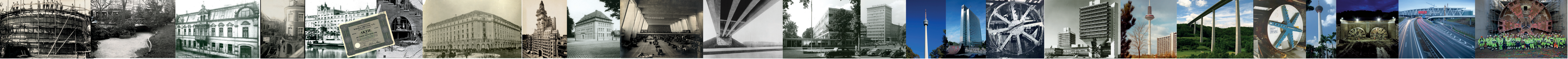


A new era

Hardly any construction company in Germany is able to look back on as long a company history as Wayss & Freytag. Entrepreneurial spirit, farsightedness and visionary drive were the foundations of a technological development without which major bridges, high-rise buildings and industrial buildings would not have been realised. And yet, the success story began relatively simply: with flower tubs and a kennel.

The kennel of company dog Flock was the first structure in Germany to be built using reinforced concrete. Its purpose was to test the load- bearing and weathering behaviour of reinforced concrete. The kennel is now exhibited in “Deutsches Museum” in Munich.

Employment contract of Emil Mörsch with his signature. Conrad Freytag signed personally for the company.

Successful Trio

Three brilliant minds that changed construction: with Conrad Freytag, founder of the company, a new era in construction started. Gustav Adolf Wayss made ground-breaking tests with the new technology possible. Emil Mörsch established the scientific basis for construction with reinforced concrete. Their personalities complemented one another congenially, which contributed to the triumphal success of the new construction method around the world.

The scientist: Emil Mörsch (1872- 1950) laid the scientific foundation in his standard work „Der Eisenbetonbau“ (Concrete- Steel Construction).

The entrepreneur: Gustav Wayss (1851- 1917) carried out the first reinforced concrete constructions in Germany with his company.

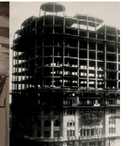
The visionary: Conrad Freytag (1846- 1921) realised the potential of the new technology. His motto: „Driven to maintain excellence!“

Internationality

Already early in the company’s history the activities were not limited to the Palatinate. In 1910, the company already had twelve branches in Germany. In 1903, the first foreign branch was established in Riga. Further registered offices in Luxemburg, Strasbourg, Vienna, Innsbruck, Rome, Milan, Trieste, Genoa, Naples, Budapest, Messina, Sarajevo, St. Petersburg and Buenos-Aires followed.

Around 1925: Construction of the sewerage system in Istanbul, Turkey

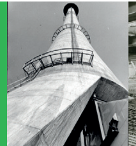
1909: Rohrschwefel (sulphur) warehouse, Marseille, France



1923: Odeon building in Rio de Janeiro, Brazil

New Impetus

Building upwards and downwards – during the reconstruction of Germany industrial and residential buildings and a modern infrastructure are built. Wayss & Freytag plays an active role in the development and creates new inventions which allow construction works at the highest level: Slipforming and climbing construction methods in building construction, the inremental launching method in bridge construction and shield technology in underground construction.



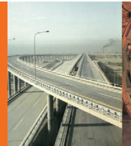
Between 1952 and 1975, 4,000 m of tower shafts as well as 47 television towers are built using slipforming and climbing construction methods.

1964: Underground railway construction Eschersheimer Landstraße Lot 1, Frankfurt/Main

1956: Fertiliser silo of Farbwerke Hoechst AG in Frankfurt- Hoechst immediately after its completion

Active worldwide

Wayss & Freytag is now a globally active group of companies. New business fields are added: environmental technology, building preservation and consulting. In shield technology, EPB shields and solid rock TBMs are used besides hydro and mix-shields. Shield technology in waterbearing loose soils creates new possibilities for tunnel construction.



1983: Salah Al- Deen Al- Ayubi Expressway in Baghdad, Iraq with a contract value of 590 million DM - up to that date the biggest contract in W&F history.

1984: Metro Antwerp ME- COMA Construction lots 1 and 2 hydro- shield drive

1991: Caisson of the Messe (fair) pumping station, Cologne

Future with BAM

Wayss & Freytag gets a new platform: as a group company of the Royal BAM Group, which was established in 2002, the company realizes outstanding engineering and tunnelling projects in Europe. Customer orientation, sustainability and cost efficiency become increasingly important. Wayss & Freytag Ingenieurbau accepts this challenge. Committed and competent teams build for the world of tomorrow.

1995: Stoerebelt Bridge, longest suspension bridge in Europe

2003: CERN (European Organization for Nuclear Research) Nuclear Research Centre, Geneva. Biggest particle accelerator in the world

2003: Westerschelde Tunnel, NL

1875	Foundation of construction material merchant Freytag und Heidschuch OHG in Neustadt an der Weinstraße
1884	First reinforced concrete construction in Germany: a kennel
1893	Foundation of „Offene Handelsgesellschaft (general partnership) Wayss & Freytag“
1898	Bridge over the River Isar in Munich: two- span prestressed concrete bridge, Span length arches: 37.50 m
1899	First monolithic reinforced concrete building: warehouse in Strasbourg
1900	Wayss & Freytag becomes a joint stock company
1901	Emil Mörsch becomes Technical Director
1902	First project in tunnel construction: Railway tunnel in Wasserburg a. Inn
1904	Bridge over the River Isar at Grünwald
1906	First prefabricated reinforced concrete piles
1911	First project developments in hotel construction in Karlovy Vary and St. Petersburg
1912	Pier in Vragnizza, Croatia
1914	First reinforced concrete frame construction: Erlweinspeicher (storehouse) in Dresden
1919	Coking coal tower, Eschweiler built to withstand surface damage
1921	First high- rise building in Buenos Aires, Argentina (100 m high)
1925	Head office in Frankfurt/Main Construction of Frankfurt „Waldstadion“ (soccer stadium)
1926	Bridge over Streck Valley Pirmasens, span width 81 m, length 212 m
1928	Großmarkthalle (wholesale market hall) Frankfurt/Main 200 m long hall, with barrel (tunnel) vault roof
1929	Schwandorf power station, 140 m monolithic reinforced concrete chimney in climbing formwork
1932	New construction company JSC Wayss & Freytag
1935	Motorway bridge “Helderbachtal” Frankfurt- Hanover, length 198 m
1938	First prestressed bridge to be built with prefabricated parts in Germany, near Oelde, Westphalia
1940	Caisson Old Maas Tunnel, Rotterdam, NL, compressed air works
1942	JSC Wayss & Freytag
1948	Hyperbolic natural draught cooling tower “Wilhelmine Victoria” mine, Gelsenkirchen
1950	Production of prestressed concrete sleepers with high- dimensional accuracy in the sleeper factory, Langen
1953	Stands of the Volkspark stadium, Hamburg
1956	Stuttgart: First television tower in the world, 211 meters high
1957	Research reactor Garching „Atomic Egg“
1958	Second bridge over the River Tigris, Mossul, Iraq
1959	Wayss & Freytag KG
1960	Thyssen highrise building, steel-frame construction, 94 m high, becomes Düsseldorf’s landmark
1962	Maracaibo, Venezuela Longest prestressed concrete bridge in the world, 8272 m long
1964	Lignite- fired power plant Frimmersdorf near Grevenbroich/Rhineland largest steam power plant in the world
1966	First fully mechanized TBM in Germany at Munich underground railway construction
1968	Immersed tunnel Ij- Tunnel Amsterdam, NL
1969	„Knie“ Bridge (Rhine knee) over the River Rhine, Düsseldorf, cantilever construction method with tensioning
1972	JSC Wayss & Freytag
1973	Örtaköy bridges (3 bridges), Bosporus crossing, Turkey
1974	Park stadium Gelsenkirchen
1976	Longest and highest motorway bridge in Germany: Kochertal bridge near Geislingen 1,128 m l,185 m h
1978	Caisson Willemsbrug, Rotterdam, NL
1979	Botlek Tunnel, Rotterdam, NL
1981	Guider – Dourbeye road, Cameroon
1982	Sportclub Al Khobar, Riyadh, Saudi- Arabia
1983	Expressway Bagdad, Iraq
1984	Metro Antwerp MECOMA, Belgium
1985	First mixshield with TBM / W&F developed for metro construction Lille, France
1987	Top- down method used for the first time in Germany during the construction of the Kö- Galerie (shopping mall), Dusseldorf
1989	Zeeburg Bridge, Amsterdam Cantilever construction method
1993	Rheinufertunnel Dusseldorf/Grauholz Tunnel, CH
1995	Largest bridge in Europe: Stoerebelt bridge 6,611m
1996	Hollandsche Beton Groep becomes new majority shareholder Telecommunications Tower, Kuala Lumpur 421 m
1998	Stralsund shipyard with the largest ship lift in Europe
1999	ICE long distance railway station Frankfurt/Main
2000	Arena Auf Schalke, first multi- functional stadium in Germany
2001	Federal Chancellery Berlin
2002	Royal BAM Group is established from HBG and BAM NBM/ Longest German road tunnel: Rennsteig Tunnel 7.9 km
2003	Westerschelde Tunnel, NL 60 m below sea- level
2004	Katzenberg Tunnel parallel drives, each 8,984 m, with two TBMs
2007	Parking Neue Messe, Stuttgart
2009	Grouft Tunnel, road tunnel, Luxembourg
2010	BAB A8 (federal motorway A8), first privately financed motorway section in Germany
2014	Luise- Kiesselbach Platz Tunnel, Munich
2015	Sluiskil Tunnel, NL

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Wayss & Freytag Ingenieurbau

Carl Heidschuch

Adolf Kielhöfer
Board member 1895

Ludwig Zöllner
Board member 1895

Engineer Matthias Koenen

Commerzienrat Otto Meyer
Board member 1895

Dr. Jur. Karl Freytag
Son of the founder
Board member 1895

„Team Wayss & Freytag“ with company dog “Flock” May 1, 1918 Background: Underground railway construction Berlin, Frankfurter Allee, 1917

Board member Prof. Dr. Hermann Bay started as assistant to Emil Mörsch

41 years with Wayss & Freytag: Prof. Peter Bonatz, Head of Technical Department 1

More than 50 years with Wayss & Freytag: senior mechanical foreman Johann Hoffmann

Federal Cross of Merit for social commitment: chairman of central works council Jakob Gut

Board member Dipl.- Eng. Erich Jacob advanced shield driving technology with his ideas

1975: Sleeper factory team

1968: Subway Construction Munich

Dipl.- Eng. Claus Becker,
Head of Tunneling Construction,
laureate of STUVA award 1999

Maria- Elisabeth Lippert, first female supervisory board member in German construction company

Dipl.- Eng. Rolf Berger, Head of Hamburg branch, project manager 4th Elbe Tunnel Tube

Dipl.- Eng. Erdogan Gürkan
Head of Technical Department
Tunneling Division

Dipl.- Eng. Dieter Kuhlmann
Head of Technical Department
Project manager Arena „Auf Schalke“

1985: Trainees and student apprentices on fly- over project

1991: Construction meeting at Thyssen Stahl AG galvanizing plant
Background 1999: Federal Chancellery Berlin

Building is a team sport
Teams at Wayss & Freytag Ingenieurbau

140 Years
Wayss & Freytag

w&f
Wayss & Freytag Ingenieurbau