

## The TEN-T Priority Project No 6 Lyon-Turin, between popular struggles and economic crisis

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Room F01101

## Will the base tunnel really save energy?

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A study by Mirko Federici (researcher at Siena University), research conducted by Professor Sergio Ulgiati of the University of Naples, and other definitive studies by independent, international university faculties have definitively discredited the myth of the "environmentally friendly" train. An affirmation which is true when we compare other modes of transportation only if we fail to consider the unsustainable energetic cost of the infrastructure necessary to run high-speed trains.

This is also true for the Turin – Lyon railway even if the projected speed has been "declassed" to 220 km/h in the latest of the many projects presented to date.

But a balanced budget would be at risk even if we were to ignore the "environmental costs of construction". (Because we are talking about a "political choice" as has been repeatedly affirmed by the project's proponents).

In fact, even if we unrealistically presume that the tunnel proves to achieve the maximum foreseeable success and, 30 years from now, up to 350 freight trains a day go through (63 of the "rolling motorway service" type and 113 regular trains, in both directions) the much lauded energy savings, due to the use of only one engine instead of the two (and in some cases three) necessary today for heavier freight, would be, for the most part, neutralised. Firstly, by the higher speed of travel imposed by the traffic flow in the tunnel (120 km/h versus 80 km/h), as well as due to the energy required for the powerful ventilation and cooling systems necessary for regular functioning. We are talking about energy consumption that is standard, accepting the insufficient data provided by the project proponents.

Moreover, it is useful to know that the existing railway line defined as a "rolling motorway service" (a designation given to "justify" the planned base tunnel) works, energetically speaking, at a loss.

The tare provides the predominant weight of the total weight transported and rail travel has an energy consumption level greater with a full load when compared to the same number of tractor-trailers transported on roadways. (In terms of tons of crude oil the "tep" – energy related to equivalent tons of crude – 7.36 is the train "consumption" while 1.08 is the number if the 20 trucks travelling on the wagons were to travel by road.)

This difference worsens every time a train is not full and plunges if the trip is made empty. Something that happens quite frequently given that the government decided to finance truck transport with public funds by reimbursing 2/3 of the toll costs infringing on EU norms regarding competitiveness and the push to provide incentives for "greener" transportation. This practice could lead, in our opinion, to the opening of an inquiry on the legality of this incentive on the part of the European Parliament.