

Erratum to the paper:

“Influence of Varying Vehicle Mass and Aerodynamic Drag on Monetary Energy Savings over the Life Cycle of a High-speed Train”

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Table 4 in the paper shows the simulated change of energy consumption at pantograph level and of recuperated energy for various scenarios of a high-speed train for a mileage of 600,000 km per year. An error occurred at the calculation of the traction current cost savings per year in the last column of the table. The corrected values are displayed in the last column of the table below, surrounded by a black frame.

Scenario		Change of energy consumed at pantograph level	Change of recuperated energy	Change of annual traction current costs (annuities ANN)
v01_02	1 t red.	-10,002 kWh	-2,918 kWh	- 948 €
v02_02	1 t red.	-11,610 kWh	-4,728 kWh	- 999 €
v01_05	0.01 drag red.	-148,068 kWh	7,338 kWh	- 17,882 €
v02_05	0.01 drag red	-72,754 kWh	7,738 kWh	-9,101 €

Table 4: Annual traction energy cost reduction (annuities) for various scenarios. **The values surrounded by the black frame contain corrections.**

Price for consumed traction energy: 11.70 €/Cent, Compensation for recuperated traction energy: 7.61 €/Cent; the annuities are stated at price level 2011.

Figure 5 and Table 5 are displayed below adjusted to the corrected annuities given in Table 4.

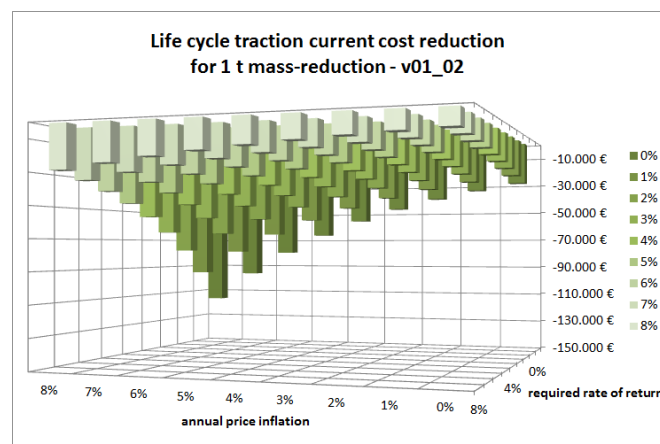


Figure 5: Life-cycle NPV Savings for v01_02.

Monetary saving potential (€)				
Scenario		$r_C = 4\%$	$r_C = 3\%$	$r_C = 2\%$
		$r_I = 1\%$	$r_I = 2\%$	$r_I = 3\%$
		$r = 2.97\%$	$r = 0.98\%$	$r = -0.97\%$
v01_02	1 ton mass reduction at v01	-18,656	-24,540	-33,207
v02_02	1 ton mass reduction at v02	-19,647	-25,844	-34,971
v01_05	1 % drag reduction at v01	-351,852	-462,828	-626,279
v02_05	1 % drag reduction at v02	-179,072	-235,553	-318,740

Table 5: Potential of monetary savings for several scenarios in relation to the real interest rates. **The values surrounded by the black frame contain corrections.**

Having corrected the values the influence of the underlying speed profile on the saving potential becomes less substantial at a mass reduction whereas at an aerodynamic drag reduction the speed's influence remains substantial. The general findings and the conclusion of the paper remain unchanged.