



WP 3: Urban public transport

Project Situation

Year 2

UITP SecCom
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SECONOMICS goal is synthesizing sociological, economic and security science into a usable, concrete, actionable knowledge for policy makers and social planners responsible for citizen's security.



WP 3: Urban public transport

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1. WP3 Objectives

Main Objective: To contribute with the public transport (underground) requirements to develop SECONOMIC framework, which will comprise a set of methodologies and techniques produced in WP4, 5 and 6 and the development of a security decision-making tool in WP8.

This main objective is broken down in sub-objectives

1. Identification and analysis of underground transport requirements and security challenges.
2. Validate the methods, techniques and models developed in WP4, WP5 and WP6.
3. Evaluate the security policy decision making tool.

2. WP3 Submitted deliverables

Deliverable	Partner	Contributors	Delivery date	State
D3.1 Ethical opinion/authorisation	URJC	ATOS, TMB, UNITN, UNIABDN	3	Delivered
D3.2 Urban public transport Requirements - First version	ATOS	UNITN, URJC, UNIABDN, TMB, SNOK, ISAS CR	6	Delivered
D3.3 Urban public transport requirements - Final version	ATOS	UNITN, UNIABDN, TMB, ISAS CR	12	Delivered

3. Background (I)

The first version of the Urban transport requirements (D3.2) included:

- A description of the Barcelona urban transport system (Metro)
- A description of the experiences, projects and best practices of security in public transport
- A first version of security case scenarios in current Barcelona's underground based on a threat map with the definition of 4 security scenarios.:
 - Vandalism and Graffiti
 - Fare Evasion by Individuals or by Collusion
 - Pickpocketing
 - Tramps / sleepers

3. Background (II)

The final version of the Urban transport requirements (D3.3):

- Provides a deep analysis and refinement on the security scenarios defined in the first version
- Includes an analysis of the motivations (**Uncivic, Antisocial, Criminal behaviours**) behind each scenario
- Describes the key validation indicators to detect variations in the security incidents based on the typified security incidents of the scenarios
- Identification of future and emerging threats based on current crisis environment and new social phenomena
- Introduction of security framework requirements based in the scenarios analysed

3. Background (III)

- Update of scenarios

Scenarios in First version	Scenarios in Final version
Tramps / sleepers	Indicators of economic crisis
Fare Evasion by Individuals or by Collusion	Fraud
Vandalism and Graffiti	Graffiti
Pickpocketing	Pickpockets

- Refinement of motivations

- **Uncivic behaviour:** Individual and / or sporadic behaviour not adjusted to socially accepted code of conduct, which causes a state of uneasiness and discomfort in people who witness it.
- **Antisocial behaviour:** Behaviour of an organized nature and / or intentional or recidivist involving violations of criminal or administrative regulations with a clear social disdain.
- **Criminal behaviour:** Behaviour defined in the criminal laws in force.

4. Stakeholder Engagement & Plan (I)

Stakeholder type	Barcelona urban transport's stakeholder
Users	<ul style="list-style-type: none"> ▪ Neighbourhood associations ▪ Public transport users associations ▪ Consumers organizations
Public authorities and regulators	<ul style="list-style-type: none"> ▪ Regional government (Generalitat de Catalunya) ▪ Barcelona Metropolitan Area (AMB) ▪ Metropolitan Transport Authority (ATM)
Barcelona Urban transport operators	<ul style="list-style-type: none"> ▪ TMB (Transports Metropolitans de Barcelona) ▪ Ferrocarrils de la Generalitat de Catalunya ▪ RENFE Rodalies ▪ TRAM Baix & TRAM Besòs
Other Urban transport operators	<ul style="list-style-type: none"> ▪ UITP - International Association of Public Transport members / UITP Commission on Security
Law enforcement agencies	<ul style="list-style-type: none"> ▪ Regional police (Mossos d'Esquadra)
First responders	<ul style="list-style-type: none"> ▪ Medical Emergencies (SEM – Sistema d'Emergències Mèdiques) ▪ Barcelona city Fire Service ▪ Regional government Fire Service ▪ Civil Protection

4. Stakeholder Engagement & Plan (II)

Engagement plan for each stakeholder type in each project phase:

Stakeholder type	Requirements Definition	Model validation	Tool validation
Users	✓		
Public authorities and regulators		✓	✓
Urban transport operators	✓	✓	✓
Other Urban transport operators	✓	✓	✓
Law enforcement agencies	✓	✓	
First responders	✓	✓	

5. Scenarios (I)

Scenario A: Indicators of social and / or economic crisis

- Typology:
 - Uncivic behaviour, on an individual basis
 - Antisocial behaviour, when the activities are carried with some degree of organization, which have a higher impact.
- Treatments:
 - Individuals, they are accompanied outside the facilities
 - Organized, they deserve administrative or criminal complaints (for organized hawking of intellectual property)
- Impact:
 - Economic impact is low
 - Social impact is low for individuals, and medium to high for the organized activities

Typology	Uncivic	Antisocial	Criminal
Musicians	YES	-	-
Organized musicians	YES	YES	-
Sleepers	YES	-	-
Beggars	YES	-	-
Organized beggars	YES	YES	-
Single hawking	YES	-	-
Organized hawking	YES	YES	-

5. Scenarios (II)

Scenario B: Fraud

- Typology:
 - Uncivic, tickets not paid without disturbing nor promoting this among other users
 - Antisocial, recurrent or affect other users, including collective and organized
 - Criminal, when committing fraud due to counterfeit
- Treatments:
 - Individual and multiple offenders, information campaigns to promote good behaviours, strategic placement of security guards
 - Massive fraud, avoid appearing in the media, adjusting the resources allocated
 - Counterfeit, material control and inclusion of additional safety measures in the tickets

- Impact:

- The highest economic impact are scams and fakes of tickets
- The highest social impact is caused by subgroups with protest and vindictive purposes

Typology	Uncivic	Antisocial	Criminal
Individual	YES	-	-
Multiple offender	-	YES	-
Collective and organized	-	YES	-
Inductive	-	YES	-
Scam / counterfeiting for profit	-	-	YES
Scam / counterfeiting for vindictive purpose	-	YES	YES

5. Scenarios (III)

Scenario C: Graffiti

- **Typology:**
 - Uncivic, done by individuals in single colour, usually corresponding to “signatures”
 - Antisocial, performed with premeditation, by multiple offenders, in a collective and organized way, usually on parked trains, and eventually with passengers on-board
 - Criminal, an amendment of the Spanish criminal law in 2010, stopped graffiti to be considered a crime or damage. Now it is more difficult to act effectively against this phenomenon in the courts.
- **Treatments:**
 - Remove graffiti painted trains from service, to avoid promotion / dissemination of their “work”, and to proceed with their cleaning.
- **Impact:**
 - The economic impact is considered very high, particularly for the wall graffiti. Impact on the QoS
 - The social impact is not as high as it should

Typology	Uncivic	Antisocial	Criminal
Individual	YES	-	-
Multiple offender	-	YES	-
Collective and organized	-	YES	-
With passengers on-board	-	YES	-

5. Scenarios (IV)

Scenario D: Pickpockets

- **Typology:**
 - Uncivic, notice of presence at stations or trains of people normally identified as pickpockets
 - Criminal, carelessness thefts that corresponds to a criminal who works isolated and on an individual basis and theft by “organized groups“, performed by groups between three and ten organized pickpockets
- **Treatments:**
 - When a pickpockets announcement is made it is only possible to invite them to go out
 - Information and communication campaigns, especially in stations frequented by tourists
 - Reducing the overcrowding with the Increase of trains frequency or improving spaces
 - Through the on-going dissemination of instructional videos with advices to potential victims
 - Through deterrence by the presence of personnel in hot spots of the Metro network

Typology	Uncivic	Antisocial	Criminal
Pickpockets announcements	YES	-	-
Thefts due to carelessness	-	-	YES
Thefts by organized groups	-	-	YES

- **Impact:**
 - The economic impact is considered very low for the operator
 - The social impact is medium to high, especially when the levels of criminal activity of this phenomenon are high and it becomes present in the media

5. Scenarios (V)

Future security scenarios

- **Uncivic behaviour:** The most common that affect the subway service. The most relevant is to interpret their evolution and the degree of citizens' acceptance /rejection towards them.
- **Antisocial behaviour:** Of particular concern is the increase in violence, particularly in groups close to the anti-system ideologies.
 - Graffiti: traditionally nonviolent, now cause assaults and serious damages. The use of internet and social networks allows publication of their "works" spreading this "fashion".
 - Proliferation of organizations that attempt to promote fraud practices through various techniques that do not detract from the objective, which is to fight the operation and financing of public transport system.
 - International criminal networks As with some of the antisocial acts (e.g., graffiti), cross-border activities are a note of paramount importance.
 - The arrival of other emerging criminal actions is not expected, except those coming from consolidated antisocial acts (massive fraud, tickets scams...)

6. Dissemination Activities

- Urban Public Transport Case Study Workshop on scenarios definition (June 2012, Barcelona) at TMB with project partners, TMB security members and regional police.
- High-level Requirements Review during the UITP Security Commission meeting (November 2012, Munich), with security officials from main European network operators.

7. Next Steps

Dissemination and engagement activities

- Models validation workshop with stakeholders in a one day workshop between end October – November at Barcelona
- High-level model presentation at the next UITP Security Commission meeting (21-22 November 2013, Hamburg), with three main objectives:
 - Update of Seconomics progress on the Urban transport case
 - Presentation of models development so far
 - Feedback

8. WP3 Upcoming deliverables

Deliverable	Partner	Contributors	Delivery date	State
D3.4 Model validation	ATOS	UNITN, URJC, TMB, ISAS CR	24	Under construction
D3.5 Tool validation	ATOS	UNITN, ISAS CR, TMB, SNOK	36	Not started

9. Long-term Outcome

- To have a scalable and configurable model for different operators of underground public transport for security risk planning and social models of security
- The methodology used to produce the models
- Selected scenarios correspond to safety problems, emerging or existing, which become important because of changes in society

Selected scenarios	Security and society (WP4)	Security risk models (WP5)
Fraud 1: Individual (uncivic) fare evaders	✓	✓
Fraud 2: Colluders/organised (antisocial) fraud	✓	✓
Pickpockets: Individual or organized groups of pickpocketing (tourists wanted)	✓	✓