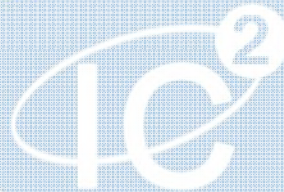


Horizon 2020 - Smart Cities and Communities

GreenFOC

Smart technologies for Green Roofs Urban Heat Island reduction



Blanca Botey
bboteypro@gmail.com

IC_Cartotechnology

Organized by



Certified by



Supported by

Direcció General d'Universitats



Green FOC: Overview



	Topic addressed			
Title	Smart technologies for Green Roofs Urban Heat Island (UHI) Reduction			
Description	<p>Reduction of UHI by a large scale green roof installation (including a light house project) coupled with two technology solutions:</p> <ul style="list-style-type: none"> • a sensor network and sensor measurement campaigns to feed a energy and climatic model and to validate the achievement of the objectives • a DSS as a tool for city planners make possible reliable simulations and predictions in new scenarios 			
Consortium	Barcelona city council. IMI Ville de Marseille	COMSA EMTE COMSA BUL EcoVegetal E.F.G.R.A.	Meteo France ICGC	52° North CIMNE

Green FOC: Objectives

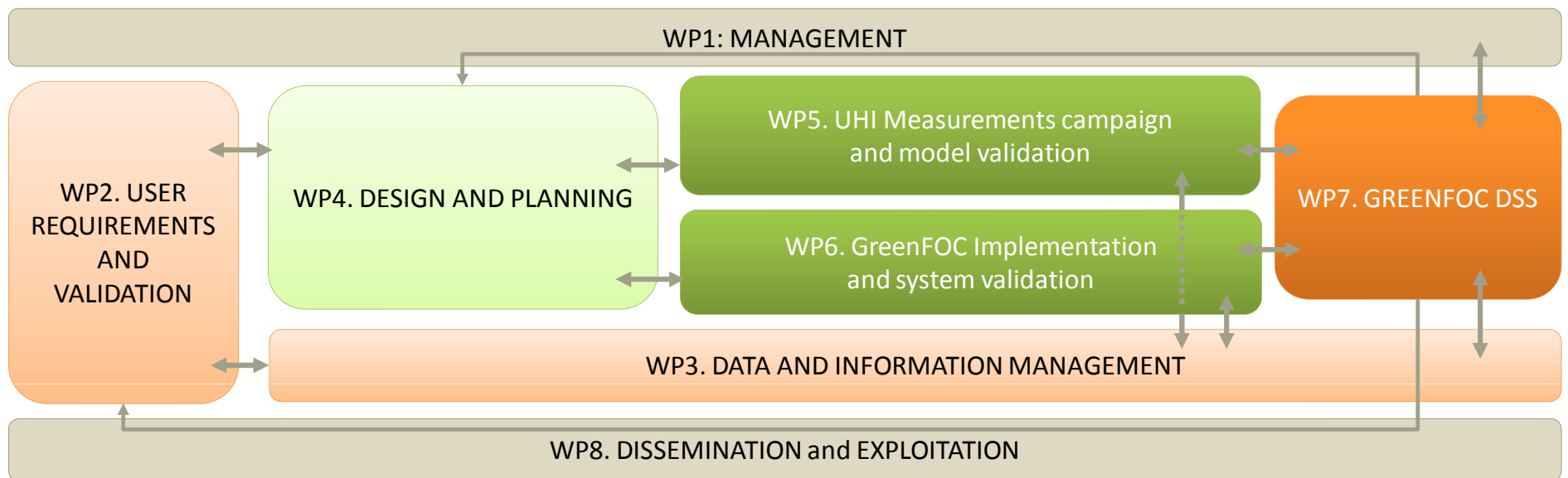


	Topic addressed
General	<ul style="list-style-type: none">● Reduce the urban heat island effect● Provide more city services for city planners● More efficiently city services● to be scalable and replicable to the majority of European cities● Implement inside the local policy of climate change adaptation
Specific	<ul style="list-style-type: none">● Reduce atmospheric and building surface temperature● Create the GreenFOC Decision Support System (DSS)● Create a extensive and cheaper atmospheric city sensor network● Implement methods for more efficient atmospheric studies applied to urban climate simulation

Green FOC: Workplan



WP	Description	YEAR 1					YEAR 2					YEAR 3							
		2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36
1	MANAGEMENT																		
2	USER REQUIREMENTS AND VALIDATION																		
3	DATA AND INFORMATION MANAGEMENT																		
4	DESIGN AND PLANNING																		
5	UHI MEASUREMENTS CAMPAIGN AND MODEL VALIDATION																		
6	GREENFOC IMPLEMENTATION AND SYSTEM VALIDATION																		
7	GREENFOC DSS																		
8	DISSEMINATION AND EXPLOITATION																		



Green FOC: CB



	Topic addressed															
Impacts	<ul style="list-style-type: none"> ● Increase the energy efficiency ● Reduction of heat-related illness and mortality ● Reduction of energy bills for citizens ● Creating local jobs ● Increase air quality ● Increase biodiversity ● Reduce cost of building maintenance ● Increase landscape quality, citizens indoor comfort,... 															
Financial	<p>The bar chart displays financial data for four categories: MUN, IND, SCI, and ICT. The y-axis represents cost in Euros, ranging from 0 to 20,000,000. For each category, there are two bars: a blue bar for 'Personal costs' and a red bar for 'Direct costs'. The 'IND' category shows the highest costs, with direct costs significantly exceeding personal costs.</p> <table border="1"> <thead> <tr> <th>Category</th> <th>Personal costs (€)</th> <th>Direct costs (€)</th> </tr> </thead> <tbody> <tr> <td>MUN</td> <td>~1,500,000</td> <td>~500,000</td> </tr> <tr> <td>IND</td> <td>~7,500,000</td> <td>~15,500,000</td> </tr> <tr> <td>SCI</td> <td>~1,500,000</td> <td>~500,000</td> </tr> <tr> <td>ICT</td> <td>~1,500,000</td> <td>~500,000</td> </tr> </tbody> </table>	Category	Personal costs (€)	Direct costs (€)	MUN	~1,500,000	~500,000	IND	~7,500,000	~15,500,000	SCI	~1,500,000	~500,000	ICT	~1,500,000	~500,000
Category	Personal costs (€)	Direct costs (€)														
MUN	~1,500,000	~500,000														
IND	~7,500,000	~15,500,000														
SCI	~1,500,000	~500,000														
ICT	~1,500,000	~500,000														