

## Overview of existing pricing components that influence the competitiveness between road and rail freight transport

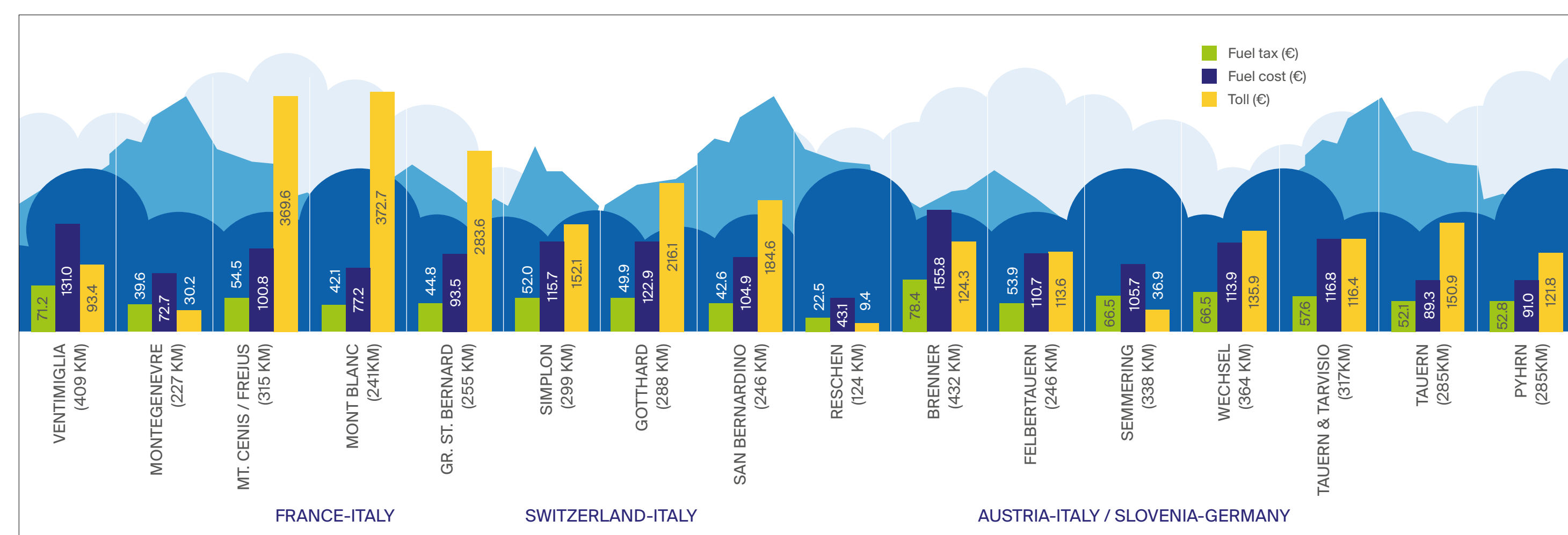
The Alpine regions are particularly sensitive to negative environmental and social impacts caused by the excessive traffic flow of freight and passenger transport through the Alps. In order to tackle this challenge, the **harmonisation and implementation of modal shift policies** is of utmost relevance.

There is generally agreement that **achieving 'fair and efficient pricing'** is a key step in rebalancing the use of different transport modes. However, the way this is turned into practice is far from straightforward.

EUSALP AG4 wants to take an integrated perspective and aims at the development of a comprehensive instrument mix which supports modal shift, **considering pricing components that support a better level playing field between road and rail freight transport and a streamlining of policy approaches (integrated pricing)**. Overall, an integrated pricing approach should lead to a more transparent pricing for road and rail transport and, for both road and rail, should set incentives to pick-up innovative and low-emission technologies.

## Different pricing frameworks for road and rail on the Alpine corridors

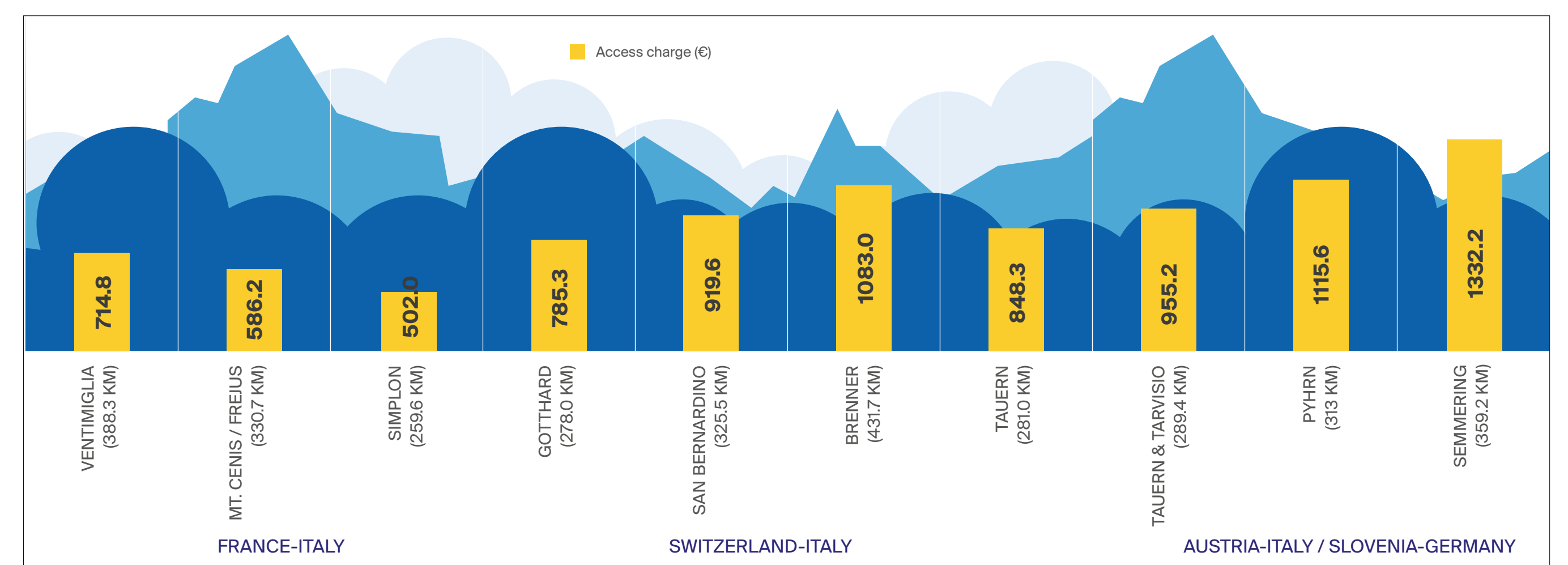
Comparison of cost components for road mode on Alpine transport relations (€/vehicle, excluding VAT)



Fuel costs are inclusive of fuel taxes / Toll is computed for HGV class emission EURO VI driving during the day

The graph shows a comparison of cost components for road mode on Alpine transport relations. The highest tolls are observed for the Mont-Blanc, the Frejus and the Gr. St. Bernard crossing which are due to the high tunnel tolls. If tunnel tolls are not considered, the highest tolls are recorded along the north-south corridors crossing Switzerland.

Comparison of rail access charges on Alpine transport relations

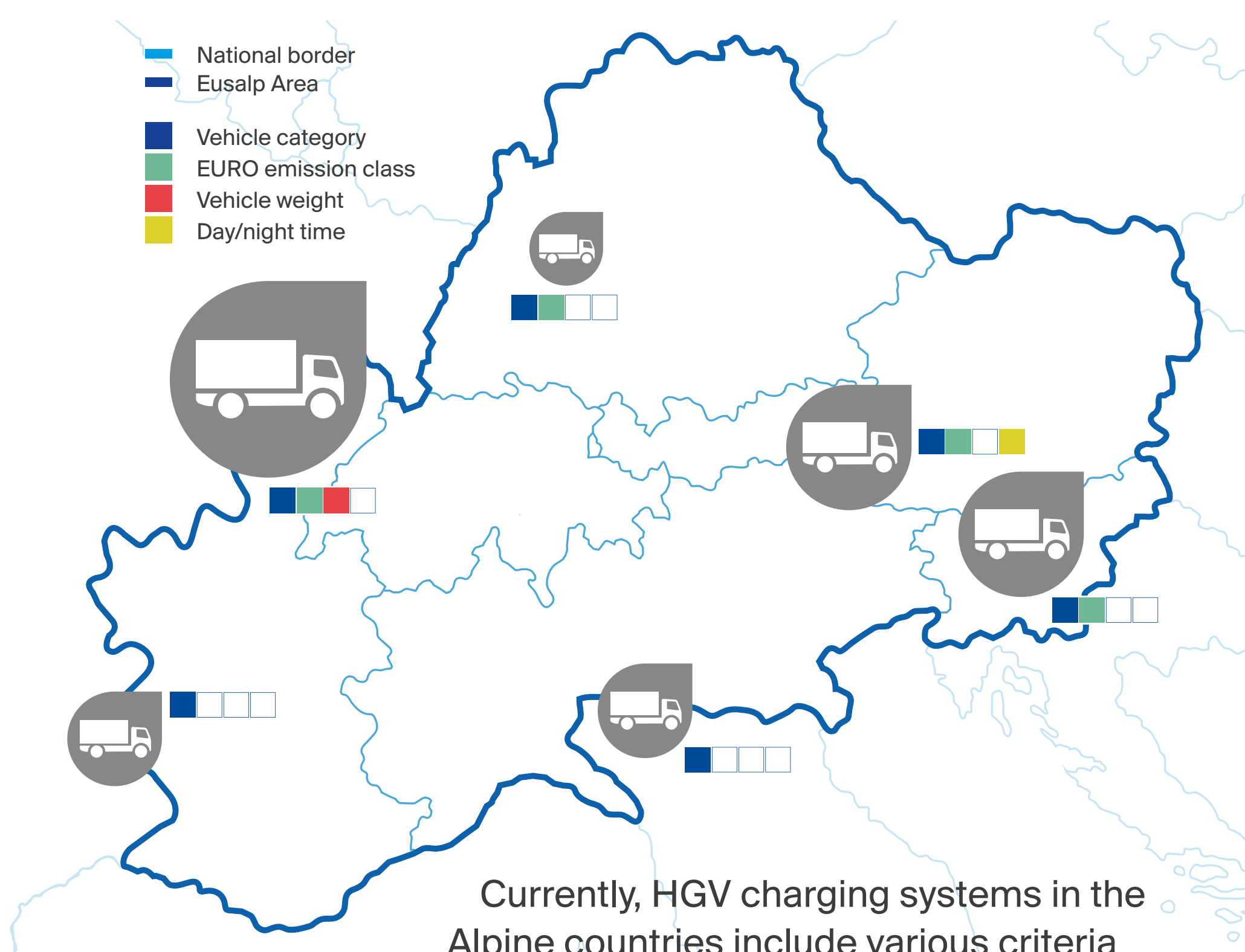


Access charges are inclusive of energy cost

A similar situation with diverging pricing frameworks exists when comparing the total rail access charges on Alpine transport relations. The differences are explained by the different unit cost and the differences in travel distance.

## Differentiation of vehicle charges - incentives for modern Heavy Goods Vehicles (HGV)

Criteria adopted to differentiate tolls in the EUSALP Countries

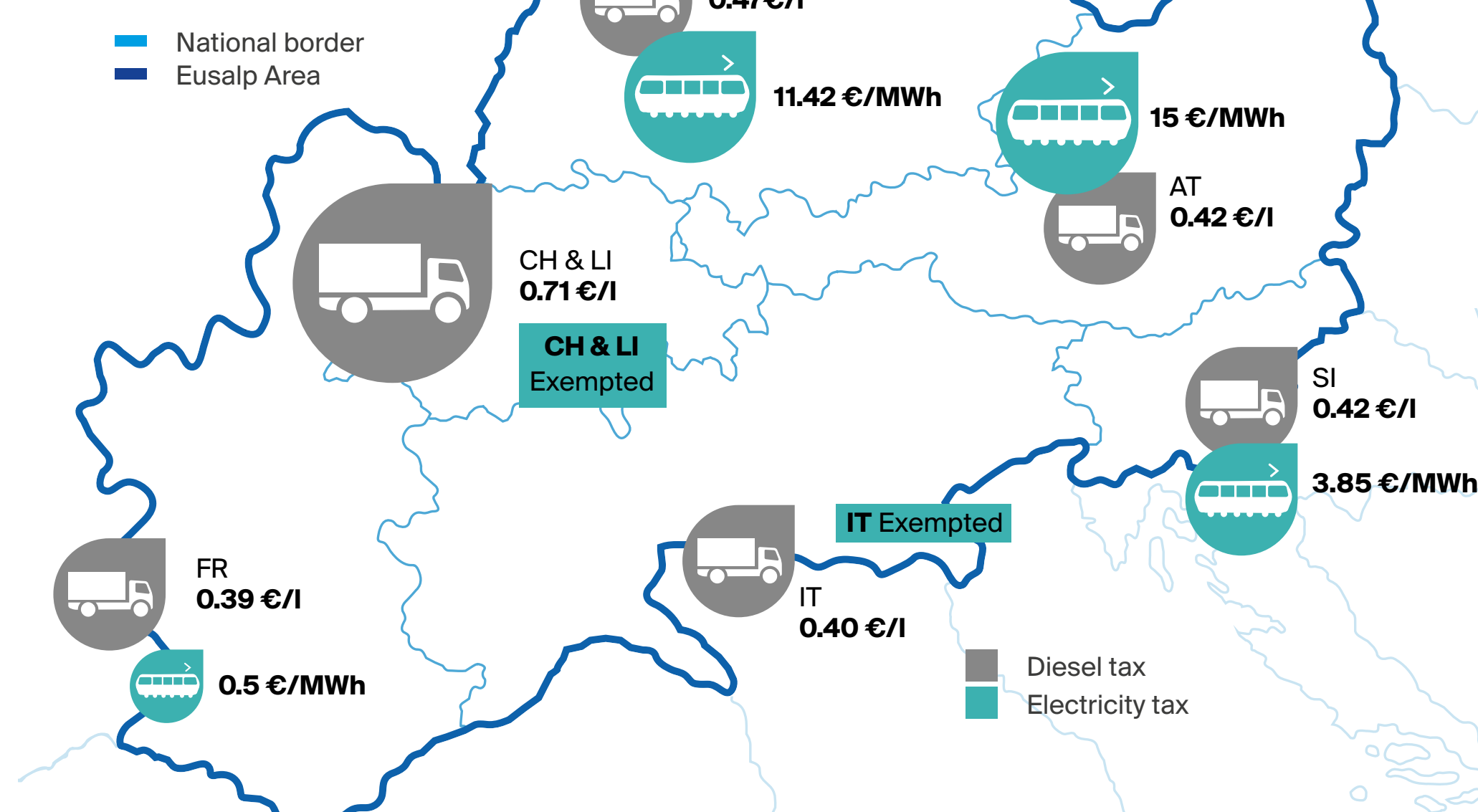


Currently, HGV charging systems in the Alpine countries include various criteria for differentiation of charges. Whereas charges are defined on the vehicle category in France and Italy, Switzerland and Austria, and to a lesser extend Germany and Slovenia have implemented more differentiated approaches to better make use of the polluter-pays and user-pays principle (see overview below).

Differentiating HGV road charges to CO2 emissions could be a good policy instrument to incentivise the use of more efficient HGV in terms of environmental impact, particularly as there is little support for other potential instruments (e.g. increasing fuel taxes, CO2 regulation for new HGVs or CO2-differentiated purchase taxes). Experiences with differentiation of HGV road charges to EURO standards show that such schemes can be effective (Austria, Switzerland where the large majority of the fleet used in international transport is respecting the most advanced standards).

## Harmonisation of energy taxes

Diesel and electricity taxes in the 7 EUSALP Countries



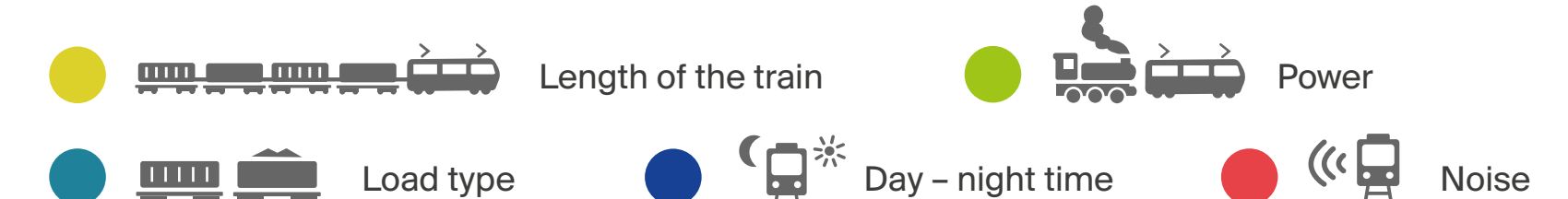
While the industrial price of energy can be seen as nearly aligned among countries of the EUSALP Region, the energy tax of a vehicle is quite different. Within road freight transport the common means of transport is an HGV powered by diesel. The map shows in grey the diesel tax per country (net of the excise reimbursement allowed for in Italy, France and Slovenia).

The maximum spread highlighted (32 €/c/l) would influence the operating cost of an HGV crossing the Alps for approximately 9-10 €/c/km and consequently makes certain corridors more attractive than others. However, strategies for tank filling can reduce this impact and therefore the effect of differentiated taxes on energy is rather limited. On the other hand, high taxes on fuels can be seen as a way to internalise the external costs of air pollution.

Looking at rail transport, the electricity tax within EUSALP area, though it represents a very small share of the operating costs of a railway undertaking shows a wide differentiation. The exemption applied in Italy and Switzerland may be seen as a good practice to be extended to the whole EUSALP area.

## Rail infrastructure charges: clarity and harmonisation of design criteria

Differentiation of rail infrastructure charges in the 7 EUSALP Countries



Rail infrastructure charges are determined and calculated in different ways. A simplification of the calculation methods and the application of the same criteria to differentiate the charges would be beneficial for the operators. Especially, a common approach to consider environmental aspects (especially regarding noise emissions) would be favourable.