



**HiPeBa**

# High Performance Steel for Safer and more Competitive Safety Barriers

First results on the selection of high performance steels for Road Restraint Systems

The **HIPEBA** project has entered its final stage. As part of its activities the Consortium has carried a series of critical tests assessing and ranking different high performance steel grades for **Road Restraint Systems (RRS)**. To follow the upcoming publications visit our website at [www.hipeba.eu](http://www.hipeba.eu)

The research leading to these results has received funding from the European Union's Research Fund for Coal and Steel (RFCS) research programme under grant agreement N° RFSR-CT-2014-00021.



# The Tests

HIPEBA has performed a series of tests on material behaviour of S500, S700 and S960 steels. The aim was to test and rank the different steel grades based on tensile, strain and formability stress tests. Tests performed included: Hopkinson Bar tests, Nakazima tests, Dynamic tests, Test of bolted unions, Three-point bending tests, and Corrosion tests.

## The Results

The **S500** steel grade **performs slightly better** when compared to the **S355** and **S960** steels.

The **S960** steel grade **performs worse**, mainly due to the **lower impact toughness** and **higher price**.

The **S700** steel grade **ranks halfway** having demonstrated a **lower resistance to brittle failure** and **impact toughness** during the Charpy Impact Test.

## Our Partners

The HIPEBA Consortium has gathered a multi-national group of specialist organisations from the **industry**, **academia** and **research** sectors.

