

Chemical Parks in Germany

As a chemical production and associated process industries location, Germany is a global heavyweight, ranking first in Europe. Global players already have a significant production base in the country and continue to invest here. Years of investment and production optimization have resulted in a network of highly integrated production sites: Germany's unique "Chemical Parks." These are linked by advanced infrastructure

with first-class energy supply, offering service provision through site management companies whose core business is the on-site supply of utilities. With their Plug & Play concept, Germany's chemical parks are able to offer state-of-the-art conditions for international investors. They can choose the services from a site operator that suits their business model best. The new production site, developed sites and site security services are all made available for the investor's core activities. Optional services such as warehousing, logistics, and analytics can also be requested as needed. German chemical parks increase cost effectiveness by splitting cost and overhead – a benefit to both the site operator/owner and investor.

Plug & Play Concept

Production

- Site management
- Site security
- Emergency management services
- Supply and disposal networks
- Road and railway infrastructure

- Warehousing
- Energy and utilities
- Logistics
- Hazardous goods handling
- Basic and advanced training
- Analytics
- Permitting and approval assistance
- Engineering services
- Maintenance/workshops
- Purchasing

Supporting Different Business Models

Chemical parks offer a wide range of business models. Subject to the investor's individual requirements, land can be leased or purchased in order to establish a production unit. At the other end of the scale, a site operator invests in and operates the new plant for the investor on a custom or toll-manufacturing basis.

+ *Cost-competitive production through flexible site operators*

Planning Support Services

Investors are supported by a number of investment planning and construction services. The most sought-after service is for permit applications. Licensing procedures are completed quickly and efficiently with the competent public authorities assisting in the process from a very early stage.

+ *Fast implementation of the new business*

Provision of Utilities and Services

Services such as wastewater treatment, thermal treatment of production residue, emergency services, industrial safety, health and safety and fire protection, environmental services, analysis and testing services, rail dispatching, and product storage are all widely available at large chemical complexes.

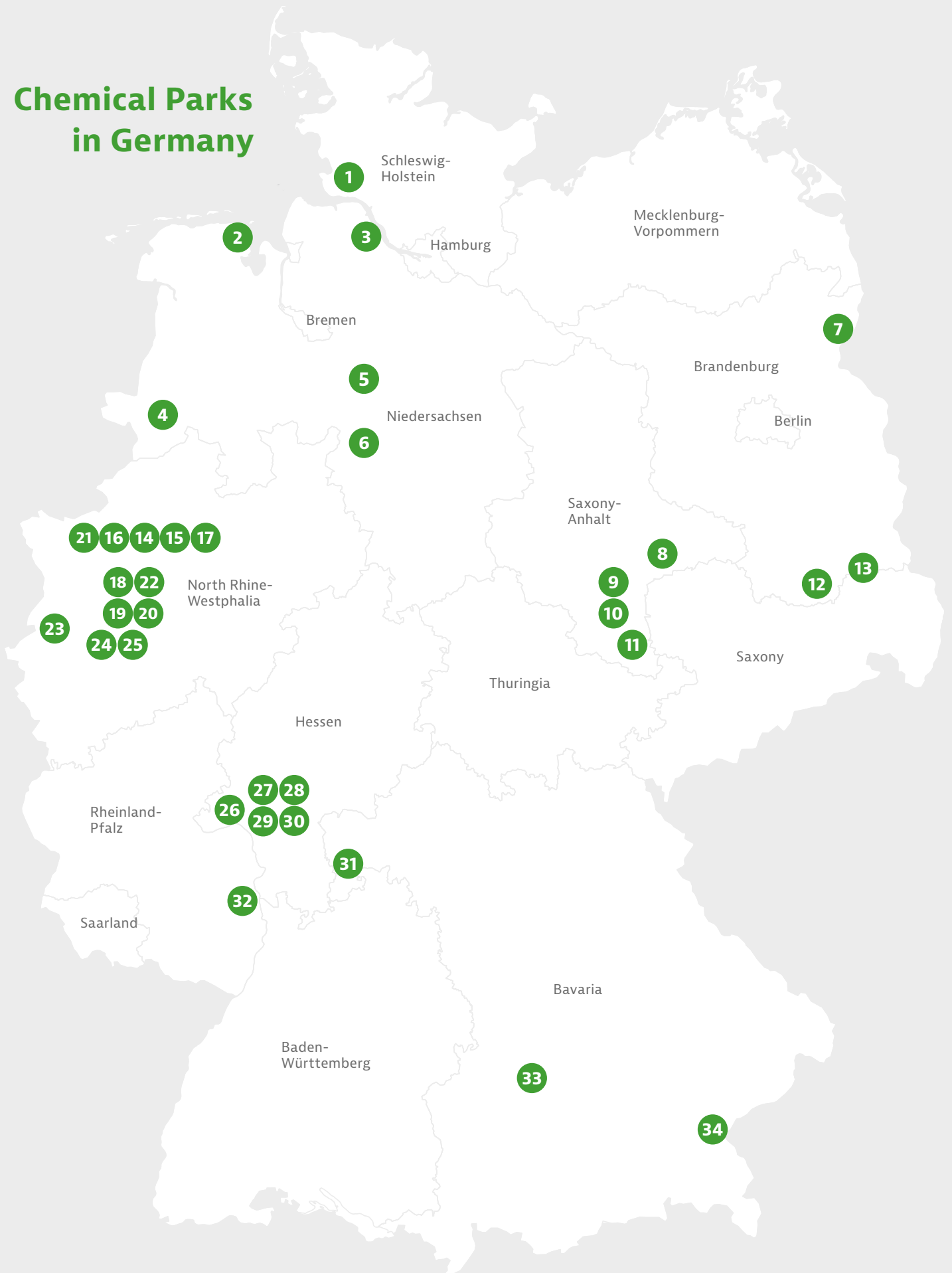
+ *All chemical services available on-site*

INVESTMENT ENVIRONMENT

Selected Chemical Investments

Start-Up	Company	Location (Site Number)	Chemical	New Capacity (+) in Tonnes/Year	Investment
2020	BASF	32-Ludwigshafen	Vitamin A	+1,500 (+25%) up to global capacity of 7,500	NA
2018	Covestro	1-Brunsbüttel	Methyl di-p-phenylene isocyanate (MDI)	+220,000 to 420,000	EUR 120m
2018	Evonik	Witten	Special copolyester, DYNAPOL®	Several thousand	double-digit million amount
2017	Momentive Performance Materials	20-Leverkusen	NXT Silan	Capacity expansion	EUR 32m
2017	Evonik	14-Marl	Polyamide 12-powder, VESTOSINT®	Capacity expansion by 50%	double-digit million amount
2017	AkzoNobel und Evonik	Ibbenbüren	Chlor-alkali electrolysis	82,000 chlorine and 130,000 potassium hydroxide	NA
2017	BASF	12-Schwarzheide	Ultramid® (PA: polyamide) and Ultradur® (PBT: polybutylene terephthalate)	+70,000 up to global capacity of 700,000	NA
2016	Bayer CropScience	24-Knapsack	Methane-phosphonic acid butyl ester	NA	EUR 150m
2015	BASF	32-Ludwigshafen	Toluene di-isocyanate (TDI)	300,000	EUR 1bn
2015	BASF	32-Ludwigshafen	Speciality amines, primarily dimethylaminopropylamine (DMAPA) and polyetheramine (PEA)	12,000	NA
2015	Evonik	14-Marl	1-Butene	+75,000 up to global capacity of 310,000	EUR 100m+
2015	BASF	32-Ludwigshafen	Complexing agent methylglycine-diacetic acid; Trilon M	Capacity expansion to a global capacity of 170,000	NA
2014	Covestro	19-Dormagen	Toluene di-isocyanate (TDI)	300,000	EUR 150m
2014	BASF	32-Ludwigshafen	Vinylformamide (VFA)	Capacity expansion	EUR 100m+
2014	Evonik	14-Marl	Liquid hydroxyl terminated polybutadiene (HTBP)	+10,000 to 22,000	EUR 50m+
2014	Hi-Bis	8-Bitterfeld	1,1-Bis-(4-hydroxyphenyl)-3,3,5-trimethylcyclohexane, Bisphenol-TMC, raw material for Apec from Bayer MaterialScience	+5,000 to 10,000	EUR 50m
2014	Mitsubishi Plastics	26-Wiesbaden	Alumina composite material; Alpoli TM	1.5 million sqm	EUR 17m
2013	AkzoNobel	27-Höchst	Chlor-alkali electrolysis	+165,000 to 250,000 chlorine and 275,000 sodium hydroxide	EUR 140m
2013	Bayer MaterialScience	20-Leverkusen	1,6-Hexamethylene diisocyanate (HDI) and isophorone diisocyanate (IPDI)	Capacity expansion	EUR 35m
2013	BASF	32-Ludwigshafen	Neopor expandable polystyrene (EPS)	+60,000 to 150,000	NA
2013	Evonik	14-Marl	Diisononyl cyclohexane-1,2-dicarboxylate	40,000	double-digit million amount
2013	Radici	11-Zeitz	Hexanedioic acid	+6,000 to 107,000	EUR 18m
2013	DOMO Caproleuna	10-Leuna	Polyamide 6	50,000	EUR 30m
2013	Kuraray	27-Höchst	Polyvinyl alcohol (PVA)	+24,000 to 94,000	EUR 58m

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Site Number	Name	Location	Fenced/Open
1	Chemcoast Park / Bayer Industrial Park	Brunsbüttel	Fenced/Open
2	CoastSite Wilhelmshaven	Wilhelmshaven	Open
3	Dow ValuePark® Stade	Stade	Fenced
4	Industriepark Lingen	Lingen	Open
5	Industriepark Walsrode	Walsrode-Bomlitz	Fenced
6	Honeywell Specialty Chemicals Seelze	Seelze	Fenced
7	Industrial Park Schwedt	Schwedt	Fenced
8	ChemiePark Bitterfeld Wolfen	Bitterfeld-Wolfen	Fenced/Open
9	Dow ValuePark®	Schkopau	Fenced
10	Chemical Site Leuna	Leuna	Fenced
11	Chemie- und Industriepark Zeitz	Zeitz	Fenced
12	Chemical Site Schwarzheide	Schwarzheide	Fenced
13	Industriepark Schwarze Pumpe	Spremberg	Fenced
14	Marl Chemie Park	Marl	Fenced
15	Chemical Park RÜTGERS	Castrop-Rauxel	Fenced/Open
16	Gelsenkirchen Site	Gelsenkirchen	Fenced
17	Chemiepark Bayer Schering Pharma	Bergkamen	Fenced
18	CHEMPARK: Krefeld-Uerdingen	Krefeld-Uerdingen	Fenced
19	CHEMPARK: Dormagen	Dormagen	Fenced
20	CHEMPARK: Leverkusen	Leverkusen	Fenced
21	Industrial Park Solvay	Rheinberg	Fenced
22	Bayer Schering Pharma AG	Wuppertal Elberfeld	Fenced
23	Industriepark Oberbruch	Heinsberg	Fenced/Open
24	Chemical Industrial Park Knapsack	Knapsack-Hürth	Fenced
25	Evonik Degussa GmbH Plant Lülsdorf	Lülsdorf	Fenced
26	Industriepark Kalle-Albert	Wiesbaden	Fenced
27	Industriepark Höchst	Frankfurt/Höchst	Fenced
28	Industrial Park Griebenheim	Griebenheim	Fenced
29	AllessaChemie GmbH Fechenheim	Fechenheim	Fenced
30	Wolfgang Industrial Park	Hanau	Fenced
31	Industrial Center Obernburg	Obernburg	Fenced
32	BASF Ludwigshafen	Ludwigshafen	Fenced
33	Industriepark Gersthofen	Gersthofen	Fenced
34	Industriepark Gendorf	Gendorf	Fenced

Chemical Infrastructure

The country's chemical complexes are served by excellent logistics networks – from road and rail to waterway and pipeline. Investment is being made all the time to improve provision across the existing logistics infrastructure.

Pipelines

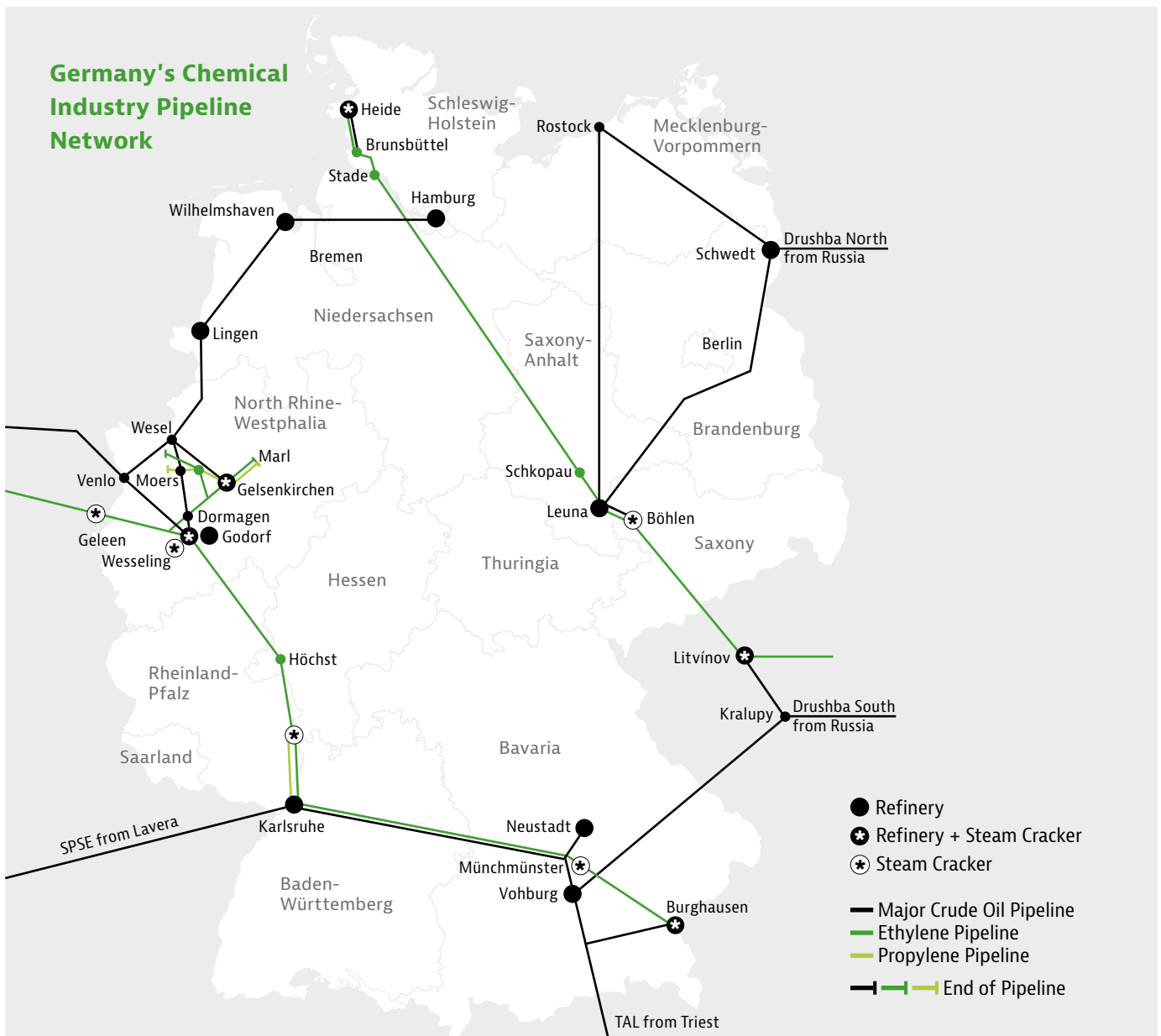
Around one third of chemicals are transported by pipeline. The major chemical carbon source, crude oil, is distributed by an advanced network of pipelines. Thirteen refineries and eight steam crackers supply Germany's chemical industry with all of the necessary building blocks for organic chemistry.

Road and Rail

The country's highway system has one of the highest highway kilometer-density levels in Europe; its 37,860 km of railway track being almost enough to circle the globe. Germany's high-speed railway network is the eighth largest in the world and connects Germany with its nine neighboring countries.

Waterways

Among the highlights of the country's network infrastructure are Europe's second largest port measured in container port traffic (Hamburg) and Europe's largest port container terminal (Bremerhaven) and over 250 inland ports.



OUR SERVICES

About Us

Germany Trade & Invest (GTAI) is the foreign trade and inward investment agency of the Federal Republic of Germany. The organization advises and supports foreign companies planning to expand into the German market and assists German companies seeking to enter foreign markets.

Investment Location Germany

GTAI provides close-to-market information to international companies looking to enter German markets. Our specialist industry teams prepare all of the relevant information essential to business success in Germany. GTAI's comprehensive range of information services includes:

- Market and industry reports
- Market entry analyses
- Business and tax law information
- Business and labor law information
- Funding and financing information

Business Location Services

GTAI supports international companies from market entry to business start-up in Germany. Expert project teams advise and assist in the business establishment phase. GTAI's range of free services includes:

- Legal and tax-related project support
- Funding and financing advisory services
- Site visit organization
- Local partner and network matchmaking
- Public and private partner coordination

All investment-related services are provided entirely free of charge. Our specialist industry teams have hands-on experience in their respective industries and treat all investor enquiries with the utmost confidentiality.

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