

# HIGH SPEED LINES IN THE WORLD

Updated 1st April 2013

Lines or sections of lines in which operation  $V > 250$  km/h<sup>1</sup>

1: There are some exceptions.

## EUROPE

### AUSTRIA

In operation:

Section	Max.Speed (km/h)	Year	Distance (km)
Vienna – St Pölten	250	2012	93
Total Austria km =			93

### BELGIUM

In operation:

Section	Max.Speed (km/h)	Year	Distance (km)
Brussels – French Border (L1)	300	1997	72
Leuven – Liège (L2)	300	2002	65
Liège – German Border (L3)	260	2009	36
Antwerp – Dutch border (L4)	300	2009	36
Total km =			209
Total Belgium km =			209

### FRANCE

In operation:

Section	Max.Speed (km/h)	Year	Distance (km)
LGV Paris Sud Est	300	1981 / 1983	419
LGV Atlantique	300	1989 / 1990	291
LGV Contournement Lyon	300	1992 / 1994	121
LGV Nord – Europe	300	1994 / 1996	346
LGV Interconnexion IDF	300	1994 / 1996	104
LGV Méditerranée	320	2001	259
LGV Est (First phase)	320	2007	332
(Figueres -) Frontière – Perpignan	300	2010	24
LGV Rhin – Rhône Br Est (First phase)	320	2011	140
Total km =			2,036

Under construction:

Section	Max.Speed (km/h)	Year	Distance (km)
LGV Est – Européenne (Second phase)	320	2016	122
LGV Bretagne – Pays de la Loire	320	2016	214
LGV Sud Europe Atlantique	300	2016	341
Contournement Nîmes – Montpellier	300	2017	80
Total km =			757

## Planned:

Section				Max.Speed (km/h)	Year	Distance (km)
LGV Rhin	—	Rhône Br Est (Second phase)		320	2017	50
LGV Poitiers	—	Limoges		320	>2020	115
LGV Bordeaux	—	Toulouse (GPSO)		320	>2020	210
Liaison Paris	—	Normandie			>2020	200
LGV PACA					>2020	189
Interconnexion Sud IDF					>2020	18
LGV Bordeaux	—	Espagne (GPSO)			>2020	230
LGV Lyon	—	Turin			>2020	291
LGV Montpellier	—	Perpignan			>2020	193
LGV Picardie					>2020	200
LGV Rhin	—	Rhône Branche Sud		320	>2020	157
LGV Rhin	—	Rhône Branche Ouest		320	>2020	94
LGV Coeur de France (POCL)				320	>2020	430
Jonction vers aéroport de Vatry					>2020	30

Total km = 2,407

Total France km = 5,200

## GERMANY

### In operation:

Section				Max.Speed (km/h)	Year	Distance (km)
Fulda	—	Würzburg		280	1988	90
Hannover	—	Fulda		280	1991	248
Mannheim	—	Stuttgart		280	1991	109
Hannover (Wolfsburg)	—	Berlin		250	1998	189
Köln	—	Frankfurt		300	2002	184
Köln	—	Düren		250	2003	42
(Karlsruhe -) Rastatt	—	Offenburg		250	2004	44
Leipzig	—	Gröbers (- Erfurt)		250	2004	24
Hamburg	—	Berlin		230	2004	253
Nürnberg	—	Ingolstadt		300	2006	89
München	—	Augsburg		230	2011	62

Total km = 1,334

### Under construction:

Section				Max.Speed (km/h)	Year	Distance (km)
(Leipzig/Halle -) Gröbers	—	Erfurt		300	2015	98
(Karlsruhe -) Offenburg	—	Basel		250	2015	112
Nürnberg	—	Erfurt		250	2017	218

Total km = 428

Planned:

Section				Max.Speed (km/h)	Year	Distance (km)
Frankfurt	–	Mannheim		300		18
Stuttgart	–	Ulm	– Augsburg	250		166
Hamburg/Bremen	–	Hannover		300		114
(Hannover -) Seelze	–	Minden		230		71
(Frankfurt -) Hanau	–	Fulda/Würzburg		300		126

Total km = 495  
 Total Germany km = 2,257

## ITALY

In operation:

Section				Max.Speed (km/h)	Year	Distance (km)
Rome	–	Florence (First section)		250	1981	150
Rome	–	Florence (Second section)		250	1984	74
Rome	–	Florence (Third section)		250	1992	24
Rome	–	Naples		300	2006	220
Turin	–	Novara		300	2006	94
Milan	–	Bologna		300	2008	182
Novara	–	Milan		300	2009	55
Florence	–	Bologna		300	2009	77
Naples	–	Salerno		300	2009	47

Total km = 923

Planned:

Section				Max.Speed (km/h)	Year	Distance (km)
Milan	–	Venice				245
Genoa	–	Milan				150

Total km = 395  
 Total Italy km = 1,318

## THE NETHERLANDS

In operation:

Section	Max.Speed (km/h)	Year	Distance (km)
Schiphol – Rotterdam – Belgian Border	300	2009	120

Total Netherlands km = 120

## POLAND

Planned:

Section	Max.Speed (km/h)	Year	Distance (km)
Warsaw – Lodz – Wroclaw – Poznan	300		500
Warsaw – Ktowice / Krakow	300		212

Total Poland km = 712

## PORTUGAL

Planned:

Section	Max.Speed (km/h)	Year	Distance (km)
Lisboa – Caia (- Madrid)	350		206
Porto – Valença (- Vigo) first phase	250		55
Lisboa – Porto	300		290
Porto – Valença (- Vigo) second phase	250		45
Aveiro – Almeida (- Salamanca)	250		170
Evora – Faro – Vila Real de SA (- Huelva)	250		240

Total Portugal km = 1,006

## RUSSIA

Planned:

Section	Max.Speed (km/h)	Year	Distance (km)
Moscow – St. Petersburg	300		650

Total Russia km = 650

# SPAIN

## In operation:

Section	Max.Speed (km/h)	Year	Distance (km)
Madrid – Seville	270	1992	471
Madrid – Lleida	300	2003	519
Zaragoza – Huesca	200	2003	79
(Madrid -) La Sagra – Toledo	250	2005	21
Córdoba – Antequera	300	2006	100
Lleida – Camp de Tarragona	300	2006	82
Madrid – Segovia – Valladolid	300	2007	184
Antequera – Málaga	300	2007	55
Camp de Tarragona – Barcelona	300	2008	88
By pass Madrid	200	2009	5
Madrid – Valencia / Albacete	300	2010	432
Figueres – Frontera (- Perpignan)	300	2010	20
Ourense – Santiago	300	2011	88
Barcelona – Figueres	300	2013	132

Total km = 2,276

## Under construction:

Section	Max.Speed (km/h)	Year	Distance (km)
(Madrid-) Alicante / Murcia / Castellón	300		470
Vitoria – Bilbao – San Sebastián	250		175
Variante de Pajares	250		50
Bobadilla – Granada	250		109
La Coruña – Vigo	250		158
Navalmoral – Cáceres – Badajoz – Fr. Port.	300		278
Sevilla – Cádiz	250		152
Hellín – Cieza (Variante de Camarillas)	250		27
Sevilla – Antequera	300		128

Total km = 1,547

## Planned:

Section	Max.Speed (km/h)	Year	Distance (km)
Valladolid – Burgos – Vitoria	300		211
Venta de Baños – León – Asturias			238
Madrid – Navalmoral de la Mata	300		191
Almería – Murcia			190
Valencia – Castellón			64
Olmedo – Zamora – Orense	300		323
Palencia – Santander	300		201
Zaragoza – Castejón – Logroño	250		149
Castejón – Pamplona	300		75
Orense – Vigo (vía Cerdedo)	250		60

Total km = 1,702

Total Spain km = 5,525

## SWEDEN

Planned:

Section			Max.Speed (km/h)	Year	Distance (km)
Stockholm	—	Malmö / Goteborg	300		750

Total Sweden km = 750

## SWITZERLAND

In operation:

Section			Max.Speed (km/h)	Year	Distance (km)
Frutigen	—	Visp (Lötschberg base tunnel)	250	2007	35

Total km = 35

Under construction:

Section			Max.Speed (km/h)	Year	Distance (km)
Erstfeld	—	Biasca (Gotthard base tunnel)	250	2017	57
Giubiasco	—	Lugano (Ceneri base tunnel)	250	2019	15

Total km = 72

Total Switzerland km = 107

## UNITED KINGDOM

In operation:

Section			Max.Speed (km/h)	Year	Distance (km)
Fawkham Junction	—	Tunnel	300	2003	74
London	—	Southfleet Junction	300	2007	39

Total km = 113

Planned:

Section			Max.Speed (km/h)	Year	Distance (km)
London	—	Birmingham (HS2, first section)	360	2025	204

Total km = 204

Total United Kingdom km = 317

## TOTAL KM EUROPE:

In operation = 7,139

Under construction = 2,804

Planned = 8,321

Total Europe 2025 = 18,264

# ASIA

## CHINA (PASSENGERS DEDICATED LINES – PDL)

In operation:

Section				Max.Speed (km/h)	Year	Distance (km)
Qinhuangdao	—	Shenyang		250	2003	404.9
Beijing	—	Tianjing		350	2008	118.0
Nanjing	—	Hefei		250	2008	148.6
Jinan	—	Qingdao		200	2009	393.0
Hefei	—	Wuhan		250	2009	331.0
Shijiazhuang	—	Taiyuan		250	2009	223.9
Wuhan	—	Guangzhou		300	2009	1,079.4
Ningbo	—	Wenzhou	— Fuzhou-Xiamen	250	2010	837.4
Zhengzhou	—	Xi'an		300	2010	523.4
Chengdu	—	Dujiangyan		200	2010	65.4
Shanghai	—	Nanjing		300	2010	323.5
Nanchang	—	Jiujiang		250	2010	118.7
Shanghai	—	Hangzhou		350	2010	147.3
Changchun	—	Jilin		250	2010	110.9
Hainan East Circle				250	2010	308.1
Guangzhou	—	Zhuhai North		200	2011	142.9
Beijing	—	Shanghai		300	2011	1,318.3
Guangzhou	—	ShenZhen (Hongkong)		250	2011	102.4
Wuhan	—	Yichang		200	2012	292.1
Hefei	—	Bengbu		300	2012	130.6
Zhengzhou	—	Wuhan		300	2012	525.6
Harbin	—	Dalian		250	2012	921.2
Beijing	—	Zhengzhou		300	2012	676.2
Longyan	—	Zhangzhou		200	2012	113.5

Total km = 9,356

### Under construction:

Section				Max.Speed (km/h)	Year	Distance (km)
Guangzhou	—	Zhuhai (include Extend Line)		200		21
Tianjin	—	Qinhuangdao				278
Nanjing	—	Hangzhou		300		254
Hangzhou	—	Ningbo		250		150
Xiamen	—	Shenzhen		200		514
Nanjing	—	An'qing		200		258
Shijiazhuang	—	Jinan		250		323
Baoji	—	Lanzhou		250		401
Changsha	—	Kunming		250		1,158
Lanzhou	—	Urumqi		200		1,776
Heifei	—	Fuzhou		250		806
Datong	—	Xi'an		250		859
Xi'an	—	Chengdu		250		509
Wuhan	—	Xiaogan		200		65.6
Wuhan	—	Huangshi		200		96
Tianjin	—	Baoding		200		231.6
Xuzhou	—	Zhengzhou		250		361.9
Haerbin	—	Qiqihaer		250		285.5
Xi'an	—	Baoji		250		148
Shenyang	—	Dandong		250		206
Hangzhou	—	Changsha		300		452
Qingdao	—	Rongcheng		250		331.6

Total km = 9,485

### Planned:

Section				Max.Speed (km/h)	Year	Distance (km)
Wanzhou	—	Chengdu				586
Chengdu	—	Guangzhou				1,373
Shangqui	—	Hangzhou				770
Kunming	—	Nanning				710
Jinzhou	—	Yingkou		200		100
Guangxi Northern Gulf				200		238

Total km = 3,777

Total China km = 22,619

## TAIWAN-CHINA

### In operation:

Section				Max.Speed (km/h)	Year	Distance (km)
Taipei	—	Kaohsiung		300	2007	345

Total Taiwan-China km = 345



## INDIA

### Planned:

Section	Max.Speed (km/h)	Year	Distance (km)
Mumbai — Amehdabad	250		495

Total India km = 495

## JAPAN (SHINKANSEN SYSTEM)

### In operation:

Section	Max.Speed (km/h)	Year	Distance (km)
Tokyo — Shin Osaka (Tokaido)	270	1964	515
Shin Osaka — Okayama (San-yo)	270	1972	161
Okayama — Hakata (San-yo)	300	1975	393
Omiya — Morioka (Tohoku)	320	1982	465
Omiya — Niigata (Joetsu)	240	1982	270
Ueno — Omiya (Tohoku)	110	1985	27
Tokyo — Ueno (Tohoku)	110	1991	4
Fukushima — Yamagata (Yamagata) MINI	130	1992	87
Morioka — Akita (Akita) MINI	130	1997	127
Takasaki — Nagano (Hokuriku)	260	1997	117
Yamagata — Shinjo (Yamagata) MINI	130	1999	62
Morioka — Hachinohe (Tohoku)	260	2002	97
Shin Yatsushiro — Kagoshima Chuo (Kyushu)	260	2004	127
Hachinohe — Shin Aomori (Tohoku)	260	2010	82
Hakata — Shin Yatsushiro (Kyushu)	260	2011	130

Total km = 2,664

### Under construction:

Section	Max.Speed (km/h)	Year	Distance (km)
Nagano — Kanazawa (Hokuriku)	260	2015	229
Shin Aomori — Shin Hakodate (Hokkaido)	260	2016	149
Takeo Onsen — Isahaya (Kyushu)			46
Isahaya — Nagasaki (Kyushu)		2023	21
Kanazawa — Tsuruga (Hokuriku)	260	2025	125
Shin Hakodate — Sapporo (Hokkaido)	260	2035	212

Total km = 782

### Planned:

Section	Max.Speed (km/h)	Year	Distance (km)
Tsuruga — Osaka (Hokuriku)			129
Shin Tosu — Takeo Onsen (Kyushu)			51

Total km = 180

Total Japan km = 3,626

## SAUDI ARABIA

Under construction:

Section	Max.Speed (km/h)	Year	Distance (km)
Medina — Jeddah — Mecca	300	2015	550

Total Saudi Arabia km = 550

## SOUTH KOREA

In operation:

Section	Max.Speed (km/h)	Year	Distance (km)
Seoul — Daegu	300	2004	330
Daegu — Pusan	300	2010	82

Total km = 412

Under construction:

Section	Max.Speed (km/h)	Year	Distance (km)
Osong — Gwangju	300	2014	186

Total km = 186

Planned:

Section	Max.Speed (km/h)	Year	Distance (km)
Gwangju — Mokpo	300	2017	49

Total km = 49

Total South Korea km = 647

## TURKEY

### In operation:

Section	Max.Speed (km/h)	Year	Distance (km)
(Ankara-)Sinkan — Eskisehir	250	2009	232
Polatli — Konya	250	2011	212
Total km =			444

### Under construction:

Section	Max.Speed (km/h)	Year	Distance (km)
Eskisehir — Köseköy	250	2014	180
Köseköy — Gebze	160	2014	56
Bursa — Yenişehir	250	2015	75
Yerköy — Sivas	250	2015	292
Total km =			603

### Planned:

Section	Max.Speed (km/h)	Year	Distance (km)
Kayseri kuzey geçişi	160	2013	23
Ankara — İzmir	250	2015	624
Bandırma — Bursa	250	2015	100
Yenişehir — Osmaniye	250	2015	30
Sivas — Erzincan	250	2015	235
Nusaybin — Cizre — Habur hattı	160	2016	135
Mürşitpınar — Urfa	160	2016	63
Ankara — Kayseri	250		175
Halkalı — Bulgaria Border	250		230
Gebze — İstanbul			43
Gaziantep — Çobanbey — Halep			100
Total km =			1,758
Total Turkey km =			2,805

## TOTAL KM ASIA:

In operation = 13,221

Under construction = 11,606

Planned = 6,259

Total Asia 2025 = 31,087

# OTHER HIGH SPEED SYSTEMS

## MOROCCO

Under construction:

Section	Max.Speed (km/h)	Year	Distance (km)
Tanger — Kenitra	300	2015	200
Total km =			200

Planned:

Section	Max.Speed (km/h)	Year	Distance (km)
Settat — Marrakech	300		480
Total km =			480
Total Morocco km =			680

## BRAZIL

Planned:

Section	Max.Speed (km/h)	Year	Distance (km)
Rio de Janeiro — Sao Paulo — Campinas	300		511
Total Brazil km =			511

## USA

In operation:

Section	Max.Speed (km/h)	Year	Distance (km)
North East Corridor ([Boston —] NY — W)	240		362
Total km =			362

Planned:

Section	Max.Speed (km/h)	Year	Distance (km)
Fresno — Bakersfield	300	2021	483
Sacramento / San Francisco — Fresno		>2025	147
Bakersfield — Los Angeles	300	>2025	147
Total km =			777
Total USA km =			1,139

## TOTAL KM OTHER COUNTRIES:

In operation =	362
Under construction =	200
Planned =	1,768
Total Other Countries 2025 =	2,330

## TOTAL KM WORLD:

In operation =	20,722
Under construction =	14,610
Planned =	16,348
Total Other Countries 2025 =	51,681