

## Report from Germany by Rainer Apel

### China Deal Gives New Push For Transrapid

*The world's first fully commercial magnetically levitated train will operate in China.*

**T**he Jan. 23 signing of a Sino-German contract for the construction of a maglev rail project in China, the 32 kilometer line from Shanghai to the trade zone and international airport at Pudong, is a breakthrough. It is a technological breakthrough, as it will be the world's first fully commercial maglev rail line, and it is a political breakthrough, because it will be the first such "train of the 21st Century" outside Germany.

In Germany, where the technology was developed in the 1970s, the maglev has so far run only on a 34 km experimental track at Lathen. Chinese Prime Minister Zhu Rongji and Shanghai Mayor Xu Huangdi took a test ride there, during their visit to Germany in July 2000, and on that occasion committed China to the Shanghai-Pudong project.

The Shanghai-Pudong project opens the door for bigger projects: for example, a 200 km line from Shanghai to the industrial center of Hangzhou, a 300 km line from Shanghai to Nanjing, and a 1,300 km line from Shanghai to Beijing. The implication is, that China will apply it on thousands of routes. A decision on the three maglev projects is expected in the Spring or Summer of 2003, when the next stage in the national rail development plan of China is to be decided. That is also when the first maglev trains are expected to begin commercial operation between Shanghai and Pudong.

If China decides to build maglev routes on a broad scale, the system will also be produced in Chinese factories. For the Shanghai-Pudong project, the trains will be produced in Germany. Construction work on the first line will

be done by Chinese workers, who already are under supervision by medium-sized specialized German firms—a program co-funded by the German government with \$100 million. The investments in the Shanghai-Pudong project, \$1.2 billion, are estimated to be below those for the new, conventional-technology metroline in Bangkok, Thailand's capital (\$1.7 billion), which is about the same length.

One question is, when will the first commercial line finally be built in Germany? After years of ecologist and other objections, a contract for a 285 km line between Germany's two biggest cities, Hamburg and Berlin, was signed in February 1994. But for six years, the project remained on paper, as construction work was repeatedly delayed. In February 2000, the project was cancelled by the Social Democratic-Green coalition government in Berlin, because of budget cuts. As of a year ago, the technology was generally considered dead. The Chinese interest saved it, including in Germany itself.

In October 2000, the German Transport Ministry selected two candidates for commercial maglev projects in the range of 30-50 km, one from Munich to its international airport at Erding, the other connecting the biggest cities of the Ruhr region, the "Metrorapid." However, a decision on even one of these projects cannot be expected before late 2002.

The advantage of the Ruhr project is that it could potentially hook up with a maglev project linking several big cities in the Netherlands. If the vote is positive in the Dutch Cabinet, a letter of intent is expected to be signed by

the end of February.

But a more immediate potential, is a project which was removed from the official priority list of the German government last October—a 116 km line from Frankfurt to Hahn, which would connect both airports and relieve the Rhine-Main region from considering another runway at the already overloaded Frankfurt international airport. Apart from the problem that another runway project near Frankfurt would run into massive opposition because of ecological concerns and noise pollution (implying a ban on night-time flights), there are other reasons that favor the Frankfurt-Hahn option: The former U.S. military airfield at Hahn has a permit for night-time flight operation, it is located in a far less populated area than the Rhine-Main region, and it has capacities that are yet untapped. Frankfurt could shift a substantial part of its operation to Hahn, and the attraction for passengers would be immensely increased if a super-fast rail connection between the airports existed. A maglev line between Frankfurt and Hahn, via Mainz, would be the ideal option, because its speed, in excess of 400 kilometers per hour, would reduce travel time between the airports to 20 minutes, one-third the time of a modern intercity train.

The Hahn project also has a political advantage: There is a strong lobby for it, in the municipalities in the otherwise underdeveloped region around Hahn, which are in need of thousands of new jobs to compensate for the economic losses caused by the pull-out of U.S. troops during the early 1990s. The maglev line would be an incentive for the creation of new jobs, because firms would settle around the airport and its Transrapid station, which would guarantee quick access to the region from other parts of Germany and beyond.