



Gentle Folk, allow me to introduce

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Topic: [Miscellaneous](#)

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(Grin) When I wrote about the Planetran system yesterday there was some cynicism in the comments about the viability of the concept, and its economics.

For some decades now it has been cheaper and more effective to put transportation underground in cities than trying to drive through roads through them. Putting the tunnels a bit deeper does not change the tunneling operation itself that much, but puts the tunnel into more stable rock. The idea of Planetran was sustained for a long time by the thought of putting the corridor up the East coast from Boston to Washington. Having the train operate at high speed, and from downtown locations, and in a weather-independent location where security could be better ensured has some advantages.

Evacuating the air removes the air resistance that makes normal transportation more expensive at higher speeds (energy wise). Thus it is possible to develop a technical solution that will significantly change and reduce the need for oil.

And to those who say that this is still fiction, I am indebted to Greko, who points out that it will first become a reality in [Switzerland](#). While the idea is still developing, it is known as the Swissmetro, and has many features of the Planetran that I described.

The basic idea of Swissmetro is simple: lack of public acceptance, environmental pollution and the settlement structure of Switzerland all mean that a high-speed railway is more likely to be realised underground than on the surface. Along the main railway axes, such as between Basel and Lugano, Basel and Zurich or Geneva and St. Gallen, an underground magnetic levitation railway could travel at top speeds of up to 500 km/h. These high speeds could be achieved by a partial vacuum in the tunnels, which would be built at a depth of between 40 and 400 metres. This kind of futuristic transport is still pie in the sky, but commencing operation in 2030 may nevertheless be realistic.

Several NRP 41 studies investigated the potential, and the consequences, of Swissmetro. For example, a survey of today's rail and road users on the planned main line from Geneva to St. Gallen determined the potential demand. An ingenious interview technique called the "Stated Preference Method" was used, which- despite the uncertainties inherent in all predictions - is increasingly being used internationally. The results show that if Swissmetro were implemented, it would attract some 24,000 passengers between Geneva and Lausanne and approx. 34,000 passengers between Bern and Zurich per day and in each direction. Around 60 per cent would transfer from the railways, 25 per cent from road travel, and approx. 15 per cent would be new passengers. Conventional rail travel would decrease by about half on some routes.

The demand for the super-fast underground magnetic levitation railway will be particularly sensitive to variations in timetables and fares. For example, a 10 per cent fare reduction for Swissmetro would result in an increase in passenger volume of 3.1 per cent, whereas a 10 per cent increase in travelling time would lead to a reduction in passenger volume of 3.4 per cent.

A quick Google scan brought up a site that shows that the concept is being taken [further](#). That article was written in 2003. There is now a [company](#) that is promoting the concept, which appears to have considerable public support.

It is also interesting to note a [paper](#) on the need for image management of the project. As Schueler notes

Swissmetro will function as an example of a young, futuristic project, which tries to obtain space. However, every step outside its paper form meets resistance, simply because space is already occupied. Since the 1970s, civil engineer Rodolphe Nieth is determined to lead his concept of an underground high-speed train connecting all major cities in Switzerland to actualisation. An extended network of tunnels will enable Swissmetro to glide with approximately 500 kilometres per hour 50-100 meters under the surface. The preferred metaphor, to make the technology understandable, is 'an aircraft without wings and engines'. There are no wheels, bogies or engines inside the vehicle, so it indeed resembles an aeroplane flying through thin air. Swissmetro rises high hopes, but is simultaneously heavily debated. Swissmetro has the task to reduce the obduracy of the existing (world)order. The intensity of the battle fluctuates constantly, which result in a shifting representation of the Swissmetro system as well. Swissmetro S.A. has focused its promotion strategy mainly on two themes, namely speed and underground. Both notions are marketable, because they cover areas that seem to be unoccupied yet. Swissmetro pretends to easily penetrate these spaces. In this paper I will mainly focus on the cultural connotations surrounding the underground to bring to bear how difficult it can be for a project to find the right tools to generate an imagery and language to make identification with the project possible.



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