SIMUSAFE

SIMULATOR OF BEHAVIOURAL ASPECTS FOR SAFER TRANSPORT

D9.2: WEB PAGE

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N. 723386

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WP9 DISSEMINATION

TASK 9.2- WEB PAGE.

DEL. 9.2 WEB PAGE.

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Project title:	SIMULATOR OF BEHAVIOURAL ASPECTS FOR SAFER TRANSPORT
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Abstract:	This document provides information on the quality management of the SIMUSAFE project.
Status:	X PU (Public) ☐ PP Restricted to other programme participants (including the Commission Services) ☐ Restricted to a group specified by the consortium (including the Commission Services) (please specify the group) ☐ Confidential, only for members of the consortium (including the Commission Services

1. DOCUMENT REVISION LOG

VERSION	REVISION	DATE	DESCRIPTION	AUTHOR
1	01	7/9/17	Creation of the Deliverable	Cyriel Diels

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2. CONTENTS

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3. EXECUTIVE SUMMARY

The web site of the project is one of key communication and dissemination tool.

The website is hosted here: www.simusafe.eu

This document presents general objectives, design and management process of the project' website, as well as the structure and content draft of the initial version, while the development of the full portal is in progress. The initial version of the website will be integrated with new sections and contents, along the project life span, and will be updated in accord with the other dissemination actions.

This report is also related to *Deliverable 9.1 – Dissemination/Communication plan*, where the synergies between the various dissemination tools are outlined.

The development and implementation of the website follows the schedule foreseen in the proposal:

- By the end of August 2017 (M3) – Web page of the project, as temporary version of the Home page, containing basic information on the project, contacts, logo and EU funding references
- By the end of October 2017 (M5) – The full version of the website will be live

The temporary Home page (Web page – August 2017 – M3) is shown in Figure 1.

Figure 1. Screenshot of temporary SIMUSAFE homepage

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3.1. OBJECTIVES AND SCOPE

3.1.1. Objectives of the website

As outlined in the proposal, the key objectives of the website are:

- Showcasing information about project objectives and final results
- Communicate project information and results
- Enable public to share contributions and submit feedback. Provide relevant news and latest updates on different aspects of the project and related subjects
- Provide links to downloads of project collateral e.g. presentations, leaflet, brochure, etc.
- List upcoming events relevant to the project, such as workshops, trade fairs, conferences that partners will attend and present at
- Allow stakeholders to sign up to receive news and updates

The general objective of the design and management process is to provide a stable web portal with user-friendly and responsive design and applications, complete and up to date content on the project's activities and related news and initiatives, aligned with the general promotion, dissemination and, later on, exploitation strategies objectives.

3.1.2. Design and structure

The SIMUSAFE website will include a detailed description of the project and its results and activities in graphics and pictures.

The website is designed using the below structure:

- Home
- About SIMUSAFE
    - Vision
    - Objectives
    - Project management structure
- Partners
- Dissemination
    - Public deliverables
    - Presentations, publications and papers
- News and Events
- Contact

3.1.3. Technology

The website is powered by WordPress (https://wordpress.org/about/). The theme version currently used is "Appointment". The theme will be upgraded to provide more engaging features including for example slidebars with latest news and will be available at the end of M5.

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3.1.4. Roles and permissions

Administration rights in order to edit website content is restricted to the dissemination WP leader Coventry University. Project partners will provide the WP leader with website content.

Based on the needs at the initial stage, the following roles and set of permission are implemented:

- Guest – Any visitor, no registration and log in required – This is the standard visitor role that has access to all public content (majority of the portal)
- Site Owner – Coventry University technical manager (registered user) – Access to server administration and users' roles and permission management
- Site Administrator – Coventry University Exploitation manager (registered user) – Access to the whole site management tools, including site settings, structure and application's configuration
- Site Editor – Coventry University project and communication department staff (registered user) – Access to completely set of editing tools for content, including create new content, add new content to pages and Document and Media database.
- Editor – Partners of the project, if needed for specific tools (registered user) – Access to in page content editing tools (such as News and Articles)

3.2. SITE STRUCTURE

3.2.1. Home

The home page provides basic information with regards to the aims and expected impact of the project and includes an image of the SIMUSAFE concept as well as the SIMUSAFE logo, EU logo, and the text "*This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N. 723386*". The home page will include additional fields including "latest news", "newsletter" and "tweets". The homepage text is shown in the below textbox:

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The acronym **SIMUSAFE** stands for **SIMU**lation of behavioural aspects for **SAFE**r transport.

The project aims to overcome the limitations of the Driving Simulators and Traffic Simulation as valid tools for studies in Traffic Safety, and bridge the gap between them and Naturalistic Driving tests. This will be achieved by creating tools for understanding and analysing traffic scenarios at micro and macro scale supported with the capability to incorporate actor behaviour from real environments into simulated ones.

Data collected from simulations will be correlated with naturalistic driving tests, such that the simulation and model aspects are the closest possible to real world data. From the developed model and collected data, impacting factors causing an event (crash, near-collision, infractions) from the environment and road users will be identified and quantified. Such knowledge will be the base for the development of more effective and pro-active measures for the prevention and mitigation of such factors, with subsequent impact in the safety devices market, regulations and driver education.

SIMUSAFE Impact:

- Reduction of fatal, serious and minor accidents through measures to mitigate unsafe transport user behaviour patterns
- Economic savings linked to the reduction of accidents
- Safer use of vehicles and increased awareness of other users
- Effective enforcement and training schemes based on reliable behavioural models
- Safe integration of new types of vehicle
- Translation to other transport modes

Figure 2. SIMUSAFE homepage text

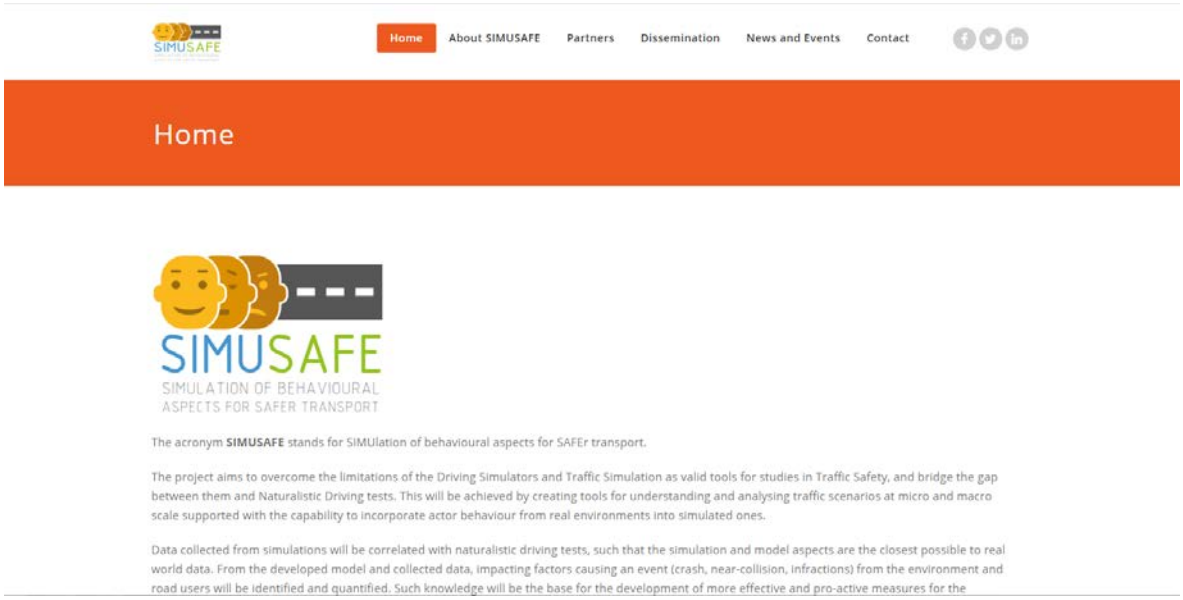

Figure 3. Screenshot of homepage

3.2.2. About

The about page provides more detailed information and focusses on the overall vision and specific project objectives. The About page text is shown in the below textbox:

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VISION

Road transport is known to be the most dangerous of all transport modes and poses a major societal challenge for EU. It has been claimed that 90% of road-traffic crashes are caused by driver error, being unsafe behaviour a significant factor in traffic accidents. Improving road safety means understanding the individual and collective behaviour of actors involved (drivers, two wheelers, pedestrians) and their interaction between themselves and safety-related systems and services.

The goal of SIMUSAFE (SIMUlator of Behavioural Aspects for SAFEr Transport) following the FESTA-V model methodology is to develop realistic multi-agent behavioural models in a transit environment where researchers will be able to monitor and introduce changes in every aspect , gathering data not available in real world conditions. Driving simulators of several vehicles (cars, motorcycles, bicycles) and Virtual Reality (for pedestrians) will be used to simulate test environments.

This will also enable the evaluation of scenarios which are not possible even with naturalistic driving (dangerous conditions, multiple monitored actors in the same scene, under influence of substances). Data collected from simulations will be correlated with naturalistic driving tests, such that the simulation and model aspects are the closest possible to real world data.

From the developed model and collected data, impacting factors causing an event (crash, near collision, infractions) from the environment and road users will be identified and quantified. Such knowledge will be the base for the development of more effective and pro-active measures for the prevention and mitigation of such factors, with subsequent impact in the safety devices market, regulations and driver education.

OBJECTIVES

Model Development and Data Collection

- An Actor Model of each type (car, pedestrian, two-wheeler) integrating neurometrics and aggregated vehicular/environmental data from naturalistic driving and simulators for identification and representation of driving patterns and computation of risk metrics.
- Neurometric indexes of risky attitudes and behaviours based on physiological parameters (HR/HRV, EMG, EEG; EOG, ECG and GSR) jointly with contextual information (e.g., Sleep duration/quality, Activity intensity, Weather, Noise). Will comprise risk perception, awareness, attention and decision-making.
- Integrated Data Collection Module for the filtering of raw data signals and Actor Model descriptor computation with connectivity to cloud-based infrastructure.
- A quantified risk-taking and risk potential metric for biometric/vehicle data based on the multi-agent model and its equivalent for a simulated virtual driver.
- Identification of ADCs (risk-perception, awareness) and quantized risk assessment for each class of actor, accordingly with measured data and possible interactions with others actors/environment and its own conditions. Module for observed data incorporation from biometric/vehicle sensors into the simulated agent parameters, such that the behaviour can be reproduced in simulation environment in large-scale.

Accurate Road User Simulation and Integration with Naturalistic Driving Tests

- Realistic MAS models for driving and traffic simulators able to represent pedestrians, two-wheelers and standard car in traffic context as a dynamic system.
- Modular API for automotive, two-wheelers or pedestrian simulators, and other actor classes integration.
- Distributed server-client infrastructure for multi-driver / multi model simulation and DAI based simulation of the various entities of the traffic environment.
- Modular API for the integration of biometric and vehicle sensors into a simulation module.
- An in-built automated data analysis module based in Multi-Scale Entropy Analysis (MMSE) to determine relevant descriptors among the data flow produced by the (real/simulated) sensors of the platforms.
- A methodology for raw data correlation between simulators and naturalistic driving tests based on PCA.
- A module for data incorporation of measured Actor Model into the Simulated Agent-Based Model such that the behaviour can be reproduced in the simulation environment in large-scale.
- Analysis and test tool which will reproduce standard test scenarios such as NHTSA pre-crash scenarios and real-world scenarios.

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Social Impact

- Extraction tool of possible relevant factors from environment, drivers (individual or global factors), and other attributes after a test session.
- Develop interventions (training, regulation) on identified sources of events of interest (near-collisions, traffic jams, infractions) with data analytics tools and experts (psychologists, instructors, traffic authorities)
- Dissemination events in the form of workshops (14), conferences (54) and fairs (21) involving researchers and stakeholders

Figure 4. SIMUSAFE About page text

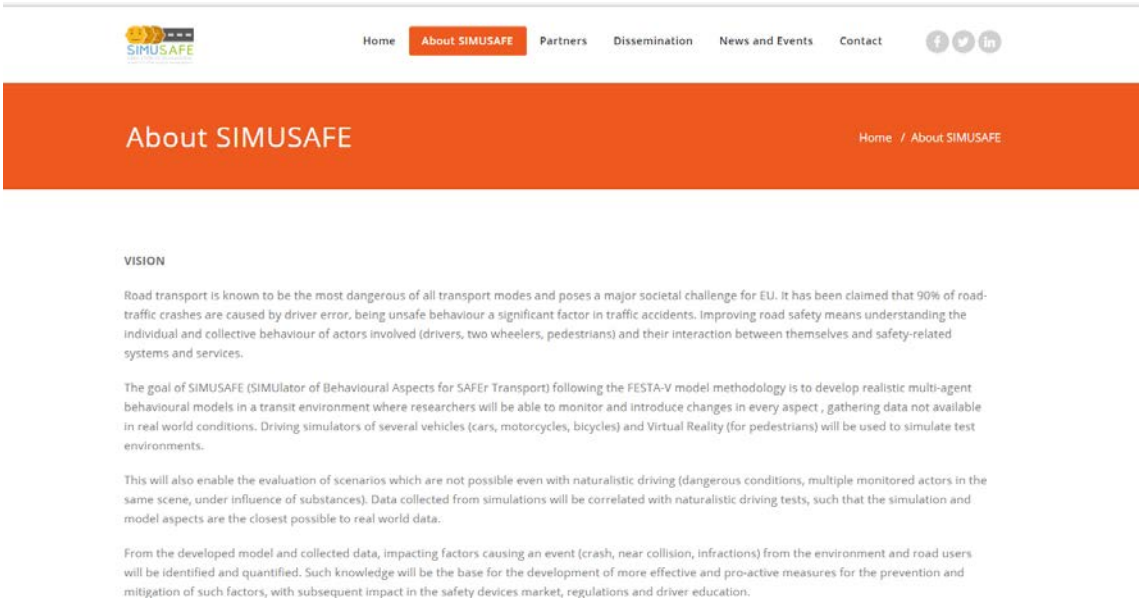

Figure 5. Screenshot of SIMUSAFE About page

3.3. MANAGEMENT PROCESS

Website coordination and maintenance carried out by Coventry University.

The process to collect, prepare, organise and edit the content for the website is coordinated by Coventry University, with support and contribution by all partners.

The general planning for this process is defined in accordance with the revision cycle for deliverables, as outlined in *D1.1. – Quality plan*, with the other dissemination actions plan, as outlined in *D9.1 – Dissemination/Communication plan*, and complies with the indications for promotion, dissemination, protection of results etc., as indicated in the *Grant Agreement* (Articles 27, 28, 29, 38).

3.3.1. Content updating process

As mentioned, SIMUSAFE Web page programming allows updating any content of the pages and applications.

The contents of the website have different levels of durability. Static content is the content envisaged to require none or very few updates during the project life span. Dynamic content is the content

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requiring updates in cycles. These updates are managed through an editorial plan, shared with the partners, that includes also other media (social media, partners' channels etc.).

Content will be updated as soon as new information will become available to the WP leader.

Static content

- *Home page Main header* – Logo of the project, links to social media and mail to, main menu with 1 level to support responsiveness
- *Home page Footer 2* – EU identity and funding reference
- *Legal notice* (for the content of the Legal Notice, please, see section *Terms and conditions*)
- *About*, *Contacts* and *Partners slider* (*Home page Footer 1*) are updated only in case of major changes in the project that will require new information

Dynamic content

The dynamic content is further categorized in two levels, based on the envisaged updating needs and timeline.

- Regular update, once per month – envisaged for sections *News* and *Events* and *Home page* containers *Slider and key articles*, *Focus section*, *Quick updates and CTA section*
- Periodical update, for key events, milestones, deliverables etc. – envisaged for sections *Project* and *Resources*.

The whole website structure will be reviewed at the end of the first year and at the end of the project, to check that content, structure and organisation are still aligned with the objectives and the general dissemination strategy, as well as to make all resources accessible for sustainability and exploitation after the end of the project.

3.3.2. Editorial process

The editorial process is organised in four main steps: content collection, content selection, verification (validity and quality), editing and publishing (draft for internal revision and publish to the portal for the public). The full editorial process, including all the dissemination tools and media, is defined in *D9.1 – Dissemination/Communication plan*.

In line with the dissemination plan and strategy, Coventry University will put in place a mechanism to both prompt and allow partners to share relevant content and update the editorial plan.

Content can be generated by all project partners. Project wide content will be circulated to all WP leaders for review, while WP specific content will be circulated to the associated WP leaders for review. Partner comments and suggestions will be incorporated in a second version and circulated for final review if necessary, before being published on the website.

Beyond the project's deliverables and scientific articles and papers, which follow the quality plan indications, the dissemination plan envisages the collection of the following types of content, to be included in the website editorial plan:

- News about project's activities and other relevant content related to transport, simulators, behavioural aspects, – All partners, including Coventry University project team
- Updates on Resources and deliverables – Work package leaders

Final versions of deliverables, publications, presentations and other relevant material will be published without further editorial process. Once the information is shared by the partners and by the content team at Coventry University, project manager and communication officer/s proceed to:

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- Select (if needed) and organise the content in the editorial plan, for website and other media
- Prepare and publish the content on the website and link to other versions in other media
- On regular basis, inform the partners, also sharing the content to be used in their own channels
- At all steps, quality control is applied considering the general principles of accuracy, impartiality, integrity and independence, fairness, privacy and copyright aspects, accountability. All graphical material (video, pictures) will be checked for copyright and the relevant contributing partner will be asked to sign a copyright form.

3.3.3. Monitoring and analytics

In order to have a better understanding of the impact of the website, we have set up our own PIWIK server (https://piwik.org/) and implemented some additional features in addition to already existing analytics features provided via WordPress.

This tool will be used to assess the usage and reach of the website and to report impact. The data will be monitored every 3 months and used to define and revise communications strategies, if needed, as well as for reporting purpose.

An example (not exhaustive) of relevant analytics monitored are:

- Audience Overview – Sessions, Users and Page Views, by period
- Audience Location – Sessions and Views, by country
- Behaviour Overview – Page Views and Unique Page Views, by period
- Behaviour All Pages – Full metrics, by period and aggregated

3.3.4. Terms and conditions

The website will use standard terms and conditions, as other websites managed by Coventry University. These terms are displayed in a specific page, linked in the footer of the template and therefore displayed in each page (*Legal notice*).

The *Legal Notice* used at EUN includes information and complies with the following aspects:

- Disclaimer on content
- Copyright for information and images
- Use of website Services
- Privacy policy statement (including Cookies, data storage, site security, updates)

The *Legal notice* is periodically revised and updated by Coventry University based on any needed update of related regulations.

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