

Vertical railroad switches

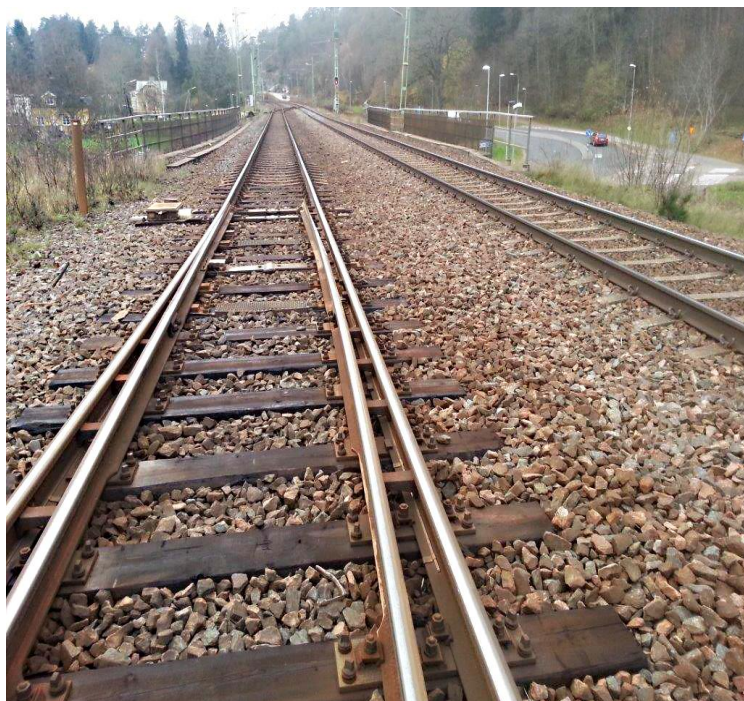
An innovative energy- and cost saving railroad switch



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October 21, 2015 – TBB in Berlinn

The technical problem

Conventional railroad switches are inherently sensitive to snow and ice



Snow and ice frequently blocking horizontal movement

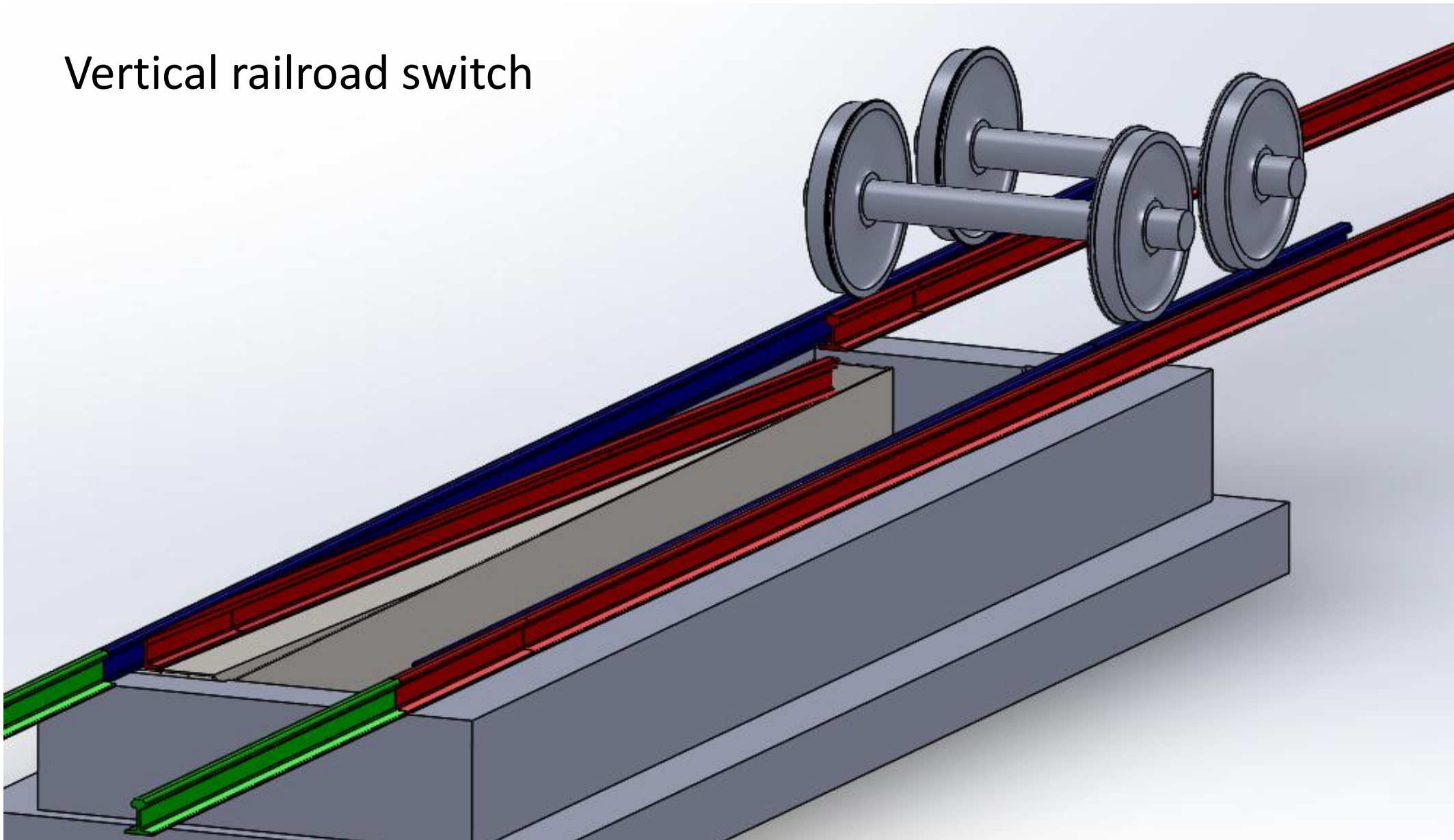
Magnitude of the problem in Sweden

- 12,300 railroad switches.
- 7,000 of these with electrical heating.
- Cost of heating – EUR 6.5 million/year
- Cost for removal of snow and ice from the switches – EUR 3.5 million/year.
- Cost of maintenance of the switches – EUR 38 million/year.
- Huge indirect costs of train traffic delay.



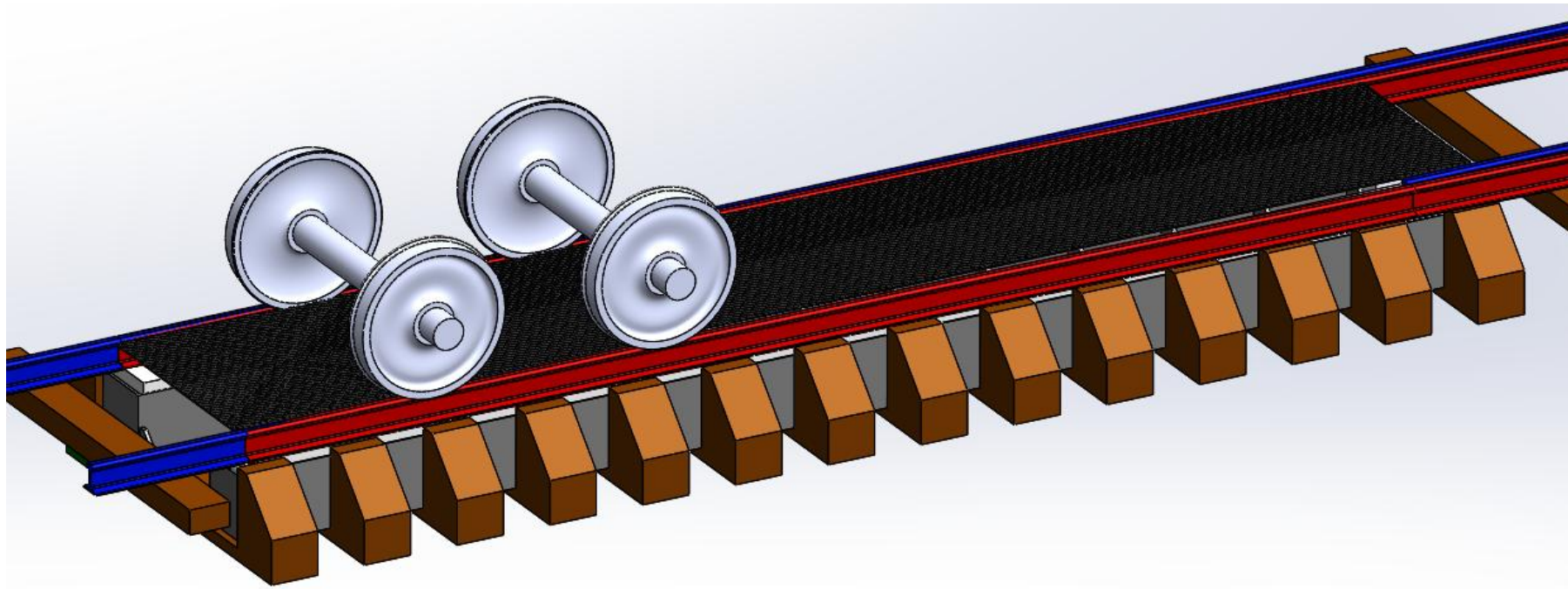
Ve´rtex technical solution

Vertical railroad switch



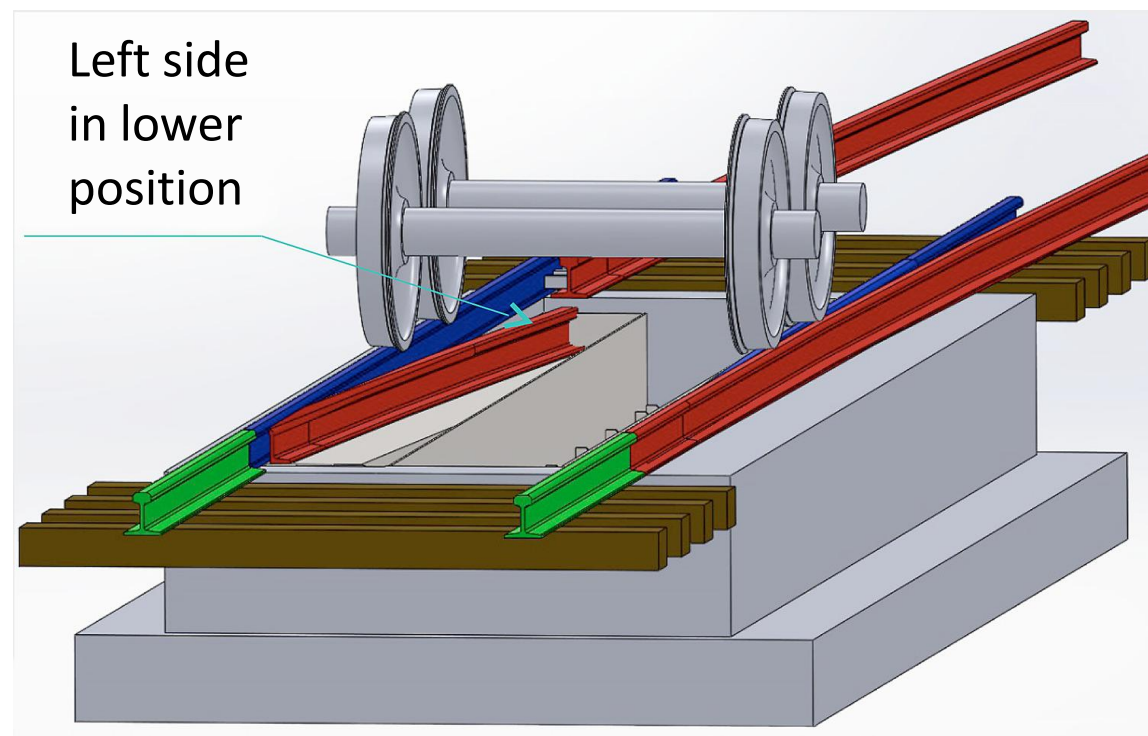
Pros with vertical switch

- Not affected by snow, ice and gravel.
- Capsuled design.
- Ground breaking energy saving.
- Few moving parts.
- Easy access for maintenance.
- Frequent empty run-cycles when not in use.
- Less disturbance in day-to-day traffic.

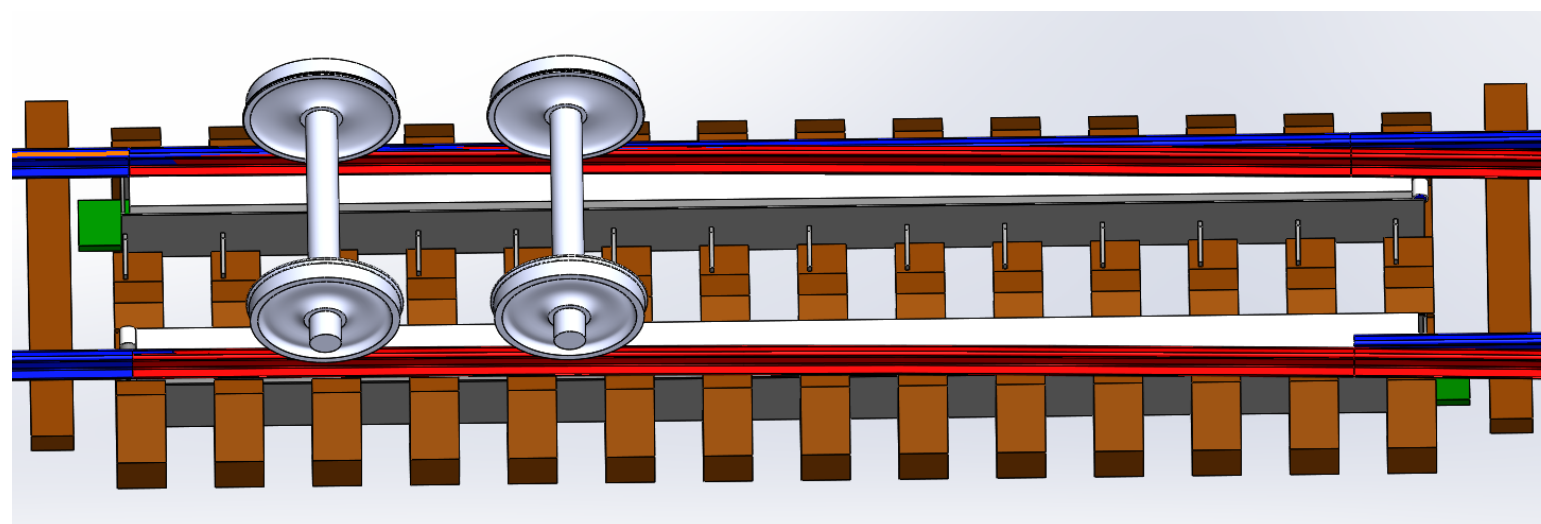
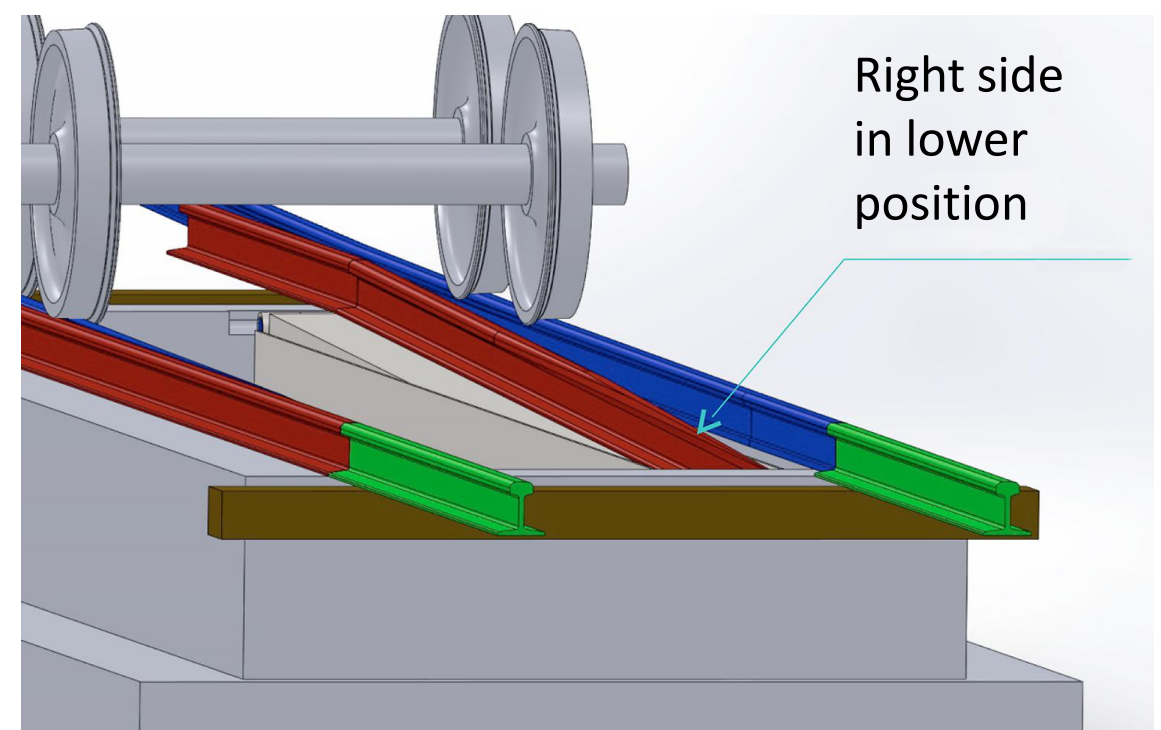


Cases

Case 1 – Forward travel



Case 2 – Turn right




Founding team

Bo Johansson: World Champion and world record holder (**and inventor**) knows how to achieve a goal.



Thank you Any questions?

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