

COST Action TU1406

Quality specifications for roadway bridges, standardization at a European level

Proposal for a Short Term Scientific Mission

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Host Institution	University of Natural Resources and Life Sciences Gregor-Mendel-Straße 33 1180 Vienna, Austria
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STSM proposed duration	12 (twelve) days

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1. Description of work

1.1. Background

The main objective of COST Action TU1406 is to develop a guideline for the establishment of quality control plans in roadway bridges, focusing on bridge maintenance and life-cycle performance at two levels: performance indicators and performance goals.

Within the work developed by Workgroup 1, each participating country has provided information regarding which performance indicators are used in their national assessment procedures and also how they are used. Additionally, information concerning the interpretation of their meaning was also provided.

Although this data was gathered in a systematic manner, it is scattered through several different files, becoming somewhat difficult to manage.

This information will be soon complemented with the results from the work developed within Workgroup 2 concerning bridge performance goals.

All this data will be the basis for the work of the remaining workgroups, WG3 – Establishment of a quality control plan, WG4 – Implementation in a case study, and WG5 – Guideline draft, in order to obtain the much desired guideline.

1.2. Aims and objectives

This Short Term Scientific Plan aims to develop a repository for the information gathered so far by Workgroup 1. This tool, when combined with the results to be soon obtained by Workgroup 2, will be one of the main tools for the upcoming work to be developed within workgroups 3 and 4.

In order to achieve such goal a structured relational database will be developed and also a user friendly interface.

1.3. Justification for choice of host institution

The choice for the University of Natural Resources and Life Sciences (BOKU), Vienna, Austria, is related to the fact that the information gathered so far was made under the supervision of Professor Alfred Strauss, leader of Work Group 1.

1.4. Summary of the work to be carried out by the applicant at the host institution

The work to be carried out will be:

- Convert the documents structure developed by workgroup 1 in a relational and structured database;
- Populate the repository with all information made available by all participant countries;
- Develop a user friendly interface to present all the mentioned information.

1.5. Foreseen results

The outcome of this STSM will be a software that will interact with the structured relational database containing the information obtained by workgroup 1.

The result of the developed work can be the basis of a broader tool which can be continuously developed and updated by the subsequent workgroups, namely WG2 and WG3.

If this additional work is performed, by the end of COST TU1406 all the data obtained and all the work performed will be translated in an integrated software. This tool can even be the basis for future work related to this thematic.

1.6. Dissemination of results

The obtained results will be disseminated, in first hand, within TU1406, namely to all the members.

When the aim of publishing the guideline is achieved, all the results can be substantiated through the developed software and made available to the general public.

2. Detailed Plan of Activities

To achieve the purpose of the proposed STSM the following activities will be necessary to perform:

- Data analysis – homogenized performance indicators
- Data homogenization – glossary
- Relational database development, considering:
 - WG3 process structure
 - WG3 spider diagram
 - Country specific data
 - European specific data
- User interface development

These STSM will be accomplished according to the subsequent schedule.

Task	1	2	3	4	5	6	7	8	9	10	11	12
Data analysis	X	X	X	X								
Data homogenization			X	X	X	X						
Relational database		X	X	X	X	X	X	X	X			
User interface							X	X	X	X	X	X

3. Benefits to COST Action TU1406

All the obtained results can be substantiated by the developed software, being possible to the guideline target public to have a better insight of all the work done within TU1406.

Additionally, the obtained information and work done can be subject of future analysis and developments, being most beneficially to the thematic in hand.

4. Benefits to the Applicant

The applicant is a representative of a small and medium enterprise to whom will be given the opportunity to have a direct involvement in a COST Action.

This involvement can be translated in a facilitated collaboration with a university – BOKU and also an opportunity to ANSER to grow and benefit from an economic point of view.