

SYSTEMS FACTFILE

No. 72 Nuremberg,
Germany



Nürnberg (Nuremberg) in northern Bavaria is one of Germany's great transport centres. Neil Pulling looks at the changed role of trams in the city's own network.



Nuremberg has been in Bavaria since 1806, but associations remain with historic Franconia (Franconia). Landscape, food, drink and architecture are distinctive, with Nuremberg's turreted walls stylised for city logos.

For good and notoriously less benign reasons, Nuremberg's international fame is much greater than a population of 509 000 suggests. A much bigger area and population has been covered by the transport union Verkehrsverbund Grossraum Nürnberg (VGN) since 1987. Within VGN, the 1435mm gauge uni-directional tramway is operated by Verkehrs-Aktiengesellschaft Nürnberg. This body is wholly owned by the city's

▲ *GT6N* trams cross at Hallertor by the walls north-west of central Nuremberg.

All pictures by Neil Pulling.

utility company, Städtische Werke Nürnberg. Buses, *U-Bahn* (metro) and trams – here officially designated 'Tram' rather than *Strassenbahn* – carry the abbreviation VAG.

Unlike other Bavarian tramways in Würzburg and Augsburg, but as in Munich, the Nuremberg system no longer enters the city's core area. In fact, for many visitors their only tramway sighting may be of the partial circuit outside the restored city walls and at the stop in a triangle of track near the monumental main station, Nürnberg Hbf.

Taking about ten years after 1945 to fully restore operations, the tramway subsequently reduced from a pre-war peak of over 70km (over 45 miles). With the system run-down, hastened

by growing car ownership, coverage also became shaped by the *U-Bahn*. The initial 3.7km (2.3 miles) of the current 18.5km (11.6-mile) line U1 opened in March 1972, with the city centre reached by 1978.

Also influencing tram coverage in the city have been the many railways converging at Nürnberg Hbf. Served by *S-Bahn* and/or regional trains, several stations with city transport interchanges make heavy rail a significant part of the overall network which also has over 50 bus lines.

With a conventional metro project underway (as opposed to a tramway to *Stadtbahn* transition), by the 1970s complete tramway closure became a possibility. The *U-Bahn* not only brought completion of an already

THE FLEET

Tram: Mixed floor height *N8S-NF* were withdrawn by 2011, going like many VAG trams for use in Krakow, Poland. The now fully low-floor fleet comprises three classes. Carrying 'CityBahn' branding, the first was introduced in 1995, the widely adopted three-section AEG/MAN *GT6N* (VAG 1001-1014) with capacity for 157 passengers. From successor company Adtranz, in 1999 there followed the four-section *GT8N* (1101-1126), capacity 218. Munich is the only other operator of this type, at 36.6m the longest in VAG's fleet. The smallest class in the fleet are eight 34m, five-section Stadler *Variobahn* trams (1201-1209) capacity 222 and received 2007-9. Like their Munich counterparts, VAG's *Variobahns* have had restrictions to operation. There are many promotional paintschemes and liveries, although VAG's white and red livery predominates.

U-Bahn: All two-car bi-directional sets. Two types of original *DTI* remain on U1, although ex-Munich 'A' vehicles brought in pending new stock arrivals have been withdrawn. Externally similar to driver-operated *DT2*, the Siemens-built cab-less *DT3* were built for automatic operation on U2/U3 and introduced gangway connections. Cab-fitted *DT3F* can be used for driver instruction and the type allows integration with U1 stock pending a longer-term full transition to automatic working.



▲ The Hauptbahnhof stop which includes a turning loop is used by most lines.



▲ ABOVE LEFT: Thon terminus will be the starting point of a projected northern extension.

▲ ABOVE: The smallest and newest type in the fleet: Stadler *Variobahn* 1201 at Hauptbahnhof.

◀ LEFT: Westfriedhof cemetery gates previously overlooked a through-route: 1126 waits to follow 1103 around the terminus loop.

underway withdrawal of trams from the city centre, it also replaced their inter-urban function.

Nuremberg and its adjoining western neighbour, Fürth (population 120 360), had become connected by Germany's first steam passenger railway in 1835. The area's first tramway opened in 1881, soon growing to create another fixed link between them. Supplanted by U1, by 1981 Fürth had lost its internal tram services and the Nuremberg connection. Becoming a purely Nuremberg system, the tramway's main western presence was cut back to Plärrer near the south-western edge of the city wall.

Overlooked by the VAG headquarters building, the widely spaced tram tracks at Plärrer are above



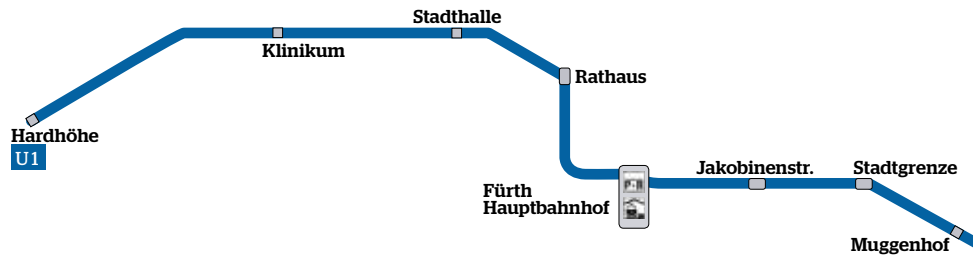
NETWORK FACTS

- > **Opened:** 1881 (electrification from 1896)
- > **Lines:** Tram 5; U-Bahn 3 (+ 2 in short form)
- > **Tram route:** 33km (20.6 miles)
- > **U-Bahn route:** 35km (21.9 miles)
- > **Tram stops:** 75
- > **Tram depots:** 1
- > **Approximate weekday hours:** 05.00-midnight
- > **Main frequency:** Ten minutes
- > **Gauge:** 1435mm
- > **Power:** Tram 600V dc overhead supply; U-Bahn 750V dc third-rail, bottom contact.
- > **Tram fleet:** 48
- > **City Network:** Verkehrs-Aktiengesellschaft Nürnberg (VAG)
- > **Area Network:** Verkehrsverbund Grossraum Nürnberg (VGN)

INFORMATION

- > **City network:** www.vag.de
- > **Area network:** www.vgn.de
- > **Civic information:** www.nuernberg.de
- > **Tourist information:** <http://tourismus.nuernberg.de>

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▼ Amongst Nuremberg’s last stepped access trams, *N8S-NF 361* (now *Krakow 3081*) at *Widhalmstrasse* on 10 June 2008.

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|-------------|-----|--|
| U | U1 | Fürth Hardhöhe
Langwasser Süd |
| | U11 | Eberhardshof
Messe |
| | U2 | Röthenbach
Flughafen |
| | U21 | Röthenbach
Ziegelstein |
| | U3 | Gustav-Adolf-Straße
Friedrich-Ebert-Platz |
| Tram | 4 | Gibitzenhof
Thon |
| | 5 | Worzeldorfer Str.
Tiergarten |
| | 6 | Doku-Zentrum
Westfriedhof |
| | 8 | Tristanstr.
Erlenstegen |
| | 9 | Doku-Zentrum
Hauptbahnhof |



▲ ABOVE: Automatic operation on U2: Siemens DT3 stock at Flughafen.

◀ LEFT: Tram museum-liveried GT8N 1105 leaves Doku-Zentrum on the connection between formerly separate lines.



the two-level *U-Bahn* station, now second-only to Nürnberg Hbf as the busiest interchange.

Uncertainty over the tramway's longevity led to purchase of buying MAN/Düwag vehicles, later extended with low-floor centre cars as N8S-NF, delivered from 1976. The bi-directional, doors on both sides configuration, was not necessary here, but it would improve sale prospects should the tramway infrastructure be abandoned. When the rolling stock

sales did eventually take place it was for more positive reasons than once feared. The *U-Bahn* was the priority project, but the decision to retain and enhance tram operations was manifest with growth plans and the arrival of new low-floor stock in 1995.

The densest cluster of tramlines is now south and east of Nürnberg Hbf. The great breadth of the railway creates tunnel-like proportions for the four under-bridges taken by trams. The overall layout is characterised

by long arms reaching from the Hbf. Although absent from the very centre, the tramway is an essential service along several main roads and for some inner suburbs. These include administrative and industrial districts, with Siemens properties prominent in the south.

On a redeveloped manufacturing site nearby – with access by non-revenue tracks off line 5 – is VAG's only tram maintenance and depot facility, Heinrich Alfes Strasse. Opened



▲ ABOVE LEFT: 1102 at Celtisplatz, the only stop on the section opened in December 2011.

▲ ABOVE: Long-established Erlenstegen tram terminus provides interchange with regional trains.



▲ ABOVE LEFT: Operational curiosity: empty south of Tristanstrasse, line 8 trams turn on non-revenue track at Bayernstrasse.

▲ ABOVE RIGHT: DTI stock on the elevated U1 section above Fürther Strasse near Muggenhof, once location of the tramway's main works.

long south-eastern line 9 extension to create new interchange options.

After steady extension since 1972, in June 2008 Nuremberg's *U-Bahn* introduced automatic operation on U3 interspersed with the conventionally driven trains on U2. These shared the common section of these two lines. Fully automatic operation now applies for U2/U3, with conventionally driven stock remaining on U1.

Notable features include varied station artworks and the elevated U1 section which forms part of the supplanted Nuremberg-Furth tramway. More *U-Bahn* expansion is projected. **TAU**

► For full network maps see www.vag.de

in 2003, it has space for future fleet expansion.

A layout and operational change came in late 2002 with the opening of a 1.6km (one-mile) connection between former termini Luitpoldhain and Dutzendteich, the first extension since 1974. In this south-eastern area lie the grim remnants of the *Reichsparteitagsgelände*, the rallying grounds developed after the Nazi party selected Nuremberg in 1933 for its mass gatherings. Part of the grandiose and uncompleted scheme was to increase tram and railway capacity to handle the crowds. A stub of those developments is at line 8's southern end.

Due to safety concerns over an underground section, since December 2010 trams have continued south, empty from Tristanstrasse, to turn at a platform-fitted loop at Bayernstrasse.

On the 2002 section is Doku-Zentrum, the intermediate stop where incoming line 5 and 9 trams swap identity. The name is from the archive and exhibition of the Nazi era housed in part of the vast former Congress Hall. Nuremberg's darker 20th Century associations are confronted and explained here and around Dutzendteich, an area now

largely given over to leisure activities. Trams serve another large recreational location at the end of line 5, the Tiergarten. Here the more common type of Nuremberg loop terminus is near the zoo, amongst the 25 000ha former Imperial Forest.

In 2011 line 5 saw the opening of the tramway's newest section, around 900m (0.55 miles) between Aufsessplatz and Nürnberg Hbf with one intermediate stop, Celtisplatz. The next major system change, a 3km (1.9-mile) extension north from Thon to Am Wegfeld originally projected to open in 2014, awaits re-scheduling. The *NVEP 2025* transport plan envisages an eastern tram bypass of the centre and a

ESSENTIAL FACTS

Local travel: Tickets valid upon purchase from ticket machines: do not buy for beyond immediate travel requirements. 90-minute validity (excludes round or return trips) single tickets are EUR2.50; Day Ticket Solo at EUR5.10 ('Plus' version for two adults and four children at EUR8.50). For both, the usual one-day validity extends

with Saturday-bought tickets including Sunday. Extensive bus-only night network. VAG's main information point is in Nürnberg Hbf's low-level passageways.

What is there to see? Walking is best for viewing the mix of restored and modern buildings in the centre; the best viewpoint is Kaiserburg in the north-western

section of the city walls. Amongst Germany's greatest collection of museums are rail (www.dbmuseum.de) and tram, near Peterskirche stop (www.sfnbg.de). Nuremberg Trials exhibition, near U1 Bärenschanze (www.memorium-nuremberg.de). Trade fairs greatly affect overnight stay prices: research recommended.