

Radical Transport Policy Two-Pager #6

Public Transport Everywhere with a National Timetable

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Britain should aspire to give every citizen Swiss-style freedom to travel conveniently by public transport between any two places bigger than a small village

In the Zurich city-region¹, the regional transport body (Zürich Verkehrsverbund, ZVV) defines three levels of service for buses. Level 1 is hourly, and is for settlements above 300 people. Level 2 is half-hourly, and is on corridors where flows from multiple settlements combine to give strong demand. Level 3 is every 15 minutes, or more frequent where there is demand, and is for large dense settlements. Services operate between 6am and midnight. Connections are given high importance, with buses arriving at stations a few minutes before trains and departing a few minutes after. Services run to clock-face timetables (i.e. repeating hourly) on regular intervals².

The ZVV standards are treated as an aim that the city-region will work towards, rather than a legal right. Nevertheless, there is very good coverage even for the most rural areas, beyond the wildest dreams of rural (and even most urban) communities in Britain.

Switzerland is acknowledged to have achieved the world's best integration of its timetabling, meshing buses and all other modes of public transport with nation-wide coordination of train services in a 'Taktfahrplan'. Taktfahrplan literally translates as 'clock timetable', indicating the hourly rhythm of services which is a central feature and strength of the Swiss approach. Although Switzerland's rail network is smaller than Britain's, the Taktfahrplan has to contend with many complexities, including services running from other countries, multiple small railways and trans-Alpine freight. It succeeds in incorporating all these, and in addition takes in lake ship services and bus services. Its comprehensiveness, connectedness and reliability are legendary.

In Britain outside London, local transport authorities lack the powers to coordinate bus services and timetables. Instead, private bus companies decide which routes are most profitable, and local authorities have the expensive and inefficient task of working around them to try to plug the gaps. Coordination between bus timetables and rail timetables is almost unheard-of. Indeed, since the railway was cut into pieces at privatisation, different rail services are not even able to coordinate timetabling with each other, and the concept of train connections has largely been lost.

Design of the rail timetable in Britain came under scrutiny after the chaos of the May 2018 timetable changes. However, criticism of the way those changes were implemented really misses the point. We believe the entire public transport timetabling process is dysfunctional, hopelessly inefficient, and is operating upside down.

Under the present system, Network Rail receives bids for train paths from train operators and has to try its best to fit them together. It's like trying to form a coherent picture from random pieces of different jigsaw puzzles. Network Rail has no power to design the most operationally-efficient timetable, or to create the most attractive offer to travellers. Were it to try to do this, it might receive legal challenges about access rights from the train operating companies or the Office of Rail and Road. Exacerbating this, the specification for each franchise is made in isolation and with little or no consultation with Network Rail, precluding a system-wide approach to timetabling and in the case of some franchises proving unworkable.

An overall ‘timetabling vision’ for our public transport system is completely lacking. There are no national standards for train speeds or frequencies, and no policies for connections between services. As one analysis found, “At its worst, it leads to route diagrams presenting a franchisee’s sub-network as an isolated island with no reference to links with the national system”³.

So what needs to change? How could Britain have a public transport timetable as good as Switzerland?

The first step is that we need **a single body with the power and responsibility to create a national public transport timetable**. In Switzerland, the task of designing the national timetable is undertaken by the publicly-owned Federal Railway, SBB. It is overseen by the regulatory body, Trasse Schweiz, to ensure non-discrimination, especially for the considerable amount of rail freight traffic. SBB takes a high-level strategic view of how to maximise overall benefit. But although nationwide, it also takes account of local priorities and the views of federal and cantonal governments, like ZVV, so as to maximise local service frequencies while also optimising long-distance services. The final Taktfahrplan is seen as so important that it goes to the Swiss government cabinet for final approval.

It would be easier to adopt the Swiss approach if we too had an integrated, publicly-owned railway to act as the national timetabling body. However, we don’t have to wait for that to make a start. The current review of rail franchising⁴ should give Network Rail powers and duties to develop a **National Timetable**, focussing initially on the railway and on coordination with bus services where they are regulated (initially just London, but perhaps in a few years also areas like Greater Manchester).

The second step is that we need **local public transport services to be regulated**, so that local councils can set standards for service provision, as in Zurich city-region, and can negotiate with the national timetabling body. Local authorities should also have the power to run municipal bus services where they assess that to be the means to achieving maximal network coverage at lowest cost⁵.

Network Rail’s job as the national timetabling body would be to create a timetable that integrates all modes of public transport, with the railway at the core, providing a coherent and comprehensive structure of coordinated services. Its ultimate aim would be to give every citizen in Britain Swiss-style freedom to travel conveniently by public transport between any two places bigger than a small village.

Planning of improvements can start immediately but it will take time to make our national public timetable as good as the Swiss one. Switzerland adopted its Taktfahrplan in 1982 and has been incrementally improving it ever since. Crucially, SBB prioritises rail infrastructure enhancements that enable a better timetable – **it is the timetable that drives decisions about infrastructure investment, not (as in Britain) the other way round**. This will require a major change in Network Rail’s approach to planning rail infrastructure investment. Ultimately, the public transport ‘offer’ boils down to the timetable – the offer to individuals to make trips to where they want to go, when they require. Thus, a timetable-driven infrastructure process makes perfect sense.

The German Government announced in 2018 that the whole German railway will move to a Taktfahrplan. From next year, infrastructure investment will be focussed at pinch points so that journey times can be cut by 14% or more on key routes. Deutsche Bahn is working to a timeline of 2030 to achieve a full Taktfahrplan⁶. So it’s clear that a clock-face timetable can make sense for large countries as well as small ones. We think it’s high time for the UK government to take a lead from Switzerland and Germany, and start the countdown to a coordinated clock-face national public transport timetable here. Indeed, it’s *essential*, to provide the excellent public transport network that is needed in the context of the climate emergency, and also to support a more inclusive society.

¹ The Zurich city-region covered by ZVV has a population of 1.3 million and includes the cities of Zurich and Winterthur plus a number of smaller towns and suburban / semi-rural areas.

² Taylor I. and Sloman L. (2016) [Building a world-class bus system for Britain](#), summarising findings from Petersen (2009), [Network planning, Swiss style: making public transport work in semi-rural areas](#) and Regulation 740.3 from ZVV: [Verordnung über das Angebot im öffentlichen Personenverkehr \(Angebotsverordnung\) 1988](#).

³ Tyler J. (2018) Timetabling crisis: the case for a radical solution (unpublished paper).

⁴ [The Williams Review](#)

⁵ Buses in Switzerland are also largely operated within public ownership. The Postbus network, part of the Swiss Post Office, but contracted at local level, achieves excellent coverage even in rural areas <https://www.post.ch/en/about-us/subjects/range-of-services/postbus-switzerland-ltd> including three districts within ZVV <https://www.zvv.ch/zvv/de/ueber-uns/verkehrsunternehmen.html>.

SBB the Swiss Rail Company also runs some local bus services.

⁶ Bundesministerium für Verkehr und digitale Infrastruktur news release, 9 October 2018 [German clock-face timetable makes rail transport more punctual, faster and more reliable](#)