

Smart Cities University Challenge L'AQUILA 2017



Smart Cities
& Communities



iCPE
2017



Co-organizers:

Daniele Di Pompeo, UnivAq

Henry Muccini, UnivAq

FB event: <https://goo.gl/nfkO9b>

CINI University Challenge: what is that?

- Objective: to involve students (and their tutors) into a national Smart City Challenge
- Open to: any University in the Lab
- How: Course projects or hackatons
- When: Two phases



Phase I



- Each university had to work on one smart system component only
- A best team has been selected from each University

Phase II



- All projects have been integrated
- The best teams met in L'Aquila to complete their integration
- ICPE conference presentation



Phase I: distributed work

Smart Cities University Challenge



- 20 students from 6 Universities:
 - L'Aquila
 - Ca' Foscari Venezia
 - Milano-Bicocca
 - Parma
 - Roma Tor Vergata
 - Sannio





Bparty

CAN A LIBRARY BE SOCIAL?



Università
Ca' Foscari
Venezia

Smart Mobility



beaconbus



Smart Card @ University



Monitoring & Control of Public Lighting



Garbage Collection



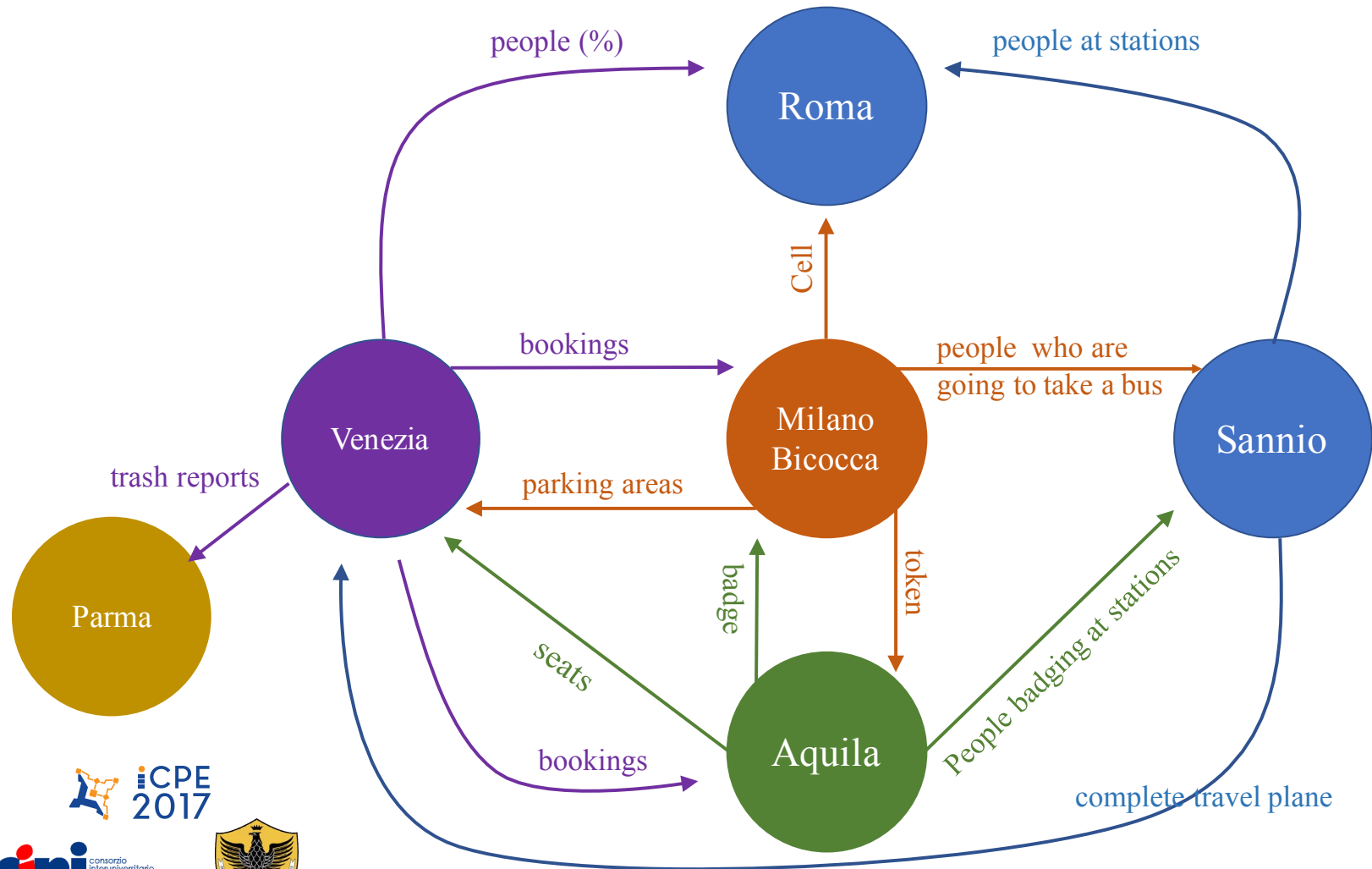
Phase II : the teamwork

Integration Scenario

- Management of the National Celebration Day in Rome
- Management of public transportation and distribution of people among parking areas
- Access management on different city areas based on access levels
- Management of public illumination and garbage collection



Services Integration



The winner is...

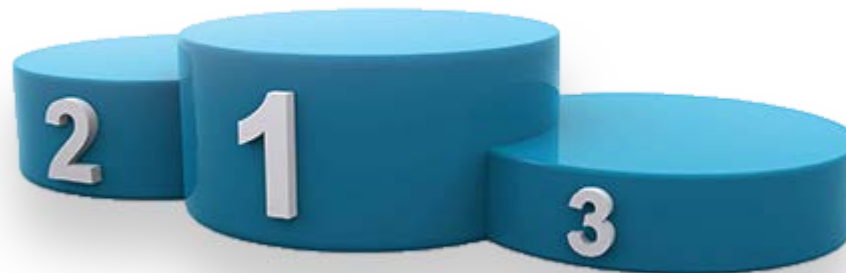


The winner is

- 6 Universities:

- L'Aquila
- Ca' Foscari Venezia
- Milano-Bicocca
- Parma
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- Sannio

**University of Milano-Bicocca
&
University of Sannio**



I vincitori...



... e i loro progetti

University of Milano – Bicocca

The Team



Davide Ginelli
Master Student



Lorenzo Mammana
Bachelor Student



Marco Mobilio
Phd Student



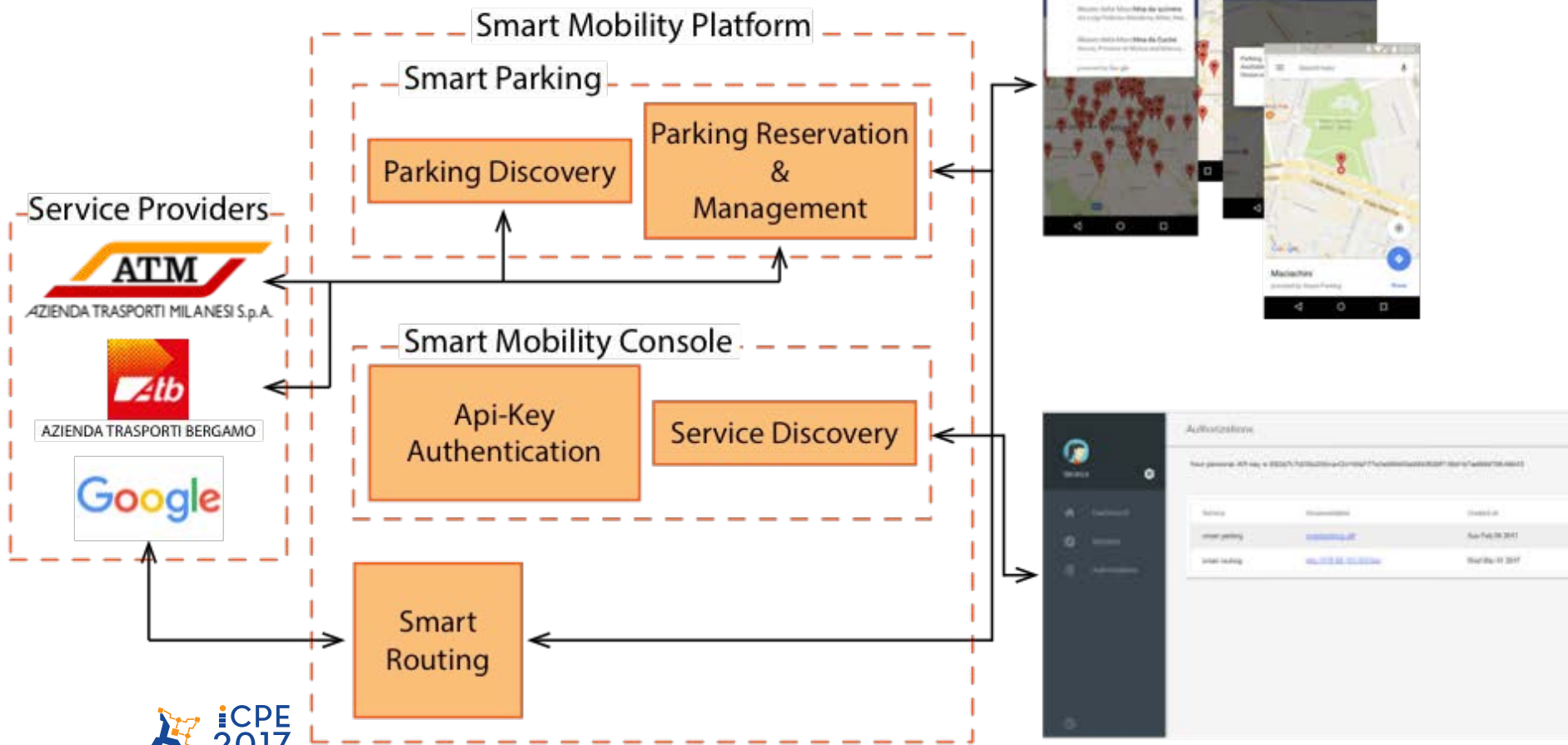
Eric Nisoli
Bachelor Student

Smart Mobility: the idea

A **smart** navigation system able to...

- **Suggest** the route to an available parking spot close to the final destination
- Dynamically **adjust** the route and modify the destination parking according to spots availability and traffic congestion in its premises
- **Provide proactive** booking of parking spots when in proximity

Smart Mobility



University of Sannio

The Team



Danilo Cianciulli
Research Fellow



Stefano Soriano
Bachelor Student

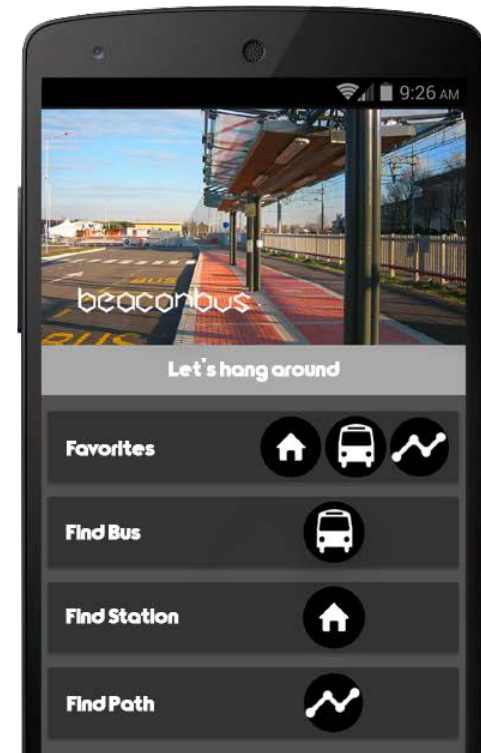


Andrea Vetrone
Bachelor Student

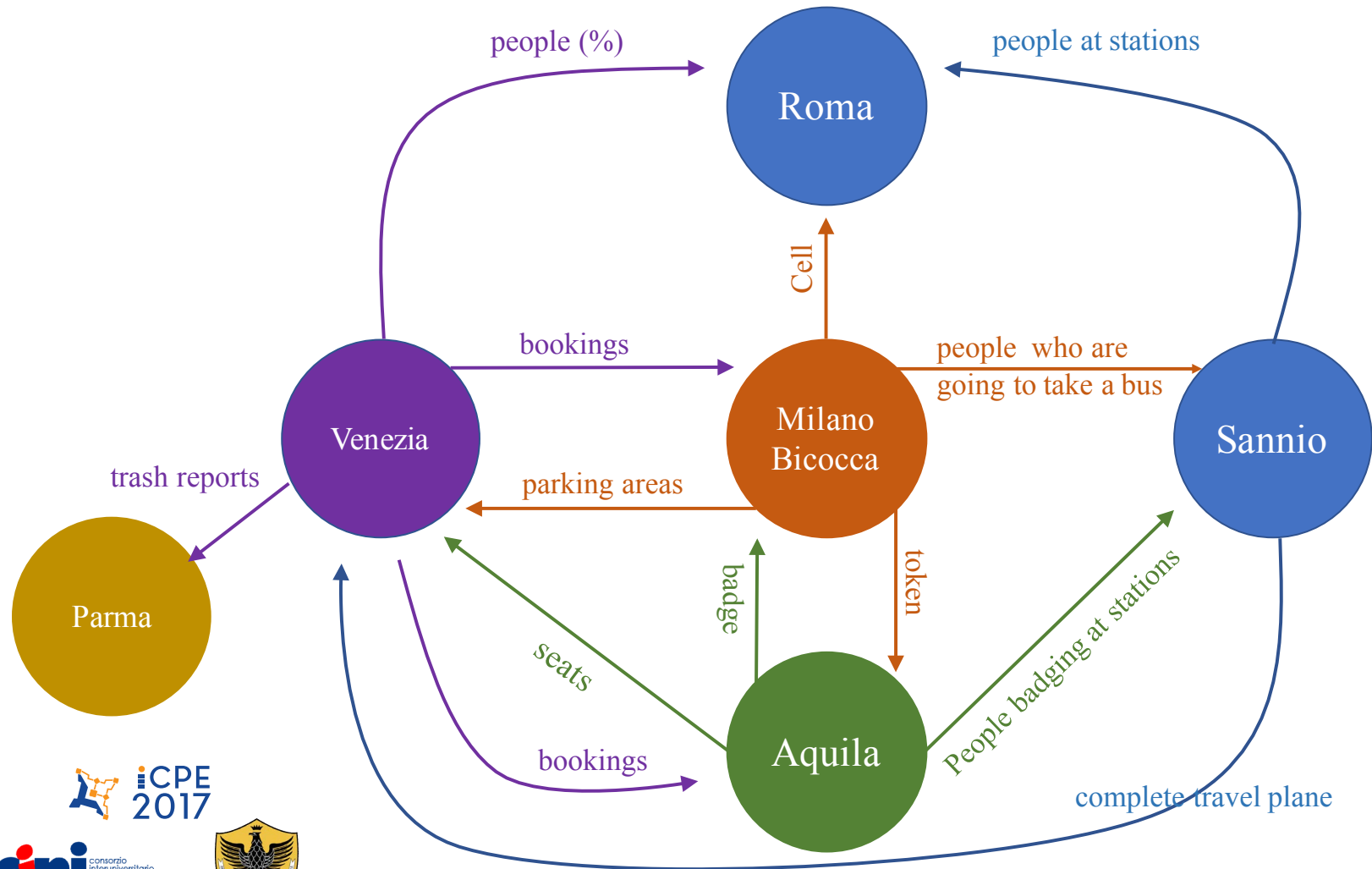
beaconbus



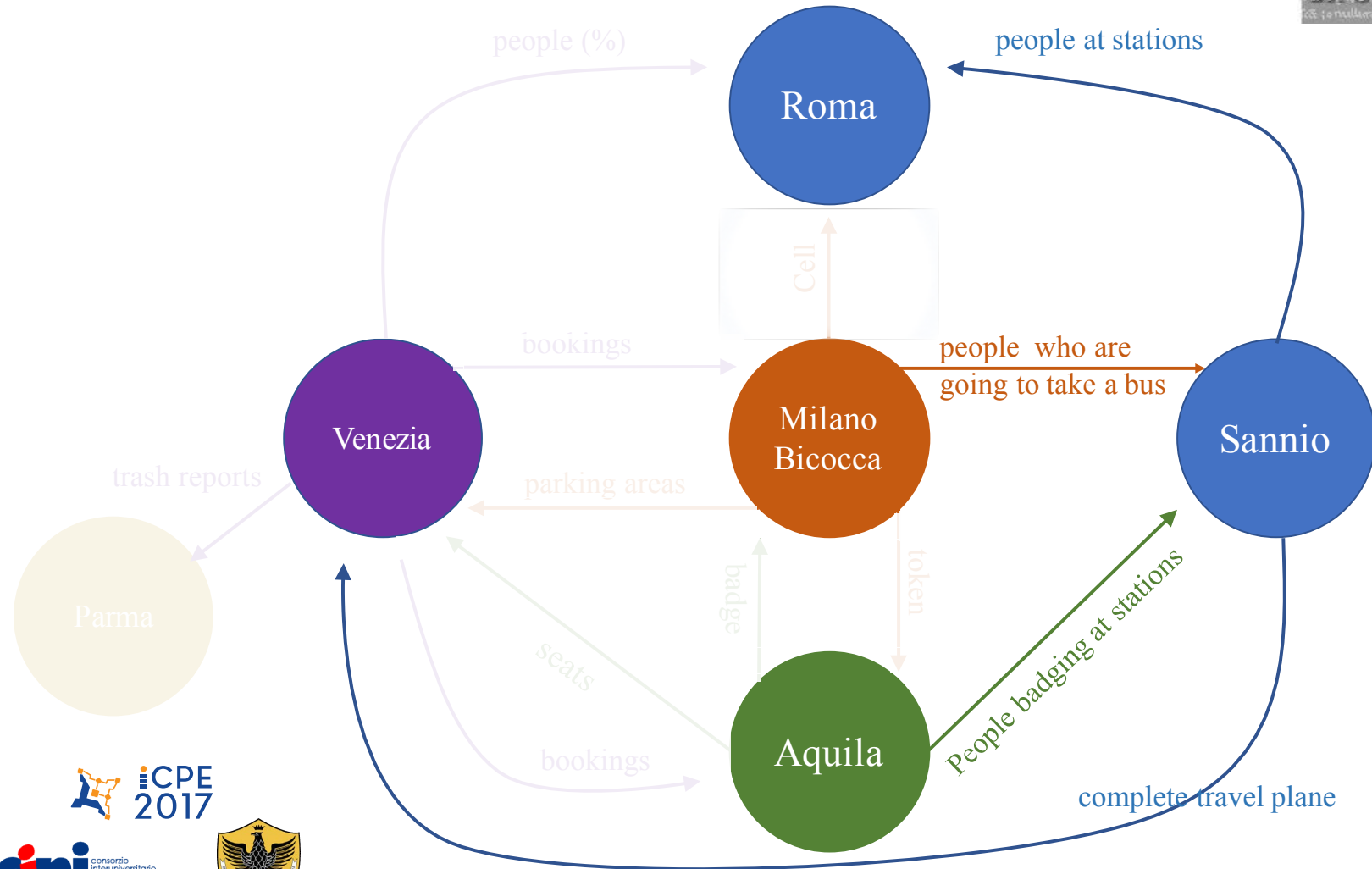
- Distributed public transportation monitoring system
- **Key concepts**
 - Mobile crowd sensing
 - Uses common smart phones as a sensors instead of expensive dedicated infrastructures
 - Context awareness
 - Uses Bluetooth-based beacons for the detection of buses and stations near to the user
- **Main goals**
 - Public transportation monitoring and optimization
 - i.e. detect under- and over-used bus lines to improve services and reduce costs
 - Support for users' travel planning
 - i.e. obtain information about current position of buses, average travel times, and estimated times of arrival



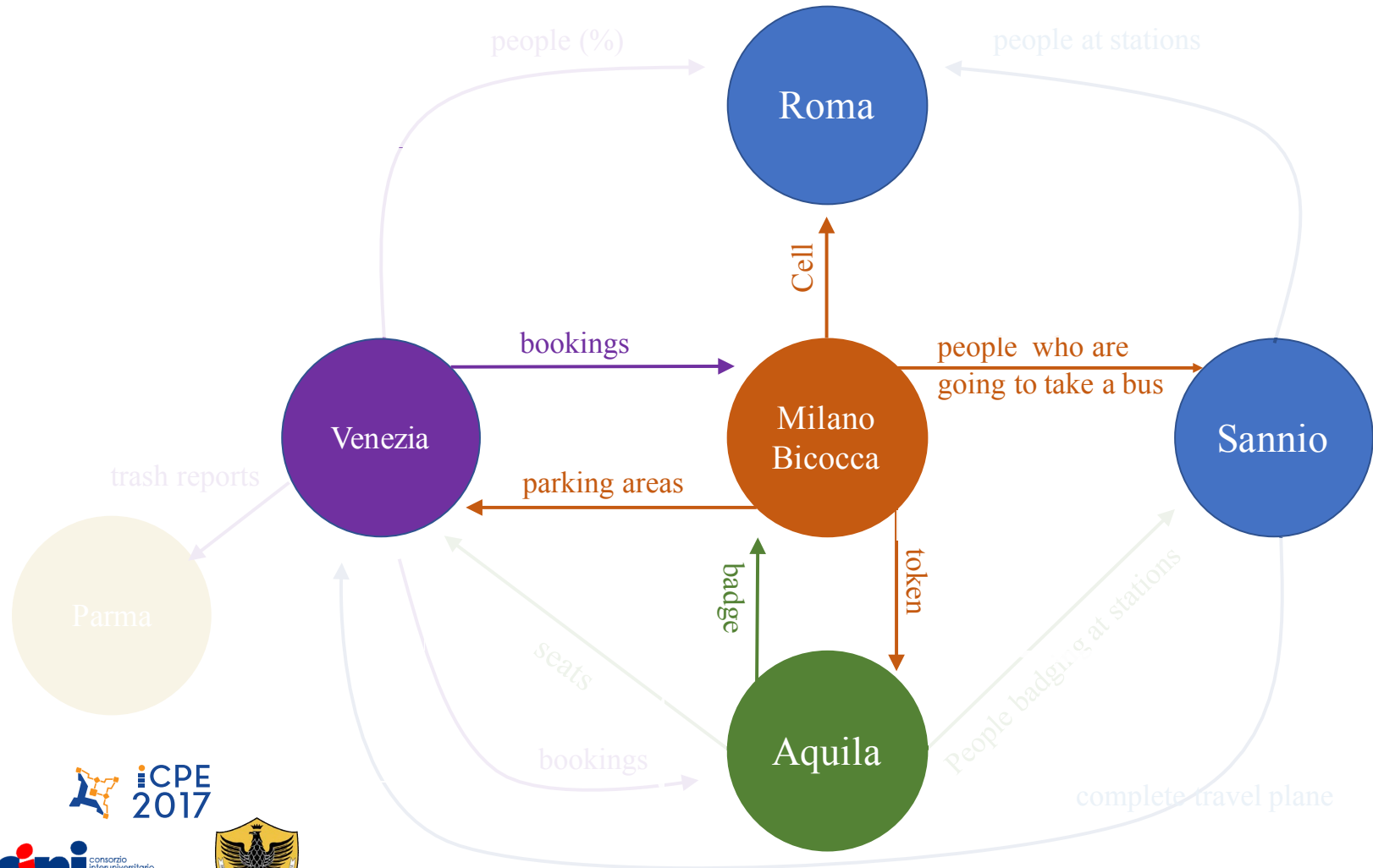
Services Integration



Services Integration



Services Integration





CINI SmartCities

University Challenge 2018

Università degli Studi di Milano Bicocca



Smart Cities & Communities



Co-organizers:



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Formula

1° Fase

Sviluppare servizi su tematiche legate alle smart cities



2° Fase

Realizzare uno scenario applicativo integrando i servizi

Esempi di argomenti



Smart Living e Smart Healthcare



Sicurezza del Cittadino e della Comunità



Efficientamento Energetico e Sostenibilità Ambientale



Mobilità intelligente e sostenibile



Valorizzazione del patrimonio culturale e turistico

Timeline (indicativa)



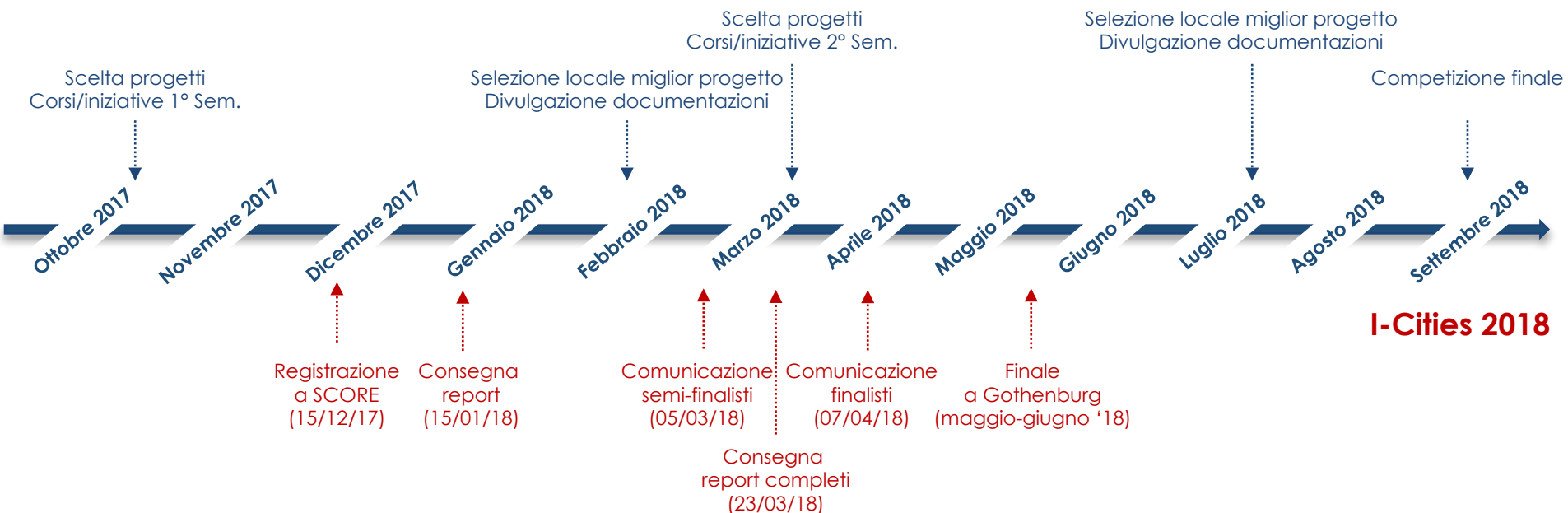
The fifth edition of the Student Contest on Software Engineering - **SCORE** - is part of



- ✓ The SCORE Contest is aimed at promoting and fostering software engineering in universities worldwide
- ✓ Each team will develop a software project chosen from a list of projects proposed and sponsored by program committee members



Timeline con SCORE



Periodo più esteso



**Partecipazione
di tutti i Lab
(o quasi)!**

SCORE

ICSE

**SPONSORS
WANTED!**