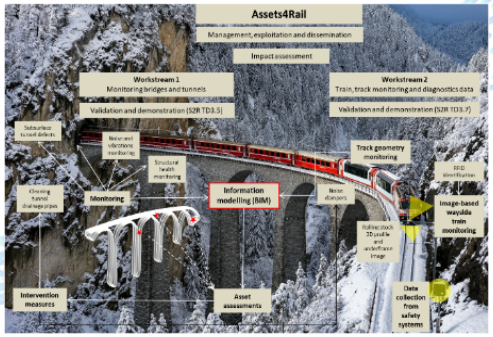
SAPIENZA
UNIVERSITÀ DI ROMA

ASSETS4RAIL

Grant Agreement number: 826250—Assets4Rail—
H2020-S2RJU-2018/H2020-S2RJU-OC-2018

ASSETS4RAIL Students Competition 2020

Update of 15/04/2020



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ASSETS4RAIL Students Competition 2020

FOR WHOM AND WHY

- **Open to Master and PhD enrolled students**
- **Opportunity for young researchers to submit innovative proposals for key research issues considered in EU co-funded project ASSETS4RAIL**
- **ASSETS4RAIL explores, adapts and tests cutting-edge technologies for railway asset monitoring and maintenance**
  http://www.assets4rail.eu/

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RESEARCH TOPICS TO BE ADDRESSED

- **WORKSTREAM 1: improving inspection, maintenance and upgrade methods for cost reduction and quality improvement of railway bridges and tunnels, including noise and vibrations**
  a) **Optimization (costs & technical) of UAV & noise monitoring systems**
  b) **Presentation of sensor data in BIM**
  c) **Fatigue assessment of steel bridges**
  d) **Technical limitations for cleaning of long drainage pipes**
  e) **Noise dampers**

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RESEARCH TOPICS TO BE ADDRESSED

- **WORKSTREAM 2: building a common measuring and monitoring system to elaborate and correlate data from all sources and to obtain a holistic view of systems conditions**
  a) **Computer vision based wayside train monitoring system**
  b) **Sensor system for measuring transversal displacement of the wheel on the rail**
  c) **Monitoring system for switch and crossing**
  d) **Integration of heterogeneous monitoring systems in the maintenance management**

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WHAT TO DO

- To have clear the concerned topics introduced today and published at http://www.assets4rail.eu/
- Preparation of a technical report describing the innovative proposal in a maximum of 36,000 digits, including:
  1) Abstract
  2) Objectives
  3) State-of-the-art
  4) Planned development
  5) Methodological approach
  6) Potential for practical implementations and market intakes
  7) Timing
  8) Competence and economic needs

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HOW TO APPLY

- **Deadline to send documents: 31/07/2020 (postponed due to COVID restrictions)**
- **Documents to send (in pdf version):**
  1) **Technical report (as previously defined)**
  2) **Certificate of enrolment at University**
  3) **Copy of a valid ID**
- **Address to send the documents: luca.rizzetto@uniroma1.it**
- **Communication of results: 30/09/2020**

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FOR THE WINNER

- Diploma recognition signed by the ASSETS4RAIL Board
- Invitation with travel subsidies to present its innovative proposal during the next ASSETS4RAIL Consortium meeting, Ljubljana (Slovenia), Autumn 2020 (postponed due to COVID restrictions)
- Economic award of 500 Euro
- A lot of Glory !!!

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ASSETS4RAIL

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Thank you for your attention!

For further questions please do not hesitate to contact the coordinator:

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