

# Fast Rail Links in Germany

*"All the track that's needed. As much Nature as possible."*  
 Motto of the Deutsche Bundesbahn.

The grass is not necessarily greener over the fence but there are always lessons to be learned from the experience of others. West Germany is engaged on a complete upgrading and modernisation of the Bundesbahn (Federal State Railway System), in all 4000 kilometres and including 800 kilometres of new lines. As always, not everyone is pleased but the Germans are very ecology-conscious and to summarize the ideals and principles towards which the Bundesbahn is working, with examples of their achievements, could help concentrate our minds as the negotiations proceed about the Channel Tunnel Fast Link - some 106 kilometres. There is also some general relevance to all our considerations of intrusions on the environment.

The basic premises of the German planners include the following:

Rail is ecologically less damaging than other forms of transport: the surface requirement is less; there is no pollution with an electrified system and less consumption of energy.

New lines must be built only where existing lines cannot be brought up to standard

BUT

Some "surgery" of the environment is inevitable.

SO

Ecological considerations must be introduced from the earliest preliminary stages in tracing the lines, and land necessarily disturbed must be re-instated at the earliest opportunity.

To be protected are: habitation, land-marks, monuments, landscape, water, forest, agriculture and details listed in consultation with local authorities. Large-scale planning must be linked to attention to detail and a balance finally struck between ecology, efficiency and cost.

An idea of what is at stake in Germany can be gained from these examples. At present two Inter-City trains per day pass through Kassel. In 1991 it will become over one hundred.

Four kilometres of the river Leine had been diverted and wet-land and water-meadows carefully re-created. Two river crossings, and one road crossing and an embankment were thereby avoided and 90,000 square metres of new forest were planted. New lines where possible were run beside existing lines or motorways.



Where possible the necessary electric pylons are lowered into place by helicopter, thereby reducing ground damage. Gravel, dredged by electrically powered dredgers, powered by a floating cable, was moved by pipeline to the site.



The ultimate aim, always achieved, is that no surface shall suffer permanent damage. Tunnels and cuttings are preferable to embankments but they produce spoil. The Bundesbahn can claim to have been very successful in the disposal of spoil, moved wherever possible by rail and not by road. In one area twelve trains per day replaced what would have been one lorry per minute. On the positive side spoil has been used to repair past damage: for example from quarrying or open-cast mining. Infilling has created agricultural and recreational land. Everywhere along the new lines local authorities have profited from soil spreading. In one place 450,000 cubic metres of rubbish now lie under an apparently "natural" areas. In another the clay and stone spoil from two tunnels have furnished the raw material for brick and tile works, thereby saving further quarrying for fourteen years. In one valley-crossing spoil was used to form an artificial hill linking two small graceful bridges rather than using a long embankment. Properly restored and newly landscaped land beside new fast lines, with landscaped canals and drainage pools, have rapidly become nature reserves, leisure and water-sports areas. Thousands of oaks, maples willows and alders have been planted. One stretch of new rail created twenty-two hectares of new grazing and twenty-three hectares of new woodland. In an extraordinarily short time reclaimed, reinstated areas have become indistinguishable from nature and often more attractive than before work began.

The Germans are nothing if not thorough and the above examples are chosen almost at random from a detailed report. In the Bundesbahn a special department looks after environmental considerations: the landscape architects and they produce their (very German) Landschaftspflegerische Begleitpläne = plans! And where does all the money come from for all this "green" activity? Well, it is, after all, the German State Railways, subsidised to 47%.

*Leo Wright, Secretary*

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