D6.1—Stakeholder Validation and Networking Activities

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# IMPACT Consortium

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List of acronyms

N.A.
EXEClVlVE SUMMARY

This report is the first deliverable of Work Package 6 (WP6) of the IMPACT Project, entitled “Coordination Initiatives”. The scope of this document is to present a detailed description of the validation and networking activities with stakeholders about project scope, content, development, results, highlighting findings and lessons learnt. IMPACT Coordination activities supported the collection, analysis and review of the best practices in emergency prevention and management in the 3 Transport domains and in the urban environment. Especially analysis of sector characteristics; preliminary application and evaluation of IMPACT Supporting Measures was performed by end-users and domain experts. The document reports the related work done in WP6 of IMPACT and, specifically, the activities carried out in Task 6.1 - Stakeholder validation of IMPACT Supporting Measures and Task 6.2 Networking activities. The document has two main sections: Stakeholder Validation and Networking activities.
1 INTRODUCTION

The IMPACT Project is an EU Horizon 2020 funded research project examining cross-cultural crowd management, in safety and security related emergencies, in transport terminals. The main objective is to explore, analyse and assess the link between cultural features and disaster management in different transport hubs. As the urbanisation, internationalisation, and globalisation spread, large multi-cultural crowds are becoming an indispensable feature of our cities. This is especially valid for the in the transport terminals these global cities which serving the increasing global population and travel. In this perspective, culture could be seen as a key factor, which influences collective behaviours during crisis and emergency management in general and in transport hubs. The safe and effective management of such big crowds is therefore a critical issue for supranational organizations, governments, industry professionals, and academics working in this area.

As described in Annex 1 of the IMPACT H2020 Grant Agreement no. 653383, the scope of this document is to present a detailed description of the validation and networking activities with stakeholders about project results, highlighting findings and lessons learnt.

The document reports the related work done in WP6 of IMPACT and, specifically, the activities carried out in Tasks 6.1 Task 6.1 - Stakeholder validation of IMPACT Supporting Measures and Task 6.2 Networking activities

1.1 Background

This present report is the first deliverable of Work Package 6 (WP6) of the IMPACT Project, entitled “Coordination Initiatives”. WP6 Coordination Measures is dedicated coordination and networking activities with Stakeholders across Europe, to spread of best practices identified during the project and to assess and generalize the research results with them.

The objectives of WP6 are:
- to collect, analyse and review best practices in emergency prevention and management taking into account multi-cultural factors in order to derive a set of Guidelines for Security Operators and First Responders in different organisations;
- to validate the project results with stakeholders,
- to provide policy recommendations for multi-cultural emergency management in the transport sector, also producing three final Policy Papers collecting IMPACT insights, lessons learnt and recommendations for regulators and decision makers at a national and European level in the three transport modes;
- to organize networking activities, such as e.g. project final workshops to promote the results obtained;
- to generalize and exploit the policy recommendation to other domains.

Influencing high-level change in policy and regulations, together with the public opinion, is a real possibility if project partners co-operate effectively and at the right levels. This is essentially a process of networking with all relevant stakeholders, so building contacts and attending meetings is vital – which is hard work but the only way. The European Commission, European and National Agencies, National Committees and Programme Committees organise events to facilitate such cooperation.

The IMPACT supporting measures includes:
• A Cultural Risk Assessment including an innovative Risk Assessment Methodology that encompasses socio-cultural and psychological aspects in its process and evaluations and the corresponding ICT supporting tools.

• Guidelines and examples for Cultural-based Emergency Communication that will increase pedestrians involvement in emergency prevention, pedestrians and security staff preparedness for crisis situations and passengers, security staff and first responders cooperation and efficiency during crisis management thus reducing incidents and fatalities.

• A Cultural - based multi-lingual Security Training including a comprehensive Training Package with traditional and multi-media material to prepare and test security operators and first responders’ staff.

The IMPACT project carried out extensive coordination and networking activities among relevant stakeholders in the Transport and Emergency Management domains and among European Institutions. The coordination activities spanned during the whole IMPACT CSA lifecycle, enabled the requirement collection for the Supporting Measures definition and identification in early phases of the project, while contributing to Supporting Measures validation, dissemination and exploitation in later phases of the IMPACT CSA.

Different types of subjects were involved in Coordination Activities to collect relevant validation inputs, i.e., experts of a specific transport mode, safety, security and emergency management experts, cultural mediators end users that will directly use the proposed solution (e.g., Transport Operators, First Responders, etc.), stakeholders, institutions and policy makers that will not directly use the proposed solution, but will be indirectly impacted, for instance being part of the same transport mode.

The IMPACT CSA is structured around four general principles:

- to be stakeholder-focused in all its phases
- to provide Supporting Measures that could be easily generalized and reused
- to advance the state of the art in cross-cultural research and improve emergency prevention and management across all European countries
- to validate, disseminate and exploit its outcomes so as to benefit European Institutions and Public Organisations

Figure 1: Principles of IMPACT CSA

Therefore, stakeholders have been seen as an indispensable part of the IMPACT Project. IMPACT CSA were heavily depended on stakeholder contribution. Not only the dissemination and exploitation tasks, but also most of the phases was performed through stakeholder engagement. The Consortium composition has been designed in order to maximise the added value, not only in scientific area but also operational and regulatory knowledge from the stakeholders of different transport domains. While the IMPACT Consortium includes 8 partners from 6 Countries, 3 of
those partners were selected among end users which are organically stakeholders of the project outcomes: NTV, MOG and AU.

One of the major strengths of the Consortium is represented by the presence of entities that exploited the results of the project during their day-by-day-activities, i.e. port authorities, railways and airport operators and first responders in emergencies. They did not only provide their operational knowledge about the transport domain they are responsible for, in order to optimise the definition of the IMPACT, but also supported the evaluation, application and dissemination of project results through coordination activities in their sectors. An IMPACT External Stakeholders Group (ESG) was settled up to validate and enhance project results with relevant stakeholders, potential end-users and European institutions.

Dissemination makes research results known to various stakeholder groups (like research peers, industry and other commercial actors, professional organisations, policymakers) in a targeted way, to enable them to use the results in their own work. There’s a close link between dissemination and exploitation and there’s often some overlap between dissemination, exploitation and communication, especially for close-to-market projects. (H2020 Online Manual) In this project there are also overlaps between validation, networking, dissemination, exploitation and communication activities. Since the stakeholders were included throughout the project, most of the activities serve more than one aim. The following sections give detailed information about stakeholder validation and networking activities.
2 STAKEHOLDER VALIDATION OF IMPACT SUPPORTING MEASURES

The IMPACT project has a dedicated WP (i.e. WP6) for Coordination and Networking activities that supported the adoption of the IMPACT main outcomes and supporting measures (i.e., Cultural-based Risk Assessment Methodology, Cultural –based Communication Guidelines and the Cultural-based Training Package) by National Agencies and Ministries.

The coordination activities spanned during the whole IMPACT CSA lifecycle, enabled the requirement collection for the Supporting Measures definition and identification in early phases of the project, while contributing to Supporting Measures validation, dissemination and exploitation in later phases of the IMPACT CSA. A user-centred and participatory approach was followed [2].

The IMPACT coordination and validation methodology is based on two main principles:

- **User-centred transfer**: validation and exploitation of IMPACT Supporting Measures on the basis of stakeholders needs, operational and regulatory constraints,
- **Customisation**: validation and exploitation of IMPACT Supporting Measures on the basis of the target sector characteristics.

User-centred design is a project approach that puts the users of a site at the centre of its design and development. By communicating directly to the user at key points in the project, a user-centred design will deliver upon their requirements. Participatory Design can be defined as a process of investigating, understanding, reflecting upon, establishing, developing, and supporting mutual learning between multiple participants. The participants typically undertake the two principle roles of users and designers where the designers try to learn the realities of the users’ situation while the users try to articulate their desired aims and learn appropriate technological means to obtain them [1]. For this purpose, technics including meetings, focus group meetings, scenario based evaluation etc. were used.

The methodology is divided in following steps which are explained as follows:

![Figure 2: Supporting measures for validation methodology](image)

**Step 1. Analysis of sector characteristics**: In this step, the project stakeholders for each domain performed analysis of sector characteristics.

**Step 2. Preliminary application and evaluation**: In the second step, preliminary application and evaluation of IMPACT Supporting Measures by end-users and domain experts was done.
Step 3. Supporting Measures mapping: In the third step, depending on needs of the target domain supporting measures mapping was done.

Step 4. Supporting Measures selection: In this step supporting measures were selected based on their applicability to the target sector needs and threads.

Step 5. Supporting Measures generalisation: In the last step generalisation and preliminary customisation of IMPACT supporting measures to domains other than transport was performed.

Stakeholder validation of IMPACT Supporting Measures task was performed to share collected data for emergency management in transportation hubs to the relevant stakeholders and have feedback from their environment. This task aims to inform the stakeholders about information achieved from different transportation environments to combine aspects for emergency management. About the cross-domain concepts, the productivity of data achieved and trade-offs from different modes, interaction levels were discussed.

Relevant application scenarios from 3 transportation domains were identified and described in details. High level objectives were defined in accordance with the stakeholders visions and helped to produce more detailed objectives. A validation strategy has been defined and a detailed plan including validation exercises and qualitative and quantitative indicators has been derived. Validation activities for each main IMPACT outcome have been iteratively carried out and main findings have been reported in technical deliverables for the relevant WPs (e.g., D5.3 for the Multi-cultural Training Package).

2.1 Validation Activities

The following table presents, in chronological order, the list of the validation activities accomplished from the beginning of the project to the end.

For each activity, the following information are provided:

- **Date**: the date (month and year)
- **Title of the activity**: 
- **Description of the activity**: a brief description of the activity
- **Aims of the Activity**: main aim(s) of the activity.
- **Target Audience/Contributors**: the target group(s) involved in and/or contributors to the activity
- **Partner responsible of/involved in the activity**: Partner(s) in the activity

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Table 1: Validation activities

2.2 Validation activities with the External stakeholders Group

2.2.1 External Stakeholder Group Formation

The External Stakeholders Group was a first set of relevant stakeholders to collaborate with and it was enriched and complemented during the whole project life-time. To identify the ESG members
was a planned process by the Consortium Leader DBL. The External Stakeholder Group Formation Process can be seen in: External Stakeholder Group formation and pre-meeting process

To identify the different stakeholders was the main task of ESG formation process. The possible categories of IMPACT CSA stakeholders were defined:

- **Specialized audiences.** This audience is made up of people directly affected by the outcomes and results of the project in their work, i.e. Transport Operators, Safety and Security Managers, First Responders, etc.

- **Interested decision makers.** They are responsible for the aligning of the end users and researchers. They include Policy Makers such as municipalities and decision makers of metropolitan areas, company management, Representatives of the European Commission, H2020 programme committee, Representatives of Regulators, European Agencies and Institutions in the 3 Transport Modes, etc.

It was important also to define the emergency management frame in a transport hub. Figure 4 shows the possible ESG members that takes part in an emergency related to safety and security management in a transport hub.
Operational stakeholders in the operational environment and organizational stakeholders were accepted as the natural potential member of ESG. A multicultural and diversified group formation was targeted with the suggestions of the Consortium Partners. A brief project description and invitation for the External Stakeholders Group members involved in IMPACT (see in Figure 5) was send.
The purpose of this short document is to inform potential IMPACT External Stakeholders Group Members about IMPACT project scopes and to describe the goals, activities and participation settings for the External Stakeholders Group.

1. Project Overview

Transports hubs, like metro and railway stations, bus stations and big parking lots, airports, ports and their nearby infrastructures, are central parts of modern cities. Citizens and passengers flow through them every day and their safety should be the primary concern of all municipalities. Transport hubs are very crowded environments in which many safety events may arise, from accidents to fire and disruptions. On the other hand, due to their ‘open nature’ and strategic relevance, public transport hubs are considered a major potential target for terrorists and attackers. A crisis is, by definition, ‘an event, revelation, allegation or set of circumstances which threatens the integrity, reputation, or survival of an individual or organization’. Crises prevention and management in modern, interconnected and trans-modal transport systems are strongly impacted by socio-cultural factors.

The IMPACT Coordination and Support Action is funded by the European Commission under the Topic DRS-21-2014 “Ethical/Societal Dimension topic 2: Better understanding the links between culture, risk perception and disaster management” under the Secure Societies Challenge. IMPACT started on 1st May 2015 with a 30-months duration.

The aim of the IMPACT project is to study how culture plays a role in preventing and managing safety and security related emergencies in transport hubs and urban transport networks.

In particular, IMPACT aims at:
1. analysing the different cultural behaviours for the prevention of emergencies (preparedness) with particular emphasis on:
   a. risk and situational awareness perception of the different cultural groups;
   b. information to passengers;
   c. cooperation towards prevention of security threats;
   d. security checks, including physical inspections;
2. analysing the different cultural behaviours for the management of emergency events and the post events with particular emphasis on:
   a. crowd management;
   b. management of first responders to care for different cultural groups;
   c. information to passengers;
3. producing, based on the results of phases 1 and 2, a cultural risk assessment methodology and the associated mitigation actions for the public transport sector also developing simulators and models;
4. identifying innovative solutions that can support public transport operators in improving the communication with passengers through dedicated messages to the different cultural groups (via mobile phones and social networks) and other solutions to enhance the management of emergencies considering cultural aspects;
5. developing best practices, dedicated training material and procedures for both public transport operators and first responders;
6. developing policy recommendations for policy makers, regulators, municipalities and public transport operators.
2. The External Stakeholders Group

The IMPACT Consortium contains a wide range of expertise, including 6 partners from 6 Countries: 2 SMEs (Deep Blue – IT and PROFRS – UK), 4 Universities (University of Leeds – UK, Free University Amsterdam – NL, International University College – BG, Anadolu University – TK), 1 Railway Undertaking (Nuovo Trasporto Viaggiatori – IT), 1 Maritime Administration (Maritime Office Gdynia – PL).

One of the major strengths of the Consortium is represented by the presence of organisations exploiting IMPACT results during their day-by-day-activities, i.e. port authorities, railways and airport operators and first responders in emergency situations.

To broaden the impact of the project, there is the need to increase stakeholders participation and involvement, such as National Security and Health Authorities, First Responder Organisations, Policy Makers and Regulatory Bodies, Transport Infrastructure Management Companies and other Security and Emergency domain experts.

To this aim an IMPACT External Stakeholders Group will be set up. The External Stakeholders Group members are invited to participate in ‘ad-hoc’ meeting reviews and provide feedback to (intermediate) project results thus steering the overall work of the project.

3. Participation to the External Stakeholders Group

External Stakeholders Group will be reimbursed for their subsistence and travel expenses.

IMPACT has planned 3 plenary 1-day External Stakeholders Group meetings at locations with good transport connections. It would be also possible that External Stakeholders Group members might be asked to participate in questionnaires or short phone interviews.

If you indicate your interest in joining the IMPACT External Stakeholders Group you may expect a formal invitation within the next few weeks.

This invitation will be accompanied by a more detailed project summary and by a Non-Disclosure Agreement, to allow end-users project partners to share sensitive information with External Stakeholders Group members.

For any information about the IMPACT project, please contact:
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Figure 5: Project description and invitation for the External Stakeholders Group members

In order to enrich the understanding of individual cultural risk perception and emergency management ESG was also formed as a multicultural forum. The criteria based on the selection process of ESG members were depending such factors as follows:

- depending on the domains,
- depending on the different stakeholder groups,
- depending on the nationality,
- depending on the research experience,
- depending on the experience of the operational environment etc.

Following the completion of an integrated final list of the selected stakeholders, official letters were signed by the ESG members. An invitation and an agenda for the 1st ESG meeting were sent to ESG members via emails. For the 2nd ESG meeting a similar approach was followed. New ESG members were invited in addition to the existed members of ESG.

The External Stakeholders Group is composed 27 Experts from three different transport domains. The composition of ESG can be shown in Figure 6:

![Figure 6: ESG members and transport domains](image)

As shown by the figure, while 32% of the experts were from railway domain, 25% of these were from aviation/airport domain and 18% were from maritime domain. There were also experts from security and emergency management, health and first responders, and law enforcement agencies.

The breakdown of the expertise of group members can be shown in Figure 7:
Regarding the expertise, transport operators and policy makers were the two biggest ESG member groups with a 30% share for each. While 18% of ESG members come from international associations; industry experts and consultants share were 11%. Another 11% were also from academia.

2.2.2 1st External Stakeholders Group meeting: Amsterdam, 23-24th November 2015
The first External Stakeholders Group meeting took place in Amsterdam, 23-24th November 2015. The workshop was organised for collecting feedback from the key external transport stakeholders and validating the preliminary findings on relevant cross-cultural and crowd behaviours in transport hubs.

Participants were asked to:
- confirm challenges, assess progress and identify gaps in the study and analysis of socio-cultural aspects of safety and security emergency prevention and management;
- identify emergency scenarios in which multi-cultural aspects are relevant;
- provide needs and requirements of your specific domain and/or organization with respect to supporting measures for emergency prevention and management;
- offer conclusions and advice upon strategic avenues for socio-cultural issues in emergency prevention and management.
The complete list of participants to the 1st ESG meeting is reported in the table below.

<table>
<thead>
<tr>
<th>N</th>
<th>NAME /SURNAME</th>
<th>ORGANISATION</th>
<th>DOMAIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Luciano Di Renzo</td>
<td>Pescara Airport/IATA</td>
<td>Airport</td>
</tr>
<tr>
<td>2</td>
<td>Fabio Croccolo</td>
<td>Italian Ministry of Transport</td>
<td>Maritime and Railways</td>
</tr>
<tr>
<td>3</td>
<td>Olimpia Del Maffeo</td>
<td>Italian Railways Police</td>
<td>Railways</td>
</tr>
<tr>
<td>4</td>
<td>Luca Rosi</td>
<td>Italian National Institute of Health</td>
<td>Health</td>
</tr>
<tr>
<td>5</td>
<td>Stefano Milanesi</td>
<td>ATM Milan</td>
<td>Light rail/metro</td>
</tr>
<tr>
<td>6</td>
<td>Milena Vasic</td>
<td>Institute of Public Health of Serbia</td>
<td>Health</td>
</tr>
<tr>
<td>7</td>
<td>Ľubomír Hradiský</td>
<td>ZSSK - Slovakrail</td>
<td>Railways</td>
</tr>
<tr>
<td>8</td>
<td>Chanan Graf</td>
<td>RailSec</td>
<td>Security Consultancy</td>
</tr>
<tr>
<td>9</td>
<td>Shaked Ber</td>
<td>Israeli Railways</td>
<td>Railways</td>
</tr>
<tr>
<td>10</td>
<td>Andrej Grebenc</td>
<td>former EU Commission</td>
<td>Security/Policy Making</td>
</tr>
<tr>
<td>11</td>
<td>Jose Pires</td>
<td>UIC</td>
<td>Railways</td>
</tr>
<tr>
<td>12</td>
<td>Jaime Borrell</td>
<td>Alstom</td>
<td>Railways</td>
</tr>
<tr>
<td>13</td>
<td>Radosław Tyślewicz</td>
<td>Polish Naval Academy</td>
<td>Maritime</td>
</tr>
<tr>
<td>14</td>
<td>Marco Benedetti</td>
<td>Italian Ministry of Transport</td>
<td>Maritime and Railways</td>
</tr>
</tbody>
</table>
Table 2: 1st External Stakeholders Group Meeting Participant List

<table>
<thead>
<tr>
<th></th>
<th>Name</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>Abide Koc Demirci</td>
<td>General Directorate of Turkish State Railways</td>
</tr>
<tr>
<td>16</td>
<td>Sevtap Ozturk</td>
<td>General Directorate of Turkish State Railways</td>
</tr>
<tr>
<td>17</td>
<td>Serdar Uzumcu</td>
<td>HAVELSAN</td>
</tr>
<tr>
<td>18</td>
<td>Achmet El Sarkaoui</td>
<td>Airport Council International Europe</td>
</tr>
<tr>
<td>19</td>
<td>Musa Gungoren</td>
<td>ICF Airports</td>
</tr>
<tr>
<td>20</td>
<td>Berkay Ekim</td>
<td>ICF Airports</td>
</tr>
<tr>
<td>21</td>
<td>Peter Schenk</td>
<td>NS – Corporate Security</td>
</tr>
</tbody>
</table>

2.2.3 2nd External Stakeholders Group meeting: Krakow, 6 October 2016.
The 2nd ESG meeting was organised in Krakow on October 2016. The workshop was structured around two main sessions:

SESSION 1 plenary session: presentation of the IMPACT theoretical framework of cross-cultural crowd behaviours in transport terminals. It presents an extensive review of existing scientific literature and of past projects together with an analysis of data collection activities in the field of cross-cultural and multi-cultural crowd behaviour.

SESSION 2 interactive parallel group sessions: presentation and validation of preliminary achievements of the IMPACT project:

- overview and presentation of the computational model of cross-culture crowd behaviour & cross-culture communication requirements;
- overview of the cultural risk assessment approach & presentation of the risk assessment tree model;
- overview of the IMPACT cultural – based training package.

Participants were asked to:

- provide your perspective and support to validate the work achieved so far,
- assess progress and identify potential shortcomings in the analysis of cross-cultural aspects of safety and security emergency prevention and management
- assess progress, identify potential shortcomings and test preliminary outcomes of the IMPACT supporting measures.
Figure 9: 2nd External Stakeholders Group meeting

The complete list of participants to the 2ESG meeting is reported in the table below.

<table>
<thead>
<tr>
<th>N.</th>
<th>PARTICIPANT</th>
<th>ORGANISATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Luciano Di Renzo</td>
<td>Pescara Airport/IATA</td>
</tr>
<tr>
<td>2</td>
<td>Olimpia Del Maffeo</td>
<td>Italian Railways Police</td>
</tr>
<tr>
<td>3</td>
<td>Luca Rosi</td>
<td>Italian National Institute of Health</td>
</tr>
<tr>
<td>4</td>
<td>Stefano Milanesi</td>
<td>ATM Milan</td>
</tr>
<tr>
<td>5</td>
<td>Milena Vasic</td>
<td>Institute of Public Health of Serbia</td>
</tr>
<tr>
<td>6</td>
<td>Chanan Graf</td>
<td>RailSec</td>
</tr>
<tr>
<td>7</td>
<td>Shaked Ber</td>
<td>Israeli Railways</td>
</tr>
<tr>
<td>8</td>
<td>Andrej Grebenc</td>
<td>former EU Commission</td>
</tr>
<tr>
<td>9</td>
<td>Serdar Uzumcu</td>
<td>HAVELSAN</td>
</tr>
<tr>
<td>10</td>
<td>Jerome Morandiere</td>
<td>Airport Council International Europe</td>
</tr>
<tr>
<td>11</td>
<td>Musa Gungoren</td>
<td>ICF Airports</td>
</tr>
<tr>
<td>12</td>
<td>Berkay Ekim</td>
<td>ICF Airports</td>
</tr>
<tr>
<td>13</td>
<td>Peter Schenk</td>
<td>NS – Corporate Security</td>
</tr>
<tr>
<td>14</td>
<td>Jacques Colliard</td>
<td>UIC</td>
</tr>
<tr>
<td>15</td>
<td>Pierluigi Potenza</td>
<td>Risorse per Roma</td>
</tr>
<tr>
<td>16</td>
<td>Jwona Krolikowska</td>
<td>Polish Naval Academy</td>
</tr>
<tr>
<td>17</td>
<td>Cezary Cierzan</td>
<td>Polish Naval Academy</td>
</tr>
<tr>
<td>18</td>
<td>Radosław Tyślewicz</td>
<td>Polish Naval Academy</td>
</tr>
<tr>
<td>19</td>
<td>Giuseppe Alati</td>
<td>Ministero dei Trasporti DIGIFEMA</td>
</tr>
</tbody>
</table>
2.2.4 IMPACT Final Event: Rome, 21 and 22 of September 2017

The IMPACT Final dissemination event “Managing socio-cultural factors during emergencies in public transport systems”, jointly organised by the projects IMPACT and LETSCROWD, took place on 21 and 22 of September in Rome, at the Hotel Beverly Hills. The event brought together experts, researchers, practitioners, and relevant stakeholders in the different transport domains to discuss on current research trends in socio-cultural aspects relevant for ensuring safety and security in modern transport hubs.

The detailed information on the IMPACT Final Event is presented D7.3.

2.3 Validation Activities of the IMPACT results by Aviation end users

Several validation activities were conducted during the project by Anadolu University to validate IMPACT Supporting measures. One of these activities aimed to validation of cultural-dependent hazardous behaviours. Through meetings with the airport operators and front level personnel the framework of cultural-dependent hazardous in transportation terminals were evaluated. After these validation the final table were organized and results were used in D3.1 – Cultural Risk Assessment Methodology Report.

In another validation activity, interviews with the end-users were conducted and validation of the following IMPACT emergency scenarios was carried out:

1. High risk evacuation (e.g., fire in a terminal/on board)
2. Passenger misbehaviour (e.g., a person under influence of alcohol creates chaos)
3. Medical emergency (e.g., unknown disease spreading fast)
4. Large group in an unfamiliar environment (e.g., passengers stranded in a terminal)
5. Controlled (non-emergency) evacuation (e.g., evacuation from a broken train)
6. Changed security procedures (e.g., terrorist threat)

Interviewees were asked to consider situations happening both in a terminal as well as on board of a train, aircraft or a ship. Considering the past events in their organizations end-users evaluated each scenario in terms of before, during and after the event. A step by step description was performed and a check for each step was performed to validate the IMPACT scenarios.

In these validation studies both Anadolu University and Anadolu Airport personnel were involved. Antalya Airport high-level personnel were also included the validation studies via phone and internet meeting. Personnel interviewed included RFFs and SMS Managers, quality managers and academics. Questionnaires and forms addressing the problematic passenger groups, risk factors, scenarios, current security training and management of emergencies supported the interviews.

The breakdown of the experts:
- Experts from Anadolu Airport: RFFs and SMS Managers
- Experts from Antalya Airport and Antalya Airport
- Academics from Aviation Faculty
- Academics from Emergency and Disaster Management Project
- Project management officers

Pictures from the three validation activities held in October 2016 and January-February 2017 can be seen in Figure 10.
2.4 Validation Activities for the Agent Based Models

IMPACT ESG members were also being asked to support in the preliminary validation of the IMPACT Agent Based Models. 2 Short Questionnaires (5-10 minutes each) were developed and the links were send via emails to the ESG members. These surveys that presented the IMPACT models (and results for one of them) developed for two situations: an "Evacuation" scenario and a "Stranded Passenger" scenario.

Evacuation of a transport hub survey:
https://docs.google.com/forms/d/e/1FAIpQLSeLZg8SkMRDQWWZq4pfif3_7taFA5HrMfeG_EsD59CnRTIpCUg/viewform

Stranded passengers survey:
https://docs.google.com/forms/d/e/1FAIpQLSc12RLweYRjkNeOlytvoy23DjAKvUK13xuavlqd7d1OQiMk9xA/viewform

The results of these surveys and information gathered were used in Computational Agent-based Model. All the details can be seen in D2.3 [4]– Internal and External Validation of the Computational Agent-based Model.
2.5 Validation Activities for the Training Package

Pilot sessions conducted with the support of the end users involved in the project in order to assess, validate and refine the e-learning training materials developed (for further details about the training contents see D3.2 [5]and D5.3 [6]). Furthermore, this deliverable reports the main results achieved during the evaluation process.

In addition, the IMPACT training package has been presented and validated during the 2nd ESG meeting and the Final Event in Rome.

Since these validation activities are mentioned in the related Deliverables, they will not be held in details in this document.

2.6 Preliminary validation activities for the emergency communication requirements and guidelines

As reported in D4.1 [7] and D4.2 [8] the emergency communication requirements and solutions have been iteratively reviewed and assessed by Computer-based simulation of some innovative Communication Solutions in specific scenarios and then through expert judgement of IMPACT end-users and ESG members.

All the information gathered was used to elicit the multicultural communication guidelines as described in D4.3 [9].
3  networking activities

Task 6.2 includes networking activities. The project outputs were discussed in meetings and workshops collecting expert people about emergency management from all 3 transportation environments and related policy environments. Networking and coordination activities are important for the IMPACT Project for several reasons:

- to exchange best practices,
- to foster adoption of IMPACT results,
- to assess the feasibility and applicability to other domains,
- to create a mutual learning environment,
- to guide the policy recommendation etc.

Networking activities includes identifying, selection and establishment of different transportation domain groups and their users.

Networking activities have been carried out throughout the duration of the project to ensure synergies and coordination with dissemination and exploitation activities in WP7.

In particular, as described in D7.3, the IMPACT final event represented an important occasion to foster mutual interactions and new collaboration opportunities among experts, researchers, practitioners, and relevant stakeholders in the different transport domains.

The following table presents, in chronological order, the list of the networking activities accomplished from the beginning of the project to the end.

For each activity, the following information are provided:

- **Date**: the date (month and year)
- **Title of the activity**:  
- **Description of the activity**: a brief description of the activity
- **Aims of the Activity**: main aim(s) of the activity.
- **Target Audience/Contributors**: the target group(s) involved in and/or contributors to the activity
- **Content of the activity**: Short information about the activity
- **Partner responsible of/involved in the activity**: Partner(s) in the activity
<table>
<thead>
<tr>
<th>Date</th>
<th>Title of the event</th>
<th>Description of the activity</th>
<th>Aims of the Activity</th>
<th>Target Audience/Contributors</th>
<th>Content of the activity</th>
<th>Responsibl e/involved partner(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>dd/mm/yyyy</td>
<td>Title of the event</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>October 2015</td>
<td>Information sharing</td>
<td>Information about the project</td>
<td>Networking</td>
<td>General Public Specialised audience (e.g. research community, Industrial association, safety and security managers ...) Decision Makers (e.g. EU and other funding organisations) International/national Industry Associations and Policy makers (ICAO, ACI, IMO, ERA, UIC etc.)</td>
<td>Short information about the activity such as: Number and characteristics of the Attendees or focus group etc.</td>
<td>MOG</td>
</tr>
<tr>
<td>3 February 2016</td>
<td>H2020 Projects Meeting at Technology Transfer Office</td>
<td>Meeting</td>
<td>Networking</td>
<td>Research Community &amp; Project Unit Managers of Anadolu University</td>
<td>Presentation and discussion on IMPACT Project and other H2020 Projects</td>
<td>AU</td>
</tr>
<tr>
<td>13 December 2016</td>
<td>Advisory Council for Aviation Research and Innovation in Europe (ACARE) WG 4 Safety and Security Meeting</td>
<td>Brief description of the IMPACT project and results in the context of the Aviation Strategic Research and Innovation Agenda (SRIA) Volume 1 and 2 update</td>
<td>Networking</td>
<td>ATM and Aviation Domain Stakeholders (from Regulators, to National Authorities, to Academy and Industry)</td>
<td>Informal discussion on multi-cultural aspects in security management with the Working Group 4 – sub-group Security. About 12-15 attendees from all Europe.</td>
<td>DBL</td>
</tr>
<tr>
<td>1 February 2017</td>
<td>Meeting at Technology Transfer Office</td>
<td>Meeting &amp; Information sharing between IMPACT and Emergency Management Research</td>
<td>Networking, Inform, Raise Awareness</td>
<td>Research Community &amp; Project Unit Managers of Anadolu University</td>
<td>Presentation and discussion on IMPACT Project and Emergency Management Project</td>
<td>AU</td>
</tr>
<tr>
<td>Date</td>
<td>Title of the activity</td>
<td>Description of the activity</td>
<td>Aims of the Activity</td>
<td>Target Audience/Contributors</td>
<td>Content of the activity</td>
<td>Responsibl(e)/involved partner(s)</td>
</tr>
<tr>
<td>------------</td>
<td>-----------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------</td>
<td>---------------------------</td>
<td>---------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>05 June 2017</td>
<td>DARWIN and IMPACT networking and information exchange meeting</td>
<td>Brief internal meeting among IMPACT and DARWIN (<a href="https://h2020darwin.eu/">https://h2020darwin.eu/</a>) H2020 projects</td>
<td>Networking</td>
<td>Italian partners involved in the 2 projects: DBL for IMPACT, ENAV, ISS and DBL for DARWIN</td>
<td>Presentation of the two projects. Similarities and synergies identification. Exchange of information wrt to Communication Practices and Guidelines in Emergency Management. 6 attendees from the 3 partners.</td>
<td>DBL</td>
</tr>
<tr>
<td>19 July 2017</td>
<td>DERBY People Movement &amp; Management Show, conference, networking</td>
<td>Public International Event for all stakeholders within the domain 'People Movement &amp; Management'</td>
<td>Networking Engage, Ensure Impact</td>
<td>Networking, Research Community, Industrial Associations</td>
<td>100+ attendees</td>
<td>VU, UOL</td>
</tr>
<tr>
<td>October 2017</td>
<td>Information sharing</td>
<td>E-mail communication</td>
<td>Networking Information-sharing concerning IMPACT risk assessment tools and training opportunities</td>
<td>The Bulgarian minister of risk management. The director of the Bulgarian State Railways, The chief inspector of the Bulgarian airport security services</td>
<td>Official letters were sent to these persons, describing the IMPACT project and the opportunities for use of IMPACT tools and IMPACT training materials.</td>
<td>VUM</td>
</tr>
<tr>
<td>18-23 October 2017</td>
<td>LogMare Conference – Cultural Aspect in Public Transport Safety. Introduction and results of IMPACT Project</td>
<td>Conference/Panel Discussion</td>
<td>Networking Ensure IMPACT</td>
<td>Specialised audience</td>
<td>Presentation and panel discussion on IMPACT Project. Exchange of information on cultural aspect onboard the ship.</td>
<td>MOG and Naval Academy</td>
</tr>
</tbody>
</table>

*Table 4: Networking activities*
Networking activities were performed during the lifetime of the project. Through meetings, conference/panel discussions, email communications etc. partners were involved several networking activities.

Figure 11: Networking activities at Anadolu University
4 CONCLUSIONS

This deliverable has integrated and structured activities of Task1 and 2 of Work Package 6 (WP6) of the IMPACT Project, entitled “Coordination Initiatives” These tasks include:

Task 6.1 - Stakeholder validation of IMPACT Supporting Measures
Task 6.2 - Networking activities

Stakeholder validation task was performed with the information achieved from different transportation environments. Different stakeholder groups were the main contributor of Networking activities too. Other EU R&D projects, as well as end-users in the Transport domain were contacted and actively involved in the IMPACT Validation, Networking, Dissemination and Exploitation activities.

With the activities, which were explained in details in the present document, a mutual interaction between people from different industries, domains, organizations and cultures was reached. The in-depth meetings in focused groups led a mutual learning process for individual and group level. In addition, the interaction between other international and national research projects brought new project ideas and collaboration opportunities.
5 References

[4] IMPACT consortium, D2.3 Internal and external validation of the computational agent based model, 2017
[6] IMPACT consortium, D5.3 Pilot training courses report, 2017
[8] IMPACT consortium, D4.2 Intelligent software agent design: analysis and support models, 2017
[9] IMPACT consortium, D4.3 Cultural-based Emergency Communication guidelines, 2017