



MANAGEMENT COMMITTEE MEETING

Belgrade, April 1st 2016

José Matos – Chair



ESF provides the
COST Office through a
European Commission contract



COST is supported by
the EU Framework
Programme



1. WELCOME

Good afternoon to everybody !

Acknowledgments to Local Organizers and to Metropole Palace Hotel (Belgrade, SB).

Rade Hajdin (UBelgrade)



Snezana Masovic (UBelgrade)



Nikola Tanasic (UBelgrade)



1. WELCOME

Tour de Table / Introduction of new MC members. Those MC members who were not in Geneva, please stand-up and say your first and last name, affiliation and in what WG are you involved.



1. WELCOME

Establishment of Quorum



1. WELCOME

Reimbursement Policies

- In order to be reimbursed you need to receive the e-COST invitation by e-mail and accept it in due time. Otherwise you cannot be reimbursed.
- Then, you need to fill a reimbursement form in e-COST platform. After filling the form, you will have to print, sign and send it to the COST Action TU 1406 secretary (Ms Lara Leite).
- All **originals invoice/ticket** must be sent to the secretary by e-mail or, in case of some original tickets without e-version, mailed to University of Minho, Grant Holder (Ms. Lara Leite), within **10 calendar days**.
- Use the following address for sending the **original invoices/tickets**:

University of Minho
Att/ Ms. Lara Leite
Department of Civil Engineering
Campus Azurém
4800-058 Guimarães
PORTUGAL



1. WELCOME

Reimbursement Policies

- **Eligibility for reimbursement:** Provide your signature in such attendance list, or you are not eligibility for reimbursement.
- **Accommodation:** Flat rate: 120€ /per night + The number of nights to be reimbursed are equal to the attending meeting days plus one.
- **Meals:** Flat rate: 20€ /per person/per eligible meal + Meals provided by LOS are deducted from the number of meals to be reimbursed.
- **Airplane, Train or Bus, Car and Ferry:** Maximum: EUR 1 200 + Only economy class tickets are eligible for reimbursement + In the applicable case, the participants must submit as a supporting document the original ticket and view trip mentioning the name of the passenger, the price, dates of travel, departure and arrival times and the booking class (essentially the full itinerary of the trip) + For Train or Bus, business and economy class tickets are eligible for reimbursement; and supplements for fast trains and sleepers are eligible expenses + Car travel is limited to a maximum distance of 2 000 km and is reimbursed at EUR 0.20 per km.
- **Local transport expenses:** Include any transport costs (including shuttle, buses, trains, metro, tramway, taxis, car costs (up to 2000 km) and parking costs), incurred on the normal route between home and local of event + If the claimed amount is less than EUR 25, no tickets are required + If the claimed amount exceeds EUR 25, receipts justifying the total amount claimed must be provided.

1. WELCOME

The objective of COST is to support networking in a topic of excellence ...



Some REMARKS:

- (i) COST do not support any company promoting activities;
- (ii) In order to be reimbursed you need to receive an e-COST invitation by email and accept it within two weeks. There exist two hypothesis:
 - You are a MC member and you are automatically invited for MC meeting;
 - You are a WG member and you are considered eligible, *according to the criteria previously established by the Core Group*;
- (iii) In case you do not accept the e-COST invitation, your invitation will be automatically cancelled and you will not receive another invitation for the same meeting;
- (iv) For MC members, if you cannot attend, and want to be replaced by your MC substitute, *you should inform the Grant Holder (Ms. Lara Leite) about this by email, in due time as time does not stop (2 weeks)*.

2. ADOPTION of AGENDA

1. Welcome
2. Adoption of agenda
3. Approval of minutes and matters arising of last meeting
4. Update from the Action Chair
 - a. Status of Action, including participating countries
 - b. Action budget status
 - c. STSM status and new applications
5. Promotion of gender balance and Early Stage Researchers (ESR)
6. Update from the Grant Holder
7. Update from the COST Association
8. Follow-up of MoU objectives
 - a. Progress report of working groups
9. Scientific planning
 - a. Scientific strategy
 - b. Action Budget Planning
 - c. Long-term planning (including anticipated locations and dates of future activities)
 - d. Dissemination planning (Publications and outreach activities)
10. Requests for new members
11. Non-COST applications to the Action
12. Any Other Business (AOB)
13. Location and date of next meeting
14. Summary of MC decisions
15. Closing

3. APPROVAL OF MINUTES and MATTERS arising of LAST MEETING

- Geneva meeting minutes were approved by e-voting procedure. They can be uploaded in the following link:

http://www.tu1406.eu/wp-content/uploads/2016/01/TU1406_GEN_Minutes_MC_22_09_2015.pdf

- Matters arising of last meeting ...



Minutes of 2nd MC Meeting



Circle:	MC Members
Date:	22-09-2015
Time:	13:30 CET
Location:	Room 5 CICG, Geneva
Participants:	Listed in Appendix A

Minutes of 2nd MC Meeting – BridgeSpec – 22.09.2015

Topic 1 - Opening by Prof. Dr. José Matos, Chair of the Action (13:30 CET)

- Tour de Table and Establishment of Quorum
- Short Overview of Reimbursement Policies
- Adoption of the Agenda
- Approval of minutes and matters arising of last meeting

3. APPROVAL OF MINUTES and MATTERS arising of LAST MEETING

- An **Advisory Board** from Industry was constituted with the following five colleagues: Poul Linneberg (DK); Niels Peter Hoj (CH); Joao Amado (PT); Giel Klanker (NL); and Ralph Holst (GE). This board will provide recommendations about liaison between COST Action TU 1406 results and industry.
- An email asking for videos contribution from each member was sent and some videos were received with high quality. Then, a selection procedure was developed by **WG6 – Dissemination**, in order to merge the videos into a final video of 5 minutes.
- An email asking for possible liaisons with other groups was sent but only few MC members answered such email. **It will be resent during the month of April 2016 by Ms. Lara Leite**, and the objective is to identify potential liaisons and who will be our contact person.

3. APPROVAL OF MINUTES and MATTERS arising of LAST MEETING

- An email was sent to all MC members asking for contributions in the scope of COST TU 1406. All these contributions will be indicated in the COST TU 1406 report, but it is important not to forget the acknowledgment to COST TU 1406. **This email will be again sent on April 2016 by Ms. Lara Leite.**
- An email asking for interests and participations in research projects was sent to MC members. Now the objective of the **Research & Development Subgroup** is to identify potential calls and inform those who replied about them so that some joint-applications can be prepared. However, there are some restrictions with respect to the COST TU 1406 support letter.
- It is highly recommended that all MC members who are actively participating in ongoing research projects (national or international), related to this Action, or who just receive the notification that their projects were accepted for funding, inform the R&D subgroup leader and the Action Chair, so that their projects can be disseminated at the COST Action website. In order to do so, please send a resume and a representative image of the project.

4. UPDATE FROM ACTION CHAIR

Status of Action including Participating Countries

CSO Approval: 13-11-2014

Start of the Action: 16-04-2015

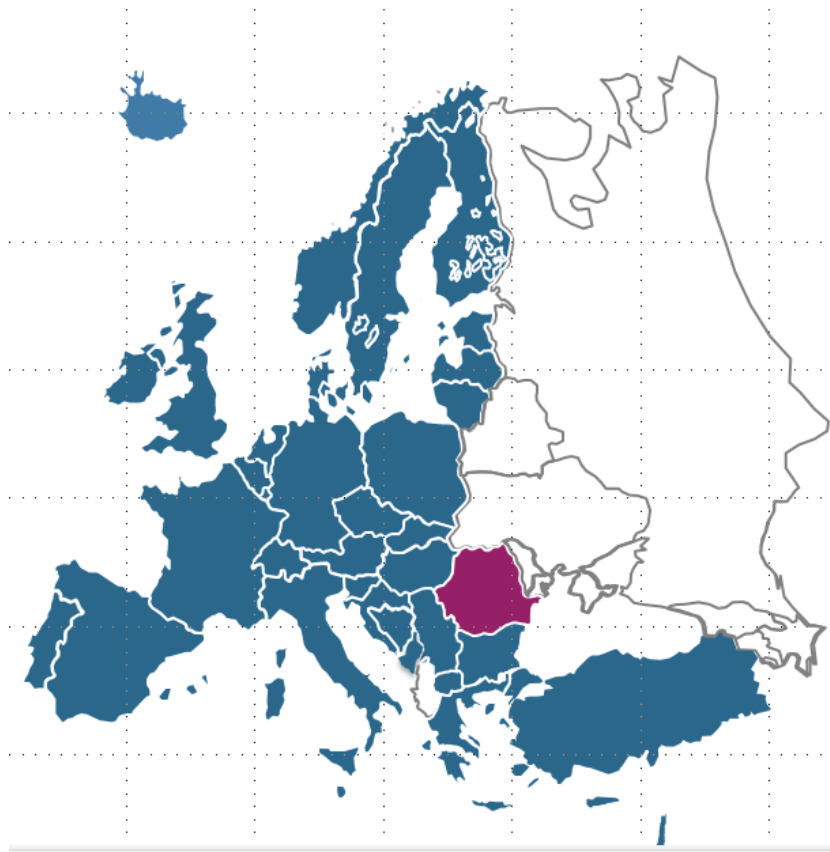
End of Action: 15-04-2019

Total Number of COST countries accepting MoU: **36**

Total Number of COST countries intending to accept MoU: 0

4. UPDATE FROM ACTION CHAIR

Status of Action including Participating Countries



■ Action represented countries

■ Missing Countries

▶ Romania

4. UPDATE FROM ACTION CHAIR

Status of Action including Participating Countries

The main objective of the Action is to

develop a guideline for the establishment of QC plans in roadway bridges

by integrating the most recent knowledge on performance assessment procedures with the adoption of specific goals. This guideline will focus on bridge maintenance and life-cycle performance at two levels: (i) performance indicators, (ii) performance goals.

- ✓ Developing a state-of-art report;
- ✓ Creation of a database;
- ✓ Incorporation of sustainable indicators.

4. UPDATE FROM ACTION CHAIR

Status of Action including Participating Countries

- ✓ (i) Systematize knowledge on QC plans for bridges, which will help to achieve a **state-of-art report that includes performance indicators** and respective goals;
- ✓ (ii) Collect and contribute to up-to-date **knowledge on performance indicators, including technical, environmental, economic and social indicators**;
- (iii) Establish a wide set of quality specifications through the definition of performance goals, aiming to assure an expected performance level;
- (iv) Develop detailed examples for practicing engineers on the assessment of performance indicators as well as in the establishment of performance goals, to be integrated in the developed guideline;

4. UPDATE FROM ACTION CHAIR

Status of Action including Participating Countries



(v) Create a database from COST countries with **performance indicator values** and respective goals, that can be useful for future purposes;



(vi) Develop a **webpage with information about the Action and its participants**, as well as, video-streaming from presentations at training schools, workshops and conferences, e-lectures, **written material (e.g. technical reports)**, etc.;



(vii) **Support the development of technical/scientific committees;**



(viii) Disseminate activities, such as **Short-Term Scientific Missions (STSM)**, training schools and other teaching activities (e.g. e-lectures), for practicing engineers and researchers, **regular workshops**, a conference and **special sessions at international conferences**.

4. UPDATE FROM ACTION CHAIR

Status of Action including Participating Countries

Activity/Months	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48
Meeting	✕		✕	X		X		X		X		X		X		X
Workshop	✕			X				X				X				
Conference																X
Training school								X				X				X
STSM	✕	✕	✕	X	X	X	X	X	X	X	X	X	X	X	X	X
Website	✕			X		X		X		X		X		X		X
Milestone				M1				M2		M3				M4		M5

- MC meeting – ~~3 (GEN, CH)~~, 12 (BEL, SB), 24, 36 and 48 months
- WG meeting – ~~3 (GEN, CH)~~, ~~9 (BUD, HU)~~, 12 (BEL, SB), 18, 24, 30, 36, 42 and 48 months

4. UPDATE FROM ACTION CHAIR

Status of Action including Participating Countries

- An additional WG meeting of COST Action TU 1406 Workshop (*BridgeSpec*) occurred in Budapest (HU), on the 29th January 2016.



4. UPDATE FROM ACTION CHAIR

Status of Action including Participating Countries



WG1 : Performance indicators

Report of Performance Indicators (incorporating new indicators)



WG2: Performance goals

Report of Performance Goals (incorporating new indicators)



WG3: Establishment of a QC plan

European Survey and Recommendations for the Establishment of a QC plan
(with detailed examples for practicing engineers)

WG4: Implementation in a Case Study

Database from Benchmarking (from COST countries)



WG5: Drafting of guideline / recommendations

Guideline for the Establishment of a QC plan

4. UPDATE FROM ACTION CHAIR

Status of Action including Participating Countries

WG		Year 1				Year 2				Year 3				Year 4			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
WG1	Technical indicators	✖	✖	✖	X												
	Environmental indicators	✖	✖	✖	X												
	Other indicators	✖	✖	✖	X												
WG2	Technical goals	✖	✖	✖	X	X	X	X	X								
	Environmental goals	✖	✖	✖	X	X	X	X	X								
	Other goals	✖	✖	✖	X	X	X	X	X								
WG3	Survey of European roadway QC plans	✖	✖	✖	X	X	X										
	Procedures for the establishment of a QC plan							X	X	X	X						
WG4	Selection of case studies							X	X	X							
	Benchmarking										X	X	X	X	X		
	Application on a QC plan											X	X	X	X		
WG5	Standardized performance indicators				X	X	X	X									
	Standardized goals							X	X	X	X						
	Standardized QC plan										X	X	X	X	X	X	X
WG6	Dissemination	✖	✖	✖	X	X	X	X	X	X	X	X	X	X	X	X	X

4. UPDATE FROM ACTION CHAIR

Status of Action including Participating Countries

Activity/Months	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48
Milestone				M1				M2		M3				M4		M5

- ✓ **M1 – Report on performance indicators**
- General description
 - Assessment methods (e.g. visual inspection, non-destructive tests, monitoring systems, etc.)
 - Frequency of assessment
 - Obtained values
 - General recommendations
 - Publication in refereed scientific journal papers (special issue) and in international conferences
 - Workshop at the end of this task (Belgrade, Serbia)
- ✓ **M2 – Report on performance goals**
- Description of technical, environmental, economic and social factors
 - Goals computation methods
 - Frequency assessment
 - General recommendations
 - Publication in refereed scientific journal papers (special issue) and in international conferences
 - Workshop/Training School at the end of this task

4. UPDATE FROM ACTION CHAIR

Status of Action including Participating Countries

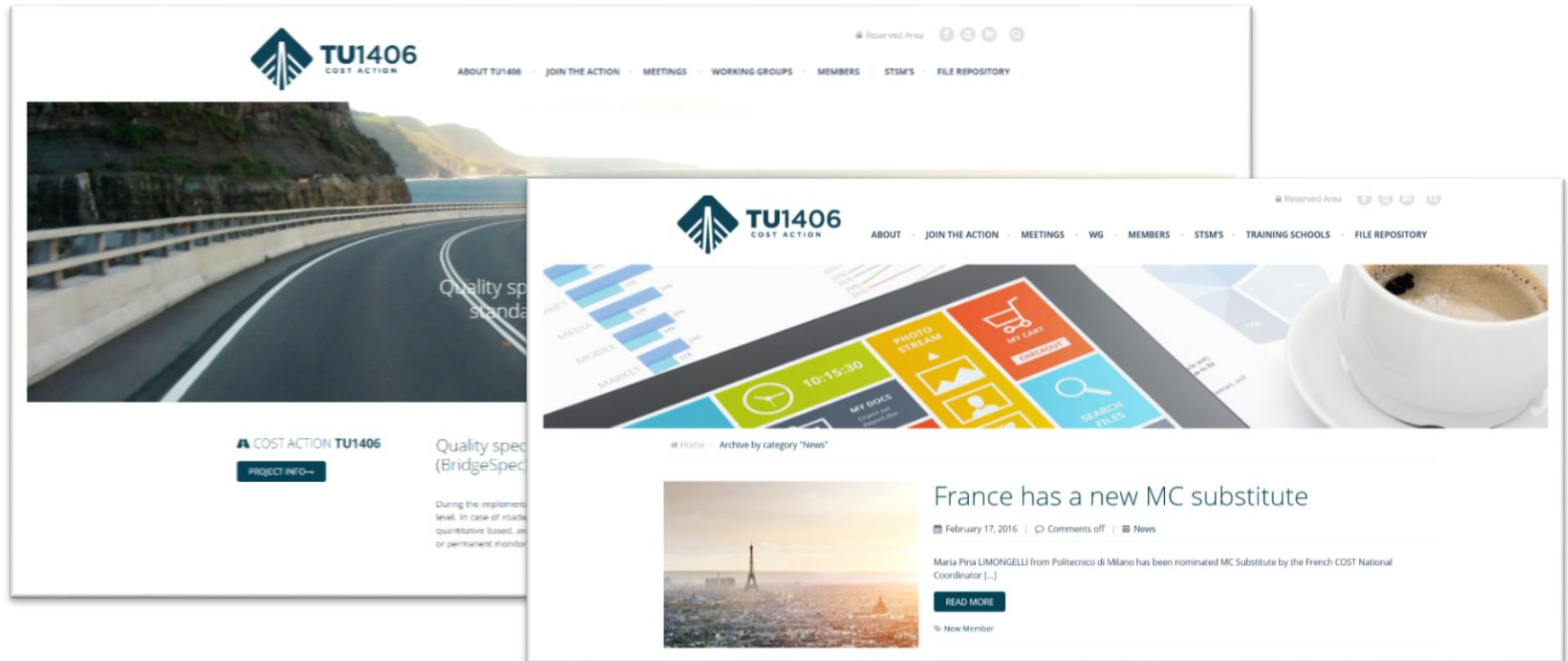
Activity/Months	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48
Milestone				M1				M2		M3				M4		M5

- ✓ **M3 – Recommendations for the establishment of a QC plan**
 - Bayesian nets or other heuristic rules (used worldwide)
 - Establishment of a procedure for the definition of QC plan for each individual bridge/component
 - Publication in refereed scientific journal papers (special issue) and in international conferences
 - Workshop/Training School at the end of year 3
- M4 – Preparation of a database from benchmarking**
 - Obtained results will validate the outcomes of WG1, WG2 and WG3
 - Publication in refereed scientific journal papers (special issue) and in international conferences
 - Conference/Training School at the end of year 4
- ✓ **M5 – Guideline/recommendations**
 - Development of a new guideline for the establishment of QC plans
 - Publication in refereed scientific journal papers (special issue) and in international conferences
 - Conference/Training School at the end of this task

4. UPDATE FROM ACTION CHAIR

Status of Action including Participating Countries

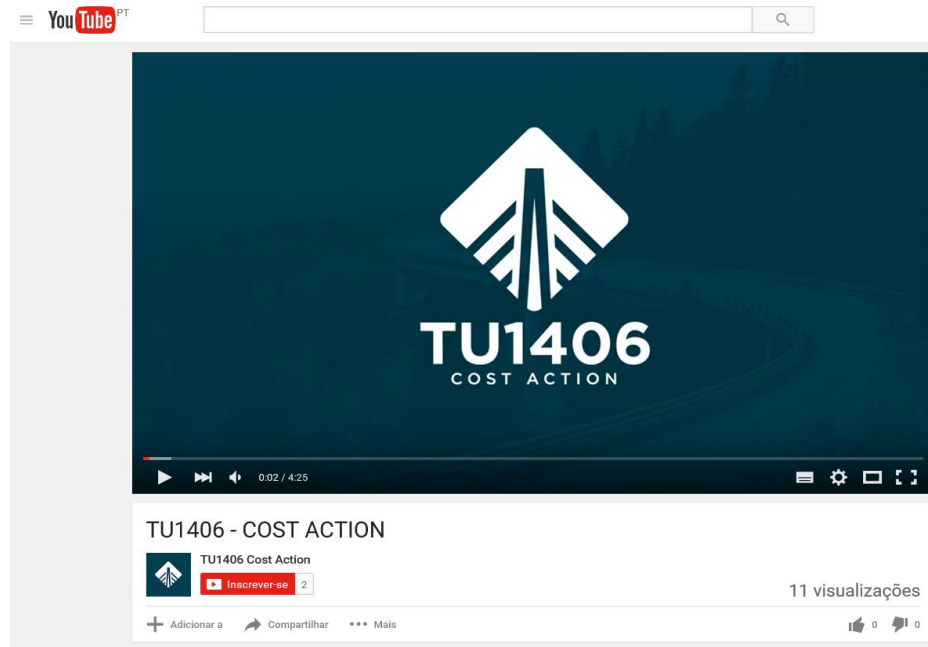
Website Maintenance - www.tu1406.eu



4. UPDATE FROM ACTION CHAIR

Status of Action including Participating Countries

Dissemination Video (special acknowledgment to WG6 – Dissemination)



E-Book from Geneva meeting - <http://e-collection.library.ethz.ch/view/eth:48466>

4. UPDATE FROM ACTION CHAIR

Status of Action including Participating Countries

Activity	Location	Date
SEI/ASCE TC TG2 http://www.sbe16malta.org/	Phoenix (US)	14-17 Feb. 2016 (4D)
SBE16 http://www.sbe16malta.org/	La Valletta (MT)	16-18 Mar 2016 (3D)



2016 GEOTECHNICAL & STRUCTURAL ENGINEERING CONGRESS
PHOENIX, ARIZONA | FEBRUARY 14-17, 2016

FOR SPEAKERS SPONSORS EXHIBITORS

HOME PROGRAM LOCATION ABOUT CONTACT WHY ATTEND REGISTRATION

Europe and the Mediterranean Towards a Sustainable Built Environment

Posted on



4. UPDATE FROM ACTION CHAIR

Action budget status

Initially Predicted

Description	Value
A – COST Networking Tools	
A.1 – Meetings	128.880,00 €
A.2 – Training Schools	0,00 €
A.3 – Short Term Scientific Missions (STSM)	10.000,00 €
A.4 – Dissemination	8.460,00 €
A.5 – OERSA	486,00 €
B – Total Science Expenditure (sum A.1-A.5)	147.826,00 €
C – FSAC (máx. 15% of B)	22.174,00 €
D – Total Expenditure (B + C)	170.000,00 €

4. UPDATE FROM ACTION CHAIR

Action budget status

Situation Point – Dispended Budget

Description	Value
A – COST Networking Tools	
A.1 – Meetings	61.532,21 €
A.2 – Training Schools	0,00 €
A.3 – Short Term Scientific Missions (STSM)	10.920,00 €
A.4 – Dissemination	7.750,00 €
A.5 – OERSA	0,00 €
B – Total Science Expenditure (sum A.1-A.5)	80.202,21 €
C – FSAC (máx. 15% of B)	12.030,33 €
D – Total Expenditure (B + C)	92.232,54 €

4. UPDATE FROM ACTION CHAIR

Action budget status

Situation Point – Remaining Budget

Description	Value
A – COST Networking Tools	
A.1 – Meetings	67.347,79 €
A.2 – Training Schools	0,00 €
A.3 – Short Term Scientific Missions (<u>5xSTSM</u>)	-920,00 €
A.4 – Dissemination	710,00 €
A.5 – OERSA	486,00 €
B – Total Science Expenditure (sum A.1-A.5)	67.137,79 €
C – FSAC (máx. 15% of B)	10.070,67 €
D – Total Expenditure (B + C)	74.087,46 €

Meeting in
Belgrade, SB

WG1 Technical
Report (100
copies; 50
pages)

The core group will meet, after Belgrade meeting, with more reliable data, in order to close the Grant Period, and will inform the MC about any budget reallocation.

4. UPDATE FROM ACTION CHAIR

STSM status and new applications

STSM Applicant	Ciarán Hanley (IR,M)
Home Institution	University College Cork, Dynamical Systems and Risk Laboratory, Civil, Structural and Environmental Engineering, School of Engineering, College Road, Cork, Ireland
Host Institution	University of Minho, Porto, Portugal
STSM proposed start date	07/03/2016 - 28/03/2016
STSM proposed duration	21 days
Basic information	<ul style="list-style-type: none"> • <u>Main subject</u>: Management of bridge structures on national road networks in Ireland and Portugal; • <u>Work plan</u>: <ul style="list-style-type: none"> ➢ Carry out a review of data and data-driven bridge maintenance management methods in Ireland and Portugal; ➢ Define knowledge gaps and opportunities using these data from two countries in terms of more efficient bridge maintenance management; ➢ Define a single piece of work, appropriate methodology and patterns to complete in 2016 using the data from two countries as a demonstration of the method.

4. UPDATE FROM ACTION CHAIR

STSM status and new applications

STSM Applicant	João Fernandes (PT,M)
Home Institution	University of Minho, Portugal
Host Institution	Universitat Politècnica de Catalunya, Department of Civil and Environmental Engineering, Barcelona
STSM proposed start date	29/02/2016 - 1/04/2016
STSM proposed duration	33 days
Basic information	<ul style="list-style-type: none"> • <u>Main subject</u>: Concept of robustness as a bridge performance indicator for the goal of availability; • <u>Work plan</u>: <ul style="list-style-type: none"> ➢ Obtaining of the reliability index of the bridge and then compare with the threshold values of the standards; ➢ Obtaining the robustness index; ➢ Prediction analysis using techniques as Markov Chains, Hidden Markov Chains or Artificial Intelligence techniques.

4. UPDATE FROM ACTION CHAIR

STSM status and new applications

STSM Applicant	Nina Serdar (NO,F)
Home Institution	University of Montenegro, Faculty of Civil Engineering, Cetinjski put bb, 81000 Podgorica
Host Institution	University of Naples Federico II, Corso Umberto I, 40, 80138 Napoli, Italy
STSM proposed start date	22/03/2016 – 29/03/2016
STSM proposed duration	7 days
Basic information	<ul style="list-style-type: none"> • <u>Main subject</u>: Existing codes, regulations and practice in the field of using non-destructive techniques in bridge condition assessment; • <u>Work plan</u>: <ul style="list-style-type: none"> ➤ Gathering information about bridge structural condition assessment and performance prediction models for determine future bridge serviceability and safety condition; ➤ Principal technical performance indicators of bridge structure that are in use in Italian regulations and practice; ➤ Processing and interpretation of results of non-destructive techniques for determine technical indicators; ➤ Bridge maintenance strategies, maintenance planning and criteria for starting maintenance action based on calculated performance indicators.


5. PROMOTION OF GENDER BALANCE AND EARLY STAGE REASEARCHERS (ESR)

COST Policies



5. PROMOTION OF GENDER BALANCE AND EARLY STAGE REASEARCHERS (ESR)

Excellence and Inclusiveness

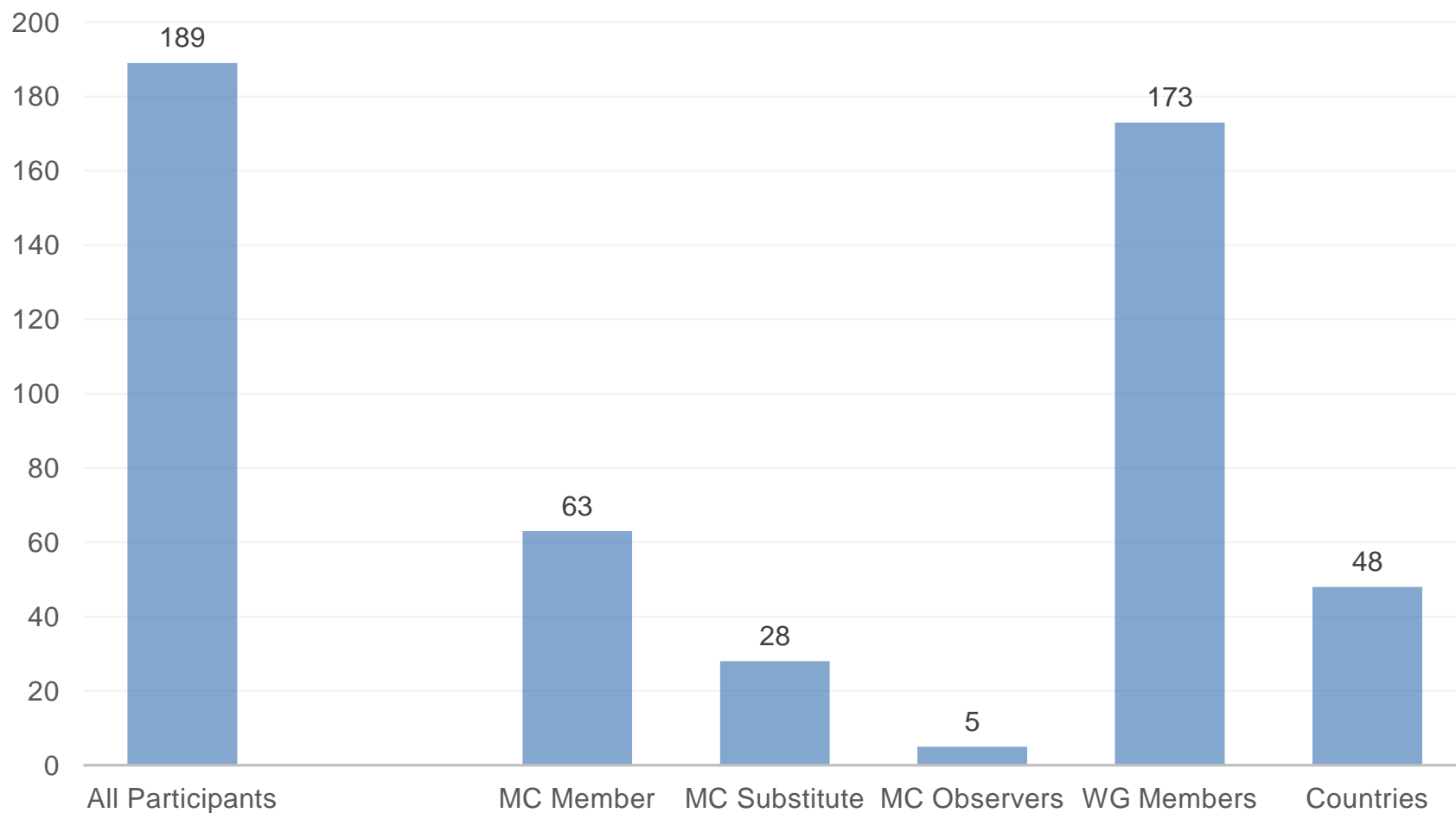
- 
- Gender Balance – An ESR female already used a STSM; Increase the number of female WG members; **Involve more female for the next Workshop (LOS); Invite a female to be a Keynote in the next Workshop (LOS).**



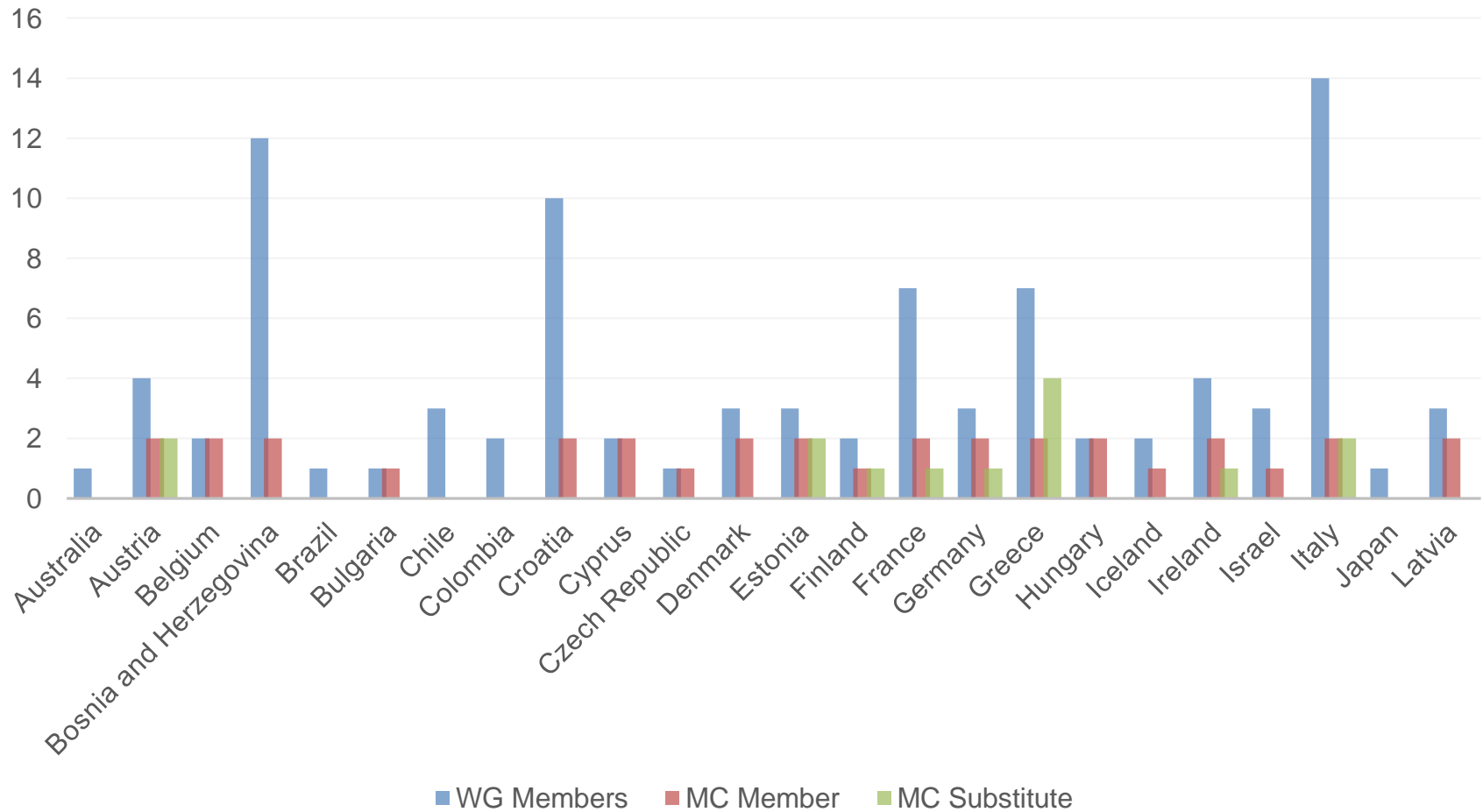
SME & Industry Cooperation

Involve more SME & Industry for the next Workshop (LOS); Invite a SME & Industry to be a keynote in the next Workshop (LOS); Involvement of SME & Industry in joint applications to research projects.

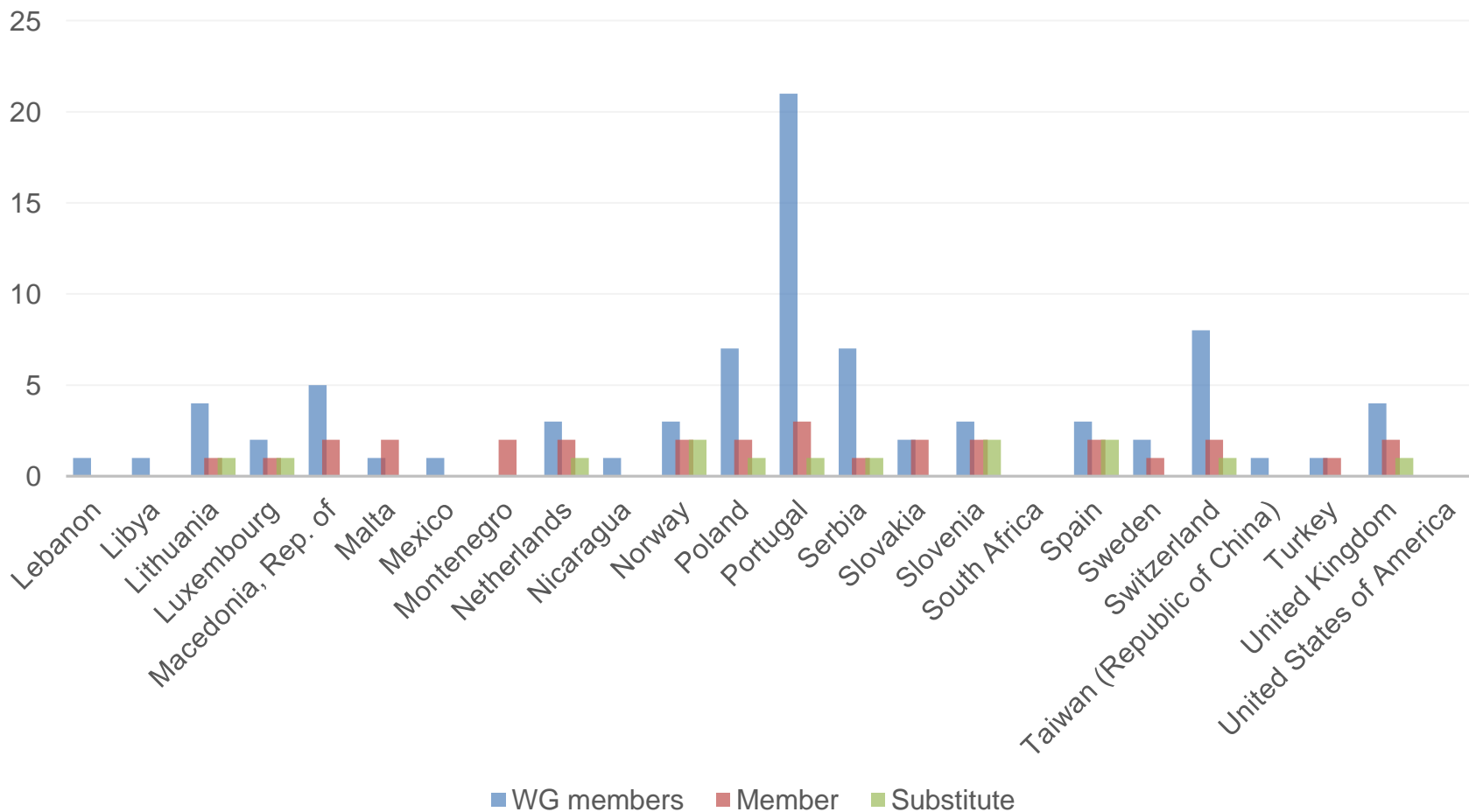
6. UPDATE FROM GRANT HOLDER



6. UPDATE FROM GRANT HOLDER

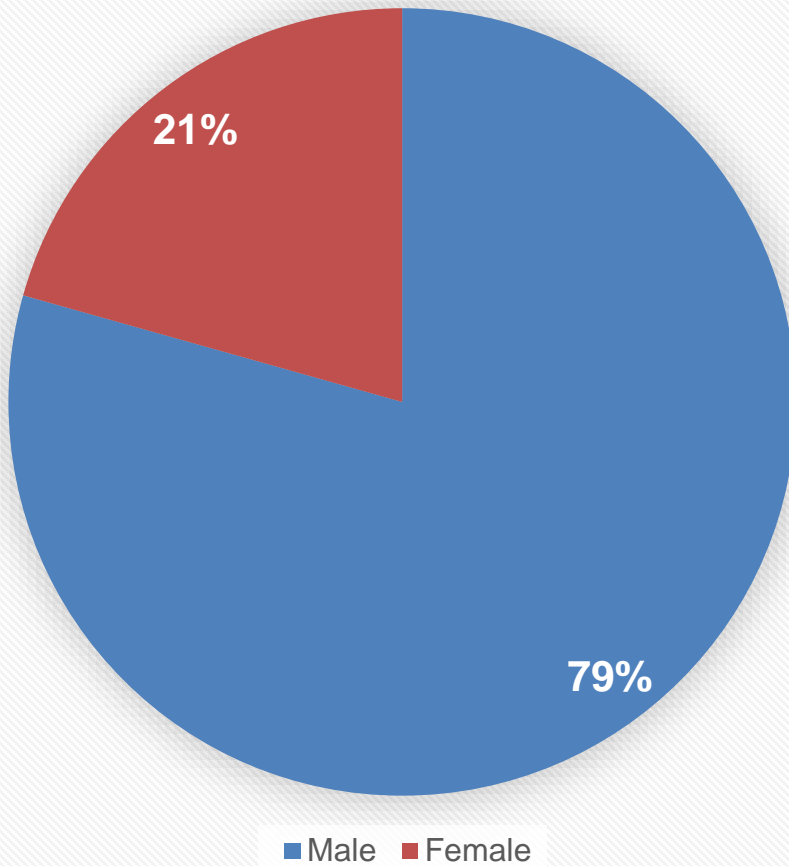


6. UPDATE FROM GRANT HOLDER

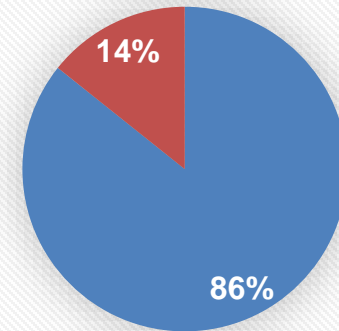


6. UPDATE FROM GRANT HOLDER

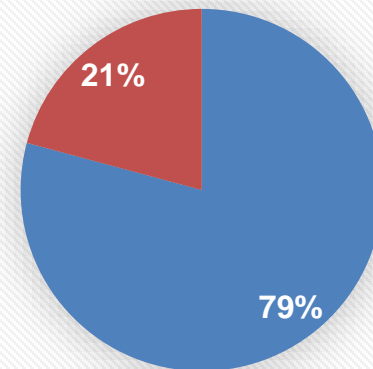
All Members of COST TU1406



MC Members

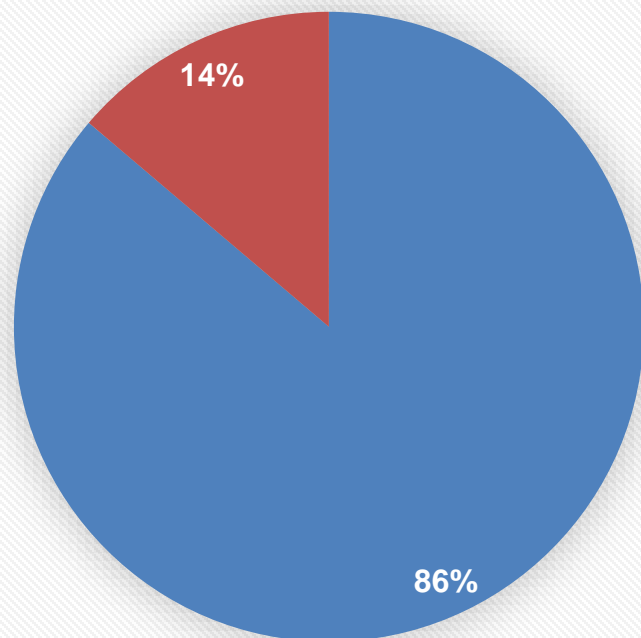


WG Members



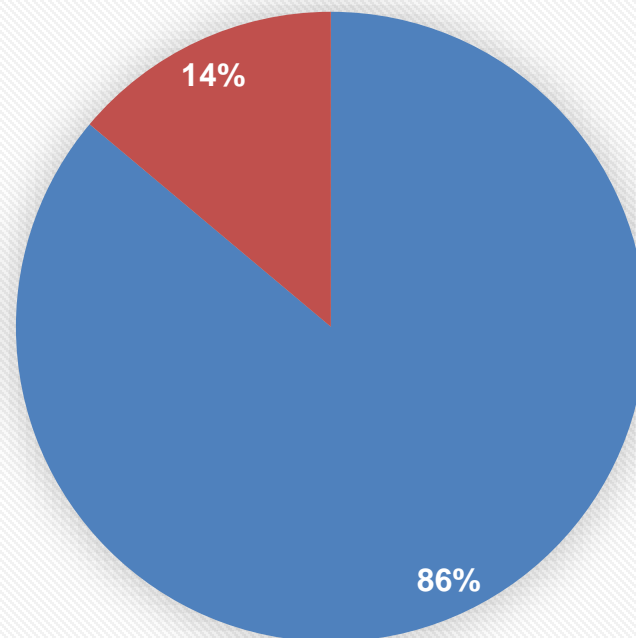
6. UPDATE FROM GRANT HOLDER

Meeting Geneve



■ Male ■ Female

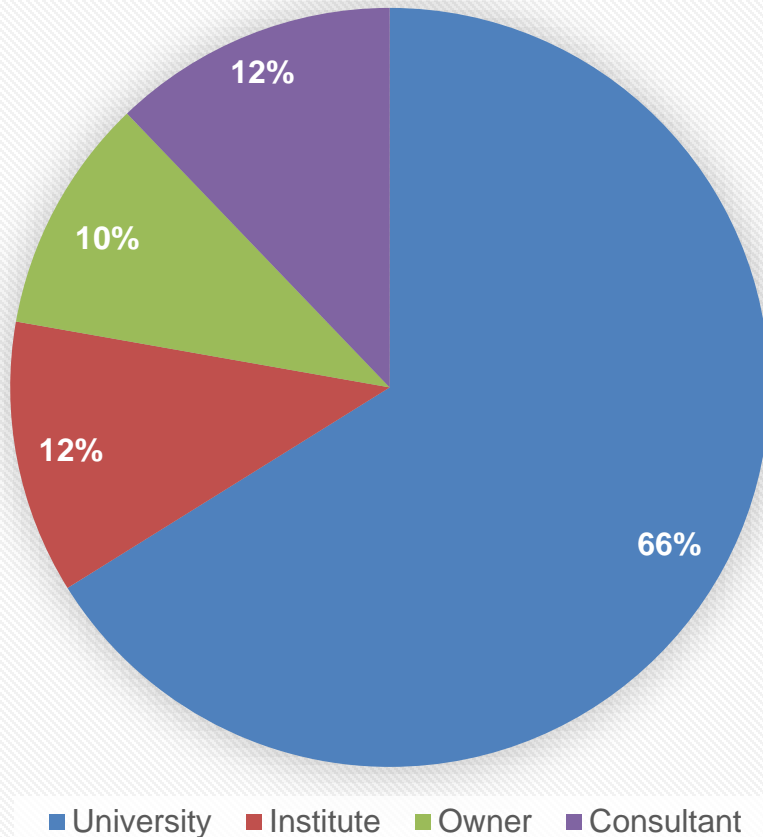
Meeting Budapest



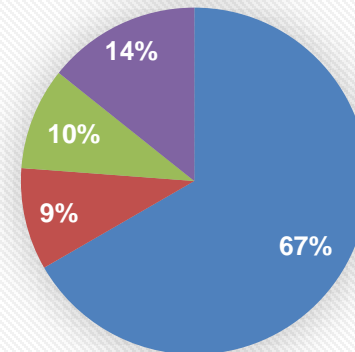
■ Male ■ Female

6. UPDATE FROM GRANT HOLDER

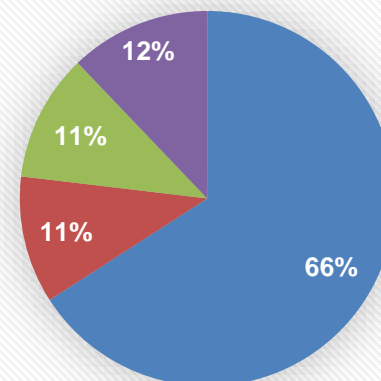
All members of COST TU1406



MC Members



WG Members



7. UPDATE FROM COST ASSOCIATION

- A cut of 20% was performed to COST TU 1406, which means that the overall budget for the 2nd Grant Period is of **141 000 EUR**, instead of 170 000 EUR !
- The COST TU 1406 results will be evaluated remotely by the Rapporteur by the end of 2016. Therefore, **the website should be updated with all reports and other material until then.**

8. FOLLOW-UP OF MoU OBJECTIVES

Progress report of Working Groups



*COST TU1406 KPI
Database
@ www.tu1406.eu*



8. FOLLOW-UP OF MoU OBJECTIVES

Progress report of Working Groups

- It was decided to incorporate information from two document types :
 - *Operator documents*:
 - Actually in use by different Agencies in the form of guidelines or recommendations.
 - *Research documents*:
 - Showing the recent advances in the field by people from Academia and Research Institutes.
- The survey is structured in two important stages:
 - *Screening*:
 - Aims to upload the relevant parts of the document.
 - *Glossary*:
 - With the objective of collecting several terms definition.

8. FOLLOW-UP OF MoU OBJECTIVES

Progress report of Working Groups

- It was decided to nominate in each country several persons with different tasks:
 - *Member of the Management Committee:*
 - Responsible to contact owners and operators of roadway bridges asking for available documents in practice.
 - *Country responsible person:*
 - Screening and processing national operator documents.
 - *) The screening of research documents will be made by *Researchers participating in different WGs.*
 - *Core Group among each WG members:*
 - Preparation of tutorials for the screening of documents and analyze the database to obtain the main results and conclusions.

8. FOLLOW-UP OF MoU OBJECTIVES

Progress report of Working Groups

Countries screening operator documents ...

Bosnia and Herzegovina

Croatia

Czech Republic

Denmark

FYRO Macedonia

Greece

Israel

Netherlands

Portugal

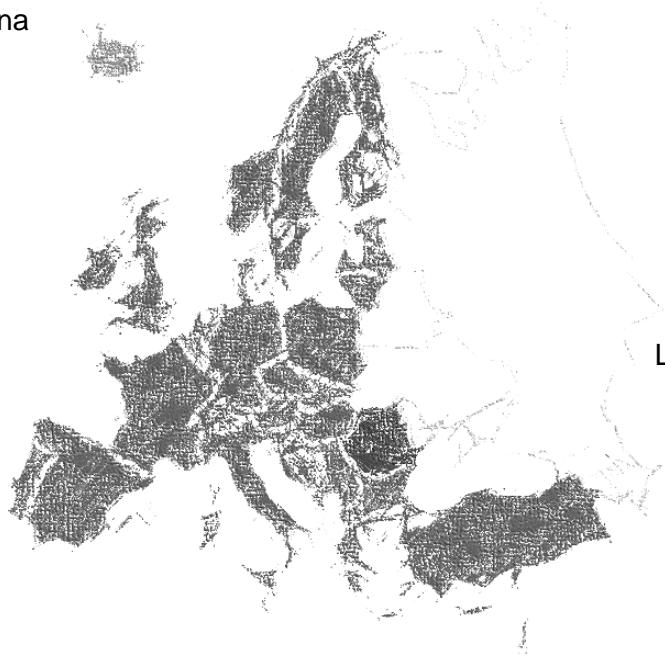
Serbia

Slovakia

Slovenia

Spain

United Kingdom



Austria

Belgium

Estonia

France

Germany

Ireland

Lithuania

Luxembourg

Poland

Switzerland

Bulgaria

Finland

Hungary

Iceland

Italy

Latvia

Malta

Montenegro

Norway

Sweden

Turkey

Romania

8. FOLLOW-UP OF MoU OBJECTIVES

Progress report of Working Groups

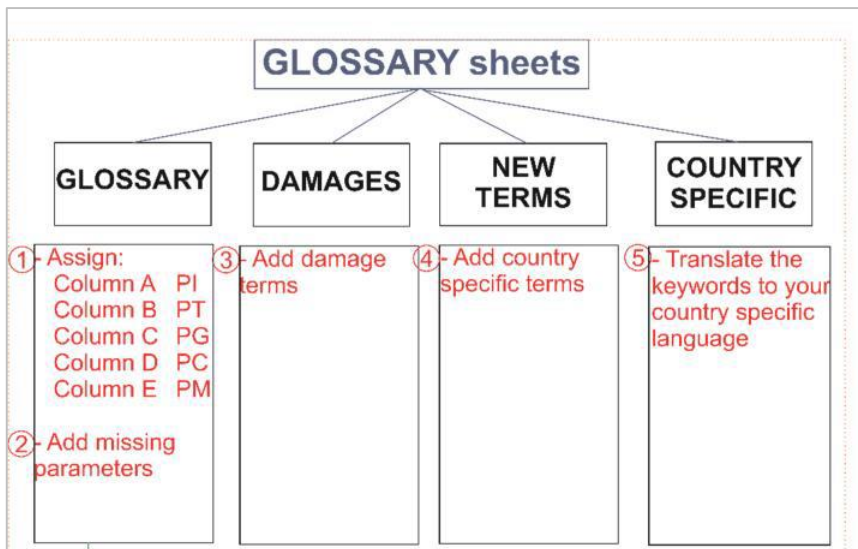
List of screened documents

Country	Document	Doc. Type	Author	Year
Slovenia	Bridge condition assessment	Evaluation	Žnidarič, Terčelj, Marolt	1990
	Damage types numerical evaluation	Evaluation	Žnidarič et al.	1992
	Expansion joints inspection report	Inspection	?	2005
Spain	Guía para la realización de inspecciones principales de obras de paso en el Rinspección	Inspection	Ministerio de Fomento	2012
	Guía para la redacción			
Country	Document	Doc. Type	Author	Year
Switzerland	ASTRA 82001 - Überprüfungen	Inspection	Vejdirektoratet	2014
	ASTRA 12002 - Überprüfungen	Evaluation	Vejdirektoratet	2015
	ASTRA 12010 - Massnahmen	Evaluation	Vejdirektoratet	2004
FYRO Macedonia	Roolbook for technical inspection of culverts and bridges on road network	Inspection	Republic Agency for Roads	2003
	ASTRA 12011 - Fahrplan			
	ASTRA 12009 - Oberfläch			
Greece	ASTRA 19003 - Management			
	ASTRA 62014 - KUBA			
	SIA Norm 269 - Grund			
United Kingdom	ADDENDUM TO CSS G			
Country	Document	Doc. Type	Author	Year
Austria	Quality Assurance for Structural Maintenance - Suveillance, Checking and As	Inspection	BMVIT	2011
Bosnia and Herz.	ZAKON O CESTAMA FEDERACIJE BOSNE I HERCEGOVINE / LAW ON ROADS OF	Inspection	Parlament Federacije BiH / Federation Parli	2010
	Odluka o kategorizaciji cesta u autoceste i brze ceste, magistralne ceste i re	Inspection	Vlada FBiH / Government of FBiH	2014
	Pravilnik o održavanju javnih cesta / Regulations the maintenance of public	Inspection	Federalnom ministarstvu prometa i komun	2010
	SMJERNICE ZA PROJEKTOVANJE, GRADENJE, ODRŽAVANJE I NADZOR NA CES	Inspection	RS-FB&H/3CS – DDC	2005
	UPUTSTVO ZA INSPEKTORE MOSTOVA / INSTRUCTIONS FOR INSPECTORS OF	Evaluation	BCEOM Societe Francaise D'Ingenere	2004
	MOSTOVI / BRIDGES	Research	Prof. Boris Koboević, Prof. Bisera Kara	1994
	Inspektorski formular za pregled mosta / The inspection form for an overvie	Inspection	Prof. Bisera Karalić-Hromić	2004
Croatia	Handbook of damages on bridge elements	Evaluation	Hrvatske ceste d.o.o., dr.sc. Danijel Tenžera	2014
	Guidelines for bridge inspections	Inspection	Hrvatske ceste d.o.o.	2014
	HRMOS manual – Bridge management	Inspection	Hrvatske ceste d.o.o.	1999
	HRMOS manual – Bridge management – General bridge inspection	Inspection	Hrvatske ceste d.o.o.	1999
	Handbook of damages on bridges	Inspection/evaluation	Hrvatske Autoceste d.o.o.	2010
	Guideline for bridge evaluation	Evaluation	Hrvatske Autoceste d.o.o.	2010
	Bridge Management Planning	Background document	Hrvatske Autoceste d.o.o.	2008
Czech Republic	ČSN 73 6221 Inspection of road bridges	Inspection	UNMZ Ústav pro technickou normalizaci, me	2011
	ČSN 73 6222 Load capacity of road bridges	Evaluation	UNMZ Ústav pro technickou normalizaci, me	2009
	Catalogue of the bridge damages and defects	Inspection	Pontex spol. s r.o.	2008
	TP72 Diagnostics of road bridges	Inspection	Pontex spol. s r.o.	2008
	TRP201 Measuring and monitoring of the cracks in the concrete bridges	Inspection	CTU in Prague, Klokner institute	2008
	ČSN 73 6209 Load tests of bridges	Evaluation	UNMZ Ústav pro technickou normalizaci, me	1996
	Damages of railway bridges	Inspection	SŽDC TUDC	2009
	Rules for the assessment of the load capacity of railway bridges	Evaluation	SŽDC TUDC	2014
	SŽDC S5 management of bridges(railway)	Inspection	SŽDC TUDC	2012
	TP120 Maintenance, repairs and refurbishment of concrete road bridges	Inspection	Pontex spol. s r.o.	2010
	TP175 Evaluation of the remaining life of concrete road structures	Evaluation	SVUOM s.r.o.	2006
	TP215 The application of the modal analysis for the road bridges evaluation	Evaluation	CTU in Prague, Faculty of civil eng.	2009

8. FOLLOW-UP OF MoU OBJECTIVES

Progress report of Working Groups

Goal: Collecting the terms connected with key performance indicators and goals for roadway bridges across different participating countries.



TUTORIAL

- = provides the explanations of the data surveying procedure and illustrates the process of filling up the database
- = explains how should one use *DATABASE* and *GLOSSARY* files
- = provides examples for screening

An exact Section of the document has been assigned and the new Paragraph:

Document	Quality Assurance for Structural Maintenance Surveillance, Checking and Assessment of Bridges and Tunnels Road Bridges	Add Chapter/Paragraph
Chapter/Paragraph/Section	6.5 Unterbau - 6.5.1 Lagemänge Veränderung der Pfeiler, Widerlager und Flügel	Hide/show Chapter

Figure 6. First example - Austrian document - beginning of the screening

Figure 7 is portraying how the table was fulfilled with the information from the

(a)

6.5 Unterbau
Der Zustand ist zu erheben, zu dokumentieren und zu bewerten.

6.5.1 Lagemänge Veränderung der Pfeiler, Widerlager und Flügel
Werden (Setzungen, Verschiebungen oder Verschiebungen) des Unterbaues festgestellt, sind diese einzumessen, zu protokollieren und ihr Einfluss auf das Bauwerk zu bewerten.
Einer Prüfung der Möglichkeit der Beweglichkeit von Lagern und Fahrbahnübergängen ist diesem Falle besonderes Augenmerk zu widmen.

(b)

Ref.	All Performance Level			Ref. 1		Ref. 2		Ref. 3	
	System	Substructure	Material	Damage State	Seismicity	Damage State	Seismicity	Damage State	Seismicity
+	Sub_System	All Bridge types	Substructure	Damage State	Seismicity	Damage State	Seismicity	Damage State	Seismicity
+	Sub_System	All Bridge types	Substructure	Damage State	Seismicity	Damage State	Seismicity	Damage State	Seismicity
+	Sub_System	All Bridge types	Substructure	Damage State	Seismicity	Damage State	Seismicity	Damage State	Seismicity

Test scenarios for each of the sub-areas

8. FOLLOW-UP OF MoU OBJECTIVES

Progress report of Working Groups

Performance Indicator	Performance Threshold	Performance Goal	Performance Criteria	Performance Method	Begriff (Deutsch)	Term (English)	Source	Definition	Source	Keywords	Projekt Relevance
X					Abnutzung	Wearout		Degradation of external coatings caused by chemical and/or physical processes.	[DIN 31051]	Building conservation	FE 15.0510 (Schädigungspotenziale)
	X				Abnutzungsgrenze	Wearout Limit		The accepted or specified minimum value of degradation levels.	[DIN 31051]	Building conservation	
					Abnutzungsprognose	Wearout Prognosis		Assessment of the service behavior of a Component (Unit), at the aim to predict future demand requirements on the basis of the known or assumed loads, starting from an actual state of the Component.	[DIN 31051]	Building conservation	
	X	X			Abnutzungsvorrat	Wearout Reserve		Stock of the possible function executions under specified conditions, of a unit due to the manufacture, repair or inherent improvement.	[DIN 31051]	Building conservation	
					Abschnitt (ASB)	Section / Segment		As a section directed part of the road network is called, which lies between two consecutive nodes. It is limited by the conditions laid down in the network nodes.	[ASBNetzdaten]	Transportation and Transportation Infrastructures	
					Adaption	Adaption		In the art "adaptation" means the ability of a mechanical or electrical system, to respond intelligently and adapt (Adaptive Systems). The adaptation or updating of the status review of a component or structure (system), including any information obtained by a structure, is also referred to as adaptation. In a model adaptation (model updating) the unknown parameters of a model of this structure are calibrated so long until the static or dynamic behavior of the model corresponds to the actual measured on.	[ScKK12, FSTS12]	Modeling	FE 15.0509 (Machbarkeitsstudie) FE 15.0508 (Bewertung)

- Glossary Sheets presents the key concepts, definitions and keywords in relation to key performance indicators (PI), thresholds (PT), goals (PG), criteria (PC) and methods (PM).
- Users should **assign these expression using mark "X" to terms** in Glossary. This characterization in PI, PT, PG, PC and PM is essential information for the Database.
- Country specific terms serves for translation of contents of the sheet Glossary (terms, definitions, keywords ...) to the user's native language.
- Glossary offers a list of terms with **source (reference), definition and keywords**. Users should fill in Glossary parallel with Database while screening their national documents.

8. FOLLOW-UP OF MoU OBJECTIVES

Progress report of Working Groups

List of documents

SURVEY OF PERFORMANCE INDICATORS				
Country		Croatia		
		New Document		
num	Responsible Person	Document	Doc. Type	Author
1	Ana Mandić Ivanković	Handbook of damages on bridge elements	Evaluation	Hrvatske ceste d.o.o., dr.sc. Danijel
2	Ana Mandić Ivanković	Guidelines for bridge inspections	Inspection	Hrvatske ceste d.o.o.
3	Ana Mandić Ivanković	HRMOS manual – Bridge management	Inspection	Hrvatske ceste d.o.o.
4	Dominik Skokandić	HRMOS manual – Bridge management – General bridge inspection	Inspection	Hrvatske ceste d.o.o.
5	Dominik Skokandić	Handbook of damages on bridges	Inspection/evaluation	Hrvatske Autocestete d.o.o.
6	Ana Mandić Ivanković	Guideline for bridge evaluation	Evaluation	Hrvatske Autocestete d.o.o.
7	Ana Mandić Ivanković	Bridge Management Planning	Background document	Hrvatske Autocestete d.o.o.
8				
9				
10				
11				
12				

Example of Croatia

Handbook of damages on bridge elements

Add Chapter/Paragraph									
Hide/Show Chapter									
Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
B) Damage		C) Performance Indicator/Index			D) Performance Assessment				
type	characteristic	indicator	detection	evaluation	index	threshold	goal	criteria	
Damage_State	Erosion	Damage degree	Direct_Measurement			affected area	Damage Assessment		
Damage_State	Asphalt pavement cracking	Damage degree	Direct_Measurement			crack width	Damage Assessment		
Hide/Show Chapter									
Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
B) Damage		C) Performance Indicator/Index			D) Performance Assessment				
type	characteristic	indicator	detection	evaluation	index	threshold	goal	criteria	
Damage_State	Scour/Erosions	Damage degree	Direct_Measurement			affected area	Damage Assessment		
Damage_State	Abrasion	Damage degree	Direct_Measurement			affected area	Damage Assessment		
Damage_State	Abrasion	Damage degree	Direct_Measurement			affected dep	Damage Assessment		
Damage_State	Settlements	Damage degree	Direct_Measurement			sag (cm)	Damage Assessment		
Damage_State	Degradation	Damage degree	Direct_Measurement			affected area	Damage Assessment		
Damage_State	Spalling	Damage degree	Direct_Measurement			affected area	Damage Assessment		
Damage_State	Spalling	Damage degree	Direct_Measurement			affected dep	Damage Assessment		

8. FOLLOW-UP OF MoU OBJECTIVES

Progress report of Working Groups



Example of Greece

PI, PT, PG, PC and PM for roadway bridges abutments in each specific country.

8. FOLLOW-UP OF MoU OBJECTIVES

Progress report of Working Groups

Damages indicated for RC abutments in different countries

	Au	Be	Bosnia and H	Bu	Croatia	Cy	Cz	Denmark	Est	Fin	Fr	Gr	Ge	Greece	Hu	Ice	Ire	Isr	Ita	Lat	Lit	Lux	Md	Md	Netherlands	No	Po	Portugal	Serbia	Slovakia	Slovenia	Spain	Sw	Sw	Tu	Un
Abrasion		x																																		
Alkali aggregate reaction														x																						
Breaking away					x																															
Cavities																																				
Concrete cover insufficient					x																															
Concrete quality insufficient																																				
Corrosion																																				
Cracks					x			x																												
Cracks - longitudinal														x																						
Cracks - mapping														x																						
Cracks - mapping														x																						
Cracks - skew														x																						
Cracks - transversal														x																						
Cracks - vertical														x																						
Cracks in the bearing beams					x																															
Cracks on the front face of the v					x																															
Debris																																				
Deformation					x																															
Delamination					x									x																						
Deterioration														x																						
Differential rotation														x																						
Displacement														x																						
Displacement - horizontal														x																						
Displacement - vertical														x																						
Drainage deficiency																																				
Efflorescence																																				
Erosion														x																						
Erosion around and under the pi																																				
Erosion in front abutments																																				
Exposed foundations																																				
Exposed reinforcement																																				
Flooding																																				
Formwork residuals																																				
Hydraulic protection deficiency																																				
Joint deficiency																																				
Landslide - transmission embank																																				
Loose stones																																				
Mortar flaking																																				
Move the abutment																																				
Peeling off																																				
Position fixing deficiency																																				
Protection cover deficiency																																				
Reinforcement corrosion																																				
Riverbed protection elements de																																				
Rotation / Leaning																																				
Sag																																				
Scour																																				
Scour under abutment																																				

Example of damages indicated for roadway bridges abutments in all the countries.

Damages indicated for RC abutments in different countries

	Au	Be	Bosnia and H	Bu	Croatia	Cy	Cz	Denmark	Est	Fin	Fr	Gr	Ge	Greece	Hu	Ice	Ire	Isr	Ita	Lat	Lit	Lux	Md	Md	Netherlands	No	Po	Portugal	Serbia	Slovakia	Slovenia	Spain	Sw	Sw	Tu	Un
Scour under abutment																																				
Segregation of concrete					x									x																						
Settlement cracks																																				
Settlements								x																												
Soil Failure																																				
Spalling								x						x																						
Spalling with exposed reinforcement														x																						
Split-off																																				
Stagnant water in abutment in														x																						
Strike					x																															
Subterranean waterflow														x																						
Sulphate action														x																						
Vegetation					x									x																						
Water drainage deficiency														x																						
Water penetrability																																				
Wet spots								x																												

8. FOLLOW-UP OF MoU OBJECTIVES

Progress report of Working Groups

Categorization of Key Performance indicators for roadway bridges

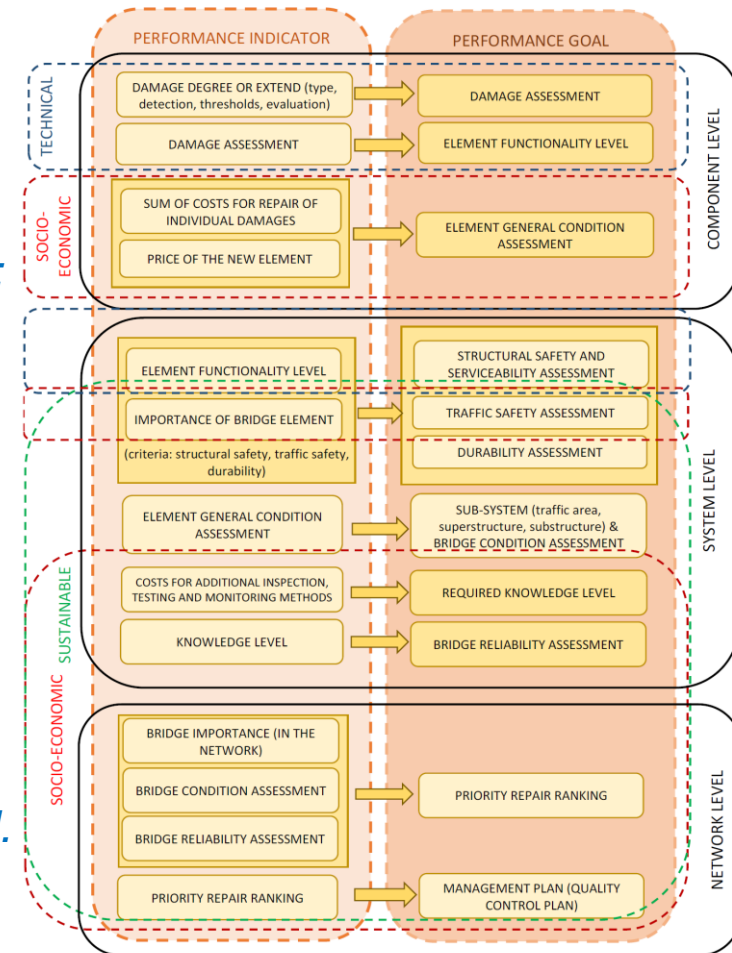
(i) Key Performance indicators at the *component level*:

- Technical indicators.
- Socio-Economic indicators.

(ii) Key Performance indicators at the *system level*:

- Technical indicators.
- Socio-Economic indicators.
- Sustainable indicators.

(iii) Key Performance indicators at the *networking level*.



8. FOLLOW-UP OF MoU OBJECTIVES

Progress report of Working Groups

SURVEY OF RESEARCH PERFORMANCE INDICATORS

Article	Performance assessment of concrete structures based on probabilistic prediction models and monitoring information
Author	Strauss, Zambon, Vidovic, Grossberger, Bergmeister
Year	2015
Abstract	An efficient evaluation and prediction of time variable mechanical and chemical degradation processes is fundamental requirement for life-cycle analysis as well as for the complete assessment of concrete structures. Important tools and valuable support in these tasks are inspection systems and monitoring methods. Unfortunately, due to their practical feasibility and costs they entail, their utility is limited. Hence, information gathered with inspection and monitoring methods need to be used in the most effective manner possible. The aim of this contribution is to present a framework for performance indicators of concrete structures prone to fatigue, with a theoretical background with selected indicators is presented the methods including inspection and monitoring information with in IABSE Conference – Structural Engineering: Providing Solutions to Geneva, Switzerland
Journal	IABSE Conference – Structural Engineering: Providing Solutions to Geneva, Switzerland
Keywords	life-cycle analysis; performance indicators; probabilistic perfor

SURVEY OF PERFORMANCE INDICATORS

Country	Austria	Add Article
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Performance Indicator	Young modulus
Type of Indicator	Material property
Mathematical Formulation	
Threshold	
Intentions (where to apply)	In order to evaluate the fatigue performance of the critical cross-section
Level of maturity	Research stage
Case study	STRABAG test foundation in Cuxhaven
Performance Indicator	Reliability index
Type of Indicator	Reliability
Mathematical Formulation	
Threshold	
Intentions (where to apply)	In order to evaluate the fatigue performance of the critical cross-section
Level of maturity	Research stage
Case study	STRABAG test foundation in Cuxhaven

	Responsible Person	Article	Author	Year
1	Ivan Zambon	Performance assessment of concrete structures based on probabilistic prediction models and monitoring information	Strauss, Zambon, Vidovic, Grossberger, Bergmeister	2015
2				
3				
4				

References
[1] Zhao, Y.-G., Zhong, W.-Q., Ang, A.H.-S., 2007. Estimating joint failure probability of series structural systems. J. Eng. Mech. 133, 588–596.
[2] Strauss A, Vidovic A, Zambon I, Grossberger H, Bergmeister K. Monitoring information and probabilistic based prediction models for the
[3] Mark, P., Stangenberg, F., Bergmeister, K., Strauss, A., Ahrens, M.A., 2013. Lebensdauerorientierter Entwurf, Konstruktion, Nachrechnung

9. SCIENTIFIC PLANNING

Scientific Strategy

WG		Year 1				Year 2				Year 3				Year 4			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
WG1	Technical indicators	✖	✖	✖	✖												
	Environmental indicators	✖	✖	✖	✖												
	Other indicators	✖	✖	✖	✖												
WG2	Technical goals	✖	✖	✖	✖	✖	✖	✖	✖								
	Environmental goals	✖	✖	✖	✖	✖	✖	✖	✖								
	Other goals	✖	✖	✖	✖	✖	✖	✖	✖								
WG3	Survey of European roadway QC plans	✖	✖	✖	✖	✖	✖										
	Procedures for the establishment of a QC plan							✖	✖	✖	✖						
WG4	Selection of case studies							✖	✖	✖							
	Benchmarking										✖	✖	✖	✖	✖		
	Application on a QC plan											✖	✖	✖	✖		
WG5	Standardized performance indicators				✖	✖	✖	✖									
	Standardized goals							✖	✖	✖	✖						
	Standardized QC plan										✖	✖	✖	✖	✖	✖	✖
WG6	Dissemination	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖

9. SCIENTIFIC PLANNING

Scientific Strategy

- WG1 will finalize their works at the end of the first Grant Period (WG1 Technical Report);
- The WG2 and WG3 will continue with their works, but in a more active way;
- WG5 will start to work in cooperation with WG1, using the developed data for standardization purposes;
- WG6 will run in parallel such as a subgroup.

9. SCIENTIFIC PLANNING

Scientific Strategy

Activity/Months	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48
Milestone				M1				M2		M3				M4		M5



~~M1 – Report on performance indicators~~

- ~~— General description~~
- ~~— Assessment methods (e.g. visual inspection, non-destructive tests, monitoring systems, etc.)~~
- ~~— Frequency of assessment~~
- ~~— Obtained values~~
- ~~— General recommendations~~
- ~~— Publication in refereed scientific journal papers (special issue) and in international conferences~~
- ~~— Workshop at the end of this task (Belgrade, Serbia)~~



M2 – Report on performance goals

- Description of technical, environmental, economic and social factors
- Goals computation methods
- Frequency assessment
- General recommendations
- Publication in refereed scientific journal papers (special issue) and in international conferences
- Workshop/Training School at the end of this task

9. SCIENTIFIC PLANNING

Scientific Strategy

Activity/Months	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48
Milestone				M1				M2		M3				M4		M5

- ✓ **M3 – Recommendations for the establishment of a QC plan**
- Bayesian nets or other heuristic rules (used worldwide)
 - Establishment of a procedure for the definition of QC plan for each individual bridge/component
 - Publication in refereed scientific journal papers (special issue) and in international conferences
 - Workshop/Training School at the end of year 3
- M4 – Preparation of a database from benchmarking**
- Obtained results will validate the outcomes of WG1, WG2 and WG3
 - Publication in refereed scientific journal papers (special issue) and in international conferences
 - Conference/Training School at the end of year 4
- ✓ **M5 – Guideline/recommendations**
- Development of a new guideline for the establishment of QC plans
 - Publication in refereed scientific journal papers (special issue) and in international conferences
 - Conference/Training School at the end of this task

9. SCIENTIFIC PLANNING

Scientific Strategy

WG1 – Key Performance Indicators

Report in Key Performance Indicators, including Operators and Researchers KPI Database:
Predicted date - end of April 2016.

WG2 – Performance Goals

Report in Performance Goals, including Operators and Researchers KPI Database:
Predicted date - end of April 2017.

WG3 – Establishment of a QC Plan

Report in Incorporation of Key Performance Indicators in a QC Plan: **Predicted date - end of April 2017.**

WG5 – Drafting of a guideline / recommendations

Report in Standardization of Key Performance Indicators: **Predicted date - end of December 2016.**

9. SCIENTIFIC PLANNING

Action Budget Planning

Description	Value
A – COST Networking Tools	
A.1 – Meetings	88.150,00 €
<i>A.2 – Training Schools</i>	<i>19.650,00 €</i>
A.3 – Short Term Scientific Missions (4xSTSM)	10.000,00 €
<i>A.4 – Dissemination</i>	<i>4.309,00 €</i>
A.5 – OERSA	500,00 €
B – Total Science Expenditure (sum A.1-A.5)	122.609,00 €
C – FSAC (máx. 15% of B)	18.391,00 €
D – Total Expenditure (B + C)	141.000,00 €

9. SCIENTIFIC PLANNING

Action Budget Planning

- Due to budget constraints COST Association highly recommends for big MC to only develop one MC meeting per year for the other Grant Periods. This was approved in the last MC meeting (MC meeting – 24, 36, 48 months);
- I reinforce that it is highly appreciated a strong coordination at nationwide level for: (i) WG contribution; (ii) MC contribution (inc. voting procedure);
- When possible, **please develop a previous nationwide meeting w/ all involved in MC (member or substitute) to coordinate WG and MC activities;**
- Eventually, in some occasions, you can **nominate only one representative to attend the MC** (that can be either MC member or substitute). In that case, previously inform the Chair of the Action and the Grant Holder (Ms. Lara Leite), within the time frame.

9. SCIENTIFIC PLANNING

Action Budget Planning

- Meetings: (i) WG meeting + Workshop, TNO, Delft, the Netherlands, 20-21 October 2016 (LOS. I. Stipanovic and G. Klanker); (ii) WG & MC meeting + Joint COST TU 1402 / 1406 / IABSE Workshop, University Zagreb, Zagreb, 2-3 March 2017, Croatia (LOS. A. Mandic and A. Kindij); (iii) Core Group meeting, University of Cyprus, Nicosia, Cyprus, 24 March 2017 (LOS. S. Pantazopoulou and D. Charmpis); and (iv) Two dissemination meetings;
- Training School: To be developed in KTH, Stockholm, Sweden, from 12-16 March 2016 (17 March 2016, for technical visits). Grant of 700 EUR for 15 trainees from COST countries and reimbursement for 5 trainers;
- STSM: Predicted 4 STSMs, in WG2 and WG3 scope, with the first call for applications until the **31st May 2016** (second call for end Oct. 2016);
- Dissemination: (i) website maintenance; (ii) COST TU 1406 pins (100 pins); (iii) print more 100 brochures (MC members please ask Ms. Lara Leite for brochures); and (iv) print 100 technical reports w/ 50 pages from WG2.

9. SCIENTIFIC PLANNING

Long Term Planning


Activity	Location	Date	LOS
Integrated Training School IABSE16 - www.iabse.org/stockholm2016/	KTH, Stockholm (SW)	12-16 Sep. 2016 (5D) Technical Visit – 17 Sep. 2016	Mohammed Safi

EVENTS

- Calendar of Events
- National Groups Events
- > Geneva 2015
- > Guangzhou 2016
- > **Stockholm 2016**
 - Organisers Message
 - Call for Papers
 - Committees
 - Scientific Programme
 - > Sponsorship
 - Technical Visits
 - Registration
 - Annual Meetings
 - Accommodation
 - Venue
 - Contact
 - News

19th Congress of IABSE Stockholm 2016

Challenges in Design and Construction of an
Innovative and Sustainable Built Environment
September 21 - 23, 2016



Intersection Kista, Road E4 Stockholm (photo M. Ullen)

Final Invitation ([download pdf](#))

[Download Template for Full Paper](#)

Important Dates:

- Submission of Abstracts (*Extended*): Nov. 30, 2015
- Notification to Authors: (accept/reject) Feb. 10, 2016 (*Extended*)
- **Submission of Full Papers:** **April 15, 2016** (*Extended*)
- Notification to Authors: (accept/reject) May 15, 2016
- Early Bird Registration by: June 15, 2016
- Annual Meetings: Sep. 19-20, 2016
- Congress: Sep. 21-23, 2016

9. SCIENTIFIC PLANNING

Long Term Planning

Activity	Location	Date	LOS
Integrated WG meeting + Workshop IALCCE16 - http://ialcce2016.org/	TNO, Delft (NL)	20-21 Oct. 2016 (2D)	Irina Stipanovic Giel Klanker



Special Session of COST TU 1406

9. SCIENTIFIC PLANNING

Long Term Planning

The WG meeting/Workshop will focus on technical and non-technical bridge performance requirements (WG2), followed by quality control plans (WG3). Therefore we would like to invite COST TU 1406 members to submit short papers related to the following topics: (i) Evaluation of bridge performance (threshold values, requirements, goals); (ii) Technical, sustainability and economic bridge performance; (iii) Lifecycle Assessment; and (iv) Inspection and Maintenance plans.

The proposed manuscripts should be developed with the COST TU 1406 template (provided at www.tu1406.eu) and with the length between 3 and 6 pages. Authors of selected excellent papers will be invited to do oral presentations of their work, being their travel expenditures reimbursed by COST (reimbursement is only applied for authors from COST Countries). The deadline for submission is **1st July 2016**.

9. SCIENTIFIC PLANNING

Long Term Planning

Activity	Location	Date	LOS
Joint COST TU1406 + 1402 + IABSE WC1 Workshop WG & MC meeting	Zagreb University, Zagreb (CR)	2-3 Mar. 2017 (2D)	Ana Mandic Alex Kindij



9. SCIENTIFIC PLANNING

Dissemination Planning

Activity	Location	Date
Dissemination Meeting IABSE 2016 - www.iabse.org/Guangzhou2016/	Guangzhou (CH)	8-11 May 2016 (4D)

EVENTS

- Calendar of Events
- National Groups Events
- > Geneva 2015
- > **Guangzhou 2016**
 - Organisers Message
 - Call for Papers
 - Committees
 - > Technical Programme
 - Young Engineers
 - Technical Visits
 - Registration
 - Sponsors & Exhibitors
 - Accommodation
 - Venue
 - Contact
 - News
- > Stockholm 2016

IABSE Conference Guangzhou 2016 May 8-11, 2016

Bridges and Structures Sustainability - Seeking Intelligent Solutions



Guangzhou Tower

Final Invitation - (download pdf)

Important Dates

Deadline Submission of Abstracts:	June 30, 2015 (<i>Extended</i>)	Notification
Acceptance of Abstracts:	August 20, 2015 (<i>Extended</i>)	
Deadline Submission of Full Papers:	November 30, 2015 (<i>Extended</i>)	Early
Bird Registration until:	March 31, 2016	

YE- Workshop Enrolment until: **April 10, 2016**

This Conference will be a gathering of professional engineers, researchers and public agencies around the world to exchange their ideas and share their experiences on various aspects of sustainable structures and explore the future of intelligent Solutions, especially for design, construction and maintenance of major projects.

Organised by:

- The Chinese Group of IABSE
- Guangzhou University
- Tongji University
- Hong Kong-Zhuhai-Macau Bridge Authority
- Guangdong Provincial Chang Da Highway Engineering Co., Ltd.

9. SCIENTIFIC PLANNING

Dissemination Planning

Activity	Location	Date
Dissemination Meeting IABMAS16 - http://www.iabmas2016.org/	Foz do Iguaçu (BZ)	26-30 Jun. 2016 (5D)



Special Session of COST TU 1406

9. SCIENTIFIC PLANNING

Dissemination Planning

- **e-BOOK.** The Workshop in Belgrade will be the second e-BOOK (with ISBN) of our Action, w/ authorized material;
- **Journal.** The best abstracts / posters / oral presentations, together with main results of WG1, will be invited to a special issue of an ISI Web of Knowledge international journal. The core group, together with WG1 leaders, is working in this issue;
- Other individual participations as dissemination meetings, special session / mini symposium organizations, published documents, etc., even not reimbursed, but related to COST TU 1406, are welcome. Please inform Ms. Lara Leite in order to be included in the technical report.

10. REQUESTS FROM NEW MEMBERS

COST countries

Romania. Some contacts were already established with Romania but, until now, no decision was taken. Any support on this issue is welcome.

NNC countries

We received some applications for WG members from NNC, and a representative of **Lebanon** was in Belgrade meeting.

11. NON-COST APPLICATIONS

IPC countries

We received several applications from International Partner Countries (IPC) for WG members. Namely, countries from Central and South America, and Asia. Missing more countries from North America and Africa. Any support on this issue is welcome.

Today we have with us a MC observer from Chile, representative from Central and South America, Dr. Matias Valenzuela, and a WG member from Chile, Dr. Raul Vasquez.

12. ANY OTHER BUSINESS (AOB)



13. LOCATION AND DATE OF NEXT MEETING

- The next MC meeting will take 1 hour and will be in **Zagreb, Croatia, on the 02-03-2017 (afternoon)**. The workshop will run on the 02-03-2017 and 03-03-2017;
- More information regarding this meeting will be sent soon by email.



See you in Zagreb !

14. SUMMARY OF MC DECISIONS

- **Adoption of Agenda;**
- **Approval of Last Meeting Minutes;**
- **Development of only one MC meeting / year** for the next Grant Periods;
- **Nationwide Coordination** (when more than one MC is involved);
- **Approval of WBP for the 2nd Grant Period.**

15. CLOSING

Thank you for the Support ! Again, I kindly ask you to be active and answer the WG leader requests ... The success of this Action depends on you!



wish you a pleasant stay in Serbia ...

15. CLOSING



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