



ASCIMER

ASSESSING SMART CITY INITIATIVES FOR THE MEDITERRANEAN REGION

PROJECT OVERVIEW AND OBJECTIVES



European
Investment
Bank • Institute

1. Introduction
2. ASCIMER project
3. UPM Research Initiative
4. UPM Education Initiative
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9. Dissemination
10. Workshop Program, Structure, Aims & Activities and Documentation

INTRODUCTION



SUPPORTED BY

European Investment Bank, The EIB University Research Sponsorship Programme (EIBURS)

LINE OF RESEARCH

Smart city development: Applying European and international experience to the Mediterranean region

TIMELINE

February 2014 – February 2016

HOST INSTITUTION

Universidad Politécnica de Madrid
Transportation Research Center (TRANSyT-UPM)

PRINCIPAL RESEARCHER:

Prof. Andres Monzon

COORDINATION:

Fiamma Perez

INTRODUCTION

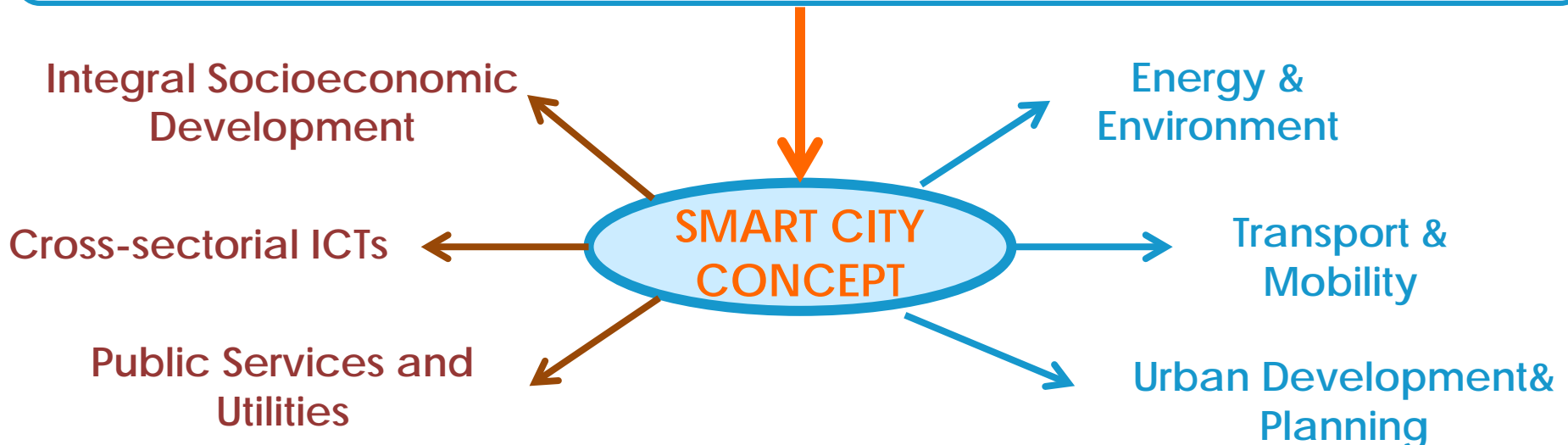
By 2050 more than
70% world population
will live in cities

70% of global GDP
is generated by
cities

Cities Global Challenges:

- Ageing population
- Pollution
- Climate change
- Traffic Congestion
- Lack of affordable housing
- Urban sprawl
- Rising cost of urban infrastructure
- Poverty
- Social Tensions

It is crucial **to manage growing cities** in ways that **support and drive economic growth** and **competitiveness** while **achieving social cohesion and environmental sustainability**



UPM Research Initiative



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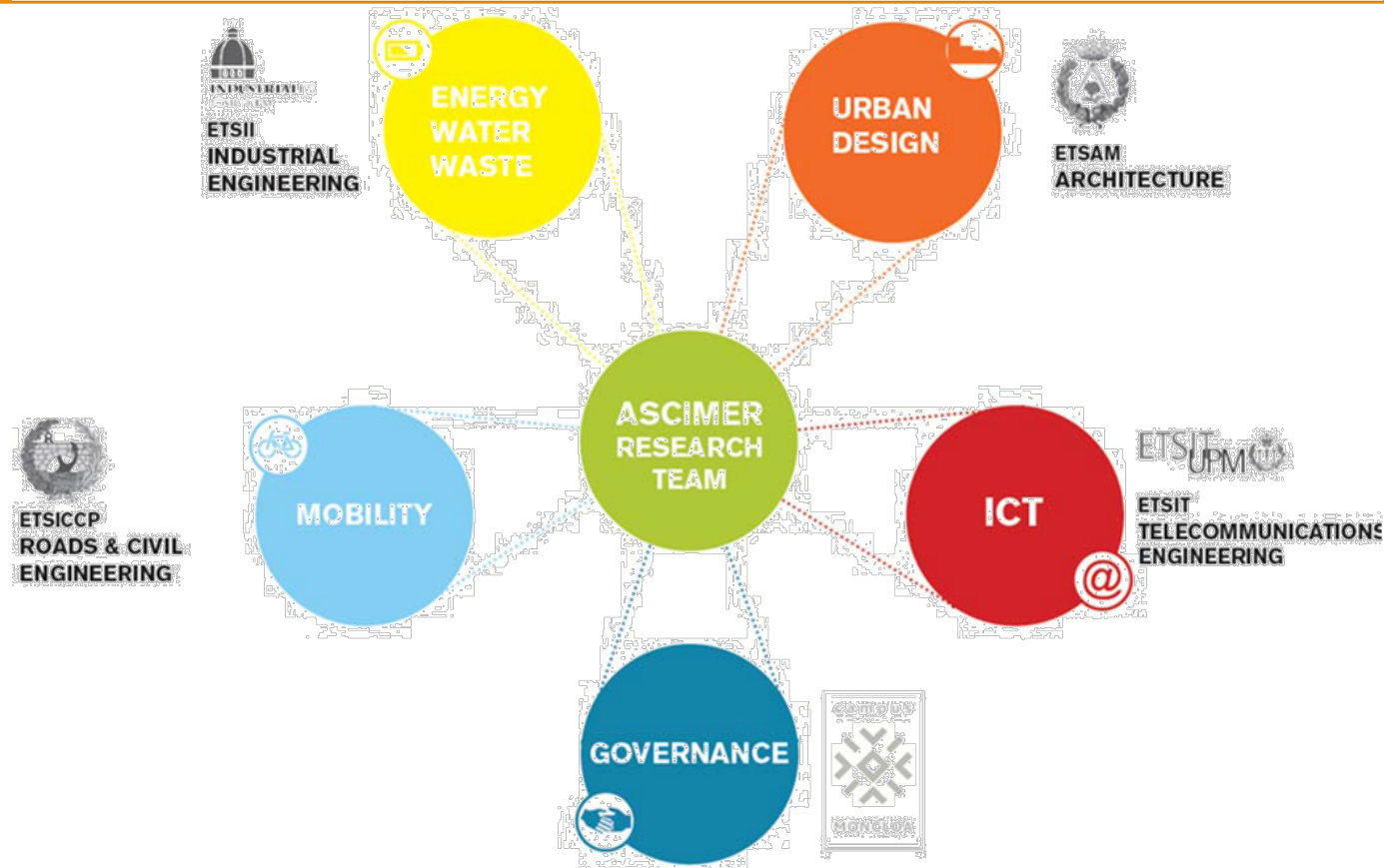
“City of the Future” is an institutional initiative of [Universidad Politécnica de Madrid \(UPM\)](#) aimed to fostering

[News](#)

The City of the Future

An open space for new ways and new approaches for cooperation with Industry

UPM Institutional long term action in order to convert UPM into a national and international scientific reference for the City of the Future



UPM Education Initiative



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POLITÉCNICA



September 2014 - July 2015
Madrid, Spain

www.citysciences.com

In collaboration with:



International faculty:



POLITÉCNICA



... EU Commission, Companies and more

QUESTIONS. A holistic vision for a complex problem?

Main
challenges
for a city in
the XXI
century

Cities
improving
the citizen's
quality of
life today?

Goals and
objectives
of a city
with its
citizenship

How can
those goals
be layered
or
prioritized?

The human
dimensions
of the XXI
century's
city?

Services
that citizens
should
receive
from a city

The citizen's
obligations
with the city

The new
city-citizen-
stakeholder
interaction

Can new
technology
help in this
purpose?

MCS: Its TOPICS



CITY & IMPACT
ASSESSMENT



GOVERNANCE



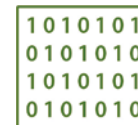
CITIZENSHIP



URBAN DESIGN



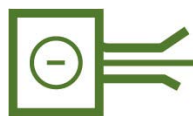
LANDSCAPE



BIG DATA



HOUSING



UTILITIES &
INFRASTRUCTURE



MOBILITY
MANAGEMENT



LOGISTICS



WASTE
MANAGEMENT



INTERNET OF
THINGS



SPATIAL DATA
INFRASTRUCTURE



ENERGY
EFFICIENCY



SMART GRIDS



ENTREPRENEURSHIP



SERVICES &
APPLICATIONS



NEXT
GENERATION
NETWORKS

MCS

Master in
City Sciences

MCS. The format

1 year

60 ECTS

Classes

Foundation subjects on city issues:
Technologies, facilities, utilities, services, processes, rights, etc

Seminars

Short courses of self-contained subjects where problems and existing and potential solutions are presented by professionals

New city topics and views from world-class experts. Academy & Industry

Conferences

How **cities and service providers implement solutions** to solve situations and problems

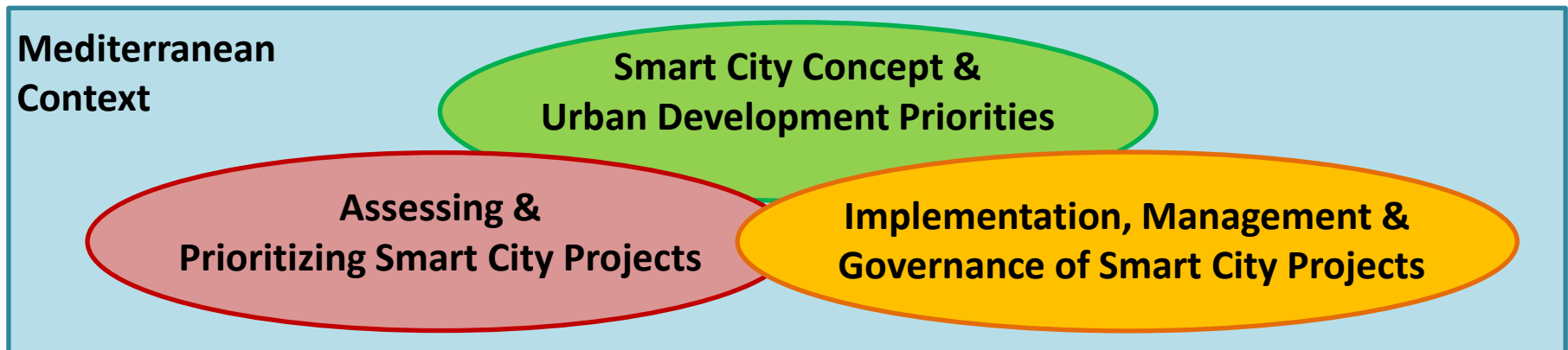
Visits

Advised **personal work** (@industry, city or consulting firm) developing a specific issue of a city

Thesis

Diversified learning activities

The overall purpose of this project is **to develop** a comprehensive framework to help public and private stakeholders **to make informed decisions** about **smart cities investment** strategies and to help them to **build the skills to prioritize, implement and develop** those strategies.



At the same time, an on-going goal will be **the characterization** of **Mediterranean City challenges** and the development of a **transferability** strategy of **Smart City projects**

RESEARCH OVERVIEW

WP1: Smart City Concept & Urban development priorities

Cross-sectorial ICT applied to

Concept:

- Energy & Environment
- Transport & Mobility
- Urban Development & Planning
- Public Services & Utilities
- Integral Socioeconomic Development

Global City Challenges

Special focus in the Mediterranean Region

Best Practices:

- Review
- Survey to key cities
- ERG: experiences of selected cities
- IDENTIFICATION OF KEY SMART CITY PROJECTS

Workshop#1

Experts Reference Group

PROJECT FINDINGS

Best Practices Guide

Smart City Projects Assessment Guidebook

Governance and Implementation Guidelines

Final Conference

WP2: Assessment Framework:

Evaluation Features
Assessment Indicators
ASCIMER Assessment Methodology
Validation

Experts Reference Group

Prioritisation of Projects Tool – application to Mediterranean Region

Workshop#2

WP3: Implementation & Governance Framework:

Stakeholders involvement
Financing
Implementation
Management

Experts Reference Group

Governance know-how & transferability within Mediterranean Region

EXPERTS REFERENCE GROUP



RESEARCH OVERVIEW



European
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WP1: Smart City Concept & Urban development priorities

Cross-
sectorial
ICT
applied
to

Concept:

Energy & Environment
Transport & Mobility
Urban Development & Planning
Public Services & Utilities
Integral Socioeconomic Development

Global City Challenges

Special focus in the Mediterranean Region

Best Practices:

Workshop#1

Experts Reference
Group

- Review
- Survey to key cities
- **ERG: experiences of selected cities**
- **IDENTIFICATION OF KEY SMART CITY PROJECTS**

Task 1.1.: Smart City Concept

Task 1.2.: City Challenges

- Identification of Mediterranean City Problems

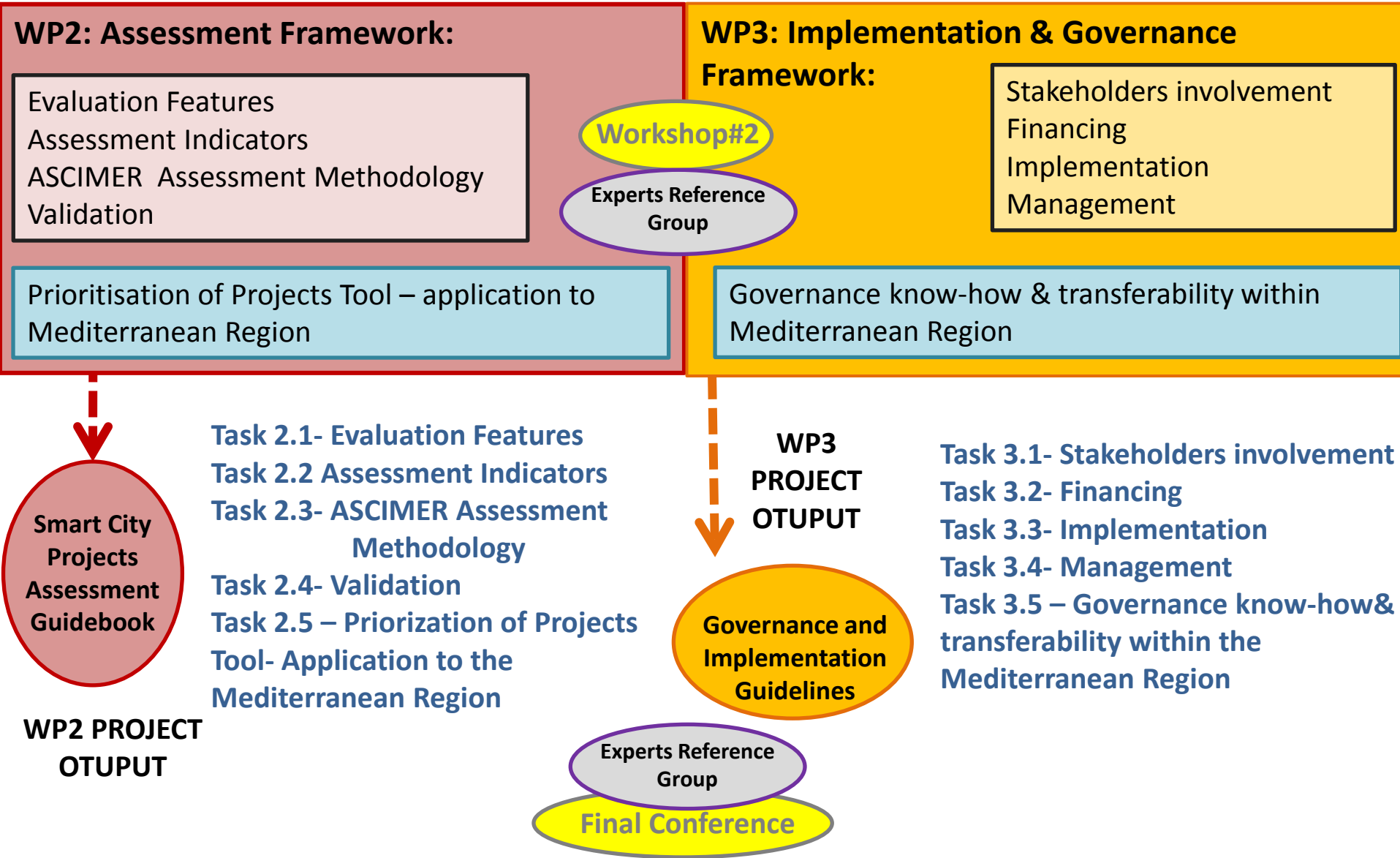
Task 1.3.: Review of Best Practices

- Case Studies Review
- Draft Questionnaire to discuss in the WS1
- Survey to key Cities
- Analysis of results
- Identification of key Smart City Projects

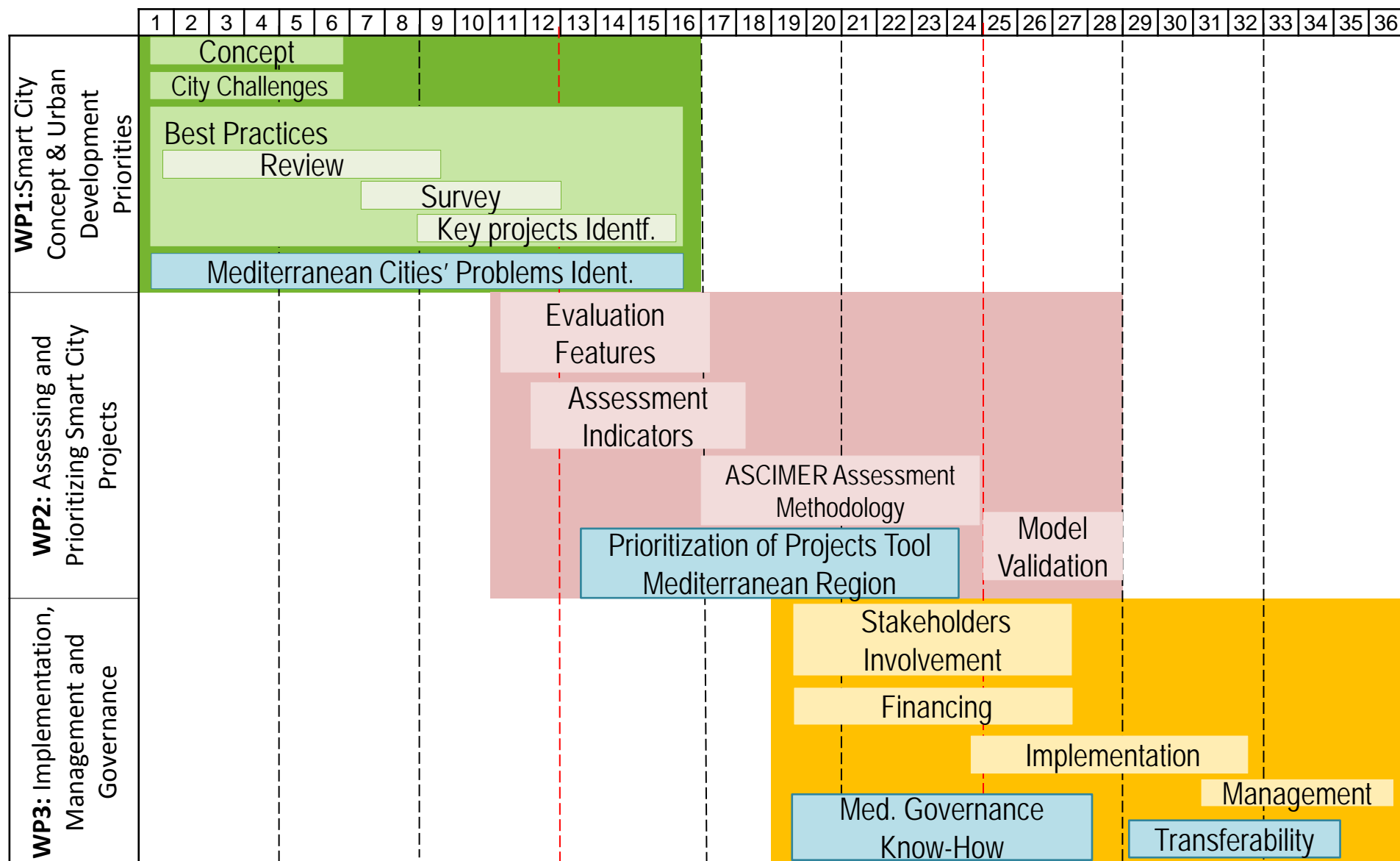
Best
Practices
Guide

WP1 PROJECT
OUTPUT

KEY SMART CITY PROJECTS



RESEARCH TIMEPLAN



Best Practices Guide

- Explanation of the Smart City concept.
- Introduction of Smart City actions in different countries
- Discussion of best/bad practices
- Therefore, anyone who wanted to start a Smart City project could know what are the challenges, conditions and projects that are necessary to consider.

Best Practices Guide

Smart City Projects Assessment Guidebook.

The main contribution of the project will be the ASCIMER socio-economic methodology for assessing Smart City Projects

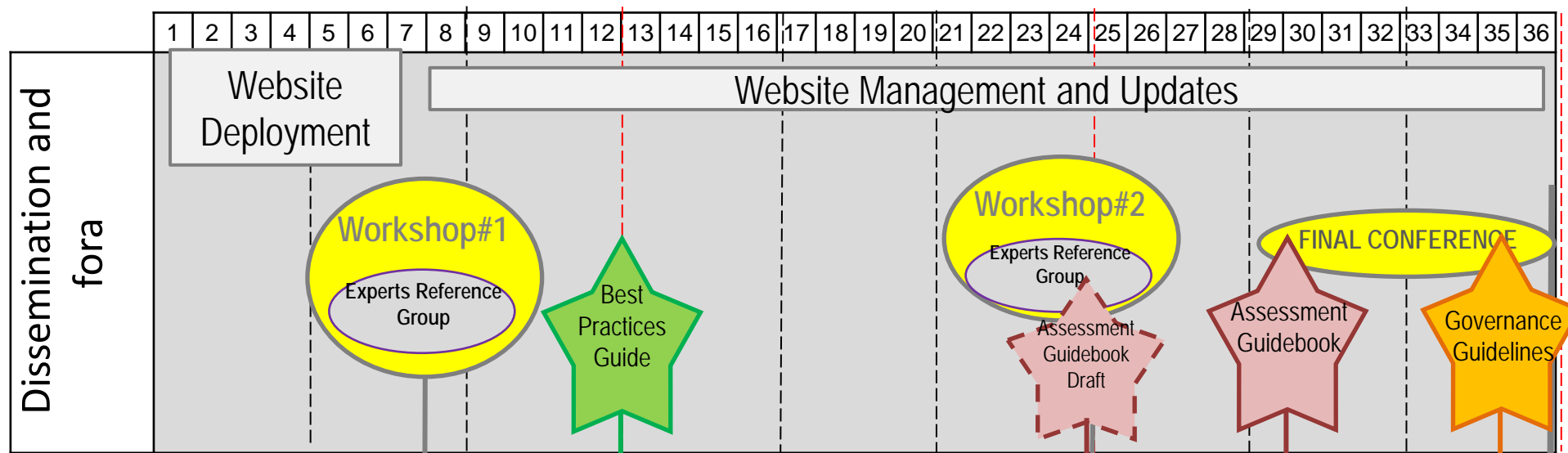
Smart City Projects Assessment Guidebook

Smart Cities Implementation and Governance Guidelines

Recommendations to better implement Smart City Projects based on the information collected from the stakeholders and cases studies.

Governance and Implementation Guidelines

- Workshops
- Website
- Deliverables of the Research Results
- Final conference
- Dissemination through:
 - academia activities
 - BEI Foundation activities
 - share activities



Workshop Program





Workshop #1 - FACING THE CHALLENGE OF A NEW ERA: SMART CITY PROJECTS

16th July	SMART CITY CONCEPT, CHALLENGES & PROJECTS	17th July	SMART CITY PROJECTS IMPLEMENTATION & ASSESSMENT
10:00	COURSE INTRODUCTION AND OBJETIVES <ul style="list-style-type: none"> ASCIMER project and workshop objectives The City of the Future Initiative 	10:00	SMART INDUSTRY APPROACH <ul style="list-style-type: none"> CIUDAD2020: A New Model of Smart and Sustainable Cities IBM Strategy for a Smarter City
11:00	SMART CITIES: A MULTI-AGENT VISION <ul style="list-style-type: none"> EIB Approach RECI-Smart City Network and Santander smart strategy Smart Cities initiatives in the Mediterranean Region 	11:00	RELEVANT SMART CITY PROJECTS <ul style="list-style-type: none"> City of Vienna City of Milan
12:00	COFFEE BREAK	12:00	COFFEE BREAK
12:30	SMART CITY CONCEPT <ul style="list-style-type: none"> Smart City concept and challenges The Role of ICT in the development of Smart Cities Valencia Smart Strategy Tarragona Smart Mediterranean City 	12:30	MEDITERRANEAN SMART CITIES <ul style="list-style-type: none"> City of Tangier City of Amman City of Lyon City of Malaga
14:30	LUNCH BREAK	14:30	LUNCH BREAK
16:30	1 st Focus Group: KEY ELEMENTS OF SMART CITY PROJECTS	15:30	2 nd Focus Group: KEY FACTORS FOR ASSESSING SMART CITY PROJECTS
18:15	Conclusions of the 1 st Focus Group	17:00	Conclusions of the 2 nd Focus Group

Workshop Structure

Workshop#1

Facing the Challenges of a New Era: Smart City Projects

	Day 1: Smart City Concept, Challenges & Projects	Day 2: Smart City Projects Implementation & Assessment	Expected Outputs
Mornings: 	<ul style="list-style-type: none"> • ASCIMER project overview • Smart City concept • Challenges to be solved by Smart Cities • The role of ICT • EIB interest in Smart Cities • Smart City Strategies 	<ul style="list-style-type: none"> • Smart Industry approach • European Smart Cities • Mediterranean Smart Cities 	Provide background information for the discussions
Afternoons: 	What does it make a project smart?	What factors should we take into account in order to evaluate Smart City Projects?	Gather information to develop assessment questionnaires

Participants: Smart Industry Leaders Academy Experts Financial Institutions City Stakeholders

Workshop#1

Facing the Challenges of a New Era: Smart City Projects

- ✓ To learn more about the specific challenges facing cities in the Mediterranean Region.
- ✓ To select the most suitable Smart City Projects for transferability to the Mediterranean Areas
- ✓ To create data collecting templates and stakeholder questionnaires for the analysis of key Smart City projects through surveys.

1st FOCUS GROUP

- Understand what a Smart Project is
- Determine which are the elements that make a Project Smart
- Differentiate city-level projects and user-level projects (top-down vs. bottom-up initiatives)
- Establish what kind of projects are going to be evaluated by the ASCIMER methodology

2nd FOCUS GROUP

- Define the different ways to assess Smart City Projects.
- Describe the key factors that have to be taken into account when evaluating projects.
- Provide information to develop the assessment questionnaires that will be distributed to city stakeholders

Workshop#1

Facing the Challenges of a New Era: Smart City Projects

- ASCIMER project Overview
- Smart City Concept, Challenges and Projects (ASCIMER working document)
- Facing the Challenges of a New Era (Workshop aims and objectives)
- Workshop Program
- Focus Groups Guidelines
- Assistants' list
- Notebook



THANKS FOR YOUR ATTENTION
QUESTIONS?

ASCIMER WEBSITE:

<http://eiburs-ascimer.transyt-projects.com/>