

PROJECT

## **Railway wheel tread profile wear research under the rail vehicle in operation conditions simulation on the test bench**

### ***Výskum opotrebenia jazdného profilu železničného kolesa simuláciou prevádzkových podmienok jazdy vozidla po koľaji na skúšobnom stave***

**Funding:** National (Slovakia)

**Duration:** Jan 2012 - Dec 2015

**Status:** Complete



#### **Objectives:**

When braking a railway wheel by block brakes in operation, there arises an uneven wearing of the wheel tread and the wheel profile shape change. The new profile created by the uneven wearing causes the change of railway vehicles running properties. The unevenly worn profile leads to the necessity of wheel untimely reprofilation and to the increase of expenses which are connected with it. Brake blocks of different shape made of different materials have a different level of influence on the wheel wearing. Via the research of phenomena when braking by a block brake on the new established RAILBCOT - test stand of rail vehicles brake elements equipped by rotating rail and the possibility of angles of attack and gauge changes, the project studied the influence of the brake block geometry on the braked railway wheel profile shape change. The wheelset is powered from rotating rails via an adhesion binding.

#### **Parent Programmes:**

[VEGA - Scientific Grant Agency](#)

**Institute type:** Research agency

**Institute name:** Scientific Grant Agency

**Funding type:** Public (national/regional/local)

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**STRIA Roadmaps:** Vehicle design and manufacturing

**Transport mode:** Rail transport

**Transport sectors:** Passenger transport, Freight transport

**Geo-spatial type:** Other