Toolkit Design and Validation Protocol, KPIs and Plan

D1.12

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NIGHTINGALE

DOCUMENT SUMMARY INFORMATION

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Lead Beneficiary	INTRA		
Authors	Konstantinos Gerakos (INTRA), Sofia Tsekeridou (INTRA), Marta Caviglia (UPO), Hamdi Lamine (UPO), Eric Weinstein (UPO)		
Co-authors	Maurizio Martignano (UCSC), Sabina Magalini (UCSC), Daniele Gui (UCSC), Peter Jones (SAMU), Chaim Rafalowski (MDA), Dimitra Dionysiou (ICCS), Nikos Mitro (ICCS), Katerina Argyri (ICCS), Konstantinos Stavrou (ICCS), Giorgos Hadjipavlis (ICCS), Alberto Garcia Garcia (UPV), Marianela Garcia Lozano (FOI), Marco Manso (PARTICLE), Paco Martinez (DW), Jorge Forcada (DW), Tiago Rocha da Silva (INOV), Zoe Vasileiou (CERTH)		
Reviewers	Bárbara Guerra (PARTICLE), Tiago Rocha da Silva (INOV)		
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HISTORY OF CHANGES

Version	Date	Changes
0.1	05/07/2022	Initial version
0.2	02/08/2022	First draft
0.4	10/09/2022	Second draft
0.6	22/09/2022	Operation KPIs Section
0.8	11/10/2022	Technical KPIs Section
0.9	17/10/2022	Review revisions
1.0	21/10/2021	Final version

PROJECT PARTNERS

No.	Logo	Partner	Short name	Country
1		INSTITUTE OF COMMUNICATION AND COMPUTER SYSTEMS	ICCS	Greece
2		TOTALFORSVARETS FORSKNINGSINSTITUT	FOI	Sweden
3		LEONARDO – SOCIETA PER AZIONI	LDO	Italy
4		C4CONTROLS LTD *[TERMINATED]*	C4C *[TERMINATED]*	UK *[TERMINATED]*
5		NETCOMPANY-INTRASOFT	INTRA	Luxembourg
6		INOV INSTITUTO DE ENGENHARIA DE SISTEMAS E COMPUTADORES, INOVACAO	INOV	Portugal
7		EXUS SOFTWARE MONOPROSOPI ETAIRIA PERIORISMENIS EVTHINIS	EXUS	Greece
8		UNIVERSITAT POLITECNICA DE VALENCIA	UPV	Spain
9		ETHNIKO KENTRO EREVNAS KAI TECHNOLOGIKIS ANAPTYXIS	CERTH	Greece
10		DEVERYWARE	DW	France
11		PARTICLE SUMMARY	PARTICLE	Portugal
12		TREE TECHNOLOGY SA	TREE	Spain
13		EUROPAISCHE GESENLLSCHAFT FUR TRAUMA -UND AKUTCHIRURGIE - ESTES	ESTES	Austria
14		INTERNATIONAL MRMID ASSOSIATION	MRMID	Sweden
15		UNIVERSITA DEGLI STUDI DEL PIEMONTE ORIENTALE AMEDEO AVOGADRO	UPO	Italy
16		ASSISTANCE PUBLIQUE HOPITAUX DE PARIS	APHP-SAMU	France
17		UNIVERSITA CATTOLICA DEL SACRO CUORE	UCSC	Italy
18		MINISTERO DELL' INTERNO	MININT	Italy
19		AZIENDA SANITARIA LOCALE N 2 SAVONESE	ASL2	Italy
20		MAGEN DAVID ADOM IN ISRAEL	MDA	Israel
21		CARR COMMUNICATIONS LIMITED	CCL	Ireland
22		ASSOCIAZIONE CITTADINANZATTIVA ONLUS	CA	Italy
23		INTERDISCIPLINARY CENTER (IDC) HERZLIYA	IDC	Israel
24		ASTRIAL GmbH	ASTRIAL	Germany

LIST OF ABBREVIATIONS

Abbreviation	Definition
AI	Artificial Intelligence
AMP	Advance Medical Post
App	Application
AR	Augmented Reality
CI/CD	Continuous Integration/Continuous Delivery
CCPs	Casualty collecting points
COP	Common Operational Picture
CV	Continuous Validation
DoA	Description of Action
DP	Data Point
ECCs	Emergency Communications Centres
ED	Emergency Department
EMS	Emergency Medical Services
EOCs	Emergency Operation Centres
EU	European Union
ExCom	Exercise Committee
FRs	First Responders
FS	Functional Specification
GA	Grant Agreement
GDPR	General Data Protection Regulation
GPS	Global Positioning System
ICS	Incident Command System
ICU	Intensive Care Unit
IQ	Installation Qualification
IMS	Incident Management System
KPI	Key Performance Indicator
MAPE	Mean Absolute Percentage Error
MCIs	Mass Casualty Incidents
NIT-MR	Novel Integrated Toolkit for Emergency Medical Response

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OT	Operation Theatres
PSAPs	Public Safety Answering Points
Public G&A	Public Governance & Administration
QCom	Quality Committee
RFIDs	Radio Frequency Identification
TCCC	Tactical Combat Casualty Care
TECC	Tactical Emergency Casualty Care
TEMS	Tactical Emergency Medical Support
UAB	User Advisory Board
UAV	Unmanned Aerial Vehicle
UC	Use Case
URS	User Requirement Specifications

Executive Summary

NIGHTINGALE is a European Union (EU) project co-funded by the H2020 research and innovation programme. NIGHTINGALE will develop, integrate, test, deploy, demonstrate, and validate a Novel Integrated Toolkit for Emergency Medical Response (NIT-MR) which ensures an upgrade to Prehospital life support and Triage. This will comprise a multitude of tools, services and applications required for: 1) upgrading evaluation of injured and affected population and handle casualties (Triage) by offering them the means to perform digital identification, allow traceability, support fast diagnosis and prognosis and continuous monitoring and enable accurate classification of medical condition; 2) optimising pre-hospital life support and damage control through AI-based tracking, tracing, routing and utilisation enhancements of assets, resources and capacities as well as enabling continuous monitoring and correlation of vital signs and actions; 3) allowing shared response across emergency medical services, non-medical civil protection personnel, volunteers and citizens.

This deliverable is part of WP1 "Practitioners Needs & Toolkit Architecture and Design", which aims to link the project research and technology group with the end users of the NIGHTINGALE Toolkit, the latter specified under this WP, and other relevant stakeholders. According to T1.7-" User and Technical Validation Protocol, KPIs and Plan", deliverable D1.12 aims to report overall design, validation protocol Key Performance Indicators (KPIs) and plan towards developments and laboratory testing. Based on the NIGHTINGALE architecture and the technical specifications of the NIGHTINGALE components in D1.10, a relevant set of KPIs is provided, considering the existing literature. Next, this deliverable provides the user acceptance tests in terms of Use Case (UC)/pilot scenarios and the mapping of the KPIs with specific use cases.

Therefore, based on the above remarks, this deliverable is structured as follows. First, section 1 introduces this deliverable. Section 2 describes the methodological framework used in the context of technical validation. In section 3, the evaluation strategy, and the evaluation framework of the NIGHTINGALE components from the end-users' perspective is provided. Finally, Appendix 1 provides a template for mapping the use cases and KPIs for the validation activities.