ECHORD++

European Clearing House for Open Robotics Development Plus Plus
www.echord.eu

PCPs on ECHORD++

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SCUOLA SUPERIORE SANT'ANNA PISA
brl Bristol Robotics Laboratory
UPC
BLUE OCEAN ROBOTICS - for humans
cea
SEVENTH FRAMEWORK PROGRAMME

ECHORD++

Main Instruments

Experiments

Robotics Innovation Facilities (RIF)

Pre-Commercial Procurement Pilots (PCP Pilots)

Pilot PCPs within E++

PCP Scenarios

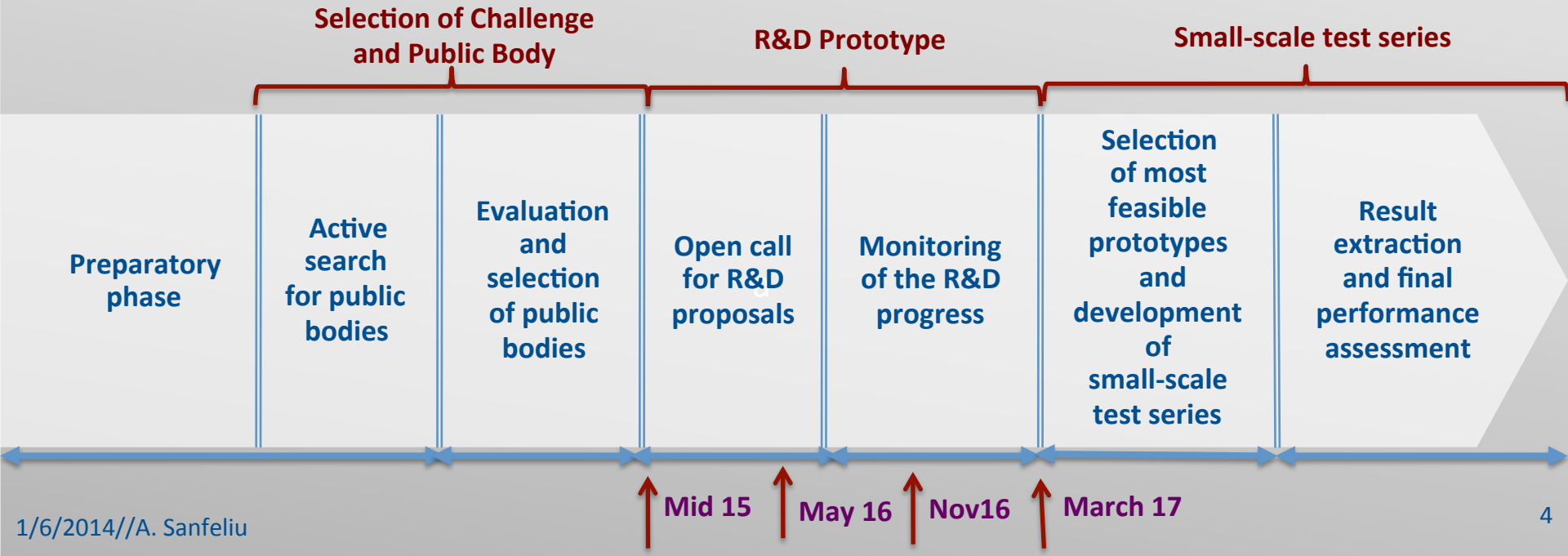
- Urban Robotics
- Healthcare

Objectives

- Finding the ideal way of integrating public bodies in the development of robotics technology.
- Selecting the best challenges for both scenarios where the robotic technology can be applied successfully.
- Test the selected solutions in the scenarios.

Pilot PCPs E++ – How it works

- Two Public Bodies (Urban Robotics & Healthcare) provide realistic applications
- Few companies (e.g. 3 per public body/application) perform R&D
- Three phases:
  - Phase I: Solution Design: 3 Consortia
  - Phase II: Prototype Development: 2 Consortia
  - Phase III: Small Scale Product /Service development: 2 Consortia



Budget

Pre-Commercial Procurement Pilots (PCP Pilots)

Public bodies:	250k €
RTD consortia:	2,3 Mio. €
Personnel:	1.2 Mio. €
Travel:	141k €
Equipment:	898k €

Active search for Challenge and Public Body

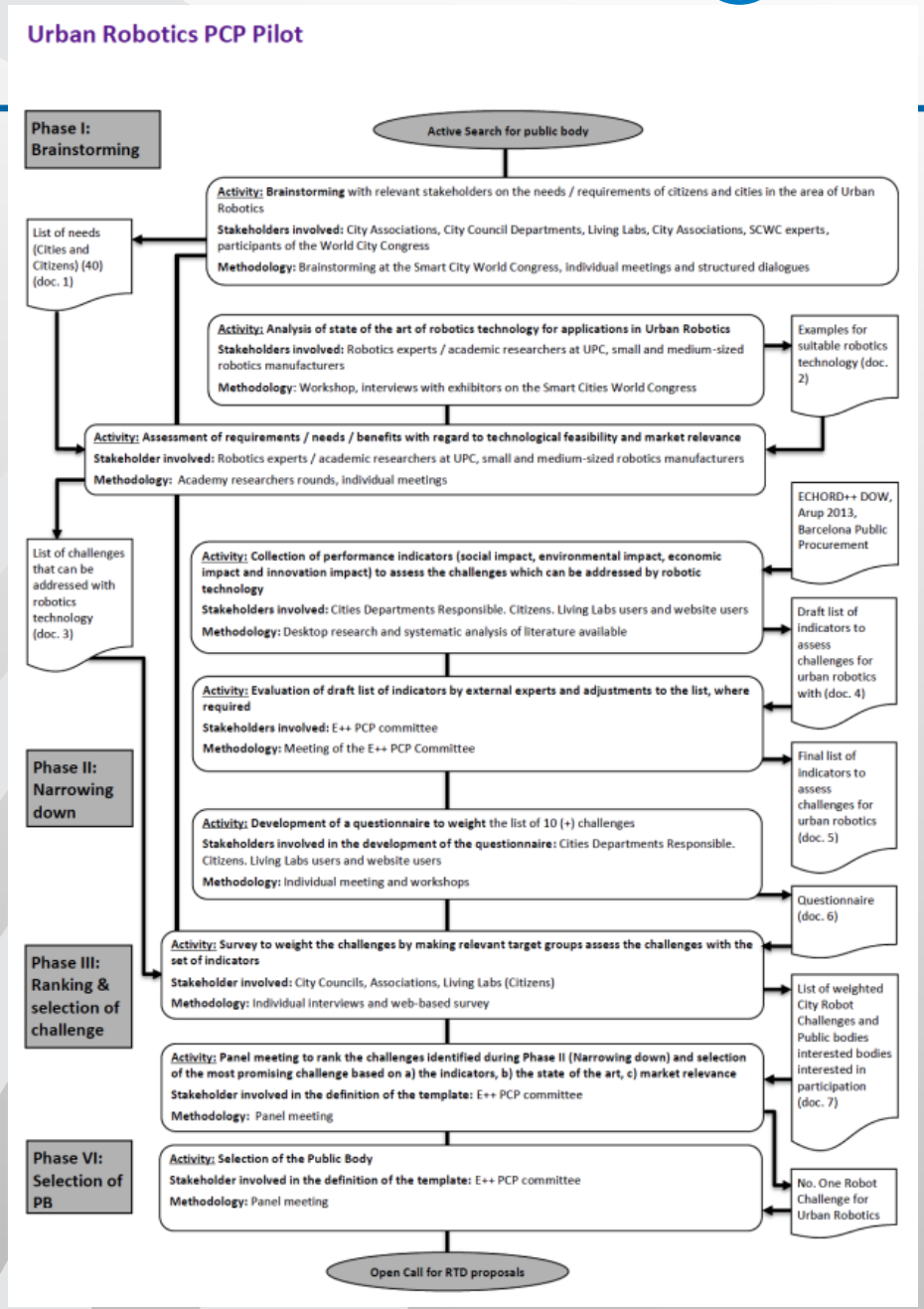
PCP Urban Robotics

Phase I: Brainstorming

Phase II: Narrowing down

Phase III: Ranking & Selection of the challenge

Phase IV: Selection of Public Body



PCP Urban Robotics

Phase I: Brainstorming

Objective:

- To identify the Cities and Citizen's Needs.
- To elaborate a **Urban Robot Challenge** list.
- To specify a qualitative knowledge of how to increase the demand of public innovative technology.

Methodology:

- Analysis of the state of the art, organization of the ECHORD++ Workshop at the Smart City World Congress 2013, individual meetings and dialogue with different stakeholders involved: Cities, Citizens, robots manufacturers and academy researchers.

Agents:

- Cities Associations, City Council Departments, Living Labs, SCWC Experts, Workshop participants and Academy researchers

PCP Urban Robotics

Phase II: Narrowing down

Objective:

- To go deeper in the Urban Robot Challenge's list through social, environmental, economic and innovation indicators. To know the opinion of Cities and Citizens in each Robot Challenge and pre-evaluate them.

Methodology:

- Preparation of the Questionnaire 1, crossing Robot Challenges with ***social, environmental, economic and innovation indicators***.
- Feedback by Individual meetings with Cities Councils departments will be done. We will ask the citizens opinion through Living Labs.

Agents:

- CITIES: City Council Departments, Cities Associations; CITIZENS: Living Labs.

PCP Urban Robotics

Phase III and IV: Challenge Ranking and Selection of the Public Body

Objective:

- Selection of the ECHORD++ Urban Robot Challenge and the Public Body.

Methodology:

- Elaboration of a work document with all the qualitative and quantitative information from Brainstorming and Narrowing down phases.
- Evaluation results through Expert Panel rounds

Agents:

- ECHORD++ Expert Panel.

Example of PCP Urban Robotic Challenge

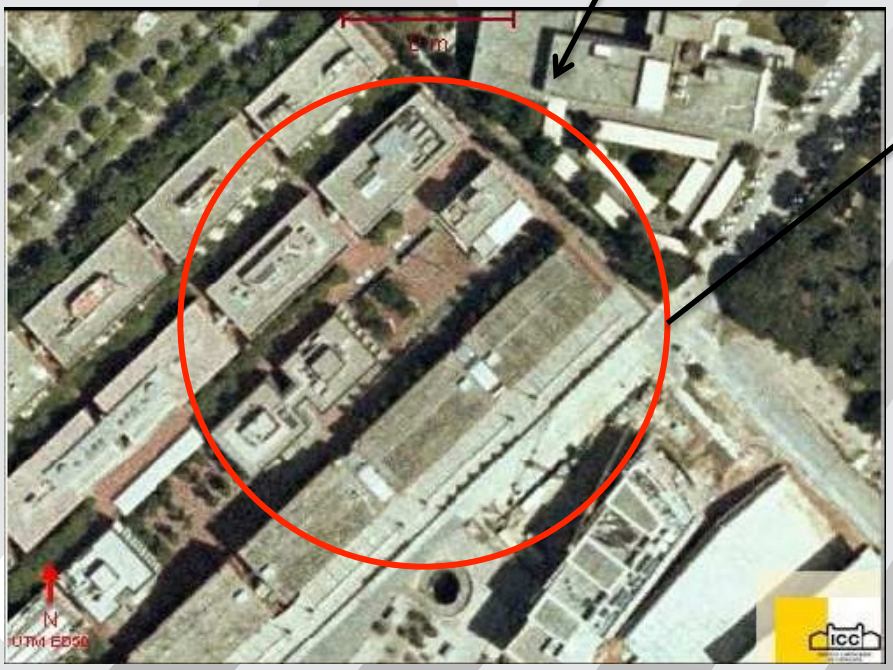
Urban Challenge

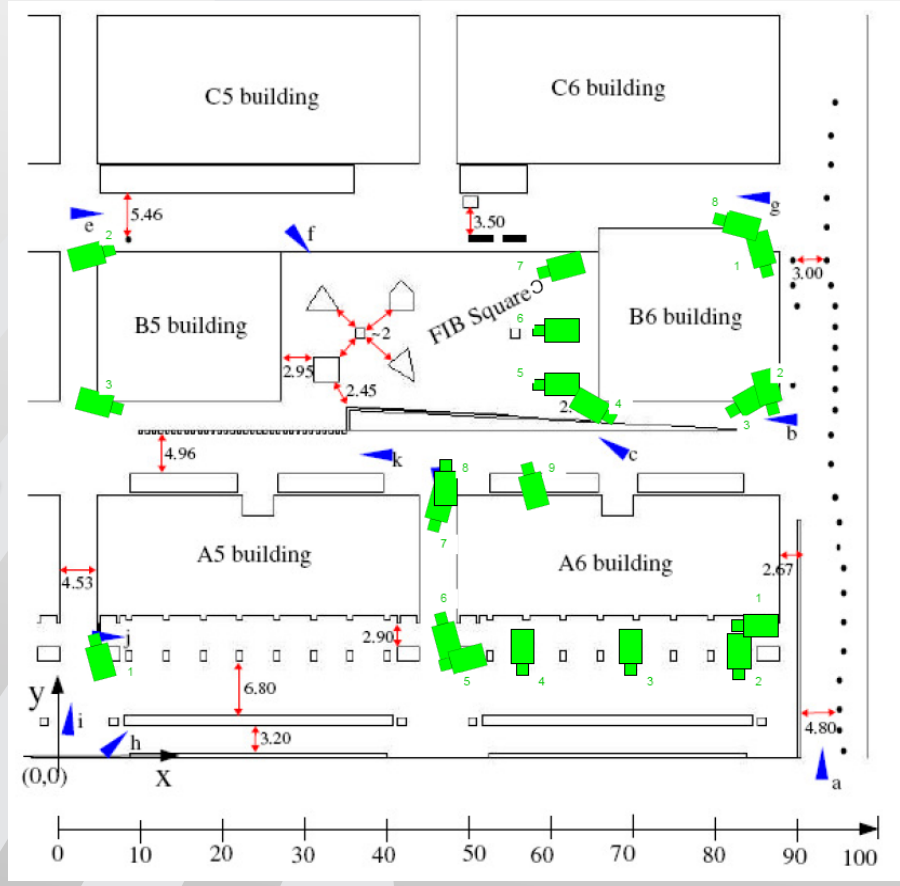
There is a new city planning, refocusing on how to make cities more pedestrian, bicycle and public transport friendly, while an expansion of new infrastructures to facilitate the mobility far of the car centered city planning. We need to improve the Cities life quality, reducing social inequality by promoting independence, accessibility and healthy lives of the citizens.

Robotic technology to approach Urban Challenge

- Robot wheelchair for elderly.
- Robots for dependent people

Test site available
Barcelona Robot Lab, UPC





Examples of Urban Robotics

Cleaning robots

Guiding and information robots

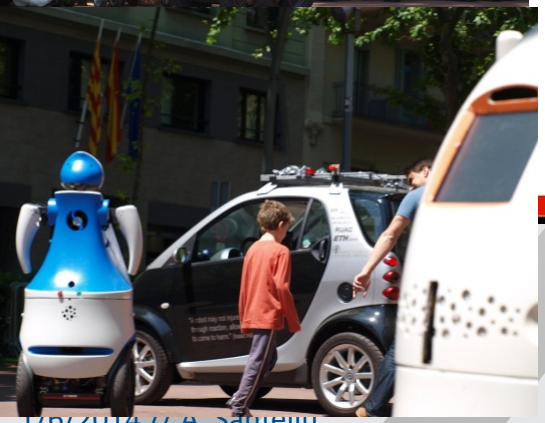
Social robots

Housekeeping robot

Transport Robot

Health care robot

Examples of Urban Robotics



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i Informàtica Industrial

RobTaskCoop: Cooperación robots humanos en áreas urbanas

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Thank you.

„The secret of success is to understand the views of the others.“

Henry Ford

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