



Innovation and Networking for Fatigue and
Reliability Analysis of Structures – Training for
Assessment of Risk



INT ETN Infrastar - Montage

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Coordinated by



Université
Gustave Eiffel

Les points abordés dans la présentation :



et au tout début du projet...

Avant de commencer : InfraStar en 1 slide

Innovation and **N**etworking for **F**atigue and **R**eliability **A**nalysis of **S**tructure – **T**raining for **A**ssessment of **R**isk

- 4 years: 01 May 2016 - 30 April 2020
- Budget: 3 161 113 €



LES ÉTAPES CLEFS en cascade

- Une envie de collaborer au niveau international et une “commande” de la Direction Scientifique de l’ex-Ifsttar
- Cadrage, clef de voûte scientifique
 - **mes** mots clefs : “évaluation non destructive” de “propriétés mécaniques” du “béton”
 - **des** mots clefs d’Infrastar : “évaluation non destructive / surveillance”, “matériau / structure”, “décision”, “béton”

... la fatigue du béton

1^{ère} ÉTAPE CLEF : LE CONSORTIUM

- **noyau dur** autour de 3 Works-Packages **scientifiques**
 - un collègue “interne” par WP
 - le choix des Works-Packages leaders

- 3 WP scientifiques

- WP1: Monitoring and auscultation
- WP2: Structural and action models
- WP3: Reliability approaches for decision-making

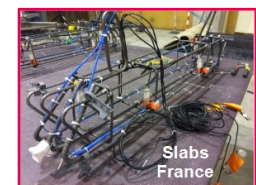


- 4 pays → **un industriel par pays**
 - 4 scientif. + 4 indus. = 8 beneficiaries (8 + 4 thèses)
 - consortium très rapidement consolidé



- + 3 partner organisations

- 2 réunions (12/2011 et 03/2012) à l'Univ. Eiffel (campus MLV)
 - → la fatigue du béton
 - les “**shared object**” pour incarner les collaborations



- Réunions en distanciel
- 03/2013 : 87% 👎
 - **S&T quality : 4.1**
 - The proposed project is focused on a relatively **narrow field** of bridges and wind turbine and foundations.
 - The **interdisciplinary** aspect of the project is rather **low**.
 - **Training : 4.6**
 - The training program in **complementary skills** is not sufficiently detailed.
 - **Implementation 4.1**
 - **Dissemination plans and networking** for Europe policy makers as a whole are not given in detail. The corresponding section has only limited and unstructured information.
 - **Deliverables and milestones** are very **generic**.
 - **Impact : 4.6**
 - **Formal mutual recognition of the secondments** at industrial partners is not addressed.

2ème ÉTAPE CLEF : LA RÉDACTION n°2 (04/2014)

- Aide de l'ex cellule europe du Pres L'UNAM
 - FP7 → H2020 (nouveau template, plus de post-doc)
 - Pb diplomatique avec la Suisse
 - un industriel nous quitte (entrée d'une PME Polonaise)
 - cadrage discussion €
- 07/2014 : 87.6% 🙄
 - **Excellence : 4.4**
 - The scientific and technical description of the **PhD directors from outside** the network is not sufficiently detailed.
 - The proposal does not clearly demonstrate the **experience of non-academic beneficiaries** in supervising PhD research.
 - **Impact : 4.6**
 - The strategy for **dissemination of results** is not sufficiently addressed.
 - The contribution of **outreach activities** to the general public benefit is **limited**.
 - **Implementation 4.0**
 - The **personal career development plan** is **generic** and it does not sufficiently address specific needs of researchers at different levels.
 - **Interdependencies among ESRs** projects are not sufficiently clear.
 - The strategy for **decision-making process** and the **procedure for conflict resolution** are not sufficiently detailed.
 - The risk assessment and the corresponding contingency plan are not convincingly addressed.

2^{ème} ÉTAPE CLEF : LA RÉDACTION n°3 (01/15)

- 04/2015 : 94.4% 🙌
 - **Excellence : 4.7**
 - The **main topics**: fatigue, reliability and economical and societal dimension of civil infrastructures are **not well integrated**.
 - **Impact : 4.7**
 - The potential of providing **new career perspectives in the non academic sector** is not fully convincing.
 - **Implementation 4.8**
 - While well described, almost all scientific **deliverables have deadlines at the end of the project**; there are not sufficient intermediate scientific deliverables that can guarantee a better control of research results during the project.
- 09/2015 : 👍

ET AU TOUT DÉBUT DU PROJET

- Une étape cruciale et une réussite pour Infrastar
 - le recrutement de Hakim FERRIA en tant que **project manager** !



Thank you for your attention

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<https://infrastar.eu/> <https://trainingschool.infrastar.eu/>



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