

## *DeBo - AsBo missions*

### **SIEMENS' EUROSTAR VELARO HIGH-SPEED TRAIN ASSESSMENT**

**Customer:** SIEMENS

**Country:** France and Belgium

**Duration of the project:** 2011-2016

**Staff:** 1 Project Manager and 10 Assessors



#### **PROJECT'S DESCRIPTION:**

- The well-known Velaro Eurostar (E320) is a high-speed train operating at speed of up to 320km/h in France, Belgium and United-Kingdom.
- With a length of 400 meters, the Velaro Eurostar composed of multiple units and 16 cars divided into two eight symmetrical vehicles.
- The train uses a distributed drive concept with 32 driving axles, 4 traction transformers, 6 traction converters and is also prepared for three different voltage levels: 25 kV AC, 1500V DC and 3000V DC.

#### **SCOPE OF WORK:**

So as to run in France and Belgium, Velaro Eurostar had to be compliant with French and Belgian national rules and in this context, CERTIFER closely collaborated with SIEMENS in its ambitious project and acts as French and Belgian Designated Body and also as Assessment Body.

##### **French Designated Body mission (OQA)**

- This DeBo mission concerned the assessment of the rolling stock of the VELARO E and covered the risks identified in the Risk Analysis of the Safety File in accordance with the French decree 2006-1279 amended by the decree 2010-814, order of December 31<sup>st</sup> 2007.

##### **Belgian Designated Body (DeBo) mission**

- Law of 2006/12/19 "Law related to the railway operation safety" ; latest version.
- Order of 2009/11/13 "Royal Order related to the Safety National Regulatory framework".
- Order of 10/07/30 "Ministerial Order related to the application of requirements applicable to Rolling Stocks to use train paths".
- The directive of commission No 2011/18/EU of 1 March 2011 (annex VI chapter 3).
- Relevant national requirements that are not covered by in-force TSIs (open-points, specific cases, or under national rules).

##### **Assessment Body Mission (Common Safety Methods)**

- This mission has been performed in order to assess the compliance with the Common Safety Methods for Risk Evaluation and Assessment according the European Commission regulation No 352/2009 of April, 24<sup>th</sup> 2009.