activities include the knowledge of current situation in the partner countries, the definition of a common framework, the test of technologies and methodologies through local case studies and the monitoring and evaluation of results. Expected results of the project are not only the development of effective strategies for reduction of social housing buildings, but also the empowerment of housing associations and public administrations in the implementation of sustainable energy policies in the public and social housing sector. Moreover the project will foster social inclusion and social innovation through the active involvement of tenants
Partners involved	CIRI EC - Centre for Applied Research on Buildings and Construction, University of Bologna
Partners requested	Housing associations, public administrations, research centers in the field of energy efficiency, private enterprises
Follow up of the project	No
Idea owner	Angela Santangelo
Institution	Alma Mater Studiorum Università di Bologna CIRI Edilizia e Costruzioni
Country	Italy

Thank you for your attention!

Alma Mater Studiorum - University of Bologna
DA – Department of Architecture
V.le Risorgimento 2
40136 Bologna – ITALY
tel +39 051 2093166
fax +39 051 2093155
www.da.unibo.it

Simona Tondelli simona.tondelli@unibo.it
Stefania Proli stefania.proli@unibo.it
Angela Santangelo angela.santangelo@unibo.it