

INTERMAT CONSTRUCTION OBSERVATORY





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thing for Elsa
is that today's
innovations shape
tomorrow's world.**

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CONTENTS

Foreword.....4

Algeria.....6

Belgium14

France.....21

Germany.....31

Italy.....37

Ivory Coast44

Kenya.....51

Morocco58

Netherlands65

Qatar70

United Arab Emirates77

United Kingdom.....84

Appendix: Table of customs codes.....91

FOREWORD

WHERE TO EXPORT TO IN PUBLIC WORKS

With major projects such as Grand Paris Express in France, the extension of the Al Maktoum Airport in Dubai, the construction of the Brenner Tunnel between Italy and Austria, and the fourth southern bypass in Algeria, the EMEA¹ zones offers a multitude of opportunities for professionals working in the construction sector.

Over the course of its successive editions, INTERMAT Paris has become the reference trade show for all international professionals in the construction and infrastructure market. INTERMAT 2018 in particular promises to be an opportunity for valuable meetings between actors from the EMEA zone: building contractors, manufacturers, suppliers of equipment and solutions will thus have a venue at which to develop their projects which will serve the development of regions.

The next edition, to be held from 23 to 28 April 2018 in Paris, aims to be not just an event for construction professionals, but also a leading showcase for innovation and inspiration to accomplish the projects of the future.

The construction and infrastructure sector is a leading driver for the development of regions and their appeal as regards mobility, housing, energy and employment. In view of the profound economic, social and environmental change currently underway, INTERMAT accompanies industry players in this transformation with new high added value tools and content.

The INTERMAT 2018 Observatory was thus born out of the desire to establish stronger bonds with the market and provide construction equipment manufacturers with strategic research on 12 countries in the EMEA zone, handpicked for their planned investment levels in infrastructure and buildings.

Its objective is to offer insight into market opportunities for the equipment manufacturers present across the exhibition's four hubs of expertise: Buildings & Concrete Sector, Roads, Minerals & Foundations, Lifting, Handling & Transportation and Earthmoving & Demolition².

For each country examined, we invite you to discover the domestic investment plans, the major challenges of seven sectors of application³, the main imports and exports of construction equipment and the foreign brands present in the country.

The Observatory also provides exclusive analysis of the major construction projects underway and planned for the future to 2025-2030 and the main stakeholders involved in these projects. Several iconic projects are already in evidence, offering high potential for machinery manufacturer involvement.

In Europe, Grand Paris Express tops the bill, making France the leading worksite in Europe, with 200 km of rail network, four new lines created around Paris and the extension of two existing lines, the construction of 68 stations and the development of new neighbourhoods around these future urban hubs.

¹ Europe, Middle East, Africa

² The Observatory is built around 71 customs codes, which are listed in the appendix.

³ Sectors studied: railways, roads, buildings, engineering structures, ports, mines and quarries, airports.

Two major tunnel projects in Europe also call on the contributions of equipment manufacturers in Germany and Italy. Between now and 2035, 182 km of railway lines will be built between Karlsruhe and Rastatt in Germany, requiring two one-way tunnels to be bored beneath the city of Rastatt. Meanwhile the cross-border Brenner tunnel running between Italy and Austria, due to be commissioned in 2025, is set to become the longest tunnel in the world, seven kilometres longer than the Gotthard Tunnel.

As regards Africa, the building and public works sector in Algeria recorded growth of 5.6% in 2016. The orbital route around Algiers (4th southern bypass) stretching 260 km and the goal of building 1.6 million dwellings in the country by 2019 reflect the vitality of the sector. Ivory Coast has implemented a National Development Plan from 2016-2020 which should generate 9.6% growth in the building industry over the same period. In addition to an ambitious road development plan, the Ivorian government has set itself the priority of building 300,000 social dwellings every year.

In the Middle East, Expo 2020 in Dubai has enabled several major projects to emerge such as a 15-km metro extension, road upgrading and widening, the construction of about ten engineering structures and the new Al Maktoum airport, whose capacity will be extended to 160 million passengers.

We wish you an enjoyable read and look forward to seeing you in Paris from 23 to 28 April 2018!

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ALGERIA

Since the beginning of the 2000s and aided by the oil windfall, the Algerian economy has benefitted from public investment programmes, with 70% of the funds allotted to infrastructure. Despite the country's tax revenue suffering from the drop in oil prices from 2014 onwards, the government nonetheless succeeded in sustaining its capital spending budgets at a high level up to 2017. Growth in building and public works reached 5.7% in 2016. The public capital spending budget should level off at €18 billion per year, a much higher sum than in the other countries in the region. To compensate for shrinking tax income and thanks to its low trade deficit, the government intends to call on international finance for certain major projects. Finally, requirements for building machinery and equipment remain high, even if imports have experienced a slight slow-down. The majority of capital goods purchased are imported, with local supply making up less than 15% of the market.



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MACROECONOMIC AND TRADE DATA*

GDP **€167 bn**

Per capita GDP **€4,042**

Debt/GDP **17%**

3.4% Growth rate
Forecast up to 2025

Gross fixed capital formation **43%**



Balance of trade
-€20 bn

Trade ranking
52nd

Country risk **C**

Ranked **156th** Business-friendly nation

Main clients
Spain
Italy
France



Main suppliers
China
France
Italy

CONSTRUCTION EQUIPMENT: MAIN TRADE FLOWS*



IMPORTS

BY EXPERTISE HUB:

- Earthmoving and demolition: 7%
- Lifting, handling and transportation: 15%
- Roads, minerals and foundations: 27%
- Buildings and concrete sector: 51%

MAIN IMPORTS

- Bars and rods for reinforced concrete: €1.2 bn
- Tractors for semi-trailers: €226 m
- Hydraulic track-laying excavators: €158 m

MAIN SUPPLIER COUNTRIES

- Italy: 24%
- China: 17%
- Spain: 15%
- France 5th: 6%



EXPORTS

BY EXPERTISE HUB:

- Earthmoving and demolition: 99.97%
- Lifting, handling and transportation: 0%
- Roads, minerals and foundations: 0%
- Buildings and concrete sector: 0.03%

MAIN EXPORTS

- Boring machina parts: €916 m
- Boring tools (diamond or cermet): €519 m
- Derricks and self-propelled cranes: €159 m

MAIN COUNTRIES OF DESTINATION

- USA: 65%
- Germany: 15%
- Canada: 11%
- France 29th: 0.5%

Market potential

SECTORS

DEVELOPMENT LEVERS FOR SECTOR



Roads

- Plan launched by the Government with the aim of catering to the substantial increase in traffic and to requirements for goods and passenger transportation.
- Construction of 4,300 km of motorways and new roads as part of plans to develop the trunk road network.
- Conversion of 10,000 km of roads to dual carriageway.
- Upgrading of infrastructure to new standards (safety facilities, etc.)
- Deployment of management, operation and tolling systems on East-West motorway (1,200 km).
- Implementation of traffic regulation system in Algiers and major cities.

MASTER PLANS

Roads and Motorways Master Plan (SDRA)
Approx. **€35 bn** up to 2020

LEVEL OF INNOVATION & OTHER MAJOR ISSUES

- ★ Real-time road traffic regulation systems deployed to respond to serious traffic congestion problems in the largest cities.
- ★ Integration of ITS in motorway operation systems.
- ★ Upgrading of road and motorway networks to European standards.
- ★ Introduction of safety and signalling systems compliant with European regulations, in particular for long tunnels (in excess of 400 m).



Airports

- Modernisation and development of airports to cater to growth in traffic and new standards
- Construction and fitting of new passenger terminals; Algiers, Oran and Touggourt.
- Construction and fitting of 5 new air traffic control towers.
- Reinforcement or extension of runways in 15 airports.
- Extension of aircraft parking facilities and taxiways for 4 airports.
- Production of a new air traffic control system including the construction of an ATC centre for the south of the country.
- Construction of new freight terminals in certain airports.

Development plan, more than **€2 bn** up to 2025

- ★ Capacity increase and improved passenger conditions in the country's passenger terminals, in particular in Algiers (capacity objective: 22 million passengers/year in 2018 then 32 million in 2030).
- ★ Modernisation of air traffic control in the south of the country.
- ★ Development of instrument landing systems (ILS) in most airports
- ★ Increase in air freight handling capacity in Algiers and in other airports in the country.



Ports

- Development of new high-capacity container terminals enabling transshipment at Djen-Djen and Oran.
- Development of the handling of minerals and semi-finished products in ports of Arzew, Annaba and Djen-Djen.
- Construction of a new port near Cherchell to accommodate the goods activities of Algiers and facilitate the deconsolidation and transshipment of freight traffic from Asia.
- Continuation of redevelopment of fishing ports and shelters along the coastline –objective: one port every 45 km).
- Construction of new marinas

Development scheme, more than **€4.5 bn** up to 2025

- ★ New container terminal in Oran port: conducted on government funds, the objective of increasing storage capacity by 300,000 additional containers
- ★ New container terminal in Djen-Djen: built under a PPP between the Djen-Djen Ports Corporation and Dubai Ports World.
- ★ New port at Cherchell: built under an Algerian/Chinese PPP. It will be the country's main item of infrastructure with an annual capacity of 25 m t of goods and 6.5 m 20-foot containers by 2025, compared with 10.5 m t currently handled by Algiers and Ténès combined.

TOP 3
high-potential sectors

1/Roads 2/Buildings 3/Railways

| SECTORS | DEVELOPMENT LEVERS FOR SECTOR | MASTER PLANS | LEVEL OF INNOVATION & OTHER MAJOR ISSUES | SECTORS | DEVELOPMENT LEVERS FOR SECTOR | MASTER PLANS | LEVEL OF INNOVATION & OTHER MAJOR ISSUES |
|---|---|--|--|--|---|--|--|
| <div> Mines and quarries</div> | <ul style="list-style-type: none">Rehabilitation of Tébessa iron ore mines to supply the steelmaking centre at El Hadjar, currently under renovation.Development of colossal iron ore deposits in the South West (Gara Djebil and Mechri Abdellaziz, totalising more than 3.5 bn tonnes).Investment programme to increase annual phosphate production in deposits at Djebel Onk (3 bn tonnes) from 1.5 to 10 m t by 2025.Development of zinc/lead deposits at Oued Amizour, and rehabilitation of zinc/lead mine in Kherzet Youcef.Development of production of useful substances: bentonite, barite, calcium carbonate, diatomite, construction aggregates.Relaunch of production of gold mines in Hoggar. | <p>Mining development programme by public group MANAL and by the Ministry of Industry and Mining, worth more than €5 bn up to 2025.</p> | <ul style="list-style-type: none">★ Objective of maximising mining potential to diversify the economy:<ul style="list-style-type: none">- construction of plants to process and convert phosphate into phosphoric acid and fertiliser- use of iron ore in the steelmaking centres of El Hadjar- new plants at Bellara and Oran.★ Barite and bentonite chiefly taken up by the Algerian hydrocarbon industry.★ Gold mining potential in the Hoggar region is still substantial.★ The demand for aggregates remains high and generates tension on the market. | <div> Energy</div> | <ul style="list-style-type: none">Investment programme:<ul style="list-style-type: none">- exploration and development of production of new oil fields- modernisation and extension of the transportation network by pipeline- construction of new refineries and chemical plants15 to 20% of sums invested devoted to civil engineering and construction of infrastructure. | <p>5-year investment plan by petroleum group Sonatrach €65.7 bn 2017-2021</p> | <ul style="list-style-type: none">★ 70% of budget dedicated to development of exploration and production of oil fields★ Programme to increase drilling: 1,300 oil wells to be drilled over the 5-year period.★ €36 bn spent on developing already-discovered oil fields to commence or improve operations. |
| <div> Railways</div> | <ul style="list-style-type: none">Modernisation and upgrading of existing network.Extension of the network by nearly 8,000 km of track, to reach 12,500 km in 2030.Development and modernisation of suburban networks in Algiers, Oran, Constantine, Annaba and Setif.Construction of new stations and modernisation of existing ones.Development of urban rail transport:<ul style="list-style-type: none">- extension of Algiers metro by about 30 km- new metro in Oran- construction of new tram lines in major cities (5 cities underway and 6 others planned). | <p>Master plan for development of rail network of more than €20 bn up to 2030</p> | <ul style="list-style-type: none">★ Improvement in route alignments and doubling of tracks to allow operational speeds of 160 km/h and 220 km/h.★ Electrification of existing network and new lines under construction.★ Modernisation of telecommunications and signalling with broad deployment of ERTMS and GSM-R.★ Inter-modality in urban transport (ticketing and fare integration). | <div> Logistics</div> | <ul style="list-style-type: none">Construction of 49 new industrial zones and about ten logistics platformsTenders already launched for 39 industrial zones and 3 logistics platforms | <p>Programme to build and develop industrial zones and logistics platforms (national development plan), more than €1.9 bn between 2015-2019</p> | <ul style="list-style-type: none">★ Construction of industrial zones with logistics infrastructure linking up with transport networks: development and construction of roads and networks in industrial zones, connection with road and rail networks. |
| <div> Buildings</div> | <ul style="list-style-type: none">SDAT plan, creation of new towns:<ul style="list-style-type: none">- 5 projects already launched- Several urban extensions in Oran, Annaba, Constantine, Algiers, Tizi Ouzou.5-year plan from 2015-2019, construction of:<ul style="list-style-type: none">- 1.6 m dwellings (350,000 completed and more than 70% already under construction)- urban renovation programmes in about ten large cities- Great Mosque of Algiers (completion)- 10 new multi-storey car parks in Algiers- several universities- 6 large stadia.Major investments in the private sector (local and international developers): 1,602 hotel projects including 584 currently underway (€2.5 bn), housing, offices, clinics and shopping centres. | <p>Public investment plan and Regional Development Master Plan (SDAT) Approx. €40 bn up to 2030</p> | <ul style="list-style-type: none">★ Large-scale plan to eradicate unsuitable housing and fight the accommodation crisis, under continued pressure from population growth.★ Political willpower to modernise big cities.★ Drive to modernise mobility in major cities such as Algiers by creating parking spaces. | | | | |
| <div> Environment</div> | <ul style="list-style-type: none">Increase in water resource harnessing capabilities: construction of 26 dams, 9 of which to be delivered by 2020, and 700 boring operations.Improvement in wastewater treatment: construction of 60 treatment or lagoon-based plants and the construction of more than 1,200 km of pipes.Development of water supply capacities: construction of 17 water treatment plants, of 2,400 km of pipes and renovation of 1,600 km of distribution networks. | <p>National Water Plan, more than €10 bn up to 2025</p> | <ul style="list-style-type: none">★ Storage capacity of new dams will reach a total of 1.5 bn m3.★ Most projects built by local firms; engineering provided by foreign companies. | | | | |

TOP 5 requirements for construction equipment and materials

- Steel for concrete
- Hydraulic cements
- Cast-iron, seamless and welded steel pipes and profiles
- Additives for concrete, mortar and cement and non-refractory mortar and concrete
- Basic materials (profiles, pipes)

Main imports of construction equipment

| TOTAL IMPORTS (IN EUR) | | | | | | |
|---|---------------|---------------|---------------|---------------------|--|--|
| | 2012 | 2014 | 2015 | Change 2012-2015 | Top 5 exporting countries | Brands sold |
| Earthmoving & demolition* | | | | | | |
| Derricks, self-propelled cranes | 17,837,614 | 26,142,588 | 31,763,817 | 78% | 1/ Germany 2/ China 3/ Italy 4/ Russia 5/ South Korea | Liebherr, Sennebogen, Soilmec, Manitowoc, XCMG |
| Track-laying excavators | 12,303,617 | 10,091,098 | 21,951,885 | 78% | 1/ China 2/ Italy 3/ France 4/ Germany 5/ Belgium | Bobcat, Caterpillar, Case, Doosan, Hidromek, Hitachi, Hyundai, JCB, John Deere, Jonyang, Komatsu, Kubota, Liebherr, Liugong, New Holland, Pengpu, Sany, SDLG, Shantui, Terex, Volvo, XCMG, XGMA |
| Earth-handling machinas | 4,991,453 | 9,258,328 | 11,244,311 | 287% | 1/ South Korea 2/ France 3/ Germany 4/ Netherlands 5/ Japan | Atlas Copco, Bobcat, Casagrande, Case, Caterpillar, Doosan, Everdigm, Hidromek, Hitachi, Hyundai, JCB, John Deere, Junjin, Komatsu, Kubota, Liebherr, Liugong, Lonking, New Holland, Sany, SDLG, SEM, Shantui, Soilmec, Terex, Volvo, Wolf, XCMG |
| Buckets, shovels, grabs and grips | 6,284,287 | 5,656,876 | 6,423,883 | 2% | 1/ Italy 2/ Turkey 3/ China 4/ Netherlands 5/ Portugal | Case, Caterpillar, Doosan, Hidromek, Hitachi, Hyundai, Komatsu, Liebherr, MB, Samsung, Terex, Volvo, XCMG |
| Lifting, handling and transportation | | | | | | |
| Road tractors for semi-trailers | 268,916,241 | 284,518,129 | 225,840,598 | -16% | 1/ Germany 2/ France 3/ China 4/ Italy 5/ Sweden | CAMC, C&C, CNHTC, Daewoo, DAF, Ford, Foton, Hino, Hyundai, Iveco, MAN, Mercedes, Renault Trucks, Scania, Shacman, Sinotruck, Volvo |
| Non-electric propelled fork lift and works trucks | 45,076,368 | 71,493,715 | 76,995,241 | 71% | 1/ China 2/ Sweden 3/ Italy 4/ South Korea 5/ United Kingdom | Ausa, Bobcat, Feeler, Foton, Hyster, Hyundai, JLG, Kalmar, Liugong, Lonking, Manitou, Qingong, Shangli Forklift, Toyota, XGMA |
| Tower cranes | 35,164,174 | 59,955,395 | 67,909,388 | 93% | 1/ China 2/ France 3/ Spain 4/ Portugal 5/ Italy | Liebherr, Potain, Saez, Terex, Zoomlion |
| Lifts and skip hoists | 19,179,794 | 27,146,210 | 35,313,945 | 84% | 1/ Spain 2/ Turkey 3/ China 4/ Italy 5/ France | Alimak, Ayerb, Geda, Iori, Maber, Ogei, SIRL |
| Elevators and conveyors | 25,755,733 | 32,834,624 | 33,895,731 | 32% | 1/ Italy 2/ Germany 3/ France 4/ China 5/ Spain | Benne, Nace, Roc Belt, SAES |
| Roads, minerals and foundations* | | | | | | |
| Track-laying excavators | 101,199,639 | 191,573,820 | 157,561,600 | 56% | 1/ South Korea 2/ Japan 3/ China 4/ France 5/ India | Caterpillar, Case, Doosan, Hidromek, Hitachi, Hyundai, JCB, Kato, Komatsu, Liebherr, Liugong, Pengpu, Sany, SDLG, Sumitomo, Terex, Volvo |
| Mechanical shovels, excavators and shovel loaders | 178,741,889 | 219,537,912 | 150,427,924 | -16% | 1/ China 2/ United Kingdom 3/ Turkey 4/ South Korea 5/ USA | Bobcat, Caterpillar, Case, Doosan, Hidromek, Hitachi, Hyundai, JCB, John Deere, Komatsu, Kubota, Liebherr, Liugong, Lonking, New Holland, Sany, Schopf, SDLG, SEM, Shantui, Terex, Volvo, XCMG, XGMA |
| Crushing and grinding machinas | 61,855,583 | 62,711,527 | 74,365,208 | 20% | 1/ Italy 2/ Turkey 3/ China 4/ Spain 5/ Germany | Comec Blindiar, Eagle, Haver & Boecker, Keestrack, KH Minerals, Metso, MFL, Minyu, Nace, RM, Roc Impact, SAES, Triman, Tyler |
| Crane lorries | 68,816,250 | 51,477,732 | 59,142,833 | -14% | 1/ China 2/ Germany 3/ Italy 4/ USA 5/ Spain | Grove, Liebherr, Liugong, Tadano, Terex, Sany, Sennebogen, XCMG, Zoomlion |
| Bulldozers | 54,254,009 | 82,993,201 | 57,402,569 | 6% | 1/ Brazil 2/ Japan 3/ China 4/ Austria 5/ Thailand | Caterpillar, Dadi, Dressta, Hitachi, Komatsu, Liebherr, New Holland, Pengpu, Sany, Shantui |
| Buildings and concrete sector | | | | | | |
| Bars and rods for reinforced concrete | 1,594,188,266 | 1,383,082,998 | 1,240,819,517 | -22% | 1/ Italy 2/ Spain 3/ Portugal 4/ Lettonie 5/ China | Alfa Acciai, Arcelor Mittal, Celsa, Feralpi, Gallardo, Tuxor, Unisteel |
| Concrete pumps | 105,949,821 | 197,583,747 | 129,111,304 | 22% | 1/ China 2/ France 3/ Italy 4/ Germany 5/ South Korea | Cifa, Everdigm, Foton, Liugong, SANY, Schwing Stetter, Sermac, XCMG |
| Machinas for agglomerating, shaping or moulding solid mineral fuels | 59,114,614 | 79,955,484 | 115,685,820 | 96% | 1/ China 2/ Italy 3/ Germany 4/ Spain 5/ France | Adler, Eurimpianti, Hawkeye Pedershaab, Longinotti, Quadra, Toutagglo |
| Shuttering | 51,396,057 | 86,668,506 | 95,274,493 | 85% | 1/ Italy 2/ Turkey 3/ China 4/ Tunisie 5/ France | Altrad, Alsina, Centaure, Dacame, Dercons 2000, Deko, Doka, Fermar, Hunnebeck, Metalusa, Mills, Paschal, Peri |
| Concrete mixer lorries | 44,079,084 | 79,304,914 | 66,583,438 | 51% | 1/ China 2/ Italy 3/ Germany 4/ Turkey 5/ Spain | Altrad, Edil Lame, Firoi, Lino Sella, SIRL, Turbosol, Umacon, Wiggert |

Source: Comtrade.
* The customs codes relating to drilling machinas, machina parts and tools have been excluded as they exclusively refer to oil drilling, outside the scope of the Observatory.

Projects

1.6 MILLION DWELLINGS

Construction of 1.6 million dwellings between 2015 and 2019.

Following the programmes to make up the shortfall in housing during the previous five-year periods, the government has maintained this policy, with plans for the construction of 1.6 million new dwellings over the five year period from 2015 to 2019. In 2015, 350,000 dwellings were delivered. The public authorities plan to maintain a construction rate above 300,000 dwellings per year. The majority of projects slated for the period have already been launched. The cost of the programme should exceed €20 bn.

ALGIERS ORBITAL ROAD

Construction of the 4th southern bypass in Algiers

This project to bypass the Algiers region to the south will connect the town of Khemis Miliana with Bordj Bou Arreridj, stretching 260 km. An initial 62-km section between Khemis Miliana and Berrouaghia was started in December 2014 by an Italian-Algerian consortium headed by the contractor Condotte d’Aqua.

EL HAMDANIA PORT

Construction of a new port at El Hamdania near Cherchell

This project will be completed in a 7-year timeframe under a PPP through a concession awarded to an Algerian-Chinese JV formed by the Algerian public group Serport and the Chinese firms CSCEC and CHEC. It will be financed by Chinese and Algerian banks, and subsequently operated by Shanghai Ports. The future port will have 23 berths with water depth of 20 metres. Extending over more than 700 hectares, it will offer a handling capacity of 6.5 million containers per year and 25.7 million tonnes per year of general goods. In its immediate surroundings, logistics zones will be built on 2,000 hectares of land.

€20 bn

- **Financing:** public
- **Location:** Algeria
- **Contracting authority:** Ministry of Housing, Urban Development and Cities
- **Investors:** Algerian government
- **Timescale:** more than 650,000 dwellings delivered between 2015 and 2016. More than 70% of the building programme has already started.

€3 bn

- **Financing:** public
- **Location:** Khemis Miliana to Bordj Arreridj
- **Contracting authority:** Ministry of Public Works and Transportation / Algerianne des Autoroutes (ADA, ex-ANA)
- **Investors:** Algerian government
- **Design:** Egis Route (France)
- **Prime contractor section 1:** Ital Consult (Italy), LTPS (Algeria), BEET Imeziane (Algeria)
- **Construction consortium for section 1:** Condotte (Italy), Rotahem (Algeria), EPTP Alger (Algeria), EPTTRS (Algeria).
- **Timescale:** design completed in 2012. Construction of section 1 awarded in 2014. Delivery of section 1 in 2018. Delivery of entire project in 2025.

€3 bn

- **Financing:** public-private
- **Location:** Cherchel, in the Tipaza region (90 km west of Algiers)
- **Contracting authority:** Ministry of Public Works and Transportation, Serport (public), CSCEC (China) and CHEC (China).
- **Investors:** Serport (public), CSCEC (China) CHEC (China), Algerian and Chinese banks
- **Architect/ design consultancy:** LEM (Algeria) and the South Korean consortium Yuhill-Yooshin.
- **Prime contractor:** LEM
- **Construction contractors:** CSCEC, CHEC, Algerian contractor consortium.
- **Timescale:** designs conducted between 2014 and 2016. Construction work commenced in first half of 2017. Delivery in 2024.

Projects

DEVELOPMENT OF 2 PHOSPHATE MINES

Development of phosphate mines at Djebel Onk and Bled El Hadba

This relates to the development of phosphate deposits in the Tébessa region near the Tunisian border by the publicly-owned group MANAL, in association with foreign partners. In July 2016, a memorandum of understanding was signed with the Indonesian group Indorama to create a JV tasked with developing mining deposits and increase production from 1.5 m t/y to 10 m t/y in 2020. Another JV associating the two groups with the public group Asmidal will be responsible for transforming the ore into phosphoric acid and phosphate-based fertilisers on a new industrial site which will be built in Oued El Kebrit, near Souk Ahras, approximately 100 km north of the mining deposits.

NORTHERN RAILWAY

Modernisation of Northern Railway (1,200 km)

The Northern Railway is the main line in the country. It connects Algeria's main cities, running from the Moroccan border to Tunisia. This project, launched in the middle of the 2000s, consists of doubling and electrifying the track, straightening the route alignment to enable trains to run at 220 km/h, and modernising the signalling and telecommunications.

RN1

Conversion of RN1 to a motorway over 845 km

The RN1 is a road which crosses Algeria from north to south from Algiers to the borders with Niger and Mali. It is the Algerian section of the Trans-Sahara Highway. In 2009, the Government decided to convert it to a motorway on its first northern third (Algiers to Al Golea). In this aim, work commenced in 2011 to straighten the alignment and widen the road to two lanes over 845 km. Several sections totalising more than 350 km were commissioned between 2014 and 2017.

RAIL BYPASS

Construction of High Plateaux rail bypass

This project consists of completing the High Plateaux rail bypass which crosses the interior regions in the north of Algeria from east to west. The construction of this 1,100-km mainline route commenced at the end of the 1990s. More than 570 km have been completed, while 470 km are under construction. A further 149 km have yet to be launched in construction phase. This single line infrastructure is designed for an operating speed of 220 km/h.

€3 bn

- **Financing:** private sector
- **Location:** Tébessa
- **Contracting authorities:** Manal (Algeria), Indorama (Indonesia)
- **Investors:** Manal, Asmidal, Indorama, Algerian banks
- **Timescale:** design ongoing. Construction in 2018. Delivery in 2020.

€2.5 bn

- **Financing:** public
- **Location:** railway line in north of Algeria running 1,200 km
- **Contracting authority:** Ministry of Public Works and Transportation - ANESRIF
- **Investors:** Algerian government
- **Companies involved:** Systra, Poyri (Finland), CCECC (China), Ozgun (Turkey), Infrafer (Algeria), Infrarail (Algeria), Rizzani De Echer (Italy), ETRHB (Algeria), Thalès
- **Timescale:** work commenced in 2007. Delivery in 2025.

€1.5 bn

- **Financing:** public
- **Location:** Chiffa to El Golea
- **Contracting authority:** Ministry of Public Works and Transportation
- **Investor:** Algerian government
- **Design consultancy:** Tec Cuatro (Spain), Saeti (Algeria)
- **Prime contractor:** Saeti, Snc Lavalin (Canada), Dessau Soprin (Canada)
- **Construction contractors:** CSCEC (China), Cosider (Algeria), ETRHB (Algeria), CMC (Italy), Engoa (Algeria), Sapta (Algeria)
- **Timescale:** Design: 2009-2016. Construction work launched in 2011 for first lots. Delivery in 2019.

€1 bn

- **Financing:** public
- **Location:** M'sila to Saïda
- **Contracting authority:** Ministry of Public Works and Transportation
- **Investors:** Algerian government
- **Companies involved:** Cosider (Algeria), Astaldi (Italy), Infrafer (Algeria), Infrarail (Algeria)
- **Timescale:** works commenced in 2010. Delivery in 2022.

Projects

CONSTRUCTION OF GRAND MOSQUE OF ALGIERS

An iconic project costing nearly 1 billion euros, this property complex of more than 400,000 sqm includes, in addition to a prayer room with a capacity of 120,000, a 239-m high minaret, a 300-bedroom hotel, a cultural centre (library, media library, etc.), an Islamic studies centre, etc. Designs were conducted between 2008 and 2012 by a German consortium which also supervised works up until 2016. In March 2016 it was replaced by the French group Egis. The Chinese group CSCEC is in charge of construction works.

ALGIERS INTERNATIONAL AIRPORT TERMINAL

Construction of a new passenger terminal in Algiers

This 700-million euro project consists of building, as an extension to those already in operation, a new international passenger terminal with a capacity of 11 million passengers per year. Design had been awarded at the beginning of 2013 to a consortium led by the Spanish group Prointec. The latter also supervises the works which were commenced in 2014 by the Chinese group CSCEC. Construction had reached a progress rate of 70% in April 2017.

EXTENSION OF ALGIERS METRO #1

Extension of Algiers metro from Place des Martyrs to Chevalley

This involves the extension of Algiers' first metro line to the heights of the city and its western suburbs. It stretches 9.5 km and has 8 stations. The designs were conducted by the Portuguese firm Ferconsult. The project was shortlisted in April 2017 for funding by the World Bank.

EXTENSION OF ALGIERS METRO #2

Extension of Algiers metro from El Harrach to the airport

For this new extension of the Algiers metro measuring 10 km in length, the civil engineering work commenced in 2015 were awarded directly to the public contractor Cosider. For the boring of the tunnel, Cosider is searching for a partner capable of providing a tunnel boring machina and its operating team. The entire route will run underground and will have 10 stations.

€1 bn

- **Financing:** public
- **Location:** Algiers
- **Contracting authority:** ANARGEMA
- **Investor:** Algerian government
- **Design consultancy:** German consortium, architects' practice KSP Jürgen Engel and the engineering firm Krebs und Kieffer.
- **Prime contractor:** Egis since March 2016.
- **Construction contractors:** CSCEC (China).
- **Timescale:** Construction launched in 2012. Delivery in 2018.

€700 m

- **Financing:** private
- **Location:** Algiers
- **Contracting authority:** SGSIA
- **Investor:** capital of SGSIA (publicly-owned operator of Algiers airport) associated with financing by Algerian banks, combined with a subsidised rate loan from the National Investment Fund (public)
- **Architect/design consultancies:** Prointec consortium (Spain), Llewelyn Davies (United Kingdom), BREAD (Algeria)
- **Prime contractor:** Prointec
- **Construction contractors:** CSCEC (China),
- **Timescale:** Designs conducted between January 2013 and July 2014 by Prointec (Spain), Llewelyn Davies (United Kingdom) and BREA (Algeria). The construction contract was awarded in July 2014. Delivery in September 2018.

€610 m

- **Location:** Algiers
- **Contracting authority:** Ministry of Public Works and Transportation - Entreprise du métro d'Alger
- **Design consultancy:** Ferconsult –Portugal)
- **Timescale:** design in 2014-2016. Delivery in 2025.

€600 m

- **Financing:** public
- **Location:** Algiers
- **Contracting authority:** Ministry of Public Works and Transportation - Entreprise du métro d'Alger
- **Investors:** Algerian government
- **Design consultancy:** Dohwa consortium – Busan (South Korea)
- **Prime contractor:** consortium comprising Dong Myeong (South Korea), Euroestudios (Spain), Saeti (Algeria)
- **Civil engineering contractor:** Cosider (Algeria)
- **Timescale:** Design in 2013-2015. Construction in 2015-2020. Delivery in 2020.

BELGIUM

Compared with its neighbours and other European Union countries, Belgium invests heavily in fixed assets. In relation to total public investment, the share of investment in infrastructure (roads, ports, railways, buildings, etc.) is however low in the country. The main sectors receiving investment are the road, ports and building industries. The port of Antwerp is anticipating substantial developments (the extension of the Royers lock and the construction of a "waste to chemicals" plant).



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MACROECONOMIC AND TRADE DATA*

GDP **€409.7 bn**

Per capita GDP **€36,547**

Debt/GDP **106%**



Balance of trade
€ 100 m

Trade ranking
12th

Country risk **A2**

Ranked **42nd** Business-friendly nation

Main clients
Germany
France
Netherlands



Main suppliers
Netherlands
Germany
France

0.7 -1.1% Growth rate
Forecast up to 2020

Gross fixed capital formation **19%**

CONSTRUCTION EQUIPMENT: MAIN TRADE FLOWS*



IMPORTS

BY EXPERTISE HUB:

- Earthmoving and demolition: 9%
- Lifting, handling and transportation: 44%
- Roads, minerals and foundations: 37%
- Buildings and concrete sector: 10%

MAIN IMPORTS

- Road tractors for semi-trailers: €610 m
- Track-laying excavators: €528 m
- Electric telehandlers (all sectors): €279 m

MAIN SUPPLIER COUNTRIES

- Germany: 19%
- Netherlands: 16%
- France: 14%



EXPORTS

BY EXPERTISE HUB:

- Earthmoving and demolition: 6%
- Lifting, handling and transportation: 56%
- Roads, minerals and foundations: 33%
- Buildings and concrete sector: 6%

MAIN EXPORTS

- Road tractors for semi-trailers: €2.2 bn
- Track-laying excavators: €677 m
- Mechanical shovels, excavators and shovel loaders: €548 m

MAIN COUNTRIES OF DESTINATION

- France: 14%
- Germany: 12%
- Netherlands: 9%

TOP 3
high-potential sectors

1/Roads 2/Ports 3/Buildings

Sources: SER, World Bank, Trading Economics, World Trade Organization (WTO), Doing Business, COFACE, GDP data - figures for 2015
*Data for May 2017

Market potential

SECTORS

DEVELOPMENT LEVERS FOR SECTOR

MASTER PLANS

LEVEL OF INNOVATION & OTHER MAJOR ISSUES



Roads

- Road works in Wallonia (€565 m):
 - extension of road network
 - modernisation of road infrastructure
 - renovation of motorway network (low level of innovation)
 - road surfacing to be replaced on 64% of network
 - improvement of waysides, cycle tracks and pavements
- Covering of the Antwerp Ring (€9 bn)
- Modernisation of the Brussels Ring (€2 bn):
 - modernisation of northern part of the Ring between Grand-Bigard and Woluwe-Saint-Etienne junctions
 - creation of a 4th lane between Grand-Bigard and Woluwe-Saint-Etienne junctions
 - creation of 3 new tram lines
 - implementation of 40 km of infrastructure dedicated to two-wheelers (cycle lanes and bridges).

Several investment programmes
€11.5 bn
2023-2030

- ★ Implementation of quality plans: self-inspection system for co-contractors (checks and inspections previously carried out by the administration are transferred to them)
- ★ Integration of a "soft development" approach (bikes, pedestrians) in the construction of roads and identification of regional roads with high cycling potential
- ★ Limitation of impact of pollution on local population
- ★ Renovation of Perex centre (objective: develop in an efficient and modern way a concept of smart networks capable of controlling motorway and waterway infrastructure in real time, with priority on improving safety and mobility, as well as information to users.)



Airports

- Extension of Brussels-Charleroi runway: it will measure 3,200 m in length.

No budget announced.
Timescale 2020

- ★ New air routes to open.
- ★ Long-haul flights accommodated.



Ports

- Seine-Scheldt project (€1.5 bn):
 - development of a 71 km inland navigation route between the French border and the Ghent-Terneuzen canal.
 - development of a regional handling centre at Alost
 - modification of Ghent-Terneuzen canal
- Strategic Port Infrastructure Project (SHIP) in the port of Zeebrugge (€675 m): renovation of locks and construction of a new lock in Zeebrugge port.
- Project for a ro-ro handling terminal intended for the transportation of vehicles from Antwerp.

Several investment projects
€2.2 bn
2022-2030

- ★ Transition from road transportation to waterways: less congestion on roads, increased safety and environmentally friendly.
- ★ Improvement of port accessibility from the sea.
- ★ Use of specific machines, in particular for work on locks.
- ★ Easier inland navigation for large barges between the Seine and Scheldt basins.
- ★ Increase in navigation capacity in Upper Scheldt and on the Ghent-Ostend canal, and rehabilitation of the Roulers-Lys and Bossuit-Courtrai canals.



Engineering structures

- Extension of the Royers lock in Antwerp port by 67.5 m in length and 14 m in width (€153 m):
 - construction of a duct tunnel passing beneath the lock
 - renovation of the lock building and creation of a machina room.
- Renovation of the Denderbelle lock.
- Construction of a new lock at Terneuzen and in the port of Zeebrugge.
- Raising of road bridges at Walem and Duffel (up to 7 m).
- Construction of an "ecoduct" in Laerbeek Forest.

Several investment projects. No consolidated data available.
2025-2030

- ★ Use of highly-specialised equipment, in particular for locks.
- ★ Use of environmentally-friendly eco-materials.

Sources: Business France, Bruxelles office

SECTORS

DEVELOPMENT LEVERS FOR SECTOR

MASTER PLANS

LEVEL OF INNOVATION & OTHER MAJOR ISSUES



Mines and quarries

- Implementation of biodiversity management measures during extractive phase in Walloon quarries:
 - dynamic management of temporary ponds
 - refreshment of loose cliffs
 - installation of shelters
 - scree management
 - creation of permanent water courses
 - restoration of grasslands managed by mowing and grazing.

Life in Quarries project
€5 m up to 2020

- ★ Redevelopment of quarries through “permanent nature” initiatives (rehabilitation of peripheral zones during extraction) and dynamic management (management of wildlife in the works zone during works).



Railways

- Development of Brussels Regional Express Network (RER) – timescale 2025 (no budget announced):
 - construction of tunnel and train routes around Brussels
 - plans to open new stops in the Brussels region.
- Platform raising and equipment replacement
- New railway line between Brussels-Schuman station and the Hal-Vilvoorde railway line.
- Introduction of ETCS system on the domestic rail network, timescale 2030 – phase 4 (€2 bn).

Several investment programmes; more than €2 bn up to 2020

- ★ Provide faster and more frequent railway services to and from Brussels.
- ★ Improve mobility around the European Quarter in Brussels, and alleviate the pressure on existing public transport networks.
- ★ Improve platform accessibility for people with reduced mobility.
- ★ Introduction of ETCS on trains and tracks.
- ★ Improved signalling system.
- ★ Improvement of network safety.



Buildings

- Construction of the Mediapark (€16.5 bn):
 - construction of 3,000 new dwellings (capacity of 6,000 inhabitants).
 - construction of local service amenities (nursery, school, shops, etc.) and of an urban park.
 - construction of an education and business district.
- Construction of an industrial building on the ORES site at Strépy-Bracquenegnies (€5.6 bn): developments on the edge of the plot (car parks, storage spaces, lanes for heavy goods vehicles).
- Construction of a “waste-to-chemicals” plant in the port of Antwerp (€3.7 bn)
- Conversion of the Tour & Taxis zone in Brussels:
 - creation of a multi-purpose eco-district with 85,000 dwellings
 - development of green spaces.
- Transformation of the Gare Maritime to a “biocampus” (€75 m)
- Construction of a 400-ha business park close to Liege airport (€18 m)

Several investment projects
More than €25.8 bn up to 2020-2030

- ★ Deployment of wind turbines and solar panels
- ★ Rainwater harvesting systems
- ★ Use of environmentally-friendly eco-materials
- ★ Use of specific construction materials, in particular for the Antwerp port plant.

TOP 5

requirements for construction equipment and materials

- Eco-materials
- Equipment relating to roadworks (road resurfacing)
- Hydraulic cranes
- Cement
- Bricks and stone

Main imports of construction equipment

| TOTAL IMPORTS (IN EUR) | | | | | | |
|---|-------------|-------------|-------------|------------------|---|--|
| | 2012 | 2014 | 2015 | Change 2012-2015 | Top 5 exporting countries | Brands sold |
| Earthmoving & demolition | | | | | | |
| Buckets, shovels, grabs and grips | 89,337,763 | 66,888,493 | 65,304,273 | -27% | 1/ Netherlands 2/ Hungary 3/ Italy 4/ France 5/ Germany | Wacker Neuson |
| Earth-handling machinas | 140,657,246 | 140,943,387 | 97,809,622 | -30% | 1/ Germany 2/ Sweden 3/ Italy 4/ France 5/ Australia | Bobcat, Komatsu, Wacker Neuson |
| Derricks, self-propelled cranes | 52,671,667 | 64,634,876 | 53,276,713 | 1% | 1/ Germany 2/ Netherlands 3/ Algeria 4/ Ivory Coast 5/ USA | Liebherr |
| Wheeled excavators | 43,608,768 | 42,119,025 | 43,579,276 | 0% | 1/ United Kingdom 2/ Japan 3/ Finland 4/ Austria 5/ Netherlands | Caterpillar, Doosan, Hitachi, JCB, Komatsu, Liebherr, New Holland, Volvo |
| Lifting, handling and transportation | | | | | | |
| Road tractors for semi-trailers | 659,713,236 | 513,011,881 | 610,045,349 | -7% | 1/ Netherlands 2/ France 3/ Germany 4/ Poland 5/ Spain | Iveco, MAN, Mercedes, Renault, Scania, Trucks, Volvo |
| Electric-propelled fork lift and works trucks (all application sectors) | 202,211,276 | 235,139,409 | 279,197,107 | 38% | 1/ Sweden 2/ Germany 3/ Italy 4/ USA 5/ France | |
| Non-electric-propelled fork lift and works trucks | 184,035,904 | 156,048,947 | 226,441,860 | 23% | 1/ France 2/ United Kingdom 3/ Germany 4/ South Korea 5/ USA | Fenwick, Hypster |
| Lifts and skip hoists | 73,641,761 | 73,166,738 | 61,761,264 | -16% | 1/ Italy 2/ Germany 3/ Netherlands 4/ Spain 5/ USA | |
| Other self-propelled machinas | 75,650,004 | 34,215,166 | 51,761,942 | -31% | 1/ Germany 2/ Netherlands 3/ Austria 4/ France 5/ Italy | |
| Roads, minerals and foundations | | | | | | |
| Track-laying excavators | 555,942,190 | 520,597,157 | 528,789,423 | -5% | 1/ Japan 2/ South Korea 3/ Netherlands 4/ France 5/ USA | Caterpillar, Hitachi, Komatsu, Liebherr, Volvo |
| Front-end shovel loaders, mechanical shovels, excavators | 345,867,043 | 270,108,443 | 193,221,487 | -44% | 1/ USA 2/ South Korea 3/ Netherlands 4/ Germany 5/ Sweden | Bobcat, Caterpillar, Hyundai, Jmeca, Liebherr, Probst, Volvo |
| Crane lorries | 79,300,582 | 52,939,474 | 64,228,420 | -19% | 1/ Germany 2/ Netherlands 3/ France 4/ Italy 5/ Luxembourg | Fassi, Hiab, MAN, Palfinger |
| Bulldozers | 80,040,181 | 75,425,570 | 63,336,077 | -21% | 1/ France 2/ Brazil 3/ Netherlands 4/ United Kingdom 5/ USA | Caterpillar, Komatsu, Liebherr |
| Track-mounted tractors | 45,599,124 | 36,090,901 | 44,932,957 | -1% | 1/ USA 2/ France 3/ Peru 4/ Netherlands 5/ Brazil | Case, Challenger, John Deere, Landini |
| Buildings and concrete sector | | | | | | |
| Bars for reinforced concrete | 105,309,764 | 83,177,643 | 74,398,490 | -29% | 1/ France 2/ Germany 3/ Spain 4/ Netherlands 5/ Luxembourg | Kerschgens |
| Concrete pumps | 65,045,275 | 46,060,650 | 69,091,477 | 6% | 1/ Italy 2/ France 3/ Germany 4/ Slovenia 5/ Denmark | DAF, Iveco, MAN, Putzmeister, Renault, Volvo |
| Shuttering | 62,028,739 | 53,657,497 | 53,035,910 | -14% | 1/ Netherlands 2/ Germany 3/ China 4/ Austria 5/ France | Metalusa, Plaka, Plettac Asco |
| Laser metal cutting machinas | 29,691,656 | 36,507,283 | 50,409,448 | 70% | 1/ Japan 2/ Germany 3/ Slovakia 4/ Finland 5/ Switzerland | Bodor, Bystronic, Trotec, Trumpf |
| Concrete mixer lorries | 10,169,489 | 12,253,595 | 13,424,784 | 32% | 1/ Germany 2/ Netherlands 3/ Italy 4/ France 5/ India | Berlan, Eibenstock, Festool, Varan |

Source: Comtrade.

Projects

WASTE-TO-CHEMICALS PLANT

Construction of a “waste to chemicals’ plant in Antwerp Port (Delwaidedok)

Following the concession award, 3 years will be required to develop the project on site and obtain the necessary permits. The construction of the installation will then commence. It should be operational by 2020. This project will offer high added value for all stakeholders; the port, the chemicals industry, Antwerp, Flanders and the environment in general.

MODERNISATION OF BRUSSELS RING

The first works phase will relate to the creation of a fourth lane between the Grand-Bigard junction (crossing the Brussels-Ostend E40) and the Woluwe-Saint-Etienne junction (crossing with the Brussels-Liege E40).

As the lack of alternatives to cars is a serious problem, tram lines will also be increased at the same time. Three new lines will be created which, according to the consultants’ estimations, will relieve the Ring of approximately 20,000 vehicles. According to the project presented by the Flemish minister of Mobiltiy, these future three lines will be:

- Brussels North – Willebroek
- Brussels North- Evere – Brussels Airport
- Jette – Heysel – Vilvoorde – Brussels Airport.

In this new mobility plan for Brussels, a 70 million-euro budget will be allotted to the creation of more than 40 km of infrastructure for two-wheelers. To guarantee safe conditions along the 41 km of cycle paths, 10 bridges and 9 tunnels will be built to minimise crossings with car drivers. The Laerbeek Forest in Jette will also receive a large “ecoduct” crossing over the Ring, with substantial space for pedestrians and cyclists.

EXTENSION OF THE ROYERS LOCK

Extension of a lock in the port of Antwerp

The lock will be lengthened from 182.5 m to 250 m and widened by 14 m to reach 36 m. Its depth will be increased to 6.41 m. Two new lock heads with double gate chambers will be built, and the lock chamber, gates, filling system and nautical base will be renovated. A tunnel carrying pipes will be built beneath the lock. The lock building will be renovated and will receive a machina room. Finally, two road bridges designed for exceptional loads will round out the project.

€3.7 bn

- **Financing:** private
- **Location:** Antwerp
- **Contracting authority:** ERS
- **Investors:** ERS – Saudi company
- **Architect / design consultancy:** VITO
- **Timescale:** project announced in the first half of 2014. Work to commence in 2018. End of project in second half.

€2 bn

- **Financing:** public
- **Location:** Flemish Brabant
- **Contracting authority:** Sweco and Arcadis under the name “MoVeRo”
- **Investors:** Flemish government
- **Architect / design consultancy:** MoVeRo
- **Prime contractor:** MoVeRo
- **Timescale:** impact assessment completed at the end of 2016. Project still under discussion; it is a project of the Flemish Government but the Brussels Government has made several objections. Works to commence at end of 2019.

€1.53 bn

- **Contracting authority:** Ecorem
- **Investors:** EIB
- **Architect / design consultancy:** Ecorem, Tritel, JNC International, Avea Consulting
- **Amount:** €118 million was invested in the period from 2007 to 2015. The first invitation to tender for 2014 – 2020 was launched: it is valued at €400 million. The subsequent tenders for the same period amount to €328 million but are still to be awarded. A new sum of €680 million will also have to be invested for the period from 2020 to 2030.
- **Timescale:** works commence in 2017.

Projects

2016-2019 INFRASTRUCTURE PROGRAMME

Improvement of Walloon secondary network

The Infrastructure programme will devote more than half of its budget (€345 million, 54%) to upgrading the Walloon secondary roads network, which currently receives the majority of road traffic and has the highest accident rate.

€128 million (20%) will go towards renovating motorways, work which had already started by the previous government, while €89.5 million will be used to improve access to Wallonia’s job-supplying economic activity zones. Finally, €75 million will be used to improve waterways which accommodate 40 million tonnes of freight per year: the equivalent of 2 million semi-trailers. This Infrastructure programme will create between 418 and 624 million euros in added value and contribution to the Walloon GDP, and will generate between 5,800 and 8,300 jobs.

OFFICE COMPLEX, LIEGE

Construction of offices in the Liege airport zone

Spanning 1.5 hectares, Escale Liege will develop, in several phases, an office complex of 12,000 sqm which will cost €18 m in total. Designed by the architecture firm Bruno Albert, this project still has to go through the necessary planning permission stages. “We hope that the first stage of 4,000 sqm will be completed by the end of 2018, representing an investment of €5 million,” explains Sébastien Grutman, administrator at Bernard Construction, within the Cordeel group. The project leader is the Antwerp property developer Project² which intends to reinforce its footprint in Wallonia. On completion, Escale Liege should accommodate between 400 and 500 people.

€640 m

- **Financing:** public
- **Location:** Walloon region
- **Contracting authority:** Walloon Public Service Operational Directorate General for Roads and Buildings (for non-trunk road network) and SOFICO (Infrastructure additional financing company) for the main road network and engineering structures on rivers, Operational Directorate General for Mobility and Waterways (for waterways)
- **Investors:** Walloon government and EIB
- **Prime contractors:** Operational Directorate General for Roads and Buildings, Operational Directorate General for Mobility and Waterways, Operational Directorate General for Agriculture, Natural Resources and Environment.
- **Timescale:** to be announced by SOFICO and the Walloon Public Service, in charge of planning.

€18 m

- **Financing:** private
- **Location:** Liege
- **Contracting authority:** Project²
- **Investors:** L’Escale Liege SA
- **Architect / design consultancy:** Bruno Albert
- **Prime contractors:** Bernard Construction SA.
- **Timescale:** works to commence in October 2017.

Projects

MEDIAPARK

Construction of a new district in Brussels

The ambition of this project, dubbed “Mediapark Brussels, ’ is to build an urban park around the future headquarters of RTBF and VRT that will form the heart of a brand new district for Brussels. In addition to the two new headquarters, the project features:

- the construction, ultimately, of 3,000 new dwellings to house 6,000 inhabitants
- the construction of local service amenities (a nursery, a school, shops) to cater to the needs of local people
- sites for innovative new businesses that will create jobs, colleges and public facilities linked with the media sector
- an urban park.

It will also reconnect the neighbouring districts, because it will be organised around a huge urban park that will replace the enclosed RTBF and VRT site, and through-roads linked up to the surrounding network.

PARKWAY / E40

Project coordinated with the E40 Tunnels project

The “Parkway-E40” project, designed by a multi-disciplinary team, will offer an updated and overall vision of mobility in the entire Brussels region, which will serve as a common framework for the Mediapark, Parkway and Meiser-Reyers projects. It has several objectives:

- more effectively integrate the E40 motorway into the city, turning it into an urban boulevard by reducing the number of traffic lanes
- reinforce pedestrian and cycle links between areas on either side of the redeveloped boulevard
- create a new public space alongside the future urban boulevard.

€16.5 m

- **Financing:** public
- **Location:** Schaerbeek municipality (Brussels-Capital Region)
- **Contracting authority:** Brussels-Capital Region, Schaerbeek municipality, RTBF and VRT (perspective. brussels is delegated project owner)
- **Investors:** Brussels-Capital Region, Schaerbeek municipality
- **Architect / design consultancy:** Bob 361 (architects), Espinas i Tarraso (landscaping), Citec (transport), Alphaville (urban planning), Transsolar (environment), Mageo (networks, roads), Buur (urban development, impact assessment), Nartex (media).
- **Prime contractor:** Société d’Aménagement Urbain (SAU)
- **Amount indicated:** purely for the media building
- **Timescale:** urban and pre-operational studies: establishment of Masterplan, assessment of impact on programming and project space management, financial studies, operational structuring.

€10 m

- **Financing:** public
- **Location:** Brussels-Capital Region
- **Contracting authority:** Urban Development Agency (ADT) and the Direction Studies and Planning of Brussels Urban Development (both now merged in perspective. brussels) in collaboration with with Bruxelles Mobilité
- **Investors:** Brussels-Capital Region
- **Architect / design consultancy:** TVK (architects and urban planners – team representative); KARBON (associate architects and urban planners); OLM (landscaping); Egis (transport design), Elioth (sustainable development), IDEA (property development).
- **Prime contractor:** TVK (architects and urban planners – team representative); Karbon (architects and urban planners); OLM (landscape designers); Egis (Transport and mobility), IDEA (property development), Elioth (sustainable development).
- **Timescale:** masterplan approved in January 2017 by Brussels-Capital Region

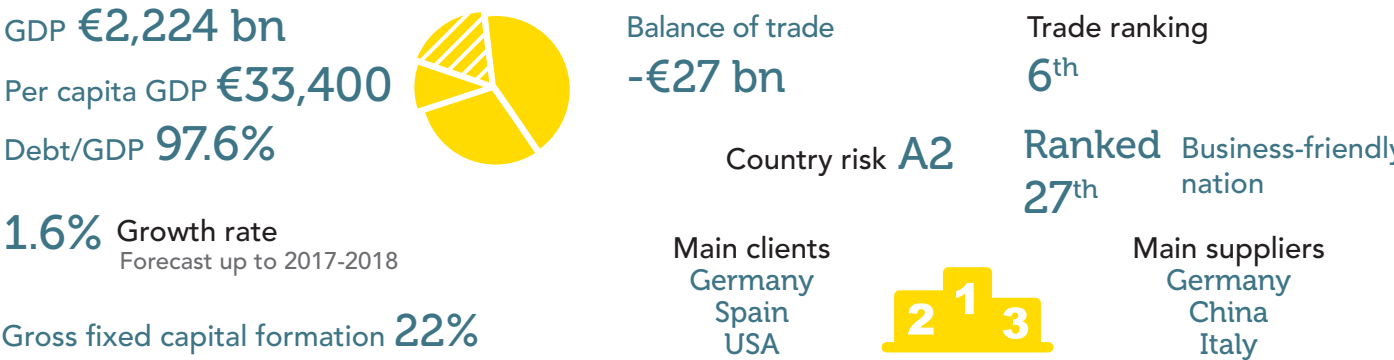
FRANCE

2016 was marked by an upsurge in confidence among manufacturers and households, and the French economy should see further improvement in 2017 (+1.1% in the first quarter). France is highly popular with foreign investors, attracted by its innovation capabilities and by the quality of its labour and transport infrastructure. It has been the leading European country in terms of inward foreign investment in manufacturing for the past ten years. France is also the number one construction site in Europe, with the unrivalled Grand Paris project whose business opportunities for contractors are worth more than €100 billion. In addition to the railways and urban transport, the road and buildings sectors are also receiving vigorous public and private sector investment. Due to its strategic geographical location in Europe, France is finally a platform for companies wishing to approach markets in the EU, Africa and the Middle East.

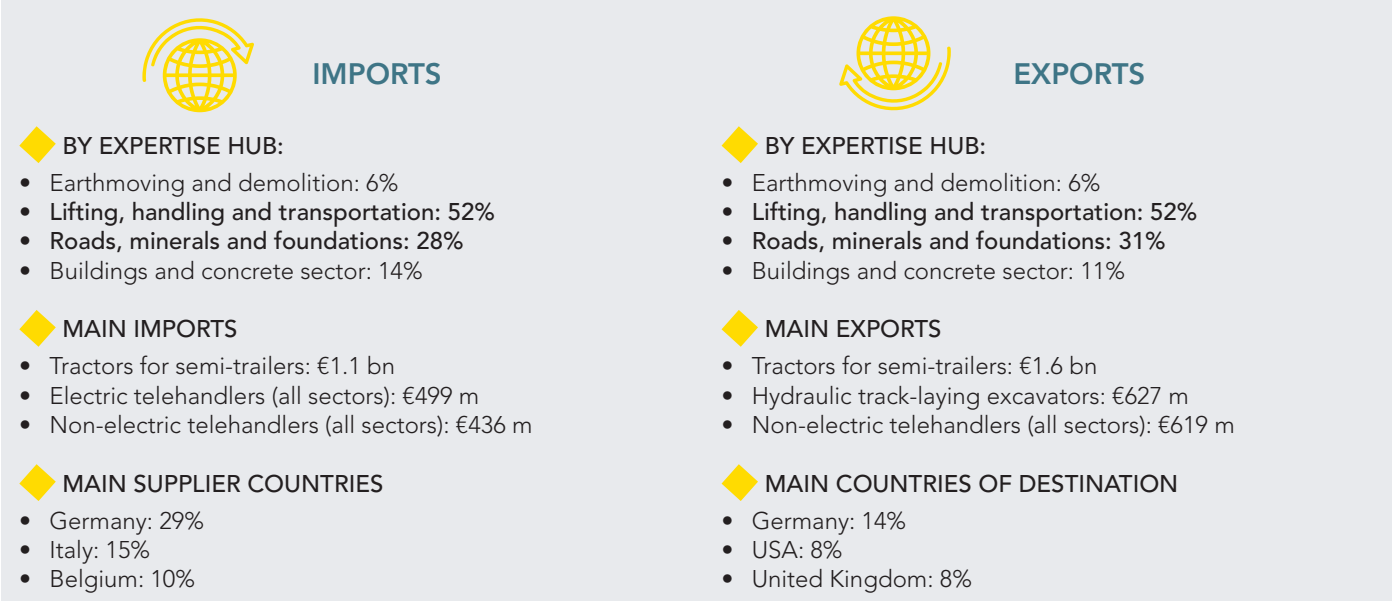


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MACROECONOMIC AND TRADE DATA*



CONSTRUCTION EQUIPMENT: MAIN TRADE FLOWS*









TOP 3
high-potential sectors

1/Buildings 2/Railways 3/Roads

Sources: Banque de France par Banks of France et Douanes françaises par French customs
*Data for May 2017

Market potential

| SECTORS | DEVELOPMENT LEVERS FOR SECTOR | MASTER PLANS | LEVEL OF INNOVATION & OTHER MAJOR ISSUES | SECTORS | DEVELOPMENT LEVERS FOR SECTOR | MASTER PLANS | LEVEL OF INNOVATION & OTHER MAJOR ISSUES |
|--|--|---|--|---|---|---|---|
|  Roads | <ul style="list-style-type: none">Motorway investment plan (fully financed by 7 motorway concession companies: APRR, AREA, ASF, COFIROUTE, ESCOTA, SANEF, SAPN). 55% of contracts will be awarded to small businesses:<ul style="list-style-type: none">- improvement in user safety and traffic fluidity- improvement in connections- upgrading to standards of motorway sections previously managed by the State- upgrading to recent environmental criteria of motorway sectionsActiveR&D in major corporations and a wealth of innovative start-ups and firms in the sectorCall for projects for €30 to €50 m launched in 2015 by FNTP to select innovation projects for road infrastructure (technology, processes, industrial solutions). | <p>Motorway Investment Plan (PRA) €3.27 bn 2016-2024</p> | <ul style="list-style-type: none">3 main issues; maintenance of existing network, ITS applied to roads, and adapting French standards in road safety, workmen's safety and certification.Smart road – ITS:<ul style="list-style-type: none">- 3D BIM graphic modelling process (e.g. L2 bypass in Marseille)- road-related big data, sensors, smart lighting and luminescent lanes, solar powered roads (e.g. COLAS' Wattway), road traffic and toll management, self-repairing surfaces. |  Engineering structures | <ul style="list-style-type: none">Requirements for engineering structures for railway projects:<ul style="list-style-type: none">- Grand Paris Express (SGP) of which at least 20 will be awarded to SMEs (extension of EOLE, the RER line E from Saint-Lazarre to La Défense and then to Mantes; extensions of metro lines 4, 11, 12 and 14): tunnels (tunnelling work to commence in 2018), cut-and-cover (lines 15 south and 16), 2 viaducts- Lyon-Turin HSL tunnel (a 9-km reconnaissance gallery is currently being bored)- Nice tram tunnel- Le Gavet tunnel in Isère (EDF)- Rennes metro line B- Extension of Toulouse metro under considerationRequirements for road projects:<ul style="list-style-type: none">- tunnel on A45 from Saint-Etienne to Lyon- 15 engineering structures for the widening to 3 lanes of A75 (Clermont Ferrand) including 6 bridges | <p>No consolidated data available</p> | <ul style="list-style-type: none">Consideration for restrictions relating to urban density, pollutant emissions and noiseHigh productivity of construction machinery |
|  Airports | <ul style="list-style-type: none">Paris Aéroport, Connect 2020 Plan (2016-2020) on regulated activities, including airport infrastructure.<ul style="list-style-type: none">- renovation of 4 runways (2 at Orly, 2 at Paris-CDG)- "One roof" merging of 3 terminals in Orly and Paris-CDG (€663 m)- modernisation of Orly airport and its access routes (€450 m)- development of secondary roads network at Paris-CDG- upgrading to latest regulatory standards (runway and taxiway systems, water treatment at Paris-CDG, security equipment)- extension of terminal 2E baggage sorting in halls L and M, creation of remote wide-body aircraft areasExtension of Marseille airport (new building - €200 m)Construction of new facilities in Lyon (to accommodate A380 aircraft at terminal 1 by 2020 - €215 m) | <p>Airport modernisation and extension approx. €3.41 bn up to 2020</p> | <ul style="list-style-type: none">3 main issues: modernisation, digitalisation and improvement of road and rail access to existing infrastructure.Smart airport:<ul style="list-style-type: none">- BIM design methods- use of innovative equipment for wayfinding (passenger geo-location, etc.), safety and security (drones, video surveillance, recognition systems, etc.)Improvement in passenger experience: interactive information and wayfinding systems, innovative services. |  Mines and quarries | <ul style="list-style-type: none">Mineral mining revitalised by growth in public works / building:<ul style="list-style-type: none">- substantial and stable resources with 4,700 active quarries (construction materials, decorative stone and industrial minerals: talc, mica, clay, kaolin, andalusite, silica)- output of 440 m t/year, rising since 2015 due to growth in building and public works sectors200-year mark of mining in mainland France reached in 2011:<ul style="list-style-type: none">- increased interest in metal ore exploration in France (Brittany, Pyrenees, Guyana) since 2013- substantial mining in several overseas departments and territories; New Caledonia, nickel – 25% of worldwide reserves (Eramet, Vale, Glencore); French Guyana, small gold mines. | <p>No mining master plan but potential projects in Guyana.</p> | <ul style="list-style-type: none">Consideration for restrictions relating, pollutant emissions and noise (recycling on site, etc.)High productivity of construction machineryCircular economy in quarries (on-site recycling of aggregates, backfilling of quarries, recycling platforms), a trend towards a less aggregate-dependent economy, spurring the industry into rethinking its model. |
|  Ports | <ul style="list-style-type: none">Construction of new terminals: methane terminal at Dunkirk and its LNG refuelling station, new Grattequina terminal in Bordeaux for aggregate and wind turbine freight, Anse Saint Marc and Chef de Baie terminals at La Rochelle port.Improvements to inland routes; modernisation of Tancarville locks and François 1er lock in Le Havre, combined transport terminal in Marseille, development of the portside railway operator OFP Atlantique in La Rochelle.Calais Port 2015 project; construction of a 3-km seawall, dredging of the future harbour basin and construction of new quays. | <p>No consolidated data Calais Port 2015 €863 m up to 2021</p> | <ul style="list-style-type: none">Highly-developed IT platforms for trade. Ports will have to deploy single electronic windows to comply with the European directive on reporting formalities for ships. |  Railways - Urban Transport | <ul style="list-style-type: none">Projects mainly in the area of urban and suburban transport with:<ul style="list-style-type: none">- the Grand Paris Express project (200 km of network): construction of 4 new lines, extension of 2 existing lines (11 and 14), construction of 68 stations and contribution to modernisation and upgrading of existing network (€25.5 bn up to 2030, of which €1.76 bn of expenditure already made and €9 bn of orders signed in 2017).- the CDG Express project (€1.41 bn)Several railway projects:<ul style="list-style-type: none">- Lyon-Chambery-Turin HSL (2030-2050) (€7.7 bn)- Montpellier-Nimes rail bypass (€1.8 bn)Modernisation of the existing rail network:<ul style="list-style-type: none">- Major network modernisation plan (GPMR) by SNCF Réseau, 2013-2019: 1,500 engineering projects/year (€4.9 bn in 2016) with 630 km of track and track switches replaced (€15 bn over 6 years) | <p>Construction projects and rail network modernisation master plan: €58.61 bn 2015-2050</p> | <ul style="list-style-type: none">3 major development challenges for the medium and long terms: inter-modality, mobility and enhancement of existing assets.French expertise in most railway segments (automatic metro, high speed, signalling, etc.) and in all industry trades (infrastructure, engineering, rolling stock).The necessity of digitalising the sector: optimising maintenance and passenger information, connections between railway lines.Emergence of alternative transport services and other services for mobility. |

Sources: Business France, Association des Sociétés Françaises d'Autoroutes, France Marchés, Génie Climatique.fr, Aéroports de Paris, SPD Calais, Union des Ports de France, Société du Grand Paris, Association Française des Tunnels et Espaces Souterrains, SIFER, SNCF, Fédération Nationale des Travaux Publics, Fédération Française du Bâtiment, Fédération Française de Domotique, Ask Média, Agence Nationale pour la Rénovation Urbaine.

SECTORS

DEVELOPMENT LEVERS FOR SECTOR

- An upturn in the sector in 2016 with activity up 1.9% by volume following 8 years of decline. Growth mainly driven by residential construction (estimated 3.4% growth expected in 2017)
- Dynamic growth of new housing since 2014, historically low interest rates, conducive institutional environment (zero interest lines, “Pinel” tax breaks)
- +2.1% growth in volume forecast between 2021 followed by a contraction phase of 1.5% per year from 2021 to 2025.
- Property projects connected to Grand Paris Express: development of new districts around the future urban hubs of Grand Paris (6 related property development projects awarded in 2015)
- 4 national urban regeneration programmes;
 - New national programme for urban regeneration
 - New national programme for urban renewal (2014-2024)
 - National programme for old and underprivileged districts (2010-2021)
 - Investment for the Future programme

MASTER PLANS

4 national urban regeneration programmes
€72.49 bn
2010-2024

LEVEL OF INNOVATION & OTHER MAJOR ISSUES

- ★ Digital revolution transforming on-site production methods:
 - BIM methods
 - lean management
 - robotic technology
- ★ Smart building
 - intelligent infrastructure and equipment in building (structural and finishing works) to optimise living conditions, domestic safety, multimedia usage and building energy efficiency
 - fast-growing smart home market (€1 bn in 2015)
- ★ Eco-materials and circular economy
 - new materials: anti-pollution plaster, bio-sourced concrete, polymer synthesis, wood, breathing and watertight skins, etc.
 - 2015 Circular economy package
- ★ Changes to construction methods: introduction of a constructability bonus (POPE Act, 2015) for buildings fulfilling energy efficiency criteria or incorporating renewable energy production equipment and promoting construction from wood.

TOP 5

requirements for construction equipment and materials

- Tunnel boring machines, underground equipment (Grand Paris Express)
- Personal protective equipment, exoskeletons, connected helmets
- Drones
- Anti-collision systems for tower cranes
- New materials (biogeotechnical, organic resins, special steels and alloys)

Main imports of construction equipment

| TOTAL IMPORTS (IN EUR) | | | | | | |
|---|-------------|-------------|---------------|------------------|--|---|
| | 2012 | 2014 | 2015 | Change 2012-2015 | Top 5 exporting countries | Brands sold |
| Earthmoving & demolition | | | | | | |
| Track-laying excavators | 104,750,813 | 122,821,521 | 95,594,116 | -9% | 1/United Kingdom 2/Belgium 3/ Japan 4/Germany 5/Netherlands | Atlas Weycor, Bobcat, CAT, Doosan Infracore, Fuchs, Gehl, JCB Belgium, Komatsu, Hitachi, Hyundai, Imer, Kobelco, Kramer, Kubota, Liebherr, Mustang, Sennebogen, Takeuchi, Terex, Wacker Neuson |
| Boring or sinking machinery parts | 100,740,815 | 93,666,338 | 66,131,099 | -34% | 1/Italy 2/Germany 3/USA 4/Finland 5/United Kingdom | Fraste SPA, HB Drilling |
| Buckets, shovels, grabs and grips | 87,331,111 | 67,916,915 | 64,004,834 | -27% | 1/Germany 2/Italy 3/Netherlands 4/Austria 5/Belgium | Ass Maschinanbau GmbH, Daniel Kühn GmbH & Co. KG, Kintec Maschinan GmbH, Negrini SRL, Probst Greiftechnik Verlegesysteme GmbH |
| Earth-handling machinery | 25,864,808 | 26,890,226 | 28,032,567 | 8% | 1/Germany 2/Belgium 3/Sweden 4/Italy 5/Austria | Amman, Atlas Copco, Bomag, CAT, Dynapac, Hamm, Hitachi, Imer, JCB, Volvo CE, Waacker Neuson |
| Earth-boring tools | 25,938,213 | 23,558,874 | 26,834,753 | 3% | 1/Italy 2/Germany 3/USA 4/China 5/Canada | A. Högeler Diamant-Kernbohrtechnik, Atlas Copco, Baier Maschinanfabrik GmbH, Baumgarten Betonbearbeitung GmbH, Chicago Pneumatic, Eata Equipaggiamenti S.R.L., Hydra, Koda GmbH Bohr- & Schneidservice, Liebherr |
| Lifting, handling and transportation | | | | | | |
| Tractors for semi-trailers | 824,125,788 | 861,820,026 | 1,104,481,886 | 34% | 1/Netherlands 2/Germany 3/ Belgium 4/Italy 5/Poland | ABG, DAF, Iveco, MAN, Mercedes, Scania |
| Electric-propelled fork lift and works trucks (all sectors) | 318,329,725 | 463,064,531 | 499,948,823 | 57% | 1/Germany 2/Sweden 3/Italy 4/United Kingdom 5/China | BP, Cesab, CombiLift, Hangcha, Hanselifter, Heli, Hiab, Hubtex, Jungheinrich, Kalmar, Lndia, LiuGong, Mora, OMG, Still, SunWard |
| Non-electric propelled fork lift and works trucks (all sectors) | 522,146,487 | 496,122,375 | 436,960,373 | -16% | 1/Italy 2/United Kingdom 3/ Germany 4/China 5/Belgium | Baoli, Baumann Srl, Bendi, Bobcat, BP, CAT, CombiLift, Dieci, Hanselifter, Heli, Hubtex, JCB, JLG, Jungheinrich, Kramer, Kubota, Liebherr, Lndia, LiuGong, Magni, Sanko/MST, Sany, Still, SunWard, Tailift |
| Lifts and skip hoists | 116,368,682 | 122,687,955 | 128,370,779 | 10% | 1/Finland 2/Spain 3/United Kingdom 4/Germany 5/Italy | Alimak, Böcker, City Paint, Electroel SA SRL, Geda, Liftpoint, Mabser, Raxtar, Scandlimber, Sraal |
| Elevators and conveyors | 81,352,742 | 114,069,424 | 116,468,059 | 43% | 1/Germany 2/Austria 3/Italy 4 /Netherlands 5/USA | Baioni SPA, Bruco System SRL, Lissmac, Putzmeister, Vibroprocess |
| Roads, minerals and foundations | | | | | | |
| Track-laying excavators | 467,458,419 | 526,190,484 | 425,030,270 | -9% | 1/Japan 2/Germany 3/Netherlands 4/South Korea 5/Austria | Ascendum Baumaschinan Österreich GmbH, Doosan, Hitachi, Kobelco, Komatsu, |
| Mechanical shovels, excavators and shovel loaders | 287,350,877 | 359,300,624 | 270,915,761 | -6% | 1/Belgium 2/Germany 3/United Kingdom 4/ Sweden 5/South Korea | Atlas Weycor, Bobcat, Case/CNH Industrial, CAT, Doosan Infracore, GHH Fahrzeuge GmbH, Hidromek, Hitachi, Hyundai, Imer, JCB, Kramer, Kubota, Liebherr, Sanko/MST, Takeuchi, Terex, Volvo CE, Wacker Neuson, Yanmar |
| Asphalt spreaders, levellers | 159,907,692 | 164,144,725 | 120,949,911 | -24% | 1/Germany 2/Italy 3/Japan 4/United Kingdom 5/Belgium | Amman, Atlas Copco, Bomag, CAT, Dynapac, Hitachi, Imer, JCB, Voge, Volvo CE, Wacker Neuson |
| Crane lorries | 69,367,134 | 72,121,509 | 72,507,775 | 5% | 1/Germany 2/Italy 3/Spain 4/Belgium 5/Finland | Decker GmbH, Fassi, Heinz Keller, Iveco, L.A., MAN, Scania |
| Mowers, brush cutters | 62,763,631 | 52,655,627 | 62,937,048 | 0% | 1/Germany 2/Austria 3/Italy 4/United Kingdom 5/Denmark | Orsi Group SRL |
| Buildings and concrete sector | | | | | | |
| Concrete pumps | 152,864,340 | 150,356,310 | 139,734,646 | -9% | 1/Italy 2/Germany 3/Switzerland 4/Netherlands 5/Belgium | Aliva (Groupe Sika), Cifa, Imer, Iveco Trakker, Liebherr Malaxage & Techniques SAS, Putzmeister, Schwing-Setter |
| Shuttering | 148,633,994 | 132,059,310 | 133,556,413 | -10% | 1/Germany 2/Austria 3/Tunisie 4/Italy 5/Portugal | Cofragens E Andaimes, Frigerio Carpenterie SPA, Gertraud Markowitsch, GS Technik, Herndlhofer GES. M.B.H., KMC, Jose Luis & CA, LDA, Krämer GmbH, Krause-Werk GmbH, Lahyer, Metallo-Iberica, Piefte Noleggio Ponteggi, Ulma Portugal, Zamar |
| Bars and rods for reinforced concrete, straight | 195,080,133 | 167,606,522 | 139,206,139 | -29% | 1/Spain 2/Italy 3/Germany 4/Luxembourg 5/Turkey | Altaan NV, Areion, Béton Fragapane |
| Laser metal cutting machines | 59,632,025 | 72,175,437 | 92,462,857 | 55% | 1/Germany 2/Italy 3/USA 4/Switzerland 5/Japan | Aquatec Inform GmbH, Inotec SAS Di Tamburrini A. E Summo S. |
| Bars and rods for reinforced concrete, in coils | 49,663,305 | 54,936,623 | 36,127,402 | -27% | 1/Germany 2/Belgium 3/Switzerland 4/Netherlands 5/Spain | |

Source: Comtrade.

Projects

GRAND PARIS – HOUSING

Construction of 70,000 dwellings/year in Île-de-France, making a total of 1.35 million additional dwellings over the next 25 years

The areas located around the 68 future stations of Grand Paris Express are a priority for this unprecedented urban development project. The property projects connected with the Grand Paris Express stations are under the responsibility of Société du Grand Paris, which appoints private-sector firms to build them. The first three projects were awarded at the end of 2015 by Société du Grand Paris in Bagneux (to a Nexity-led consortium – a programme of 27.400 sqm of dwellings including 20% of social housing, 5,600 sqm of retail space and a 500-space car park – construction to commence in 2018), Créteil l’Echat (to a Nexity-led consortium, a 22,000-sqm programme including 150 properties to first-time buyers, 270 student and tourist flats, 6,000 sqm of office space – delivery scheduled for 2020) and Issy-les-Moulineaux (Icade and Architecture Studio – a 7,600-sqm programme including 80 properties to first-time buyers, 24 social housing units, 840 sqm of co-working space, 80 parking spaces). During the year, 10 more new connected projects combining housing and economic activity will be launched near to the sites of the stations Champigny-Centre, Arcueil - Cachan, Chevilly “Trois Communes” Aulnay, Bry-Villiers Champigny, Les Ardoines, Pont-de-Rungis, Antonypôle, Fort d’Aubervilliers and Saint-Denis Pleyel.

LYON-TURIN TRANSALPINE HSL

Mixed passenger/freight high-speed line

The central link in the pan-European railway route between Lisbon and Kiev, the Lyon-Turin line was earmarked by Europe back in 1994 in its list of priority transport projects. Linking up with 5,000 of existing railway lines, it will carry 40 million tons of goods and 5 million passengers per year. The HSL project combining freight and passengers will help to reduce journey times between Lyon and Milan, also transferring the equivalent of a million HGVs from road to rail. An international tunnel measuring 57 km will be the main feature of the cross-border section of the future line, between Saint-Jean-de-Maurienne (France) and Susa (Italy). Its cost is estimated at €8.6 bn. Works will begin in 2018. They will last 120 months and cost nearly €400 m. The French section of the Lyon-Turin line, which is 140 km long, includes 8 tunnels and 59 engineering structures, 6 of which are non-standard.

€42 bn

- **Financing:** public
- **Location:** Île-de-France region
- **Contracting authority:** Île-de-France regional council
- **Timescale:** delivery scheduled by 2030

€26 bn

- **Financing:** public
- **Location:** Auvergne-Rhône-Alpes region bordering Italy
- **Contracting authorities:** SNCF Réseau between Lyon et Saint-Jean-de-Maurienne, TELT (Tunnel Euralpin Lyon Turin, a subsidiary of SNCF Réseau and RFI in Italy) for the cross-border section, and RFI for the Italian section.
- **Investors:** EU, French government, Auvergne-Rhône Alpes regional council, the related departments and cities for the French section; EU and Italian government for the Italian section
- **Prime contractors:** Egis, Alpina (consortium: Spie Batignolles TPCI (lead contractor), Eiffage Génie Civil (manager), CMC Di Ravenna, Ghella SpA, Cogeis SpA and Sotrabas
- **Machinery:** tunnel boring machine, articulated haulers, conveyer for 1,200 tonnes of excavated material per hour (900,000 m3 altogether – over 2.2 km), drilling, cutting and excavating machinery
- **Timescale:** works to commence in 2018; commissioning scheduled for 2028-2029

Projects

GRAND PARIS EXPRESS – OVERVIEW

The future Greater Paris metro, Europe’s largest infrastructure and development project.

With 200 km of network (85% of which running underground), the project plans for the creation, by 2030, of four new automatic metro lines around Paris (lines 15, 16, 17 and 18), the extension of two existing lines (lines 11 and 14), the construction of 68 stations, 9 of which “flagship” stations, which will run between the major hubs of Greater Paris, the three airports and the TGV stations, seven technical centres, two viaducts and the development of new districts around the future stations. In addition to this major project comes the CDG Express line project which will connect Paris city centre with Paris-CDG airport (the second largest in Europe and the ninth in the world) in 20 minutes. Building work will be continuous on all of the lines up until the last commissioning operations, scheduled for 2030. Two million passengers are expected to ride on this new network every day. The project whose cost is estimated at €24.9 bn, will generate €4 bn per year and more than €100 bn in GDP for the Paris region.

GRAND PARIS EXPRESS – LINE 15

Construction of line 15

Running approximately 75 km in length, the future line 15 will have 37 stations and will cross the entire Greater Paris region. It will allow commuters to travel from suburb to suburb without going through Paris city centre. It will be made up of three sections:

- Line 15 South: 33 km, 16 stations, 300,000 daily journeys expected. It will service more than one million inhabitants.
- Line 15 West: 20 km and 11 stations, offering access to major facilities, in particular in La Défense and Nanterre, and those located close to Saint-Denis Pleyel station, the sole connecting hub for the four lines of Grand Paris Express. This line will service 820,000 inhabitants and 600,000 daily journeys are anticipated.
- Line 15 East: 23 km, 12 stations, crossing through former industrial areas which are today undergoing regeneration.

Schedule details:

- Line 15 East: launch of civil engineering on Saint-Denis Pleyel – Rosny-Bois-Perrier section in 2019. Revenue service to commence in 2025. The rest of the line, from Rosny-Bois-Perrier to Champigny Centre will be operational in 2030.
- Line 15 South: civil engineering work commenced in June 2016. At the end of 2017, 14 stations and 31 connected facilities will be under construction. Commissioning due at the end of 2022.
- Line 15 West: public financing approval obtained in November 2016. Revenue service in two phases: 2025 between Pont de Sèvres and Nanterre la Folie, and 2027 between Nanterre La Folie and Saint-Denis Pleyel.

€24.9 bn

- **Financing:** public
- **Location:** Paris, Île-de-France region
- **Investors:** French government, regional council
- **Contracting authority:** Société du Grand Paris
- **Timescale:** civil engineering operations commenced in June 2016 on line 15. Commissioning complete in 2030.

€12 bn

- **Financing:** public
- **Location:** Île-de-France region (an orbital route around the capital)
- **Contracting authority:** Société du Grand Paris
- **Architects / design consultancies:**
 - **Line 15 East:** Bordas & Peiro Architectes, Grimshaw Achitecte LLP, Atelier d’architecture Brenac-Gonzalez & Associés, SCAPE-Offscape SAS, Vezzoni & Associés, Explorations Architecture
 - **Ligne 15 South:** Agence Duthilleul, Brunet Saunier Architecture, Philippe Gazeau Architecture, Périphériques Architectes, Atelier Barani, Ar-thème Associés, Dominique Perrault Architecture, Philippe Gazeau Architecture, King Kong, Valode & Pistre, Valode & Pistre, ANMA, ANMA, Richez Associés
 - **Ligne 15 West:** Architecture Studio, Agence SEARCH, Wilmotte et Associés, Jean-Paul Viguier & Associés, Marin & Trottin Architectes
- **Prime contractors for civil engineering (tunnel and stations):**
 - **Ligne 15 East:** consortium Koruseo (Egis, Tractebel Engineering, Ingerop Conseil et Ingénierie)
 - **Ligne 15 South:** Ingerop, Setec TPI, Systra, Egis
 - **Ligne 15 West:** Setec TPI, Systra
- **Machinery:** tunnel boring machines (end of 2017 – early 2018), drilling, cutting and excavating machinery.
- **Timescale:** see opposite.

Projects

GRAND PARIS EXPRESS - LINE 16

Construction of line 16

The future line 16 (a 21.6-km route with 16 stations) will provide services in the east of the Seine-Saint-Denis department and into the outer commuter belt as far as Chelles and Noisy-Champs. It has a common stretch with line 17 between Saint-Denis Pleyel and Le Bourget RER. Offering a direct connection with Cité Descartes and the job reservoirs of Greater Paris, it will service nearly 800,000 inhabitants. It crucially offers connections to municipalities which are currently a long way away from heavy transport modes. It is expected to see 200,000 journeys per day.

GRAND PARIS EXPRESS - LINE 18

Construction of line 18

The construction of line 18 (35 km including 21 km underground, 10 stations between Versailles and Paris-Orly airport) will provide transport services to sites such as one of the world’s leading R&D hubs, on the Saclay plateau, and to Paris-Orly, France’s second largest airport. 335,000 inhabitants and 190,000 jobs are covered by this line. Ridership forecasts estimate 100,000 passengers per dat. Several architecture firms are involved in this project:

- Antonypôle and Massy-Opéra stations: Ateliers 2/3/4
- Massy-Palaiseau station: Richez Associés
- Saint-Quentin Est and Versailles-Chantiers stations: Dietmar Feichtinger Architectes
- Satory station: Corinne Vezzoni & Associés

GRAND PARIS EXPRESS - LINE 14

Extension of line 14

These extensions of the current line 14, northwards to Saint-Denis Pleyel and southwards to Paris-Orly airport, require 15 km of extra underground lines. They will connect with the other Grand Paris Express lines (15, 16, 17 and 18) and help to connect up the three airports in the Île-de-France region, which is a crucial objective of Grand Paris Express. The southern extension will offer services to 260,000 inhabitants and will call at major hubs of economic activity such as the Bièvre “science valley”, home to 35,000 inhabitants and 8,500 researchers, and the Orly-Rungis hub, comprising France’s second largest airport and the world’s largest food market. 300,000 daily journeys are anticipated on the southern section. On completion, line 14 running from Orly to Saint-Denis will constitute the backbone of the Grand Paris Express network.

€3.5 bn

- **Financing:** public
- **Location:** Île-de-France region (eastern suburbs of Paris)
- **Contracting authority:** Société du Grand Paris
- **Architects / design consultancies:** Berranger & Vincent (Le Blanc Mesnil station), Beckmann-N’Thépé (Aulnay-sous-Bois station), Agence Duthilleul and AREP (Sevran Beaudottes and Sevran Livry stations), Atelier Schall (Chelles station), Elizabeth de Portzamparc (AECDP-Bourget RER station), Miralles Tagliabue (Spanish lead architect) and Bordas, Peiro (Clichy-Montfermeil station), Chartier Dalix (La Courneuve station)
- **Prime contractors for civil engineering:** Egis Rail and Tractebel Engineering
- **Timescale:** preparatory works commenced in March 2016 and civil engineering to begin in early 2018. Revenue start-up planned for 2023.

€2.7 bn

- **Financing:** public
- **Location:** Île-de-France region (south of Paris)
- **Contracting authority:** Société du Grand Paris
- **Prime contractors for civil engineering (tunnel, viaduct and 6 underground stations):** Ingérop, Artelia Ville & Transport and Arcadis, design and architecture of viaduct and three overhead stations (Palaiseau, Orsay-Gif and CEA Saint-Aubin), Explorations Architecture (viaduct), Atelier Novembre and Benthem Crouwel (overhead stations)
- **Timescale:** revenue service to commence in 2024 between Paris-Orly and CEA Saint-Aubin on Saclay Plateau, and in 2030 towards Versailles-Chantiers.

€2.11 bn

- **Financing:** public
- **Location:** Île-de-France region (southern suburbs to Orly, Paris city centre, north of Paris)
- **Contracting authorities:** Société du Grand Paris. RATP is co-owner on the southern section (Olympiades – Orly) and STIF and RATP on the northern part (St-Lazare – St-Ouen).
- **Architects / design consultancies** GROUPE 6 (Maison Blanche station), Jean-Paul Viguier & Associés (Kremlin Bicêtre Hôpital station), Franklin Azzi Architecture (Chevilly Trois Communes station), Brunet Saunier (MIN – Porte de Thiais station), Valode & Pistre Architecte (Pont de Rungis station), Dominique Perrault Architecte (Villejuif Institut G. Roussy station).
- **Prime contractors:** SETEC TPI and Systra for the southern section
- **Machinery:** 3 tunnel boring machines. Bauer has already supplied carriers, cutting machines, slurry making and grit removal machines and drilling accessories to contractors working on line 14 at Pont Cardinet (Eiffage) and Clichy (Sefi Intrafor).
- **Timescale:** public financing approval obtained in July 2016. First preparatory works in 2017.

Projects

GRAND PARIS EXPRESS – LINE 17 NORTH

Construction of line 17 North

Line 17 (19.5 km – 6 stations) will run from Le Bourget airport (Europe’s leading business airport) to Paris-CDG airport. This route running north from the Le Bourget RER station is 20 km long, 14.4 km of which will run underground. The line will also call at the two industrial zones of Paris-Nord Villepinte and AéroliansParis. The stations Aéroport Charles de Gaulle T2 and T4 correspond to one of the current terminals of the airport and also a new project planned by Paris Aéroport: the construction of a new terminal 4 north of the Roissypôle, to accommodate 30 million passengers. A first section of this terminal, designed for 9 million passengers, could open in 2024. 245,000 inhabitants and 85,000 jobs are covered by the line. Ridership forecasts point to between 60,000 and 80,000 journeys per day, rising to between 130,000 and 160,000 during exhibitions.

CDG EXPRESS

New railway line between Paris (Gare de l’Est) and Paris-CDG airport

To create a new direct railway connection between Gare de l’Est in Paris and Paris-CDG airport, 8km of new line section will be built, and 24 km of existing RER lines will be redeveloped and upgraded. This infrastructure is designed to accommodate an average of 7.3 million passengers per year. In addition, CDG Express will have to absorb the anticipated growth in air traffic, forecast at 80 million passengers in 2025 compared with 65 million in 2016. Paris-CDG is Europe’s second busiest passenger airport and the world number 9.

GRAND PARIS EXPRESS - LINE 11

Extension of line 11

The eastbound extension of the current line 11 is planned in two phases. Firstly, by 2022 the line will extend from its current terminus at Mairie des Lilas to Rosny-Bois-Perrier. This extension had already been planned before the inception of Grand Paris Express, and is therefore not officially part of the new project. This extension is 6 km long of which 5.4 km in commercial operation. There will be six new stations including one overhead, and a new maintenance depot. This will be followed by a project within Grand Paris Express to connect Rosny-Bois-Perrier with Noisy-Champs by 2025. This will involve the creation of four new stations, a 3-km tunnel and three ventilation shafts.

€1.8 bn

- **Financing:** public
- **Location:** Île-de-France region (north and north east of Paris)
- **Contracting authority:** Société du Grand Paris
- **Architects / design consultancies:** Atelier Novembre (Triangle de Gonesse and Le Bourget Aéroport stations), Benthem Crouwel Architects (CDG T2), Explorations Architecture (Le Mesnil-Amelot), Dietmar Feichtinger Architectes (design and insertion of viaduct and elevated station at Parc des Expositions)
- **Prime contractors for civil engineering (tunnel, viaduct and stations):** Sweco; Ingérop, AIA
- **Timescale:** preliminary design up to spring 2017. Civil engineering works to start in 2019. Revenue service to commence in 2024 between Le Bourget RER and Aéroport Charles de Gaulle and in 2030 as far as Le Mesnil-Amelot.

€1.4 bn

- **Financing:** public
- **Location:** Roissy, north east of Paris
- **Contracting authority:** French government
- **Timescale:** works to commence in 2018. Delivery expected in 2023.

€1.3 bn

- **Financing:** public
- **Location:** Île-de-France region (Paris and Seine-Saint-Denis)
- **Contracting authorities:** RATP and STIF to Rosny-Bois-Perrier (first phase) and Société du Grand Paris from Rosny-Bois-Perrier to Noisy-Champs (second phase as part of Grand Paris Express).
- **Investors:** French government, Île-de-France regional council, Seine-Saint-Denis department council, Paris City Hall, RATP and Société du Grand Paris
- **Prime contractors:** consortium comprising Demathieu Bard, Implenia, NGE Génie-Civil, Pizzarotti, Franki Foundations and Atlas Fondation for the 3-km tunnel, 4 stations and connected structures; grouping of Razel-Bec and SEFI Intrafor for a 1,600-m tunnel with diaphragm walls, one station and connected structures.
- **Machinery:** tunnel boring machine, etc.
- **Timescale:**
 - **1st phase:** public financing approval in 2014. Work commenced in October 2016. Commissioning 2022.
 - **2nd phase:** public inquiry in 2016. Commissioning in 2025.

Projects

CALAIS PORT 2015

Extension of Calais Port

The project Calais Port 2015 aims to cater to the saturation of the port anticipated for 2020, but also to accompany the growth in traffic (between now and 2030, according to forecasts, cross-Channel traffic should rise by 40%) accommodate new generations of ferries (up to 240 m as against 213 m today) reinforce the development of intermodal solutions and plan for the construction of additional mooring berths.

The project is planned in several phases:

- phase 1: delivery of 3 cross-Channel berths and extension of berth T1, creation of a new port north of the current port, a 3-km seawall and 110 ha of harbour basin, 44 ha of quays and the conversion of 3 mooring points to accommodate maxi-ferries.
- phase 2, depending on market demand: additional mooring points.

EXTENSION OF BORDEAUX TRAM NETWORK

Creation of line D

The project entails the construction of a 10-km addition to the current network, with 15 stations and 2 park-and-ride facilities. The new route will start at Place des Quinconces in Bordeaux city centre and run to Cantinolle in Eysines, near the municipalities of Haillan, Taillan-Médoc and Saint-Médard-en-Jalles. From Bordeaux (3 stations, the line will pass through Le Bouscat (7 stations), Bruges (2 stations) and arrive in Eysines (5 stations). Line D will provide services to more than 37% of the 78,000-strong population living in the north western quadrant of the Bordeaux city region. By 2025, on completion of projects In Eysines, it will service 11,000 more inhabitants, the equivalent of 43% of the local population. The utility network relocation works to create the space for the tram line were completed in Bordeaux in spring 2017, while the works commenced in Le Bouscat, Bruges and Eysines should be finished at the end of 2017. The construction of the track bed, road resurfacing and pavements will then start, with a view to commencing revenue service at the end of 2019 or early 2020. It should be noted that a project to extend line D is under consideration. This would run 4.2 km from Eysines town centre to Saint-Médard-en-Jalles to the north west.

EXTENSION OF SOUTHERN CITY BOULEVARD IN MARSEILLE

Creation of an 8.5-km main thoroughfare

The road will run from the Pointe Rouge district to the A50 motorway and the L2 bypass at the Florian junction. It will pass through eleven districts of the 8th, 9th and 10th arrondissements. This will provide better mobility to 200,000 inhabitants and will alleviate road congestion in the southern and eastern areas of Marseille by enabling drivers to avoid the city centre, whilst also offering better access to the coast. Pedestrian and cycle paths will also be included.

€862 m

- **Financing:** public
- **Location:** Pas-de-Calais department, Hauts-de-France region.
- **Investors:** French government, Hauts-de-France regional council, Pas-de-Calais department council, Calais Town Hall, European Union.
- **Contracting authority:** Société des Ports du Détroit
- **Prime contractors:** building consortium with Bouygues, Spie Batignolles, Colas, DTP and Jan de Nul.
- **Equipment manufactures:** CAT, Bell, Volvo, Liebherr, Hitachi, JCB
- **Timescale:** worked commenced in 2015 but were halted then resumed in 2016. Commissioning in 2021.

€320 m

- **Financing:** public
- **Location:** between Bordeaux and Eysines to the north west, Gironde department, Nouvelle Aquitaine region.
- **Contracting authority:** Greater Bordeaux authority (CUB)
- **Prime contractors:** consortium comprising Systra (lead contractor), Coteba, Ingérop Sud-Ouest, ECCTA, BLP, Signes Paysages
- **Equipment manufactures:** CAT, Volvo, Hyundai
- **Timescale:** public financing approval in November 2011. Works commenced in early 2016. Commissioning scheduled for 2020.

€300 m

- **Financing:** public
- **Location:** Marseille, Bouches-du-Rhône department, PACA region.
- **Contracting authority:** Marseille Provence Métropole authority (CUMPM)
- **Investors:** PACA regional council, Bouches-du-Rhône department and City of Marseille
- **Prime contractors:** A consortium comprising Egis Ville et Transports, Ilex (landscaping), SMM, Mascarelli and Ingérop (consulting and engineering), Guillermin (landscape architect)
- **Timescale:** public financing approval in September 2016. Works due to commence at end of 2017. Commissioning scheduled for 2021.

GERMANY

The main driver of economic growth in Germany is foreign trade. Sales of German products abroad are increasing (3.5% on 2016), a performance supported by an extensive, competitive and innovative manufacturing sector and a sturdy job market. However, there are still substantial risks looming over the country's growth perspectives, with Germany still heavily dependent on demand from the Eurozone and emerging economies (imports up by 3.4%). The intake of more than a million migrants in 2015 and 2016 has fuelled demand for capital goods and construction. Housing demand in major city centres (+4.3% for the construction of new housing in 2016) also gave a positive boost to the building industry. Consequentially, the construction of transport infrastructure to improve passenger and goods mobility represents a development priority for the government. Major projects have already been launched, such as the construction of the Rastatt tunnel, the Ferhmarn Belt Fixed Link or the main station in Stuttgart, which offer evidence of the vitality of the German construction market.



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MACROECONOMIC AND TRADE DATA*

GDP €3,473 bn

Per capita GDP €37,804

Debt/GDP 68%

2.3% Growth rate
Forecast up to 2025

Gross fixed capital formation 22%



Balance of trade
€252.9 bn

Country risk A1

Main clients
USA
France
United Kingdom

Trade ranking
3rd

Ranked 17th Business-friendly nation

Main suppliers
China
Netherlands
France



CONSTRUCTION EQUIPMENT: MAIN TRADE FLOWS*



IMPORTS

BY EXPERTISE HUB:

- Earthmoving and demolition: 7%
- Lifting, handling and transportation: 37%
- Roads, minerals and foundations: 32%
- Buildings and concrete sector: 23%

MAIN IMPORTS

- Road tractors for semi-trailers: €1.1 bn
- Track-laying excavators: €800 m
- Mechanical shovels, excavators and shovel loaders: €468 m

MAIN SUPPLIER COUNTRIES

- Netherlands: 13%
- France: 11%
- Austria: 10%



EXPORTS

BY EXPERTISE HUB:

- Earthmoving and demolition: 6%
- Lifting, handling and transportation: 42%
- Roads, minerals and foundations: 32%
- Buildings and concrete sector: 19%

MAIN EXPORTS

- Road tractors for semi-trailers: €5 bn
- Crane lorries: €1.86 bn
- Electric telehandlers (all sectors): €1.83 bn

MAIN COUNTRIES OF DESTINATION





- USA: 8%
- France: 8%
- United Kingdom: 7%




TOP 3
high-potential sectors

1/ Roads 2/ Railways 3/ Buildings

Sources: French Embassy in Germany, Deutsche Industrie - und Handelskammertag, Trading Economics, Statistisches Bundesamt, Statista, Zoll, Doing Business and COFACE
*Data for May 2017

Market potential

| SECTORS | DEVELOPMENT LEVERS FOR SECTOR | MASTER PLANS | LEVEL OF INNOVATION & OTHER MAJOR ISSUES |
|--|--|---|---|
|  Roads | <ul style="list-style-type: none">The government wishes to make the road sector the main means of freight transportSeveral infrastructure renovation projects, in particular on motorways (20% of the road network no longer complies with current safety standards)Reinforcement and renovation of major logistical junctions and main thoroughfares.BVWP Federal programme – roads section<ul style="list-style-type: none">- maintenance and conservation of roads (€67 bn)- construction and extension of 2,000 km of network (€35.2 bn) | Federal transport infrastructure programme (BVWP) – roads section €130.7 bn 2016-2030 | <ul style="list-style-type: none">★ Modal shift towards railways (stated support for European corridors and waterways and support for more environmentally-friendly modes)★ Search for better environmental performance in terms of noise and pollution★ Deployment of city-logistics and multi-model platforms for goods transportation. |
|  Airports | <ul style="list-style-type: none">Good nationwide coverage:<ul style="list-style-type: none">- Germany is the largest aviation platform in Europe (by volume of passengers and freight)- 22 international airports and 550 airports and aerodromesGeneral rise in passenger traffic, in particular in Berlin (+11.4% traffic in 2016)Numerous airport maintenance, extension and modernisation programmesOptimisation of air traffic corridors and safety of processes on the ground | Several airport modernisation and extension investment plans €20 bn up to 2025 | <ul style="list-style-type: none">★ Development of technology to reduce noise and environmental pollution (CO2, NOx)★ Development of rail-road-air inter-modality. |
|  Ports | <ul style="list-style-type: none">Brisk growth in port activities due to the solidity of German exports.Progressive improvement in port infrastructure in Bremen and Hamburg (new container terminals, new locks) to maintain their leadership in the container sector (40% of global market).A multitude of projects to renovate inland ports (more than 300 locks, 1,300 roads and railway bridges, 350 aqueducts, dams, canals, sea walls).A federal plan worth €24.5 bn for waterway infrastructure<ul style="list-style-type: none">- maintenance and conservation (€16.2 bn)- construction and extension of waterway network (€2.7 bn) | Federal transport infrastructure programme (BVWP) – waterways section €24.5 bn 2016-2030 | <ul style="list-style-type: none">★ Use of ITS★ Energy Indiapendence: wind turbines, solar and geothermal power.★ Improvement in mass-based ground transportation (rail and waterway): multimodal terminals and improved access to waterways. |
|  Engineering structures | <ul style="list-style-type: none">Substantial requirements for bridge refurbishment. This applies to:<ul style="list-style-type: none">- 32% of road bridges- 15% of railway bridgesThe German Ministry of Transport wishes to introduce concessions in the form of PPPs to accelerate works. | Federal transport infrastructure programme (BVWP) – bridge modernisation section €2 bn 2016-2030 | <ul style="list-style-type: none">★ Sector issues closely related to those of other transport infrastructure:<ul style="list-style-type: none">- facilitating passenger mobility and the goods supply chain- reinforcing the safety of transport. |

| SECTORS | DEVELOPMENT LEVERS FOR SECTOR | MASTER PLANS | LEVEL OF INNOVATION & OTHER MAJOR ISSUES |
|---|--|--|---|
|  Mines and quarries | <ul style="list-style-type: none">The phasing out of nuclear power by 2022 and the development of renewable energies with their irregular and unpredictable production have led Germany to fully capitalise on and extend its lignite mines. Whole villages are being demolished to make way for new coal mines.The country generates 45% of its electricity from coal (just over 25% from lignite - brown coal - and 19% from black coal), compared with 27% from renewable sources. | No consolidated data available | <ul style="list-style-type: none">★ Objective of reducing greenhouse gas emissions by 40%, to be reconciled with the phasing out of nuclear power by 2022★ Regular decline in turnover of German mining and quarrying machina manufacturers. |
|  Railways | <ul style="list-style-type: none">Substantial investment in the maintenance and regeneration of existing lines (€58.4 bn) and the construction of new lines (€25.6 bn) to alleviate congestion on railway junctions around major cities (Frankfurt, Hamburg, Cologne, Mannheim and Munich).Harmonisation of railway signalling to European standards | Federal transport infrastructure programme (BVWP) – railway modernisation section €109.3 bn 2016-2030 | <ul style="list-style-type: none">★ Introduction and deployment of ERTMS system★ Electrification of lines and block systems★ Development of railway junctions with developments for combined transportation. |
|  Buildings | <ul style="list-style-type: none">High urban concentration effect expected by 2025 (+2 million inhabitants in cities)Construction of new housing for migrants and renovation of some buildings, in particular social housing: approximately 400,000 dwellings will be necessary in North Rhine Westphalia between now and 2020.Potential for renovation and construction of healthcare buildings (hospitals, care homes) | Regional programmes (in each Land) for the construction of social housing for migrants 2020 | <ul style="list-style-type: none">★ Growth in BIM (Building information Modeling) technology: by 2020; all new construction projects will be required to use BIM.★ Integration of “Smart City” and “Smart Building” concepts. |

TOP
4
requirements
for
construction
equipment
and materials

- Construction materials offering high functional performance (durability, safety, comfort, ease of maintenance, recyclability)
- High-technology composite materials: plastic (HDPE, CFRP, FRP), steel and stainless steel, concrete
- Equipment to reduce noise and light pollution on worksites
- Eco-materials

Sources: Business France, Düsseldorf office

Main imports of construction equipment

| TOTAL IMPORTS (IN EUR) | | | | | | |
|--|-------------|---------------|---------------|---------------------|---|--|
| | 2012 | 2014 | 2015 | Change 2012-2015 | Top 5 exporting countries | Brands sold |
| Earthmoving & demolition | | | | | | |
| Boring or sinking machinery parts | 91,347,592 | 101,630,720 | 103,512,791 | 13% | 1/ Austria 2/ USA 3/ United Kingdom 4/ Poland 5/ Netherlands | Atlas Copco, Beretta, Ditch Witch, Nordmeyer, Sandvik, Vermeer, Wirth |
| Buckets, shovels, grabs and grips | 121,316,322 | 99,745,528 | 101,549,483 | -16% | 1/ Austria 2/ Netherlands 3/ Czech republic 4/ China 5/ Sweden | Atlas Copco, HydraramStanley, Mantovanibenne, Rozzi, Zijtveld Grippers BV |
| Track-laying excavators | 86,356,654 | 91,214,370 | 100,940,006 | 16% | 1/ Austria 2/ United Kingdom 3/ Netherlands 4/ France 5/ Belgium | Bobcat - Dieseko Group BV - Doosan - Eurosteel BV - Hydraram - Kobelco Construction Machinery Europe B.V. - Komatsu - Takeuchi |
| Earth-boring or drilling tools | 69,510,662 | 61,043,289 | 65,637,573 | -5% | 1/ USA 2/ Italy 3/ Poland 4/ Austria 5/ Turkey | American Augers / Trencor, Braun Maschinenfabrik, Casagrande S.p.A (Hütte Bohrtechnik), Core Powertools, E-Z Drill |
| Bigues et chariots-grues | 20,885,911 | 23,782,748 | 29,307,563 | 40% | 1/ Sweden 2/ Netherlands 3/ Italy 4/ Austria 5/ Japan | Aerolift Industrials B.V - CIMOLAI Technology - Enerpac B.V. - Hitachi Sumitomo Heavy Industries Construction Crane co., Ltd. |
| Lifting, handling and transportation | | | | | | |
| Road tractors for semi-trailers | 884,289,162 | 1,140,900,339 | 1,144,773,747 | 29% | 1/ Belgium 2/ Netherlands 3/ Italy 4/ France 5/ Austria | Astra, DAF, Iveco, Renault, Scania, Volvo |
| Electric-propelled fork lift and works trucks (all applications) | 255,595,563 | 285,330,014 | 323,160,307 | 26% | 1/ Italy 2/ France 3/ Sweden 4/ United Kingdom 5/ China | Balkancar, Clark, Fenwick Lndia, Kalmar, Sany, Steinbock, Still, STI Industrie |
| Non-electric propelled fork lift and works trucks | 319,971,303 | 245,849,510 | 276,455,328 | -13% | 1/ France 2/ United Kingdom 3/ Italy 4/ Sweden 5/ Netherlands | Caterpillar, Cesab, Huyndai, JLG Europe B.V, Manitou, Tailift, Yale |
| Elevators and conveyors | 168,722,189 | 155,927,815 | 192,607,819 | 14% | 1/ Austria 2/ Switzerland 3/ Poland 4/ Netherlands 5/ Italy | Dunlop Conveyor Belting, GIPO AG, Inocon Industrial Plants, LBS Conveyor Belts, Motridal S.p.A, Rulmeca Holding S.p.A., Semperttrans Conveyor Belt Solutions |
| Lifts and skip hoists | 86,950,507 | 94,996,552 | 119,131,488 | 37% | 1/ United Kingdom 2/ Italy 3/ Netherlands 4/ Sweden 5/ USA | Haulotte Group, JLG Europe B.V, Raxtar, Schindler |
| Roads, minerals and foundations | | | | | | |
| Track-laying excavators | 702,302,536 | 726,345,997 | 800,317,750 | 13% | 1/ Netherlands 2/ France 3/ Japan 4/ Belgium 5/ United Kingdom | Case, Caterpillar, Doosan, Hitachi, Hyundai, JCB, Komatsu, Kobelco, Volvo |
| Mechanical shovels, excavators and shovel loaders | 472,993,557 | 447,826,679 | 468,753,725 | -0.8% | 1/ Sweden 2/ Belgium 3/ Austria 4/ United Kingdom 5/ USA | Atlas Copco, Bobcat, Komatsu, Kubota, Mecalac, Terex |
| Dumpers | 119,947,858 | 153,725,308 | 156,416,246 | 30% | 1/ South Africa 2/ Sweden 3/ United Kingdom 4/ USA 5/ Japan | Astra, Ausa, Barford, Bell, Caterpillar, Euclid, Morroka, Thwaites, Wacker Neuson |
| Elevators and conveyors for goods | 72,946,532 | 117,528,876 | 121,161,963 | 66% | 1/ Austria 2/ Netherlands 3/ Czech republic 4/ Japan 5/ Switzerland | B & D Process Equipment B.V., Delta, Ezystak, Ibag, Marti Technik AG, Nakayama Iron Works |
| Screening machinas | 56,595,882 | 58,699,947 | 79,563,062 | 40% | 1/ United Kingdom 2/ Austria 3/ Belgium 4/ Finland 5/ Switzerland | CDE Global LTD, ConveyorTek, SBM Mineral Processing, Selwood Pumps, Technicgum Polymeres, Tecwill Oy |
| Buildings and concrete sector | | | | | | |
| Laser metal cutting machinas | 335,302,574 | 423,398,644 | 440,140,024 | 31% | 1/ Switzerland 2/ Japan 3/ Italy 4/ USA 5/ France | Amada, Bystronic, Farley LaserLab, Mazak, Trumpf |
| Bars and rods for reinforced concrete | 384,584,290 | 332,068,415 | 313,662,196 | -18% | 1/ France 2/ Poland 3/ Austria 4/ Bélarus 5/ Italy | Arcelor Mittal, Bamtec, Bowim SA, Byelorussian Steel Works, Bowim SA, FERRUM s.r.o, Pittini Gruppo |
| Shuttering | 265,244,660 | 270,897,922 | 280,432,694 | 5% | 1/ Austria 2/ Poland 3/ China 4/ Italy 5/ Switzerland | Doka, Farina Formworks, Plettac, Scafom Rux, Tobler AG |
| Concrete pumps | 199,205,163 | 185,409,274 | 209,063,736 | 4% | 1/ Italy 2/ Switzerland 3/ Denmark 4/ Netherlands 5/ France | CIFA S.p.A, Iveco, Scania, Schwing Setter, Volvo |

Source: Comtrade.

Projects

RASTATT TUNNEL

Construction of a 182-km railway line from Karlsruhe to Rastatt

These works are part of the creation of a railway line between Karlsruhe and Rasttt, which will be part of the new high-speed line (HSL) between Karlsruhe and Basel. The construction of the tunnel relates to 2 single-track tunnel tubes, each 4,277 m long, passing underneath the city of Rastatt.

€11.6 bn

- **Financing:** public/private
- **Location:** Rastatt
- **Prime contractors:** Ed. Züblin and Hochtief AG
- **Contracting authority:** DB Netz AG
- **Construction:** Züblin Spezialtiefbau GmbH
- **Tunnel boring machina:** Herrenknecht AG
- **Equipment manufacturer:** Schöck Bauteile GmbH
- **Steel:** Brühler Stahlhandel GmbH
- **Timescale:** 2016-2035

FEHMARN BELT FIXED LINK

Construction of an immersed tunnel between Germany and Denmark

The project related to the construction of an 18-km immersed tunnel for trains and cars running between Germany and Denmark. Three works packages have been awarded relating to the immersed tunnel, the plant for the construction of the tunnel's prefabricated parts, and the access ramps and bridges. The first of these three contracts (€2 bn) is by far the largest, and Vinci is the lead contractor. The aim is to build and lay the elements which, once assembled on the Fehmarn Belt sea bed, will make up the submarine tunnel. This contract also provides for the construction of a factory on the Danish shore to build the tunnel elements. The second package relates to the tunnel's portals and access ramps, and the third, tunnel dredging and land reclamation.

€7 bn

- **Financing:** public/private
- **Location:** Hamburg / Copenhagen
- **Contracting authority / prime contractor:** Fernem A/S
- **Construction consortium:** Vinci Construction Grands Projets, Per Aarsleff Holding, Soletanche Bachy International, CFE, Wayss und Freytag Ingenieurbau, Max Bögl Stiftung and Co, BAM Infra and BAM International
- **Timescale:** works to commence in 2019. Delivery scheduled for 2028.

STUTTGART 21

Construction and renovation of Stuttgart's main station

This project firstly involves the construction and renovation of the main station in the city of Stuttgart (currently a terminus station) to transform it into a through-traffic and underground station, also offering services to the airport. The project also entails the construction of a new high-speed line between Stuttgart and Ulm (56 km of new line) linking in with the major continental route from Paris to Budapest, a pan-European project christened Main Line for Europe (or Magistrale für Europa). Works will involve no fewer than 61 bridges and 63 km of tunnels.

€6.8 bn

- **Financing:** public/private
- **Location:** Stuttgart
- **Contracting authority:** Deutsche Bahn AG
- **Prime contractors:** DB Projekt GmbH Stuttgart 21
- **Architects:** Ingenhoven Overdiek und Partner
- **Consultant engineers:** Buro Happold Consulting Engineers, Leonhardt, Andrä und Partner Beratende Ingenieure VBI AG
- **Timescale:** works ongoing, 2010-2020

Projects

FRANKFURT AIRPORT

Construction of Terminal 3 at Frankfurt international airport

Frankfurt is Germany's leading airport and the third busiest in Europe. In 2016 it welcomed more than 61 million passengers (+2.5% in the space of a year). Thanks to this new terminal, the airport will increase its capacity by 14 million passengers per year. It has been designed for modular construction in several phases, the first of which will comprise the central building with two piers and 24 gate positions (once completed, the new terminal will have 50). It will connect with Terminals 1 and 2 and also with the railway stations through the extension of Sky Line moving walkways and baggage conveyors. The technical design of T3 paid special attention to energy efficiency.

€3 bn

- **Financing:** public/private
- **Location:** Frankfurt
- **Contracting authority:** Fraport AG
- **Architects:** Foster and Partners from London
- **Timescale:** works ongoing, 2015-2023

BIELEFELD UNIVERSITY

Extension of the Bielefeld University and Faculty of Technology campuses

The project consists of extending the Bielefeld University and Faculty of Technology campuses to physically merge the two sites into a single campus, with extension opportunities for additional research centres. To achieve this goal, it is planned to modernise the current infrastructure and build new buildings, in step with the innovative momentum of the city and its region.

€1 bn

- **Financing:** public
- **Location:** Bielefeld
- **Contracting authority:** Universität Bielefeld
- **Prime contractors:** the NRW Land: Bau-und Liegenschaftsbetrieb NRW (BLB NRW), NL Bielefeld
- **Architects:** Meyer Architekten, Dusseldorf
- **Timescale:** works ongoing, 2014 – 2024

KIEL AND LÜBECK UNIVERSITY HOSPITALS

Restoration and renovation of 2 hospital buildings

These two projects conducted concurrently relate to the restoration and renovation of two university hospitals in the Land of Schleswig-Holstein (UKSH – Universitätsklinik Schleswig-Holstein) in the cities of Kiel and Lübeck.

€1 bn

- **Financing:** public/private
- **Location:** Kiel and Lübeck
- **Contracting authority:** KSH (Universitätsklinikum Schleswig-Holstein)
- **Prime contractors:** BAM Deutschland AG, VAMED, Zeppelin Streif Baulogistik GmbH
- **Architects:** Sander Hofrichter Architekten GmbH, JSWD Architekten GmbH & Co. KG, Tönies + Schroeter + Jansen Freie Architekten GmbH and HDR TMK Planungsgesellschaft mbH
- **Timescale:** works ongoing, 2014 - 2024

KOMBILOSUNG KARLSRUHE

Construction of a tunnel running underneath the pedestrian zone

The Kombilösung Karlsruhe project aims to reorganise passenger traffic in Karlsruhe city centre. The roads in the city centre are highly congested due to continuous tram and tram-train traffic. To solve the problem, the city is building a 4-km tunnel running beneath the pedestrian zone.

€900 m

- **Financing:** public
- **Location:** Karlsruhe
- **Contracting authority:** KASIG, Karlsruher Schieneninfrastruktur-GmbH
- **Engineering firms:** KREBS+KIEFER and ZETCON Ingenieure Deutschland AG, VAMED, Zeppelin Streif Baulogistik GmbH
- **Timescale:** works ongoing, 2010 - 2019

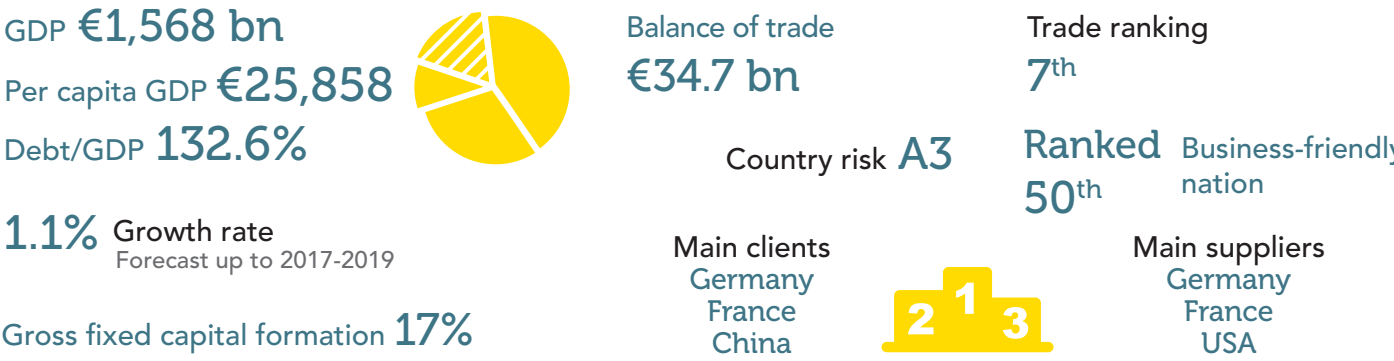
ITALY

Following several years of recession, the Italian economy made a return to fragile growth in 2014. Despite structural factors affecting its activity such as the weight of public borrowing, low investment and lower productivity than that of its European partners, Italy can nonetheless count on two strengths: its industry and its firms, which make it the number 2 European nation for manufacturing. Notwithstanding its sluggish recovery, Italy should remain the third largest economy in the Eurozone over the coming years, behind Germany and France but ahead of Spain. The country is targeting its investments on airports, railways and the road sector, with the focus on consideration for seismic risks and improving user safety. Finally, the optimistic forecasts of the Italian building federation ANCE for the construction sector (+0.8% in real terms in 2017), fuelled by fiscal measures and by planned infrastructure investment, indicate that the growth recorded by the machinery and equipment market should continue.



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MACROECONOMIC AND TRADE DATA*









CONSTRUCTION EQUIPMENT: MAIN TRADE FLOWS*



Sources: Istat, the economic observatory of the Ministry of Economic Development, World Bank, COFACE, Bank of Italy
*Data for May 2017

Market potential

| SECTORS | DEVELOPMENT LEVERS FOR SECTOR | MASTER PLANS | LEVEL OF INNOVATION & OTHER MAJOR ISSUES |
|--|---|--|---|
|  Roads | <ul style="list-style-type: none">3 priorities: road safety, the protection and maintenance of the existing road and motorway network, in the wake of natural catastrophes (flooding, earthquakes).4 main plans:<ul style="list-style-type: none">FSC National programme for infrastructure 2014-2020: road works (€5.331 bn), improving safety of roads (€1.021 bn)National plan against hydrological damage (€654.2 m)Programme contract by ANAS (operating company) 2016-2020 (€23.1 bn)ANAS earthquake plan (€800 m)A large number of projects are provided for in the metropolitan programme (33); three are underway and one has already been completed. | 4 major national road programmes €31 bn 2014-2020 | <ul style="list-style-type: none">Issue of road durability: environmental and water risks, necessity of upgrading to anti-seismic standards.Driving safety and comfortDevelopment of ITS systems applied to the road networkUpgrading to optic fibre through road projects |
|  Airports | <ul style="list-style-type: none">Investments to modernise and extend 12 airports considered strategic: three quarters of 2016 investment channelled to the busiest destinations (Rome, Milan, Venice).Continued growth in number of passengers transported (4.6% in 2016) leading to an additional investment plan at the end of 2016 (€4 bn). | National Airport programme €84 bn up to 2030 | <ul style="list-style-type: none">Development of the inter-modality of strategic stopover pointsIncrease in passenger capacities and better footfall management, in particular on international flights. |
|  Ports | <ul style="list-style-type: none">Reduction of ports' environmental impact: priority theme in view of objectives fixed in Horizon 2020.Improvement in energy efficiency. | National Strategy for Ports and Logistics (24 port authorities) €6.3 bn 2015-2017 | <ul style="list-style-type: none">Increased use of ITS for management of port operationsInteroperability between ports and logistics platforms |
|  Engineering structures | <ul style="list-style-type: none">Improvement in safety of sea walls. FSC National programme for infrastructure 2014-2020 (€294 m), 101 operations planned.Obligation to upgrade tunnels to standards following the Mont Blanc accident: EU Directive2004/54 (€1 bn investment from 2019).Construction of Lyon-Turin tunnel. | 2 investment plans in sea walls and tunnels (€1.3 bn) 2014-2020 | <ul style="list-style-type: none">Reinforcement of infrastructure safety. |
|  Mines and quarries | <ul style="list-style-type: none">Reduction of number of quarries in operation.Management and supervision of quarries is under the authority of regions, with respective specific development plans. | No consolidated data | <ul style="list-style-type: none">Reduction in environmental impact of quarries.Recycling of demolition site waste in new structures. |

| SECTORS | DEVELOPMENT LEVERS FOR SECTOR | MASTER PLANS | LEVEL OF INNOVATION & OTHER MAJOR ISSUES |
|--|--|--|--|
|  Railways | <ul style="list-style-type: none">Trans-European Transport networks (TEN-T): four corridors cross through Italy: Scandinavian-Mediterranean corridor, Baltic-Adriatic corridor, Rhine-Alpine corridor, Mediterranean corridor.Connecting Europe Facility programme 2014-2020 (€3.5 bn): Brenner Tunnel.FSC national programme for infrastructure 2014-2020: railway works (€2.056) bn, railway safety plan (€300 m)Programme contract with RFI (Italian infrastructure manager and part of the national FS group) / FS industrial programme 2017-2026 (€73 bn). | 3 investment plans €78.8 bn 2014-2026 | <ul style="list-style-type: none">Improvement in safetyDevelopment in inter-modality: several projects underway or planned.Upgrading to ERTMS standards. |
|  Buildings | <ul style="list-style-type: none">Reconstruction plan following the earthquakes in 2016 in the centre of Italy:<ul style="list-style-type: none">private buildings (€12.9 bn)public buildings (€1.1 bn - financing request submitted to the EU)Schools Plan:<ul style="list-style-type: none">upgrading to anti-earthquake standards, restructuring, urgent repairscreation of "innovative" schools, high energy performance establishments, etc.Operational Environment – Energy Efficiency plan for public buildings running until 2020 (€93.6 m). | 3 public investment plans €22 bn up to 2020 | <ul style="list-style-type: none">Energy efficiencyHigh anti-earthquake performance standards expected.Internet of Things for homes |

TOP 5 requirements for construction equipment and materials

- Cold milling machines (roadworks)
- Compactors (roadworks)
- Road rollers
- Compact earth-moving equipment
- Road pavers (roaders)

Main imports of construction equipment

| TOTAL IMPORTS (IN EUR) | | | | | | |
|---|-------------|-------------|-------------|------------------|--|---|
| | 2012 | 2014 | 2015 | Change 2012-2015 | Top 5 exporting countries | Brands sold |
| Earthmoving & demolition | | | | | | |
| Boring or sinking machinery parts | 118,374,663 | 111,190,797 | 104,445,188 | -11% | 1/ USA, 2/ Germany, 3/ United Kingdom, 4/ France, 5/ China | Atlas Copco, Mustang, Herrenchnect, Liebherr, Montabert, Sandvik, Tamrock, Tracto Teknik GmbH |
| Wheeled excavators | 27,986,559 | 41,248,485 | 50,838,056 | 81% | 1/ United Kingdom, 2/ Germany, 3/ Belgium, 4/ France, 5/ Netherlands | Atlas, Bobcat, Case, Caterpillar, Doosan, Hitachi, Hyundai Heavy Industries, Kato Imer, Komatsu, Mecalac |
| Boring tools | 27,942,037 | 29,119,600 | 25,554,700 | -8% | 1/ Germany, 2/ USA, 3/ Austria, 4/ India, 5/ United Kingdom | Best Carbide Cutting Tools, Boehlerit, Dummel, Guhring, Horn, Kennametal, LMT, Miller, Mitsubishi, MK Morse |
| Derricks and self-propelled cranes | 23,282,586 | 8,891,485 | 11,304,684 | -51% | 1/ China, 2/ Germany, 3/ Bosnie-Herzégovine, 4/ France, 5/ Norway | Bocker, Grove, Konecranes, Krupp, Liebherr, Manitou, Manitowoc Crane |
| Buckets, shovels, grabs and grips | 9,366,236 | 11,990,575 | 10,601,136 | 13% | 1/ Belgium, 2/ Germany, 3/ China, 4/ France, 5/ Sweden | Bobcat, Doosan, EMEA, Esco Belgium, Hyundai Heavy Industries, Klac Industrie, Komatsu, Sennebogen, Yanmar Construction Equipement Europe |
| Lifting, handling and transportation | | | | | | |
| Road tractors for semi-trailers | 390,215,722 | 473,175,068 | 632,368,973 | 62% | 1/ Spain, 2/ France, 3/ Sweden, 4/ Netherlands, 5/ Germany | DAF, Iveco, MAN, Mercedes-Benz, Renault, Scania, Volvo |
| Electric-powered fork lift and works trucks (all sectors) | 207,134,693 | 233,556,085 | 291,173,981 | 40% | 1/ Germany, 2/ Sweden, 3/ Netherlands, 4/ United Kingdom, 5/ France | CAT Lift Truck, Cesab, Doosan, Hyster, Jungheinrich, Lndia, Nissan, Still, Toyota, Yale |
| Non-electric-powered fork lift and works trucks (all sectors) | 67,710,286 | 83,319,386 | 95,941,186 | 41% | 1/ Germany, 2/ France, 3/ United Kingdom, 4/ Netherlands, 5/ Finland | CAT Lift Truck, Cesab, Crown, Hyster, Lndia, Mitsubishi, Nissan, OM Still, Toyota, Yale |
| Elevators and conveyors | 51,082,327 | 37,371,017 | 62,181,863 | 21% | 1/ Germany, 2/ Austria, 3/ France, 4/ China, 5/ Sweden | Avancon, Ciem Mada, Disa Wheelabrator Group, Jungheinrich, Montech |
| Manually-operated fork lift and works trucks | 19,919,344 | 25,620,809 | 28,179,241 | 41% | 1/ Netherlands, 2/ Germany, 3/ United Kingdom, 4/ China, 5/ Sweden | Advanced Handling, Eurokraft, Jungheinrich, Kleos, Manutan, Pramac, Toyota, Würth |
| Roads, minerals and foundations | | | | | | |
| Hydraulic track-laying excavators | 135,876,458 | 167,337,640 | 243,004,496 | 78% | 1/ Belgium, 2/ Japan, 3/ Netherlands, 4/ France, 5/ Germany | Bobcat, Doosan, Hyundai Heavy Industries, Kato Imer, Komatsu, Kobelco Europe, Kubota, Mecalac, Takeuci, Yanmar |
| Mechanical shovels, excavators and shovel loaders | 78,586,049 | 91,276,854 | 99,084,518 | 26% | 1/ Belgium, 2/ USA, 3/ Sweden, 4/ Germany, 5/ Netherlands | Bobcat, Caterpillar, Doosan, Hitachi, Hyundai Heavy Industries, Kobelco, Komatsu, Volvo |
| Asphalt spreaders, graders | 17,013,594 | 30,651,458 | 34,564,758 | 103% | 1/ Germany, 2/ Netherlands, 3/ France, 4/ Turkey, 5/ Roumanie | Bomag, Caterpillar, Wirtgen |
| Crawler dozers | 16,004,092 | 22,474,157 | 29,250,287 | 82% | 1/ Germany, 2/ Netherlands, 3/ Austria, 4/ Japan, 5/ Switzerland | Fenner Dunlop, Habasit, Jungheinrich, Lissmac, Manutan, Misumi, Nilop, Reveyron |
| Buildings and concrete sector | | | | | | |
| Laser metal cutting machines | 55,275,469 | 93,665,269 | 104,590,983 | 89% | 1/ Germany, 2/ Switzerland, 3/ Belgium, 4/ Japan, 5/ USA | Bystronic, Erolaser, Kunth, LVD, Omax, Trumpf, Yamazaki Mazak |
| Shuttering | 55,954,519 | 46,238,570 | 57,518,429 | 3% | 1/ Germany, 2/ China, 3/ Austria, 4/ Bosnie-Herzégovine, 5/ Spain | Betonblock, Doka, Dorken, Fischer, Halfen, Lahyer, Würth |
| Concrete pumps | 31,445,000 | 40,551,854 | 42,780,098 | 36% | 1/ Germany, 2/ Netherlands, 3/ Switzerland, 4/ United Kingdom, 5/ France | Liebherr, Putzmeister, Sany Germany, Schwing, Worthington |
| Bars and rods for reinforced concrete | 47,844,052 | 22,685,090 | 25,386,854 | -46% | 1/ Germany, 2/ Turkey, 3/ Ukraine, 4/ France, 5/ Bosnie-Herzégovine | Arcelor Mittal, Arcelor Mittal Zenica, Çebitas Demir Çelik, Eisen-SCMID, Eisenbiegeri Schmitt, Meba Steel, Metinvest, Montanstahl, Soyuz Dondas |
| Sawing, drilling and cutting-off equipment | 15,350,232 | 19,498,579 | 20,013,065 | 30% | 1/ Germany, 2/ Taiwan, 3/ China, 4/ Austria, 5/ Slovakia | Behringer, Everising, Kasto, Klaeger, Taiwan Rong Fu, Trennjaeger, TTMC |

Source: Comtrade.

Projects

BRENNER TUNNEL

Cross-border tunnel between Italy and Austria

The Brenner railway tunnel is a project common to Austria and Italy, divided into four lots. It runs beneath the Brenner Pass, connecting the two countries. This open country line will be used for passenger and goods transportation. The tunnel itself will be 55 metres long. Once it is connected to the existing underground railway line running around the south of Innsbruck, it will totalise 64 km. It will thus exceed the length of the Gotthard Base Tunnel and become the longest tunnel in the world.

Schedule details: 2 lots on Italian side
Commencement of works: July 2015 for the “Sottoattraversamento fiume Isarco” lot, September 2016 for the “Mules 2 – 3” lot. Deliveries: End of 2022 for “Sottoattraversamento del fiume Isarco”, end of 2023 for “Mules 2 – 3”. Final delivery of entire project: 2025.

NAPLES-BARI HS/HC RAILWAY LINE

Railway line section between cities of Naples and Bari

The Naples-Bari high-speed line is part of the Scandinavian-Mediterranean corridor in the TEN-T network. The objective is to accelerate services between the two cities, with a current journey time 3 hours 40 mins dropping to 2 hours (for a nonstop journey), increase the volume of goods transported and provide easier access to these regions which account for 40% of the GDP of the Mezzogiorno.

GENOA-ALESSANDRIA HS/HC RAILWAY LINE -

New railway line

The “terzo Valico” is a new high-speed, high-capacity railway line which will be part of the “Rhine-Alpine” corridor of the TEN-T network, and will connect the Port of Genoa with the main railway lines in the north of Italy (in particular Milan) and the north of Europe.
The line will extend over 53 km of which 37 km in tunnels, and will run through 12 villages between Liguria and Piedmont.
Schedule details: commencement of works:

- 1st lot: April 2012
- 2nd lot: March 2013
- 3rd lot: March 2016

Works in the three remaining lots will commence between 2017 and 2018.

€8.8 bn

- **Financing:** public
- **Location:** Brenner Pass, on Italian –Austrian border.
 - “Sottoattraversamento fiume Isarco” and “Mules 2 -3” lots on Italian side
 - “Wolf” and “Tulfes-Pfons” lots on Austrian side
- **Contracting authority:** Brenner Basis Tunnel (BBT SE)
- **Investors:** EU (40%), Italy (30%), Austria (30%)
- **Architects / design consultancies:** ILF Beratende Ingenieure, Pasquali Rausa Engineering S.r.l., EUT Energie und Umwelttechnik
- **Prime contractors:**
- **“Sottoattraversamento del fiume Isarco”:** Consortium RTI (Salini-Impregilo S.p.A., Strabag AG, Strabag S.p.A., Consorzio Integra e Collini Lavori S.p.A.)
 - “Mules 2 – 3”: Astaldi S.p.A., Ghella S.p.A., Oberosler Cav Pietro S.r.l., Cogeis S.p.A. and PAC S.p.A.
 - “Tulfes-Pfons”: Salini Impregilo and Strabag AG
 - “Wolf”: Consortium Swietelsky / Swietelsky Tunnelbau
- **Equipment manufacturers:** Caterpillar, Teichmann Kranes, Demag, Volvo, Merlo, Manitou, Unrock, Robodrill, Cifa, Dieci
- **Timescale:** tunnel to open in 2026 (see details opposite)

€6.2 bn

- **Financing:** public
- **Location:** Between Naples and Bari
- **Contracting authority:** Italferr Spa on behalf of RFI (Rete Ferroviaria Italiana)
- **Investor:** FS (Ferrovie dello Stato)
- **Architects / design consultancies:** Italferr S.p.A. (Engineering branch of FS group)
- **Prime contractors:**
 - **1st lot, Naples - Cannello:** Salini Impregilo S.p.A, Astaldi S.p.A
 - **2nd lot, Cannello - Frasso Telesino:** Impresa Pizzarotti Spa, Itinera Spa, Ghella Spa
- **Timescale:** Works commenced in October 2015. Delivery of both lots: 2022.

€4.65 bn

- **Financing:** public
- **Location:** between Genoa and Alessandria – regions of Liguria and Piedmont
- **Contracting authority:** Italferr S.p.A. on behalf of RFI (Rete Ferroviaria Italiana)
- **Investor:** Ministry of Infrastructure and Transport
- **Architects / design consultancies:** Italferr S.p.A. (Engineering branch of FS group)
- **General contractor:** COCIV Consortium (Salini Impregilo 64%, Società Italiana Condotte d’Acqua S.p.A. 31% and CIV 5%),
- **Prime contractors:** Oberosler Cav. Pietro S.p.A, CCC Società Cooperativa, Iter Gestioni and Appalti S.p.A., Grandi Lavori Fincosit S.p.A.
- **Equipment manufacturers:** Hitachi, Dieci, Astra, Caterpillar, Locatelli Autogru, Autogru Vernazza
- **Timescale:** delivery in 2021 (details opposite).

Projects

ROME-LATINA MOTORWAY

Construction of 186 km of motorways

- The project provides for the construction of 186 km of motorway infrastructure:
- 68.3 km between Roma and Latina
 - 31.5 km between Cisterna and Valmontone
 - 46.2 km of infrastructure to connect the motorway with local roads
 - 40 km of additional roads on the Aprilia Sud – Latina section

Schedule details: The commencement of works was halted by a legal challenge submitted by one of the tendering parties. On 20 March 2017, the courts rejected the appeal and confirmed the award of the works to the consortium SIS. Works will commence in September 2017.

EXPANSION OF ROME AIRPORT

Increase of capacity of "Leonardo Da Vinci" Airport

- The investment plan focuses on three areas:
- increasing the passenger capacity of terminals (today, 315,000 sqm currently welcoming 37 million passengers; this will rise to 423,000 sqm in 2021 to accommodate 44 million passengers)
 - increasing aircraft capacity by building a new runway (no. 4), doubling the Bravo runway and creating new aprons (the current 36 aprons fitted with passenger boarding bridges will rise to 69 in 2021).
 - technologically upgrading infrastructure and conducting works to improve passenger comfort

LORENTEGGIO - LINATE AIRPORT RAILWAY LINE

New 15-km driverless metro line with 21 stations

The "blue line" will run from Milan Linate Airport to the San Cristoforo railway station and will cross the city from west to east, passing through the historical city centre.

€2.8 bn

- **Financing:** public
- **Location:** Rome
- **Contracting authority:** Autostrade del Lazio Spa
- **Investors:** Regione Lazio (50%), Anas Spa (50%)
- **Architects / design consultancies:** Sipal S.p.A (Groupe Fininc)
- **Prime contractors:** Consortium SIS Scpa: Sacyr, (Spanish group) and Fininc, (Italian group), via its subsidiary Inc S.p.A
- **Equipment manufacturers:** Case, Hyundai, Hitachi, Lombardo
- **Timescale:** delivery planned for 2024 (see opposite)

€1.89 bn

- **Financing:** private (97%) and public (3%)
- **Location:** Rome
- **Contracting authority:** ADR (Aeroporti di Roma S.p.A.)
- **Investors:** Atlantia S.p.A., Regione Lazio, Roma Capitale, Città Metropolitana di Roma, Comune di Fiumicino
- **Architects / design consultancies:** Spea Engineering S.p.A. (Group Atlantia)
- **Prime contractors:** Subsidiaries of the Atlantia S.p.A. group
- **Timescale:** works commenced in 2017. Delivery in 2021 with a 2044 deadline for some items in the plan.

€1.8 bn

- **Financing:** public 2/3, private 1/3
- **Location:** Milan
- **Contracting authority:** M4 S.p.A.
- **Investors:** Milan City Hall (66.67%), Salini Impregilo S.p.A., Astaldi S.p.A., Hitachi Rail Italy, ATM S.p.A., Sirti S.p.A.
- **Architects / design consultancies:** Policroo Progettazione Srl
- **Prime contractors:** Consorzio MM4 Scarl (Salini Impregilo S.p.A., Astaldi S.p.A., Hitachi Rail Italy, Sirti S.p.A.), Rocksoil S.p.A.
- **Equipment manufacturers:** JCB, Hitachi, DAF, Meru, Caterpillar, Komatsu
- **Timescale:** works commenced in March 2014. Line delivered in its entirety: 2022.

Projects

ROAD BETWEEN ANCONA, A14 AND SS 16

Construction of a road and the related engineering structures

The project consists of building a road connection between the Port of Ancona, the motorway A14 and the SS 16 "Adriatica". It will stretch for 11 km in total, including 7.5 km on the main route between the Port and the new Ancona Centre exit, and 3.5 km of connecting road between SS 16 and the Ancona Centre exit. The structures build will include two viaducts, one exit with a toll booth and a multi-storey car park. The aim of the project is to improve traffic flow between the Port of Ancona, the city and the A14, and will promote the growth of the Ancona region's logistics ecosystem based at the Port, the Interport and the Airport.

DOUBLING OF CATANIA - ENNA - PALERMO RAILWAY LINE

This project relates to the doubling of the Catania - Enna - Palermo railway line between Bicocca and Catenanuova (38 km of railway line, including 100 m of tunnel and 1.15 km of viaduct). Works will consist of building a second track.

SS 95 ALTERNATIVE ROUTE TITO - BRIENZA - POTENZA 6TH LOT

New route for SS 95 road

This new route alternative of the SS 95 regional road, 15.788 km in length and 10.5 m in width, has one carriageway in either direction. This alternative is of strategic importance for the Potenza region as it will connect the Sicignano - Potenza motorway with the A3 motorway between Salerno and Reggio Calabria.

BUILDING 102 OF IPSC

Construction of a new building for the Institute for the Protection and Security of the Citizen (IPSC) on the European Commission's Ispra facility.

Building 102 will contain offices, meeting rooms and computer laboratories. It will be able to hold up to 280 people and will have five floors, one of which will be partly underground. The total surface area of all floors is 10,800 sqm, a quarter underground. The building will have an energy ranking of A, in compliance with the European Parliament and Council's directive 2010/31/EU on the energy performance of buildings which consume "nearly zero-energy".

€480 m

- **Financing:** public
- **Location:** Ancona (Marche)
- **Contracting authorities:** IVCA (Ispettorato Vigilanza Concessioni Autostradali) and ANAS
- **Investor:** Ministry of Infrastructure and Transport
- **Prime contractors:** Salini Impregilo S.p.A
- **Timescale:** works commenced in January 2015. Delivery in 2021.

€415 m

- **Financing:** public
- **Location:** between Catania and Palermo (Sicily)
- **Contracting authority:** RFI S.p.A
- **Investor:** FS (Ferrovie dello Stato)
- **Timescale:** design studies in April 2015. Project received official approval in December 2016. Invitations to tender published at the end of April 2017. Tender submissions closed on 13 July 2017. Works scheduled to last 5 years.

€63.64 m

- **Financing:** public
- **Location:** Potenza (Basilicata)
- **Contracting authority:** ANAS (Italian motorway operating company, wholly-owned by the French Ministry of the Economy and Finance.
- **Investor:** Italian government
- **Architects / design consultancies:** A.T. P. Italconsult S.p.A. and Proger S.p.A.
- **Prime contractors:** Intercantieri Vittadello S.p.A.
- **Equipment manufacturers:** Hitachi, Caterpillar, Daewoo
- **Timescale:** works commenced in March 2015. Delivery in 2020.

€16.5 m

- **Financing:** public
- **Location:** Ispra (Lombardy)
- **Contracting authority:** European Commission
- **Investor:** European Union
- **Architects / design consultancies:** Tekne S.p.A in association with engineering firm ETS S.p.A.
- **Prime contractors:** Intercantieri Vittadello S.p.A.
- **Timescale:** Awarded in April 2017.

IVORY COAST

Ivory Coast is today experiencing a positive trend. The country's growth has picked up again, fuelled by all economic sectors and the growing vitality of the private sector. The country possesses a number of solid economic assets, including its high-quality infrastructure: Ivory Coast is the second largest port in sub-Saharan Africa and also has an extensive road network and a recently-extended international airport. The Ivorian authorities are implementing a National Development Plan 2016-2020 (PND) aiming to propel the country to the status of emerging economy in 2020 and continue to reduce the poverty rate. With this PND, the building and public works sector should see average growth of 9.8% over the period, thanks to the continuation of major government-funded projects and the implementation of the presidential social housing programme. Despite this encouraging background and the efforts of the Ivorian authorities which have been applauded by the international financial community, the country still has a number of challenges ahead, notably in the area of anti-corruption and improving the business climate, in order to fully recover its leading role in regional economic growth.



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MACROECONOMIC AND TRADE DATA*

GDP **€29.7 bn**

Per capita GDP **€1,309**

Debt/GDP **49%**

8% Growth rate
Forecast up to 2020

Gross fixed capital formation **20%**



Balance of trade
€2.2 bn

Country risk **B**

Main clients
Netherlands
USA
Belgium

Trade ranking
75th

Ranked **142nd** Business-friendly nation



Main suppliers
Nigeria
France
China

CONSTRUCTION EQUIPMENT: MAIN TRADE FLOWS*



IMPORTS

BY EXPERTISE HUB:

- Earthmoving and demolition: 35%
- Lifting, handling and transportation: 20%
- Roads, minerals and foundations: 29%
- Buildings and concrete sector: 16%

MAIN IMPORTS

- Boring or sinking machinery parts: €84 m
- Concrete pumps: €34 m
- Road tractors for semi-trailers: €33 m

MAIN SUPPLIER COUNTRIES

- China: 21%
- France: 16%
- USA: 15%



EXPORTS

BY EXPERTISE HUB:

- Earthmoving and demolition: 55%
- Lifting, handling and transportation: 6%
- Roads, minerals and foundations: 12%
- Buildings and concrete sector: 26%

MAIN EXPORTS

- Boring or sinking machinery parts: €47 m
- Bars and rods for reinforced concrete: €11 m
- Concrete pumps: €9.5 m

MAIN COUNTRIES OF DESTINATION

- Ghana: 15%
- France: 13%
- United Kingdom: 9%

Market potential

SECTORS

DEVELOPMENT LEVERS FOR SECTOR



Roads

- Ambitious road development plan (more than €5 bn over the period 2016-2020).
- Introduction of Road Maintenance Fund (FER).
- City infrastructure revitalisation programme (PRICI): upgrading, widening and modernisation of main urban and regional highways
- Works on Abidjan district highways:
 - development and asphalt surfacing of main thoroughfares
 - construction of interchanges and overpasses on some major crossroads.
- Introduction of a Bus Rapid Transit system In Abidjan
- Trans-modality project in Abidjan
- Reinforcement of institutional and regulatory environment relating to road safety:
 - plans to introduce a Domestic Transport Regulation Authority (ARTI)
 - plan to create a National Road Safety Commission (CNSR).



Buildings

- Construction of 30,000 dwellings per year up to 2020 (government priority on social housing)
- Government focus on construction of multi-storey residential buildings, reducing footprint and protecting the environment
- Promotion of modular dwellings and use of sustainable and environmentally-friendly materials.



Ports

- National Development Plan (PND) - transport sector, 2016-2020 (€2.87 bn)
- San Pedro port development programme, 2019-2035 (€5 bn)
- Increase in capacities at Abidjan and San Pedro ports by building new terminals and ore tanker quays.
- Development of road and rail infrastructure to facilitate access to San Pedro port.
- Development of dry ports in north of country.



Railways

- Construction of Cotonou-Niamey-Ouagadougou-Dori-Abidjan railway loop, or "Blueline" (€2.5 bn)
- Construction of Man-San Pedro Port ore freight railway line (€1.14 bn)
- Construction of a new metro line in Abidjan (€1 bn)
- Regeneration of Abidjan-Ouagadougou-Kaya railway line (€400 m)
- Construction of Ouagolodougou-Niellé-Sikasso railway line (€365.8 m)

MASTER PLANS

National Development Plan (PND) - road sector
€2.3 bn
2016-2020

National Development Plan (PND) - construction and urban planning sections
€478 m
2016-2020

National plan and development programme
€7.87 bn
up to 2035

Several investment plans
More than
€5.4 bn
up to 2030

LEVEL OF INNOVATION & OTHER MAJOR ISSUES

- ★ Government objective to improve road safety and alleviate congestion on main roads in Abidjan
- ★ Introduction of a multimodal congestion monitoring solution in Abidjan
- ★ Solar-powered traffic lights: one crossroads under experimentation at Cocody Collège Jean Mermoz (Abidjan)
- ★ Introduction of automatic speed cameras
- ★ Addressing of Abidjan streets.
- ★ Solar-powered street lamps: 1st successful test on 4.6-km boulevard Mohammed VI in Abobo, in Abidjan district
- ★ Solar-powered horizontal signs on main arterial roads in Abidjan.

- ★ Construction of smart buildings
- ★ Use of specific materials (eco-materials, materials to help save energy)
- ★ Adoption of new off-site modular construction methods

- ★ Optimisation of safety and surveillance systems
- ★ Introduction of intelligent freight management system
- ★ Limitation of environmental impact of port infrastructure and improvement of water quality by dredging.

- ★ Priority for the government: improve passenger transportation in Abidjan district
- ★ Increase in number of wagons (flat cars, box cars, tank cars)

TOP 3
high-potential sectors

1/Roads

2/Buildings

3/Ports

SECTORS

DEVELOPMENT LEVERS FOR SECTOR

MASTER PLANS

LEVEL OF INNOVATION & OTHER MAJOR ISSUES



- Abidjan Aérocity project: a multi-hub complex spanning 3,700 ha comprising commercial infrastructure, leisure facilities, residential and hotel zones and green spaces.
- Renovation of aerodromes in the interior of the country by AERIA (Abidjan Houphouët-Boigny Airoprt management company) worth €24 m, including:
 - renovation of international terminal
 - regeneration of charter terminal
 - upgrading existing infrastructure to A380 standards
 - developing related infrastructure
 - developing a tertiary activity zone around the airport

Abidjan Aérocity and regeneration of aerodromes
More than **€1.6 bn**
Awaiting new partner (PPP project)

- Promoting direct flights to USA by gaining American TSA certification
- Creation of a training centre specialising in aviation jobs for ground staff in Abidjan by AERIA (a subsidiary of Egis) and Camas.

TOP 5 requirements for construction equipment and materials

- Horizontal and vertical shuttering
- Multi-directional scaffolding
- All types of glazing, in particular heat-insulating
- Electrical cables
- Finishing coverings (fibrous gypsum, suspended ceilings)

Main imports of construction equipment

| TOTAL IMPORTS (IN EUR) * | | | | | | |
|---|------|------|------------|------------------|--|---|
| | 2012 | 2014 | 2015 | Change 2012-2015 | Top 5 exporting countries | Brands sold |
| Earthmoving & demolition | | | | | | |
| Boring or sinking machinery parts | NC | NC | 84,922,271 | NA | 1/ USA 2/ United Kingdom 3/ Nigeria 4/ France 5/ Norway | Atlas Copco, Christensen, Diamec, Ingersoll |
| Earth-boring tools | NC | NC | 11,398,446 | NA | 1/ United Kingdom 2/ USA 3/ France 4/ Italy 5/ China | Apadrill, Apafor, Fordia |
| Track-laying excavators | NC | NC | 9,471,904 | NA | 1/ China 2/ Japan 3/ South Korea 4/ USA 5/ France | Bobcat, Doosan, Fiat, Hitachi, JCB, Komatsu, Liebherr, Mustang, Takeuchi, Volvo, XCMG |
| Derricks and self-propelled cranes | NC | NC | 7,040,392 | NA | 1/ China 2/ Germany 3/ France | Cattaneo, Locatteli Crane |
| Earth-handling machinas | NC | NC | 3,741,811 | NA | 1/ India 2/ Germany 3/ China 4/ United Kingdom 5/ France | Bobcat, Bomag, Caterpillar, Doosan, HAMM, HBM, Hitachi, Hyundai, JCB, John Deere, Komatsu, Liebherr, SAIC-Iveco, Shantui, Sinotruck, Terex, Volvo |
| Lifting, handling and transportation | | | | | | |
| Road tractors for semi-trailers | NC | NC | 33,273,568 | NA | 1/ China 2/ France 3/ Germany 4/ Belgium 5/ Netherlands | DAF, Kamz, MAN, Mercedes, Renault, SAIC-Iveco, Scania, Volvo |
| Non-electric-propelled fork lift and works trucks (all sectors) | NC | NC | 17,017,377 | NA | 1/ France 2/ China 3/ United Kingdom 4/ Japan 5/ Sweden | Caterpillar, Hyster, Hyundai, JCB, Kalmar, Lndia, Merlo, Nissan, Roto, Sany, Terex, Toyota Material Handling & BT, Utilev |
| Elevators and conveyors | NC | NC | 5,093,810 | NA | 1/ Colombia 2/ France 3/ Germany 4/ Portugal 5/ United Kingdom | Alstef, Ammeraal Beltech, Challenge Power Transmission, Cobra, ITAFAN, MAFDEL, NSK, Perkins, Rouleaux Pack, Sedis, Sempertrans, Technitude |
| Lifts and skip hoists | NC | NC | 4,024,156 | NA | 1/ Spain 2/ France 3/ Morocco 4/ China 5/ Italy | Kone, Mac Puersa, OTIS, Sodimas, Thyssenkrupp |
| Other self-propelled machinas and equipment | NC | NC | 2,020,162 | NA | 1/ Italy 2/ Sweden 3/ France 4/ Netherlands 5/ Belgium | Lndia, Steelbro, Terex |
| Roads, minerals and foundations | | | | | | |
| Front-end shovel loaders | NC | NC | 15,662,890 | NA | 1/ China 2/ USA 3/ Belgium 4/ South Korea 5/ Sweden | Caterpillar, Liebherr, Mustang |
| Hydraulic track-laying excavators | NC | NC | 15,654,548 | NA | 1/ China 2/ South Korea 3/ France 4/ Japan 5/ Belgium | Caterpillar, Liebherr, Mustang |
| Graders | NC | NC | 13,697,183 | NA | 1/ China 2/ USA 3/ Japan 4/ Belgium 5/ Italy | Bobcat, Bomag, Caterpillar, Doosan, HAMM, HBM, Hitachi, Hyundai, JCB, John Deere, Komatsu, Liebherr, SAIC-Iveco, Shantui, Sinotruck, Terex, Volvo |
| Crushing and grinding machinas | NC | NC | 10,720,728 | NA | 1/ China 2/ Belgium 3/ Turkey 4/ Finland 5/ India | Dynapac |
| Bulldozers | NC | NC | 7,383,807 | NA | 1/ USA 2/ Brazil 3/ China 4/ Japan 5/ Austria | Caterpillar, Doosan, Hitachi, John Deere, Komatsu, Liebherr, SAIC-Iveco, Shantui, Sinotruck, Terex, Volvo |
| Buildings and concrete sector | | | | | | |
| Concrete pumps | NC | NC | 34,370,209 | NA | 1/ France 2/ China 3/ South Korea 4/ Germany 5/ Italy | Merlo, Putzmeister, Schwing Stetter |
| Shuttering | NC | NC | 4,036,617 | NA | 1/ France 2/ China 3/ Italy 4/ United Kingdom 5/ South Africa | Edilponte |
| Concrete mixer lorries | NC | NC | 7,379,789 | NA | 1/ China 2/ Italy 3/ Belgium 4/ France 5/ Germany | Fiori, Mercedes, Merlo, Pozzo, Sinotruck |
| Machinas for agglomerating, shaping or moulding solid mineral fuels | NC | NC | 3,019,696 | NA | 1/ Singapore 2/ Denmark 3/ South Africa 4/ Germany 5/ China | Shengya Machinery |

Source: Comtrade.
*Partial customs statistics provided by Ivory Coast and the declaring supplier countries

Projects

SAN PEDRO PORT

Extension of San Pedro Port from 5 to 23 ha

By expanding from a surface area of 5 hectares to 23 on completion of works in 2020, the San Pedro Port can expect to accommodate annual freight traffic of 25 m t compared with 4.7 m t in 2015. The concession for the extension of the terminal was awarded to the Mediterranean Shipping Company (MSC) group.

MAN - SAN PEDRO PORT ORE FREIGHT RAILWAY LINE

Construction of a railway line for mining of ore deposits

This railway line is a major project which should jump-start development in the west of the country and promote mining activities.

The port of San Pedro is a major gateway for the export of products from the region and from neighbouring Guinea. The construction of the railway line which is due to commence shortly was awarded to the Chinese group China Railway in a contract worth €1.14 bn. The overall aim of the project is to boost economic development in the western region of the country and provide transportation to the larger western area of Ivory Coast by developing mining. This concerns iron ore deposits in Mont Klahoyo (2 bn t) and Gao (1.2 bn t), 50 m t of nickel, copper and platinum deposits in Samapleu and cobalt deposits in Biankouma (254 m t), and also the construction of a mineral platform at San Pedro Port with handling capacity of 50 to 100 m t per year.

ABIDJAN METRO

Creation of a new line with 20 stations in Abidjan

The project relates to the creation of line 1 running from Anyama to Port-Bouët with 20 stations. This first 39.7-km section of urban line christened "Abidjan metro" will carry 300,000 city dwellers per day when services commence in 2020.

The delay in the progress of the project is due to as yet unsettled but crucial issue of the ridership guarantee concluded between the Ivorian authorities and the consortium Star (Société de transports abidjanais sur rail) made up of Bouygues (civil engineering), Dongsan Engineering (engineering), Hyundai Rotem (rolling stock and signalling) and Keolis (operations). In the event that passenger numbers fail to reach a given threshold, the Government must make a contractual commitment to compensate the consortium. At the moment, the two parties have not agreed either on the threshold or on the level of compensation. The project will use the current right of way of the Abidjan-Ouagadougou railway line and will be integrated within the existing urban transport systems of SOTRA, the Abidjan public transport company.

€1.3 bn

- **Financing:** public / private
- **Location:** San Pedro (south west)
- **Contracting authority:** Port autonome de San Pedro (PASP)
- **Investors:** PPP
- **Prime contractor:** BNETD
- **Timescale:** work in progress, delivery in 2020.

€1.14 bn

- **Financing:** public / private
- **Location:** San Pedro (south west) and Man (west)
- **Contracting authority:** Ministry of Transport
- **Investors:** Eximbank
- **Prime contractor:** China Railway
- **Equipment manufacturers:** China Railway
- **Timescale:** environmental impact assessment.

€1 bn

- **Financing:** public / private
- **Location:** Municipalities of Abobo and Port-Bouët
- **Contracting authority:** Ministry of Transport
- **Investors:** Consortium comprising Bouygues, Dongsan Engineering, Hyundai Rotem and Banque Atlantique de Ivory Coast (BACI).
- **Equipment manufacturers:** Consortium of Bouygues, Dongsan Engineering, Hyundai Rotem
- **Timescale:** design underway for route alignment and passing points.

Projects

ABIDJAN - SAN PEDRO AND DABOU - SAN PEDRO MOTORWAY

Construction of new motorway sections

The project consists of renovating the road between Dabou and San Pedro (approximately 400 km). It will help to maintain adequate access to the south west of Ivory Coast, home to the majority of food production and also to the second largest port in the country. The first phase of the project will relate to the Abidjan - Dabou section (50 km).

PORT AUTONOME D'ABIDJAN (PAA)

Project to modernise the Port and build a second container terminal (TC2)

In Ivory Coast, there has only ever been one container terminal, making it expensive to moor there, and even impossible for vessels with drafts in excess of 11.5 m. This is why it was deemed necessary to plan the construction of a second container terminal, TC2. When it starts operations, it will have 6 ship-to-shore cranes and 13 yard gantry cranes. The French group Bolloré Africa Logistics and the Dutch firm APM Terminals, part of the Maersk group, were awarded the 21-year concession in 2013 to operate and manage the new container terminal. Over the duration of the project, the consortium plans to invest approximately €450 m under a PPP arrangement. The capacity of Abidjan port will more than double, reaching a total of 3 million containers per year.

FERKESSÉDOUGOU DRY PORT

Construction for a port-related platform to be used in goods transhipment between port of Abidjan and the hinterland countries

The project consists of building a port platform to be used for the transhipment of goods between the port of Abidjan and the hinterland countries (Burkina Faso, Mali and Niger). The project will extend over 634 hectares and will comprise three main components: an import/export terminal, a hydrocarbon depot and a modern slaughterhouse for the sub-region with a livestock market. The Ferkessédougou dry port is one of the major projects that the country intends to deliver between now and 2020. According to the preliminary studies conducted by the BNETD, the project should generate 65,000 jobs on completion. The West African Economic and Monetary Union (UEMOA) has also selected the project in its regional economic programme (PER), phase II. The private partner selected will be tasked with building, financing and operating the three components.

€915 m

- **Financing:** public / private
- **Location:** Dabou, San Pedro
- **Contracting authority:**
 - **main:** Ministry of Economic Infrastructure (MIE)
 - **delegated:** Agency for Road Management (AGEROUTE)
- **Investors:** Ivorian government searching for financing and partner
- **Prime contractor:** National Office of Technical Studies and Development (BNETD)
- **Timescale:** under consideration.

€623.5 m

- **Financing:** public
- **Location:** Treichville Abidjan Port
- **Contracting authority:** Port autonome d'Abidjan
- **Investors:** China Eximbank (85%), Ivorian government, local and regional banks
- **Prime contractor:** BNETD
- **Timescale:** work ongoing, delivery scheduled for 2018.

€457 m

- **Financing:** PPP
- **Location:** Ferkessédougou, Tchologo region, 600 km from Abidjan
- **Contracting authority:** Ministry of African Integration and Ivorians Abroad (MIAIE)
- **Investors:** search currently underway for partners in a PPP project.
- **Prime contractor:** BNETD
- **Timescale:** feasibility study completed. Delivery expected in 2020.

Projects

ABIDJAN-OUAGADOUGOU-KAYA RAILWAY LINE

Renovation of railway line

The works that commenced in September 2015 are set to last five years, with the objective of increasing fivefold the amount of freight carried. Each year, 910,000 tonnes of goods and approximately 300,000 passengers travel on the line running between Abidjan and Ouagadougou. Trade between Burkina Faso and Ivory Coast amounted to €442 m in value in 2014 compared with €251 m in 2011. On completion, the line will enable freight capacity to rise to 5 million tonnes of goods, including 3 m t of manganese ore from the Tambao manganese mine in Burkina Faso.

€400 m

- **Financing:** private
- **Location:** Ivory Coast / Burkina Faso
- **Contracting authority:** Ivorian and Burkinabé governments
- **Investor:** SITARAIL
- **Prime Contractor:** SITARAIL, a Bolloré subsidiary
- **Timescale:** work ongoing. Delivery in 2020.

DEVELOPMENT OF COCODY BAY

Conversion of Cocody Bay, in Abidjan

The project aims to develop a dedicated zone spanning 58.2 ha for the installation of road infrastructure, water crossings and a cable-stayed bridge, along with the construction of a marina, an urban park, promenades, luxury hotels, etc.

€208 m

- **Financing:** public / private
- **Location:** Cocody, Abidjan
- **Contracting authority:** Ministry of Construction, Housing, Sanitation and Urban Development
- **Investors:** 20% of the overall project cost will be financed by a bridging loan to be taken out by the Ivorian government
- **Architect:** Saïd Zarrou
- **Prime contractor:** BNETD and Bureau Marocain Conseil Ingénierie Développement (CID)
- **Equipment manufacturers:** Marchica Med Maroc
- **Timescale:** 1st phase started in 2016. Final delivery scheduled for 2021.

RECONSTRUCTION OF FÉLIX HOUPHOUËT BOIGNY STADIUM

The new stadium (35,000 seats) will be built on a 7-hectare site and will include a shopping centre, apartments, an athletics track to IAAF standards, a multi-sport hall for tennis and combat sports, and an Olympic pool.

€76 m

- **Financing:** private
- **Location:** Abidjan plateau
- **Contracting authority:** Ministry of Sports and Recreation
- **Investors:** African Investment Corporation.
- **Prime contractor:** BNETD
- **Timescale:** underway, 2016-2019

KENYA

With a population of 47 million and GDP of €59 billion, Kenya is the "economic powerhouse" of East Africa. A decade of high growth (6% in 2016, 7% forecast in 2017) has enabled the country to reach the status of middle-income country. Public investment has significantly contributed to the country's growth, with emphasis on infrastructure development in order to develop its position as a regional hub. The port of Mombasa is thus the leading port in East Africa, while Nairobi International Airport is the number 1 airport in the sub-region. Finally, Kenya also has a well-developed, dynamic and mature private sector. Partnerships developed with French firms are successful and long-lasting.



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MACROECONOMIC AND TRADE DATA*

GDP €59 bn

Per capita GDP €1,279

Debt/GDP 50.4%

5% Growth rate
Forecast up to 2017

Gross fixed capital formation 22%



Balance of trade
-€12.4 bn

Country risk A4

Trade ranking
107th

Ranked 92nd Business-friendly nation

Main clients
USA
Uganda
Netherlands

Main suppliers
China
India
USA



CONSTRUCTION EQUIPMENT: MAIN TRADE FLOWS*



IMPORTS

BY EXPERTISE HUB:

- Earthmoving and demolition: 9%
- Lifting, handling and transportation: 43%
- Roads, minerals and foundations: 34%
- Buildings and concrete sector: 14%

MAIN IMPORTS

- Road tractors for semi-trailers: €158 m
- Track-laying excavators: €38 m
- Lifts and skip hoists: €19 m

MAIN SUPPLIER COUNTRIES

- China: 33%
- United Kingdom: 14%
- Germany: 11%



EXPORTS

BY EXPERTISE HUB:

- Earthmoving and demolition: 60%
- Lifting, handling and transportation: 9%
- Roads, minerals and foundations: 6%
- Buildings and concrete sector: 25%

MAIN EXPORTS

- Boring or sinking machine parts: €5.6 m
- Concrete pumps: €1.1 m
- Machines for agglomerating, shaping or moulding solid mineral fuels or for forming foundry moulds of sand: €685 k







MAIN COUNTRIES OF DESTINATION

- Tanzania: 81%
- France: 6%
- Sweden: 4%

TOP 3
high-potential sectors

1/ Railways 2/ Ports 3/ Roads

Market potential

| SECTORS | DEVELOPMENT LEVERS FOR SECTOR | MASTER PLANS | LEVEL OF INNOVATION & OTHER MAJOR ISSUES | SECTORS | DEVELOPMENT LEVERS FOR SECTOR | MASTER PLANS | LEVEL OF INNOVATION & OTHER MAJOR ISSUES |
|--|--|--|--|--|---|---|--|
|  Roads | <ul style="list-style-type: none">Ambitious road development project: renovation, widening and surfacing of 5,680 km of roads.Doubling of width of Mombasa-Nairobi-Nakuru-Malaba highway (€1 bn)As part of the LAPSET Corridor: construction of interregional highway from Lamu to Isiolo, from Isiolo to Juba (South Sudan), from Isiolo to Addis Ababa (Ethiopia) and from Lamu to Garsen (€1.39 bn).Increase in government spending on roads (+38.3% from 2016 to 2017), and on trunk and primary roads (+36.2%).One of the three highest-ranked countries for opportunities in logistics (Euromonitor International rankings):<ul style="list-style-type: none">- retailers and traders are the leading source of growth in the sector- in 2016, Bolloré announced a USD21-m investment programme for extension of operations in Nairobi. | <p>Vision 2030 programme: roads sector Government spending planned for 2016-2017: €1.3 bn 2008-2030</p> | <ul style="list-style-type: none">★ Introduction of tolls on 3 roads, planned for 2020: Thika Road, Southern Bypass, Nairobi-Nakuru Highway★ Development of bypasses in main city regions to reduce congestion. |  Railways | <ul style="list-style-type: none">East Africa Railway Master Plan (budget not disclosed): renovation of tracks running between Kenya, Uganda and Tanzania, extending them to Rwanda, Burundi, South Sudan and Ethiopia. The overall network (70,000 km of rail track) will link up the following cities: Mombasa to Nairobi, Nairobi to Rongai and Kisumu, then to Kampala (Uganda) and Kisangani (Congo), Nairobi and Addis Ababa, Lamu to Juba (South Sudan), Kampala and Kigali (Rwanda) to Bujumbura (Burundi).Introduction of a new standard gauge railway (SGR) which on completion will extend to Kigali (€2.79 bn for phase 1: Mombasa-Kapala).New interregional line from Lamu to Juba (via Isiolo) and Isiolo to Addis Ababa (€7.3 bn). | <p>Several national investment plans More than €10 bn up to 2030</p> | <ul style="list-style-type: none">★ Improve the connections of the port of Mombasa thanks to the Mombasa-Nairobi line★ Modernisation of railway lines in order to increase ridership. |
|  Ports | <ul style="list-style-type: none">LAPSET project:<ul style="list-style-type: none">- Lamu Port Project: construction of 32 deep sea berths (€4.7 bn). The construction of the first three (€647 m) will be completed by 2020. The 29 others will be financed by private sector investors.- The LAPPSET Corridor Programme: consolidation of the Lamu Port - South Sudan - Ethiopia (LAPSET) corridor and construction of a multi-modal track from Lamu, connecting the port of Mombasa to Uganda, South Sudan and Ethiopia.Construction of a second container terminal in the port of Mombasa, with new transshipment quays 900 m in length, 15 m deep. | <p>Several national investment plans More than €5 bn up to 2030</p> | <ul style="list-style-type: none">★ Lamu Port:<ul style="list-style-type: none">- introduction of regulation infrastructure to optimise port management- government objective: Lamu Port must become a regional trade hub.★ Port of Mombasa<ul style="list-style-type: none">- the 2nd terminal must allow the alleviation of congestion in the port of Mombasa with a space increase of 550,000 TUE (twenty-foot equivalent units).- the largest mooring berths must be capable of accommodating Panamax container vessels with 20,000 DWT (deadweight tonnage) and Post-Panamax vessels with 60,000 DWT. |  Buildings | <ul style="list-style-type: none">Increase in the middle classes, stimulating the building sector: high demand for housing, in particular in residential estates.Government investment: approx. €50 m per year between 2012 and 2016.Vision 2030 programme: Building section (figures not available since not all feasibility studies have been completed): construction of industrial zones, modernisation of hospitals and renovation of infrastructure in underprivileged urban zones.Several construction projects:<ul style="list-style-type: none">- construction of 300,000 dwellings for public sector workers commenced in 2015 and scheduled for completion at end 2017- construction of the Bomas International Conference and Exhibition Center - BICEC (€445 m), the largest conference centre in Africa (82 ha): capacity of 10,000 people, construction began in 2015.- construction of Tatu City (€357 m): a modern town spanning 1,000 ha.- construction of the "Two Rivers" shopping mall (€260 m): the largest mall in East Africa.- construction of the highest tower in Africa: The Pinnacle (€188 m)- construction of the Garden City Mall (€94 m): the second largest mall in East Africa. | <p>Several national investment plans More than €1.3 bn 2020-2030</p> | <ul style="list-style-type: none">★ Adoption of new construction methods, in particular with pre-fabricated wall panels.★ New law requiring photovoltaic solutions to be fitted to all new buildings, most notably for hot water. |
|  Airports | <ul style="list-style-type: none">Growth in national air transport in 2016: +12.4% overall and +7.3 on international flights. Growth forecasts indicate +12% per year up until 2020.Increase in number of domestic passengers (+11%) and international passengers (+7.1%) between 2015 and 2016.Improvement works to three airports as part of LAPSET (€451 m): Isiolo, Lokichogio, Lamu.Arrival of new low-cost airlines on the local market (Fastjet, Jambojet, etc.). | <p>Several national investment plans More than €450 m</p> | <ul style="list-style-type: none">★ Introduction of new check-in counters for international and domestic flights, but also boarding gates, refuelling points, parking berths.★ Government aim of increasing the number of pilots trained each year contributing to the growth of the sector. | | | | |
|  Mines and quarries | <ul style="list-style-type: none">Titanium mining on east coast by Australian firm Base Titanium, generating annual tax revenue of approximately €19 m.The mining sector in Kenya is in its infancy - in 2016 it accounted for less than 1% of GDP. Between now and 2030, it should gain strategic importance and account for 10% of GDP and generate nearly €800 m in exports. | <p>No consolidated data</p> | <ul style="list-style-type: none">★ Entry into force of a new mining law in Kenya, heralded by the Ministry of Mining as "the most progressive on the continent." | | | | |

TOP 6 requirements for construction equipment and materials

- Light and heavy earthmoving machines
- Skips and tipper trucks
- Horizontal and vertical shuttering
- Graders
- Track-laying and wheeled excavators
- Loaders

Main imports of construction equipment

| TOTAL IMPORTS (IN EUR) * | | | | | | |
|--|-------------|------------|-------------|---------------------|--|--|
| | 2012 | 2014 | 2015 | Change 2012-2015 | Top 5 exporting countries | Brands sold |
| Earthmoving & demolition | | | | | | |
| Boring or sinking machinery parts | 27,465,398 | 26,498,252 | 15,551,928 | -43% | 1/ China 2/ Uganda 3/ USA 4/ Australia 5/ United Arab Emirates | Atlas Copco, Ingersoll, XCMG |
| Wheel excavators | 6,944,931 | 12,801,252 | 14,469,313 | 108% | 1/ USA 2/ India 3/ United Arab Emirates 4/ United Kingdom 5/ Italy | Bobcat, Bomag, Hitachi, JCB, Komatsu, Liebherr, XCMG |
| Earth boring tools | 1,945,614 | 5,029,612 | 6,994,253 | 259% | 1/ China 2/ Singapore 3/Australia 4/ Italy 5/ United Kingdom | Caterpillar, JCB, Liebherr, Sany, XCMG |
| Earthmoving machinery (843050) Earthmoving machinery (843069) | 6,522,061 | 6,708,207 | 4,745,158 | -27% | 1/ China 2/ United Kingdom 3/ USA 4/ India 5/ Singapore | Changsha Enyu, Haico, Maxdrills |
| Lifting, handling and transportation | | | | | | |
| Road tractors for semi-trailers | 108,163,766 | 89,718,070 | 158,523,360 | 47% | 1/ United Kingdom 2/ Germany 3/ China 4/ Netherlands 5/ Brazil | Auman, Beiben, Dongfeng, FAW, Howo, Iveco, JAC, MAN, Scania, Shacman, Volvo |
| Lifts and skip hoists | 8,652,183 | 11,748,243 | 19,496,853 | 125% | 1/ China 2/ Italy 3/ Germany 4/ Spain 5/ India | Kone, Otis, Schindler, Thyssenkrupp |
| Non-electric propelled fork lift and works trucks | 10,742,556 | 9,561,540 | 11,446,287 | 7% | 1/ China 2/ United Kingdom 3/ Netherlands 4/ Sweden 5/ Japan | Caterpillar, Hyster, Hyundai, JCB, Nissan, Roto, Sany, Bobcat, Manitou |
| Elevators and conveyors | 1,693,263 | 11,092,679 | 10,020,165 | 492% | 1/ USA 2/ India 3/ China 4/ Switzerland 5/ Netherlands | Dorner, Kornylak, Rinac |
| Other self-propelled machines | 8,369,105 | 12,484,916 | 3,229,844 | -61% | 1/ China 2/ Uganda 3/ USA 4/ India 5/ United Arab Emirates | Llndia, Steelbro, Terex |
| Roads, minerals and foundations | | | | | | |
| Hydraulic track-laying excavators | 22,725,422 | 68,780,021 | 38,429,406 | 69% | 1/ China 2/ South Korea 3/ India 4/ Japan 5/ United Kingdom | Caterpillar, Liebherr |
| Graders and levellers | 10,470,009 | 31,680,522 | 17,496,557 | 67% | 1/ China 2/ USA 3/ Brazil 4/ Japan 5/ Netherlands | Bomag, Hitachi, JCB, Komatsu, Liebherr, XCMG |
| Front-end shovel loaders | 12,537,242 | 23,925,857 | 16,197,616 | 29% | 1/ China 2/ USA 3/ United Kingdom 4/ Equateur 5/ India | Caterpillar, Liebherr, Manitou |
| Boring or sinking machines | 5,292,223 | 69,962,237 | 13,682,477 | 159% | 1/ Uganda 2/ South Africa 3/ China 4/ Netherlands 5/ India | Atlas Copco, Ingersoll |
| Crushing and grinding machines | 11,423,689 | 18,256,867 | 12,881,131 | 13% | 1/ China 2/ India 3/ Canada 4/ Italy 5/ United Kingdom | Komatsu, Yifan |
| Buildings and concrete sector | | | | | | |
| Concrete pumps | 17,178,460 | 20,811,483 | 13,503,258 | -21% | 1/ China 2/ India 3/ Uganda 4/ United Arab Emirates 5/ Canada | CIFA, Schwing Stetter, Truemax |
| Bars and rods for reinforced concrete | 8,770,314 | 17,782,178 | 11,850,431 | 35% | 1/ Ukraine 2/ China 3/ Turkey 4/ Uganda 5/ India | |
| Shuttering | 2,686,017 | 9,047,737 | 8,744,156 | 226% | 1/ China 2/ India 3/ South Africa 4/ United Arab Emirates 5/ Rwanda | Formscaff, Wall-Ties & Forms |
| Machines for agglomerating, shaping or moulding solid mineral fuels and for forming foundry moulds of sand | 6,667,704 | 6,600,706 | 7,610,281 | 14% | 1/ China 2/ Italy 3/ South Africa 4/ Germany 5/ Turkey | Shandong Shengya |
| Concrete mixer lorries | 3,541,996 | 11,718,128 | 6,398,546 | 81% | 1/ China 2/ India 3/ Italy 4/ Turkey 5/ Brazil | Sanq, Truseen Machinery, TI80 (China First Engineering Technology) |

Source : Comtrade.
*Partial customs statistics provided by Kenya and the declaring supplier countries

Projects

STANDARD GAUGE RAILWAY PROJECT

New line between Mombasa and Kampala

This is the largest infrastructure project in Kenya since the country gained independence. The first section stretching 472 km running from Nairobi to the port city of Mombasa has 9 stations and 98 bridges. 90% of the project is financed by a loan from China Eximbank. Works to extend and modernise the Nairobi-Mombasa line are currently in progress. These works should initially run to the town of Naivasha, in the Rift Valley, before ultimately carrying on to Uganda, then to Kigali in Rwanda.

China Road and Bridge Corporation is tasked with the construction, and CRRC developed the locomotives. Trains will run at a speed of 120 km/h with capacity for 1,200 passengers. The journey time from the capital to Mombasa will be cut to 4 hours from 10 hours today.

LAMU PORT

Construction of 32 deep sea berths

The project consists of building 32 deep sea berths in Lamu Port. The construction of the first three (€647 m) will be completed by 2020. The 29 others will be financed by private sector investors.

WIDENING OF MOMBASA-NAIROBI-NAKURU-MALABA HIGHWAY

Eiffage Concession is one of the bidders wishing to take part in the construction and management of one or several sections of this highway, within a PPP. The tender process is currently suspended due to the elections to be held in August 2017.

€7.35 bn

- **Financing:** public
- **Location:** Mombasa, Nairobi
- **Contracting authority:** Kenya Railways Corporation (KRC)
- **Investors:** Kenyan government, China Eximbank
- **Prime contractor:** China Road and Bridge Corporation
- **Architect:** China Road and Bridge Corporation
- **Equipment manufacturers:** China Road and Bridge Corporation
- **Timescale:** 1st phase completed. Launch of Mombasa-Nairobi section in June 2017. Works on 2nd section scheduled in 2018.

€5 bn

- **Financing:** public
- **Location:** Lamu
- **Contracting authority:** Lamu Port - South Sudan - Ethiopia (LAPSSET)
- **Investors:** Kenyan government, Chinese funding
- **Architect:** China Communication Construction
- **Prime contractor:** China Communication Construction
- **Equipment manufacturers:** Beiben, Sany, XCMG
- **Timescale:** work in progress. Delivery of first three berths in 2020.

€1 bn

- **Financing:** public
- **Location:** Mombasa-Nairobi-Nakuru-Malaba
- **Contracting authority:** Kenya National Highways Authority (KNHA)
- **Prime contractor:** tender in progress
- **Equipment manufacturers:** Liebherr, Sany, Komatsu, Caterpillar, Hitachi
- **Timescale:** project award scheduled for 2018.

Projects

TATU CITY

Construction of a 1,000 ha complex to accommodate 70,000 inhabitants

The Tatu City project aims to build a city at the cutting edge of technology, spanning a surface area of 1,000 hectares. It should accommodate almost 70,000 inhabitants. This project, set to generate 220,000 jobs, is financed by local and foreign investors, in particular by the bank Renaissance Capital based in Moscow.

Tatu City is divided into two mixed use residential zones and one industrial zone. The industrial zone is already attracting some major player. Unilever East Africa, the consumer goods leader, has signed a memorandum of understanding with Tatu City Limited to acquire 70 ha of land. The Kenyan tissue paper manufacturer Chandaria Industries has also invested €50 m in the construction of a plant within the industrial complex.

NAIROBI COMMUTER RAILS

Introduction of a rail service between the Nairobi suburbs and the city centre

This is a project to build and upgrade railway lines around Nairobi over a total length of approximately 100 km. The project is divided into three phases:

- Phase 1: renovation of approx. 65 km of lines
- Phase 2: renovation of existing railway system in Nairobi, Thika, Limuru and Lukenya
- Phase 3: construction of new lines in Ongata Rongai Kiserian, Ngong, Kiambu; Ruai and Kangemi.

MOMBASA PORT CT2

Construction of a second container terminal in the port of Mombasa

The project consists of the construction of a second container terminal in the port of Mombasa, and is divided into three phases. The first phase, launched in 2016, has been completed. The second phase should begin in summer 2017. This terminal should increase the throughput of goods in the port by 50%.

The Kenyan Ports Authority launched a tender for the management of the terminal for a 10-15 year period. Among the 12 bids which have been shortlisted, French firms are involved in two of them: CMA-CGM / Terminal Investment Ltd (Netherlands), and Bolloré / Toyota Tsusho Corporation / Terminal de Contenidors de Barcelona.

€357 m

- **Financing:** private
- **Location:** Nairobi suburbs
- **Contracting authority:** Planning Kenya
- **Investors:** Renaissance Capital (Russia), Rendeavour (USA)
- **Prime contractor:** Sinohydro (China), SS Mehta and Sons (Kenya), Gibb Africa
- **Equipment manufacturers:** Komatsu, Caterpillar, Hitachi
- **Timescale:** launch of first phase scheduled for 2019.

€305 m

- **Financing:** PPP between Kenyan government and Kenya Railways Corporation
- **Location:** Nairobi
- **Contracting authority:** Ministry of Transport and Infrastructure
- **Investors:** Kenya Railways Corporation
- **Prime contractor:** Kenya Railways Corporation
- **Architect:** Kenya Railways Corporation
- **Equipment manufacturers:** General Electric Rail (GE Rail)
- **Timescale:** First phase launched in 2013. Launch of second phase in 2018.

€282 m

- **Financing:** public
- **Location:** Mombasa
- **Contracting authority:** Kenyan Ports Authority
- **Investors:** JICA (Japan International Cooperation Agency)
- **Architect:** JICA
- **Prime contractor:** Van Oord Dredging (Netherlands), China Road and Bridge (China)
- **Timescale:** works ongoing, first phase launched in 2016. Delivery of terminal scheduled for the beginning of 2018.

Projects

JOMO KENYATTA INTERNATIONAL AIRPORT (JKIA)

Renovation and upgrading of Jomo Kenyatta airport and construction of a new terminal

Kenya plans to invest even more substantially in Nairobi's Jomo Kenyatta airport following the decision by the American Federal Aviation Administration (FAA) to allow direct flights to the USA.

The new passenger terminal will span 178,000 sqm on four floors, with 50 check-in counters for international flights and 10 counters for domestic flights. There will also be an additional 40 boarding gates, a parking area for aircraft, 45 refuelling docks (fitted with fuelling and other facilities) and parking areas.

THE PINNACLE

Construction of the highest tower in Africa, with 70 floors

The Pinnacle tower aims to accommodate on its 70 floors: 108 apartments, a five-star Hilton hotel, offices and meeting rooms, along with a very large shopping mall. The tower will also have a heliport.

€290 m

- **Financing:** Kenyan government, African Development Bank
- **Location:** Nairobi
- **Contracting authority:** Kenyan Airports Authority (KAA)
- **Investors:** Kenyan Airports Authority (KAA)
- **Timescale:** Works due to commence in 2018.

€188 m

- **Financing:** private
- **Location:** Nairobi
- **Contracting authority:** Hass Petroleum)
- **Investors:** JV between Jabavu Village (Kenyan subsidiary of Hass Petroleum) and White Lotus Group
- **Prime contractor:** China State Construction Engineering Corporation (CSCEC)
- **Architects:** Sketch Studio
- **Equipment manufacturers:** Sany, XCMG, Beiben
- **Timescale:** Work in progress. Delivery scheduled for 2020.

MOROCCO

With the benefit of its political stability and its undeniable economic progress achieved through the implementation of ambitious industry strategies, numerous reforms to improve the business climate and bring about a business-conducive environment, Morocco is today the most attractive country in Africa, according to the findings of Ernst & Young's 2017 Attractiveness survey. Furthermore, the Kingdom increases its public investments every year and is conducting an ambitious policy to develop its infrastructure (ports, airports, roads, highways, railway line, hospitals, administrative buildings, real estate, etc.). As Morocco does not manufacture any construction machines or vehicles itself, this environment points to the promise of rising and substantial demand for this equipment in the short and medium term.



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MACROECONOMIC AND TRADE DATA*

GDP **€97.1 bn**

Per capita GDP **€2,900**

Debt/GDP **64%**

5% Growth rate
Forecast up to 2030

Gross fixed capital formation **28.6%**



Balance of trade
-€202.5 bn

Trade ranking
64th

Ranked 68th Business-friendly nation

Country risk **A4**

Main clients
Spain
France
Brazil



Main suppliers
Spain
France
China

CONSTRUCTION EQUIPMENT: MAIN TRADE FLOWS*



IMPORTS

BY EXPERTISE HUB:

- Earthmoving and demolition: 7%
- **Lifting, handling and transportation: 31%**
- **Roads, minerals and foundations: 38%**
- Buildings and concrete sector: 24%

MAIN IMPORTS

- Road tractors for semi-trailers: €109 m
- Track-laying excavators: €36 m
- Off-highway self-propelled haulers: €25 m

MAIN SUPPLIER COUNTRIES

- France: 15%
- Germany: 13%
- Spain: 12%



EXPORTS

BY EXPERTISE HUB:

- Earthmoving and demolition: 15%
- **Lifting, handling and transportation: 30%**
- **Roads, minerals and foundations: 28%**
- Buildings and concrete sector: 27%

MAIN EXPORTS

- Shuttering: €35 m
- Boring or sinking machinery parts: €6.7 m
- Derricks and self-propelled cranes: €2.2 m

MAIN COUNTRIES OF DESTINATION

- Senegal: 20%
- Mauritania: 13%
- France: 10%

TOP 3
high-potential sectors

1/Railways 2/Buildings 3/Ports

Sources: SER, World Bank, Coface, Doing Business
*Data for May 2017

Market potential

SECTORS

DEVELOPMENT LEVERS FOR SECTOR



Roads

- Motorway programme to 2035 (€7.6 bn), aiming to reach 3,400 km of motorway network by 2030:
 - alleviation of congestion in Greater Casablanca region: widening of region's highways from 2 to 3 lanes, creation of a motorway from Til-Mellil-Berrechid, etc.
 - launch of master plans; 2nd (2017-2020) and 3rd (2021-2025)
 - financial restructuring of ADM.
- Roads Plan 2035 (€11.7 bn):
 - extension of road network: 7,000 km of roads, 1,273 km of expressway and 24,000 km of rural roads by 2035.
 - annual maintenance programme: more than 2,000 km of roads
- National Rural Roads Construction Programme III: creation of 24,000 km and maintenance of 10,000 km of rural road infrastructure.

MASTER PLANS

Motorway Programme and Roads Plan: **€19.3 bn** up to 2035

LEVEL OF INNOVATION & OTHER MAJOR ISSUES

- ★ Integrated development programme: improving access for rural populations, healthcare, education, water and electricity distribution
- ★ Sustainable transport policy:
 - installation of photovoltaic panels on toll barriers and in service areas, and innovative solar panels for the road surface
 - development and maintenance of sustainable materials.
- ★ R&D: road safety, eco-driving and geotechnical innovation.
- ★ Projects structured in the form of PPPs.



Airports

- Upgrading of infrastructure;
 - redevelopment of Agadir airport
 - connection between the two terminals at Marrakech.
- Construction of new terminals at Nador, Er-Rachidia, Rabat-Salé and Guelmin airports.
- National civil aviation strategy (Ajwae):
 - increase in annual airport passenger capacity: objective of 70 million passengers per year by 2035 (currently 28 million).
 - increase in freight transport to more than 180,000 tonnes.

National civil aviation strategy (Ajwae): **€8.8 bn** 2015-2035

- ★ Integration of environmental issues; airport terminals favouring natural light, creation of an environmental management system (EMS), monitoring of air quality, rational use of water.
- ★ Award of Airport Carbon Accreditation (ACA) level 1: measure of carbon footprint and introduction of plans to reduce greenhouse gas emissions (Fez, Agadir, Rabat in 2017, Oujda and Tangier in 2018).



Ports

- Reorganisation of the sector into 4 geographical divisions: East, North-West, Kenitra-Casablanca.
- Priority of reorganising port landscape
- Integration of port network into worldwide logistics chains, more competitive cost of transit (sea - port - land).

National Port Strategy 2030 **€7 bn** up to 2030

- ★ Improvement of port and transit infrastructure: sharing of heavy infrastructure (sea walls), reduction in operating costs (frequent dredging), port specialisation.
- ★ Incorporation of environmental and urban objectives; externalisation of flows and traffic outside of urban environments (Nador, Tangier, Casablanca)



Engineering structures

- National rural roads programme III - 2022: 260 crossing structures to be built between now and 2022.
- Roads plan 2034 (€2.8 bn): 300 major engineering structures rebuilt and 1,000 renovated
- Plan Rail Maroc 2040: 254 standard engineering structures (rail bridges and road bridges, hydraulic structures) and 10 viaducts (totalling 10 km)
- Greater Casablanca development plan (€160.8 m):
 - Almohades tunnel (€76.5 m): running between Zellaqa crossroads and the Hassan II Mosque (2,270 m including 1,900 underground)
 - Sidi Maârouf roundabout in Casablanca (€93.3 m)
 - connection of roads between Rabat, Marrakech and El Jadida

Several projects as part of the national road, rail and urban development programmes 2015-2040

- ★ Promote intermodality nationwide
- ★ Reduce congestion and increase traffic flows in south of Casablanca (100,000 vehicles per day on average, with a peak of 14,000 cars/hour).

Sources: Business France Morocco - French chamber of commerce and industry in Morocco (CFCIM)

SECTORS

DEVELOPMENT LEVERS FOR SECTOR

MASTER PLANS

LEVEL OF INNOVATION & OTHER MAJOR ISSUES



Mines and quarries

- Improvement in profitability: annual turnover of sector multiplied by 3, investments multiplied by 10
- Reorganisation of non-industrial mining
- Launch of new projects
- Modernisation of mining regulations

National development strategy for mining industry excluding phosphates
€711.4 m
2014-2025

- ★ Revitalisation of the sector
 - relaunch of the geological mapping programme
 - implementation of a 2015-2025 road map



Railways

- Plan Rail Maroc 2040 (€36.1 bn)
 - construction of a 1,500 HSL network
 - creation of 2 lines (Atlantic and North African)
 - extension of conventional network from 2,110 km in 2016 to 5,960 km in 2040)
- Tram network extension plans from 2017-2029 (€1.3 bn)
- Projects in Casablanca and Rabat
- Launch of studies in other cities: Tangier, Agadir, Fez, etc.

Plan Rail Maroc and tramway plans
€37.4 bn
up to 2040

- ★ Objective of reducing greenhouse gas emissions by 10% and energy consumption by 20% by 2020
- ★ Promotion of sustainable mobility: making transport more widely available, offering better access to some regions, development of ITS.
- ★ Introduction of fibre optics and GSM-R (rail)
- ★ Gradual implementation of ERTMS (European Rail Traffic Management System)



Buildings

- Construction of 15 new towns between now and 2034 (€9 bn): 6 projects currently underway
- Strategy to develop smart cities: Mohammed VI Tangier Tech, Mazagan urban hub, Forum el Oued Technopole, etc.
- Social housing investment programme 2010-2020 (€5.6 bn): income tax and wealth tax exemption for developers building a minimum of 500 social dwellings.

Several investment projects worth in excess of
€14.6 bn up to 2035

- ★ Energy efficiency: building specifications obliging property developers to fit their buildings with environmentally-efficient installations.
- ★ Offering students better accommodation prospects through the student rent guarantee (40,200 new dwellings built before end of 2017)

TOP 6

requirements for construction equipment and materials

- Track-laying or wheeled excavators
- Hydraulic rock breakers
- Road chipping spreaders
- Bulldozers
- Mining equipment
- Crushing machines

Main imports of construction equipment

| TOTAL IMPORTS (IN EUR) * | | | | | | |
|---|-------------|------------|-------------|------------------|--|---|
| | 2012 | 2014 | 2015 | Change 2012-2015 | Top 5 exporting countries | Brands sold |
| Earthmoving & demolition | | | | | | |
| Boring or sinking machinery parts | 7,543,228 | 24,676,864 | 13,625,599 | 81% | 1/ Spain 2/ United Kingdom 3/ France 4/ United Arab Emirates 5/ Sweden | Atlas Copco, Vermeer, Wacker Neuson |
| Wheeled excavators | 11,882,851 | 10,199,058 | 9,681,257 | -19% | 1/ United Kingdom 2/ Belgium 3/ Spain 4/ India 5/ China | Bobcat, Caterpillar, Hitachi, JCB, Liebherr, Terex, Wacker Neuson |
| Derricks and self-propelled cranes | 3,477,977 | 5,139,229 | 8,083,389 | 132% | 1/ Germany 2/ South Korea 3/ Saudi Arabia 4/ France 5/ Netherlands | Toro, Wacker Neuson |
| Earth boring tools | 5,092,150 | 4,898,709 | 5,128,306 | 1% | 1/ China 2/ France 3/USA 4/ Canada 5/ Spain | Atlas Copco, Guilin Tebon Superhard Material, Vermeer |
| Buckets, shovels, grabs and grips | 3,490,839 | 2,374,076 | 3,139,525 | -10% | 1/ Netherlands 2/ Spain 3/ Italy 4/ Belgium 5/ Turkey | Arnikon, Ayerbe, Bellota, Bobcat, Caterpillar, Hitachi, JCB, Liebherr, PI Makina, Terex, Wacker Neuson |
| Lifting, handling and transportation | | | | | | |
| Road tractors for semi-trailers | 102,484,673 | 86,994,641 | 109,093,145 | 6% | 1/ Netherlands 2/ Germany 3/ Sweden 4/ France 5/ Belgium | Ausa, Hyster |
| Lifts and skip hoists | 15,128,770 | 16,577,343 | 22,670,891 | 50% | 1/ Spain 2/ Germany 3/ Italy 4/ China 5/ France | Arnikon, Ayerbe, Caterpillar, Klaas, Liebherr, Power |
| Non-electric-propelled fork lift and works lifts (all sectors) | 14,293,332 | 10,122,654 | 13,279,759 | -7% | 1/ China 2/ Japan 3/ Germany 4/ South Korea 5/ Spain | Clark Material Handling, Fenie Brossette, Hyster, Manitou, Toyota, Yale |
| Tower cranes | 12,390,796 | 6,024,477 | 9,391,102 | -24% | 1/ France 2/ Saudi Arabia 3/ Spain 4/ China 5/ Belgium | Llndian, PI Makina, Potain, Terex |
| Electric-propelled fork-lift and works trucks (all sectors) | 8,315,242 | 8,435,715 | 8,660,218 | 4% | 1/ Germany 2/ China 3/ Italy 4/ Spain 5/ Sweden | Clark, Horpre SA, Hyster, Mora, Nissan, Toro, Utilev |
| Roads, minerals and foundations | | | | | | |
| Track-laying excavators | 33,105,227 | 29,968,612 | 36,390,125 | 10% | 1/ South Korea 2/ China 3/ France 4/ Italy 5/ Germany | Bobcat, Caterpillar, Hitachi, JCB, Liebherr, Terex, Toro |
| Dumpers | 28,327,716 | 2,592,511 | 25,076,710 | -11% | 1/ USA 2/ Finland 3/ Norway 4/ Belgium 5/ France | Ausa, Caterpillar, Fenie Brossette, JCB, John Deere, Terex, Volvo, Wacker Neuson |
| Mechanical shovels, excavators and shovel loaders | 21,893,545 | 18,704,715 | 21,028,070 | -4% | 1/ Spain 2/ France 3/ South Korea 4/ China 5/ Belgium | Bobcat, Caterpillar, Hitachi, JCB, Liebherr, Mecalac, PI Makina, Terex, Toro |
| Bulldozers | 2,479,775 | 3,382,694 | 13,392,090 | 440% | 1/ Austria 2/ Japan 3/ China 4/ Brazil 5/ Spain | Caterpillar, Hitachi, Liebherr, Terex |
| Crushing and grinding machines | 30,110,020 | 9,273,982 | 12,585,466 | -58% | 1/ France 2/ Germany 3/ Spain 4/ USA 5/ United Kingdom | Arsan Makina, Bilim, Hitachi, Ozteknik Makina, PI Makina, Ugur Makina, Wacker Neuson |
| Buildings and concrete sector | | | | | | |
| Bars and rods for reinforced concrete | 43,385,359 | 58,178,016 | 23,582,025 | -46% | 1/ Portugal 2/ Spain 3/ Bélarus 4/ Italy 5/ France | Arteon, Eurbend, Fenie Brossette, Mandelli-Setra, Riva Acier, Smm-Socodam-Davum, Technique Béton, Vicat |
| Shuttering | 15,586,090 | 14,796,903 | 16,753,338 | 7% | 1/ Spain 2/ France 3/ Italy 4/ Germany 5/ Austria | Eurobend, Lorev, Metalusa, PI Makina |
| Concrete pumps | 7,604,931 | 10,014,228 | 9,849,029 | 30% | 1/ France 2/ Spain 3/ United Arab Emirates 4/ Lithuanie 5/ Equateur | Ausa, Liebherr, Putzmeister, Terex |
| Machines for agglomerating, shaping or moulding solid mineral fuels | 28,255,152 | 11,142,844 | 9,733,773 | -66% | 1/ Spain 2/ Germany 3/ Turkey 4/ France 5/ China | Ermak beton, Eurobend, Lorev, Prensoland, Weltech |
| Concrete mixer lorries | 5,367,246 | 3,835,189 | 8,525,546 | 59% | 1/ France 2/ Italy 3/ Spain 4/ Germany 5/ Turkey | Altrad, Arsan Makina, Atlas Copco, Bellota, Ermak Béton, Horpre SA, Lorev, Teka |

Source: Comtrade.
* Partial customs statistics provided by Morocco and the declaring supplier countries

Projects

NORTH AFRICAN HIGH-SPEED LINE

Construction of a high-speed line stretching more than 2,000 km connecting the 3 central North African countries.

This project made a comeback in June 2014 with the announcement that a tender had been issued. The technical studies have started up in Algeria. In Morocco, the project is much more advanced: the Kenitra-Casablanca high-speed line has been finalised. This is part of Plan Rail Maroc 2040 and is the first stage of the Casablanca-Tangier HSL. The project should then be continued towards the Algerian border to connect Casablanca with Oujda, Algiers and Tunis. The North African TGV line should be commissioned in 2030. Among other investments, the total cost will include the acquisition of 30 freight trains from an American firm and 17 passenger trains from a French company.

MOHAMMED VI TANGIER TECH CITY

Construction of a new town spanning 2,000 hectares

The memorandum of understanding signed by BMCE Bank, the Chinese group Haite and the Tangier-Tetouan-Al Hoceima region dates back to the Royal visit to China in May 2016. The future Mohammed VI Tangier-Tech City will accommodate nearly 300,000 people, generate annual turnover of up to €14 bn and tax revenue of €280 m. Work is due to start before the end of 2017 and will be completed in 10 years' time. On completion, the firms that set up in the zone should have invested nearly €10 bn. Construction is phased in three steps: the first 500-hectare stage is for the construction of a residential and industrial area. The second 500-hectare phase is for a logistics free zone. Finally, the remaining 1,000 hectares will be dedicated to extending the industrial part of the project.

NADOR WEST MED (NWM)

Construction of the future Moroccan oil and gas transhipment port in Betoya Bay

The Nador West Med project will be built on the strategic site of Betoya Bay, lying less than 250 miles from the Strait of Gibraltar. It will therefore be located directly opposite the main east-west sea routes for container and petroleum traffic. NWM, whose construction recently commenced, aims to serve all of the ports in the western and eastern Mediterranean. This new complex will increase the presence of Morocco in maritime routes in the Mediterranean, which account for approximately 20% of total worldwide traffic. Initially, the NWM project will be an oil and gas transhipment port. It should receive 25 million tonnes of hydrocarbons, 7 million tonnes of coal and 3 million tons of other goods. Subsequently, the port will be fitted with container handling equipment will have a free trade zone.

€1 bn

- **Financing:** public-private
- **Location:** Rabat - Algiers - Tunis line route
- **Contracting authority:** ONCF
- **Timescale:** 2017 - 2030

€1 bn

- **Financing:** public-private
- **Location:** Dalia, Tangier-West
- **Contracting authority:** Agency for the Promotion and Development of the North, Tangier-Tetouan-Al Hoceima Regional Authority
- **Investors:** Ministry of Trade, Industry, Investment and the Digital Economy, HAITE, BMCE Bank
- **Timescale:** 2017 - 2027

€708.4 m

- **Financing:** public-private
- **Location:** Betoya Bay, on western side of Cap des Trois Fourches
- **Contracting authority:** Nador West Med SA
- **Investors:** Ministry of the Economy and Finance, Ministry of Infrastructure, Transport, Logistics and Water, Hassan II Fund for Economic and Social Development, National Ports Agency
- **Prime contractor:** STFA-SGTM-JDN consortium
- **Timescale:** 2017 - 2022

Projects

DAKHLA-ATLANTIC FISHING AND TRADE PORT

Construction of a fishing and trade port in the south of Morocco

Dakhla Atlantic is one of the major projects in the 2030 ports strategy. The port will be established in deep water outside the Bay of Dakhla and will be able to accommodate future traffic dealing in fishery products. It will serve as a logistical and economic lever to facilitate the social and economic organisation of the south of the kingdom.

EXTENSION OF RABAT TRAMWAY

Plan for extension of tram network in Rabat, Salé and Temara.

The Rabat-Salé tramway caters to the growing demand for transport services in the city region. The current two-line system stretches 20 km and carries 110,000 passengers per day (133 million passengers since revenue service commenced in 2011). Connecting people on both banks of the Bouregreg, the tram system reinforces social cohesion and has proven to be a long-lasting transport solution. A several-phase extension programme was initiated in 2014, comprising a total of 29 additional kilometres. It will run through Rabat, Salé and Temara. In Rabat, the tram system should stretch an extra 14.3 km in length and have 23 new stations. The city of Salé will be given a 9.6-km extension with 17 stations. In Temara, the project involves the construction of 5 km of line and five stations.

MAZAGAN URBAN HUB (PUMA)

Construction of a 1,300 hectare urban centre near Al Jadida

This is an urban extension project which is part of the new urban centre development strategy. This hub will span an overall surface area of 1,300 ha. The first phase of the project will provide housing for 46,000 people. It will be located next to educational and vocational training infrastructure and research and development centres. On completion, the urban centre is forecast to house 130,000 people. Located on the Atlantic coast, PUMA will connect Casablanca, Azemmour and El Jadida. Its purpose is to support the economic and social development of the future Greater El Jadida region and reinforce the vitality of the Jorf Lasfar industrial complex.

€558.8 m

- **Financing:** public-private
- **Location:** N'Tireft, 60 km north of Dakhla
- **Contracting authority:** National Ports Agency
- **Investors:** Ministry of Infrastructure, Transport, Logistics and Water
- **Timescale:** 2018 - 2030

€522 m

- **Financing:** public
- **Location:** Rabat-Salé-Temara
- **Contracting authority:** Société de Tramway Rabat-Salé (STRS) / Agence d'Aménagement de la Vallée du Bouregreg (AAVB)
- **Investors:** Government / local authorities
- **Prime contractor:** SYSTRA
- **Timescale:** 2014-2022

€465.8 m

- **Financing:** public/private
- **Location:** El Jadida / Mazagan
- **Contracting authority:** Société d'aménagement et de développement de Mazagan (Sadem)
- **Investors:** Groupe OCP / Direction des Domaines de l'Etat
- **Timescale:**
 - phase 1: 2017-2024
 - phase 2: 2025-2029
 - phase 3: 2030-2034

Projects

GRAND THEATRE OF RABAT - WESSAL - BOUREGREG

Construction of a theatre as part of the project to build cultural facilities in the Bouregreg valley.

The Grand Theatre of Rabat and the Museum of Archaeology and Earth Science are part of the policy to build cultural facilities and upgrade urban heritage assets throughout the kingdom. The project has already completed several phases; the urban planning and technical studies have been completed and an international tender led to the selection of a consortium of firms for the construction work which is set to last 40 months. The Rabat Grand Theatre will have an auditorium, an outdoor amphitheatre to hold up to 7,000 people, back-of-house facilities, cafés and restaurants. The metropolitan region of Rabat-Salé-Temara, the second largest in Morocco in demographic and economic terms, is split by the Bouregreg valley. The overall valley development project will help to energise the river banks and provide urban continuity.

€157 m

- Financing: public/private
- Location: Bouregreg valley, Rabat
- Contracting authority: Bouregreg Cultures (subsidiary of Agence d'Aménagement de la Vallée du Bouregreg)
- Investors: Wessal Capital / Ithmar Capital
- Prime contractor: Kalutere Polis / INTA (international urban development association) Hill International
- Timescale: 2010-2020

CASABLANCA PORT TOWER ADMINISTRATIVE COMPLEX

Construction of 2 buildings near Casa-Port station

This project is for the construction of two buildings: one high tower (G+25) and one lower tower (G+8) connected to each other by a hall (G+6), located close to Casa-Port station. This will hold an administrative building, bringing together all of the city's port services. Budgeted at an overall cost of €32 m, this project is part of the Wessal Casablanca Port programme. A number of different projects are underway or in design phase (transfer of fishing port and shipyard, development of a cruise terminal, etc.). Works are intended to transform part of the port zone into a new urban centre and highlight the historical district of the medina and its shoreline.

€32 m

- Financing: public
- Location: Near Casa-Port station, Casablanca
- Contracting authority: Ithmar Capital
- Investors: Ministry of the Economy and Finance / Casablanca-Settat Regional Authority / Wessal Capital (Aabar Investments, Qatar Holding, Al Ajial Investment, Public Investment Fund)
- Architects / design consultancies: Consortium Mohamed Ghaiti-Laborie Jean Pierre & Laborie Philippe
- Timescale: 2017-2020

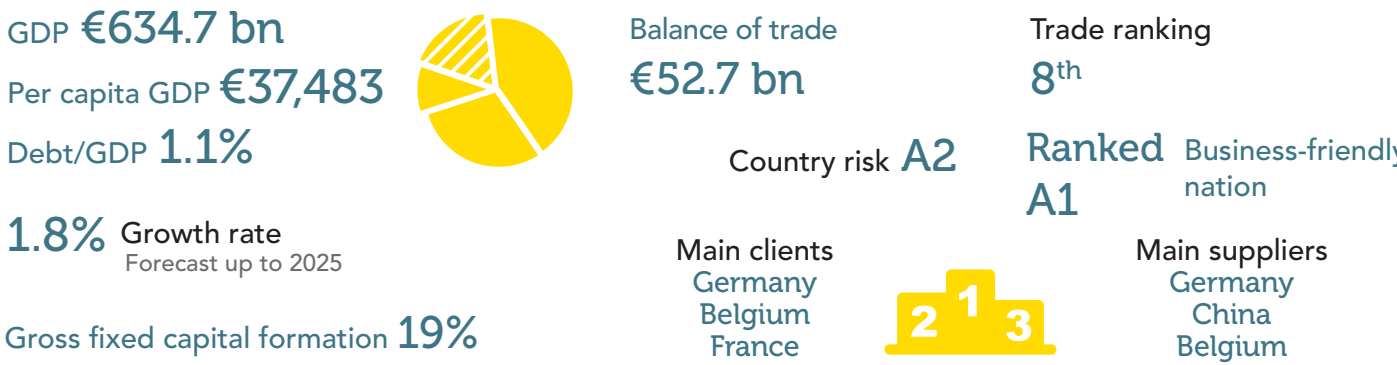
NETHERLANDS

The development of Maasvlakte 2, the new Rotterdam port terminal, in 2013, led to a 20% rise in transportation in the Netherlands. The country already suffers from heavy road congestion due to its size and its status as a hub. Ambitious objectives have been set to encourage alternative modes of transport: reducing the share of freight travelling on roads from 60% to 35% by 2030, transferring it onto the rail network (from 8% today to 20%) and onto the waterways (from 32% to 45%). To meet these targets, work is underway to widen the Betuwe freight line, running from the port of Rotterdam to the Ruhr region, and to extend multimodal ports along the Meuse (Tiel, Nijmegen and Almere). The government has also set itself challenging targets in electric mobility (road and rail). The Netherlands aim to drastically reduce the use of primary resources (50% of renewable energy in 2030 and 100% in 2050) and one of its five priorities is in building. Finally, economic growth in the country should reach 2.1% in 2017 as it was also in 2016, generating a positive impact on the nation's public finances. The Dutch economy should continue to expand at around 1.8% per year for the period from 2018 to 2021.

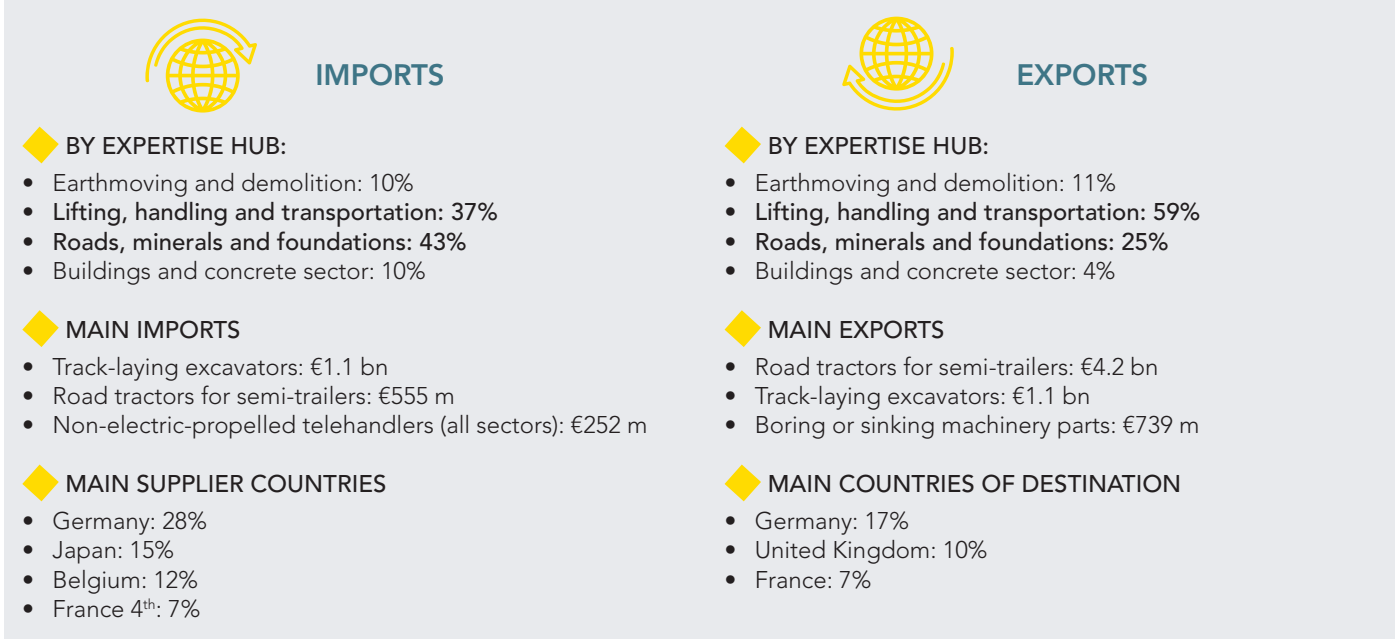


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MACROECONOMIC AND TRADE DATA*



CONSTRUCTION EQUIPMENT: MAIN TRADE FLOWS*



TOP 3
high-potential sectors

1/Ports 2/Roads 3/Airports

Sources: French Embassy in the Netherlands, SER, CBS, MOCI, World Bank, World Economic Forum, COFACE
*Data for May 2017

Market potential

| SECTORS | DEVELOPMENT LEVERS FOR SECTOR | MASTER PLANS | LEVEL OF INNOVATION & OTHER MAJOR ISSUES | SECTORS | DEVELOPMENT LEVERS FOR SECTOR | MASTER PLANS | LEVEL OF INNOVATION & OTHER MAJOR ISSUES |
|---|--|--|---|---|---|--|--|
|  Roads | <ul style="list-style-type: none">National "New Roads" plan to 2028 (€25 bn): creation of new roads, solutions to improve traffic conditions on roads, stimuli for other modes of transport and using highways during off-peak hours.National infrastructure plan (€5.9 bn in 2017, roads, railways, waterways)Schiphol-Amsterdam-Almere programme (€5.1 bn):<ul style="list-style-type: none">construction of a connecting road between motorways A6 and A9motorway widening (63 km) between Amsterdam and Almere.Rotterdam Vooruit project (€1.1 bn) - De Blankenburgverbinding:<ul style="list-style-type: none">road wideningconstruction of Blankenburg tunnel | Several investment plans €37.1 bn up to 2028 | <ul style="list-style-type: none">Development of sustainable solutions to address accessibility problems in the Rotterdam regionGovernment requirements imposed on contractors working on Rotterdam Vooruit project in terms of environment and lightingUse of specific noise-abating materials and equipment: sound-absorbing asphalt and noise barrier wallsUse of innovative technologies in cars and on roads, and also to regulate traffic: €60 m invested in ITS over the past few years under the programme Beter Benutten (completed in 2017) to improve aspects such as communication between vehicles and road infrastructure. |  Engineering structures | <ul style="list-style-type: none">National plan to renovate 14 bridges including Waalbrug (604 m high) in Nijmegen<ul style="list-style-type: none">replacement of concretemetal construction reinforcement and renovationGroot Onderhoud Bruggen en Sluizen project: renovation, technical and electrical repair of bridges and locks in Flevoland province | No consolidated data available | <ul style="list-style-type: none">Use of environmentally-friendly materials |
| | <ul style="list-style-type: none">National plan to improve access to Schiphol airport: roads, railways and public transport (€12 bn up to 2028)Projects to expand Schiphol airport"Nieuwe Pier en Terminal Schiphol" programme (€350 m loan from EU between now and 2023 in two €175 m instalments):<ul style="list-style-type: none">construction of a new terminalconstruction of a flexible-use pier to cater to either three widebody aircraft or 11 narrow-body aircraft. | National plan and Schiphol extension programme €12.35 bn up to 2028 | <ul style="list-style-type: none">Increase in passenger capacity (objective 14 million passengers additional)Improving access to the airport | | <ul style="list-style-type: none">National plan (€5.9 bn for 2017 in road, railway and waterway infrastructure).Extension of Betuwe line: a 160-km freight railway line running from the port of Rotterdam to the German border.Renovation and extension of Schiphol station (€600 m)Safety works on 100 unsupervised level crossings (€35 m)Programme to deploy ERTMS rail traffic regulation solution (€2.6 bn up to 2030) | Several investment plans More than €9.1 bn up to 2030 | <ul style="list-style-type: none">Digitalisation of Schiphol station. Seven innovations will be tested to improve safety: interactive screens using sensors, innovative train detection radars, GPS systems for drivers who receive a text message or GPS alert warning them that they are approaching a level crossing, etc.National programme to develop border rail transportInfrastructure upgrading projects (reduction in failures, improvement in safety) with the aim of running more trains and faster trains (140 km/h). |
| | <ul style="list-style-type: none">DELTA programme to prevent sea flooding, running to 2030 (€1.2 bn)Onderhoudsbaggeren Maas en kanalen Zuid-Nederland programme (budget undisclosed): dredging at 130 locations on the MeuseNoordervaart programme in Limburg province (€22.6 m): maintenance works on Noordervaart and on 7 bridges, a lock and a siphon weirAfsluitdijk programme (32 km) renovation of the Afsluitdijk causewayOnderhoudscontract Droge Infrastructuur programme (budget unknown): renovation of "dry" infrastructure in Rotterdam portMaritiem IV Service Punt - MIVSP programme (budget unknown): construction of 5 service points close to 3 offshore wind farms on the Dutch coastReinforcement of position of Dutch ports: Maasvlakte 2 in Rotterdam and construction of two new locks in ports of IJmuiden and Terneuzen. | Several programmes, total value in excess of €2.28 bn up to 2030 | <ul style="list-style-type: none">Use of specific machines for dredging works on the MeuseIncrease in water supply capability and water flow rate on Noordervaart canalDeployment of innovative systems on causeways to guarantee the safety of residentsUse of specific technology for service points: sensors, data processing systemsImprovement in safety and reduction of the environmental footprint of port infrastructureProjects to improve the accessibility of ports |  Railways | <ul style="list-style-type: none">Energy efficiency of buildings: €613 million allocated in 2017.Herinrichting Coolsingel programme (€58.1 m): multi-disciplinary projects (construction and renovation of commercial space and housing, improvement of public space).Regio Randstad Noord programme:<ul style="list-style-type: none">renovation of 146 buildings located near railway stations in Randstad Noord zonedeployment of a "smart" public lighting systemBRIGHT project: construction of a 70-m tower with 120 apartments and 480 studio flats, all furnished, together with a 900-sqm shopping centre, in the centre of Rotterdam. | Several programmes More than €2.28 bn up to 2024 | <ul style="list-style-type: none">Roofs to be cleared of asbestos between now and 2024 (€10 m in 2017)Enhancement of public space in Rotterdam (retail space, housing, etc.)Use of materials to improve the energy efficiency of buildingsDigital software for plans and layouts |
|  Airports | | | | | | | |
|  Ports | | | |  Buildings | | | |

TOP 4 requirements for construction equipment and materials

- Solutions to improve the energy efficiency of buildings
- Prefabricated components
- Wood for prefabricated wall panels
- Digital tools (e.g. BIM)

Main imports of construction equipment

| TOTAL IMPORTS (IN EUR) | | | | | | |
|---|-------------|-------------|---------------|---------------------|---|---|
| | 2012 | 2014 | 2015 | Change 2012-2015 | Top 5 exporting countries | Brands sold |
| Earthmoving & demolition | | | | | | |
| Boring and sinking machinery parts | 192,902,638 | 171,942,003 | 153,269,004 | -21% | 1/ Finland 2/ USA 3/ France 4/ United Kingdom 5/ Germany | Liebherr, Herrenknecht AG |
| Derricks and self-propelled cranes | 37,689,868 | 85,587,005 | 142,922,816 | 279% | 1/ Austria 2/ Germany 3/ Sweden 4/ USA 5/ Brazil | Liebherr, Cargotec, Hitachi, Kato, Kobelco, Komatsu, Palfinger, Terex |
| Wheeled excavators | 35,508,464 | 23,880,840 | 32,005,773 | -10% | 1/ Germany 2/ United Kingdom 3/ Belgium 4/ USA 5/ China | Liebherr, Hitachi, Caterpillar, Volvo, Doosan, Atlas, Case, Hyundai, Komatsu, Terex, Takeuchi |
| Earth-boring tools | 27,337,968 | 31,196,892 | 26,232,942 | -4% | 1/ USA 2/ Germany 3/ United Kingdom 4/ Japan 5/ Belgium | Atlas Copco, Sandvik, |
| Buckets, shovels, grabs and grips | 18,309,735 | 15,427,298 | 21,037,783 | 15% | 1/ Germany 2/ France 3/ Slovakia 4/ Belgium 5/ China | Liebherr, Bobcat, MDB Technology, Palfinger |
| Lifting, handling and transportation | | | | | | |
| Road tractors for semi-trailers | 418,664,128 | 458,661,116 | 555,708,925 | 33% | 1/ Belgium 2/ Germany 3/ France 4/ Spain 5/ Poland | Liebherr, Renault Trucks, Volvo, MAN, Iveco, Canter, Mercedes-Benz |
| Non-electric propelled fork-lift and works trucks (all sectors) | 159,572,237 | 220,477,966 | 252,112,625 | 58% | 1/ Germany 2/ China 3/ France 4/ United Kingdom 5/ Belgium | Caterpillar, Liebherr, Manitou, Aislemaster, Mitsubishi |
| Electric propelled fork-lift and works trucks (all sectors) | 167,508,179 | 208,906,465 | 201,035,677 | 20% | 1/ Germany 2/ Belgium 3/ Sweden 4/ United Kingdom 5/ France | Aislemaster, LIndia, Toyota |
| Lifts and skip hoists | 130,345,855 | 92,071,772 | 151,779,369 | 16% | 1/ Germany 2/ Sweden 3/ Finland 4/ Belgium 5/ France | Caterpillar, Liebherr, Manitou, CMC, Genie, Thyssenkrupp |
| Other self-propelled machines | 34,231,141 | 35,855,457 | 115,841,452 | 238% | 1/ Germany 2/ Italy 3/ Belgium 4/ France 5/ United Kingdom | Caterpillar, Liebherr, Manitou, Aislemaster, Mitsubishi |
| Roads, minerals and foundations | | | | | | |
| Track-laying excavators | 705,893,672 | 968,076,372 | 1,082,519,778 | 53% | 1/ Japan 2/ Germany 3/ South Korea 4/ Belgium 5/ France | Caterpillar, Kobelco, Komatsu, Takeuchi, O&K, Volvo, Case |
| Crane lorries | 170,327,939 | 171,287,236 | 164,104,240 | -4% | 1/ Germany 2/ United Kingdom 3/ France 4/ France 5/ Italy | Caterpillar, Hyundai, Iveco, Liebherr, Manitou, Scania, Volvo |
| Mechanical shovels, excavators and shovel loaders | 195,131,062 | 142,404,804 | 159,393,279 | -18% | 1/ Germany 2/ Belgium 3/ Japan 4/ USA 5/ United Kingdom | Caterpillar, Hyundai, JCB, Liebherr, Volvo, Yanmar, Kubota, Case |
| Bulldozers | 50,452,679 | 79,252,830 | 83,286,723 | 65% | 1/ Japan 2/ Belgium 3/ France 4/ Brazil 5/ Germany | Caterpillar, Komatsu, Shantui |
| Dumpers | 64,646,358 | 57,431,760 | 67,521,282 | 4% | 1/ Japan 2/ United Kingdom 3/ Germany 4/ USA 5/ Belgium | Caterpillar, Komatsu, Doosan, Volvo, Neuson |
| Buildings and concrete sector | | | | | | |
| Bars and rods for reinforced concrete | 104,503,602 | 94,960,200 | 110,078,352 | 5% | 1/ Germany 2/ France 3/ Belgium 4/ Luxembourg 5/ Turkey | Peikko |
| Concrete pumps | 44,077,430 | 72,941,849 | 94,646,636 | 115% | 1/ Germany 2/ Poland 3/ France 4/ Belgium 5/ Czech republic | Sermac |
| Shuttering | 49,517,535 | 46,458,855 | 61,863,396 | 25% | 1/ Germany 2/ China 3/ Denmark 4/ Belgium 5/ Lithuaniae | Altrad, Doka, SGB, Peri |
| Laser metal cutting machines | 26,128,972 | 39,096,890 | 45,738,690 | 75% | 1/ Germany 2/ Taiwan 3/ Italy 4/ Austria 5/ Belgium | kjellberg, Trumpf, Bystronic |
| Concrete mixer lorries | 17,148,880 | 24,374,118 | 18,121,672 | 6% | 1/ Belgium 2/ Germany 3/ Portugal 4/ Bélarus 5/ Hungary | Eibenstock, Sermac, Hydromix, Italmachina |

Source: Comtrade.

Projects

A1/A6/A9/A10 SCHIPHOL-AMSTERDAM-ALMERE (SAA)

Major road project

SAA is the largest road project in the Netherlands for the period from 2012 to 2024. The objective is to increase the capacity of Dutch motorways A6, A1, A9 and A10 East to improve access to the northern part of the Randstad region (Schiphol, Amsterdam, Almere). SAA comprises the 63-km motorway project (encompassing the A1, A6, A9 and A10), the construction of two tunnels, two bridges, a large aqueduct and 100 viaducts.

NEW A-PIER AND TERMINAL

Construction of a new terminal at Schiphol airport

A new terminal is to be built in Schiphol airport, together with a flexible-use pier to cater to either three widebody aircraft or 11 narrow-body aircraft. This new terminal will be connected to the existing terminal. These extension works aim to achieve a capacity of 80 million passengers for the airport, including those in transit.

AFSLUITDIJK PROJECT

Project to renovate a causeway

This is a major project to renovate and protect the Afsluitdijk (Closure Dike), a 32-km causeway running from Wieringen (North Holland province) to Súdwest-Fryslân (Friesland province). The project is being conducted by the Rijswaterstaat and the Nieuwe Afsluitdijk (DNA), a cooperation between the provinces of North Holland and Friesland and the municipalities of Hollands Kroon, Súdwest-Fryslân and Harlingen.

BRIGHT TOWER

Construction of a tower in the centre of Rotterdam

The project consists of building a 70-m-high tower with a capacity of 120 flats and 480 studios, all furnished, in the centre of Rotterdam, together with a 900-sqm shopping centre. The building will also house a gym, a library and a laundry. A roof terrace of 600 sqm will additionally be built. The building will have an open look and feel.

€5.1 bn

- **Financing:** Government and loans from The Bank of Tokyo- Mitsubishi UFJ and DekaBank Deutsche Girozentrale
- **Location:** Randstad (urban region in the Netherlands encompassing the cities of Utrecht, Amsterdam, The Hague and Rotterdam)
- **Contracting authority:** Rijkwaterstaat (executive agency of the Ministry for Infrastructure and the Environment).
- **Investors:** EIB
- **Architect / design consultancy:** Volker InfraDesign
- **Prime contractors:** VolkerWessels, Boskalis, Hochtief, DIF, Van Hattum en Blankevoort bv, KWS Infra bv, Vialis bv, VolkerRail
- **Timescale:** 2012-2024

€1.2 bn

- **Financing:** Government, Schiphol, EIB
- **Location:** Schiphol airport
- **Contracting authority:** Government, municipalities of Amsterdam and Rotterdam, and Aéroports de Paris (shareholders of Schiphol)
- **Investors:** EIB
- **Architect / design consultancy:** Aecom Team, 2nd Sense, Arcadis
- **Prime contractors:** Heijmans
- **Timescale:** delivery in 2023

€850 m

- **Financing:** public
- **Location:** provinces of North Holland and Friesland
- **Contracting authority:** Rijkwaterstaat (executive agency of the Ministry for Infrastructure and the Environment), Ministry of the Economy, DNA
- **Investors:** Government, DNA, EU
- **Architect / design consultancy:** Bureau Feddes/Olthof, GEAR, Intertra MAATwerk, Adviesbureau Sijperda-Hardy
- **Prime contractors:** Energy Valley, Tocardo, REDstack, Bouwgroep Dijkstra Draisma, ITBB, EcoShape, Tidal Testing Centre
- **Timescale:** issue of works tender in 2017, award in 2018, project completion in 2022.

€12.5 m

- **Financing:** private
- **Location:** Rotterdam
- **Contracting authority:** Stebru Vastgoed Rotterdam
- **Investors:** Greystar
- **Architect / design consultancy:** Tangram Architekten, Peak Development
- **Timescale:** delivery at end of 2018

QATAR

The Qatari construction market is the most dynamic in the Middle East: 9.3% of the 100 largest construction projects are being built there at the present time, and the market experienced 12.4% growth in 2016. Nearly US\$200 billion will be invested by the government and the private sector in major projects between now and 2022. Roads constitute a priority sector. The country also has three major metro, tram and HSL projects. In preparation for the 2022 World Cup, the country is currently building 7 stadiums as well as housing and is increasing its hotel capacities. With annual population growth of 7.6%, Qatar will continue to invest in its infrastructure to cater to its expanding demographics.



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MACROECONOMIC AND TRADE DATA*

GDP **€173 bn**

Per capita GDP **€143,996**

Debt/GDP **47.6%**

3% Growth rate
Forecast up to 2025

Gross fixed capital formation **29.1%**



Balance of trade
€28.3 bn

Trade ranking
38th

Country risk **A3**

Ranked **83rd** Business-friendly nation

Main clients
Japan
South Korea
India



Main suppliers
China
USA
United Arab Emirates

CONSTRUCTION EQUIPMENT: MAIN TRADE FLOWS*



IMPORTS

BY EXPERTISE HUB:

- Earthmoving and demolition: 12%
- **Lifting, handling and transportation: 29%**
- **Roads, minerals and foundations: 39%**
- Buildings and concrete sector: 19%

MAIN IMPORTS

- Track-laying excavators: €251 m
- Tractors for semi-trailers: €113 m
- Boring machina parts: €89 m

MAIN SUPPLIER COUNTRIES

- China: 21%
- Germany: 15%
- South Korea: 10%
- France 11th: 2%



EXPORTS

BY EXPERTISE HUB:

- **Earthmoving and demolition: 30%**
- Lifting, handling and transportation: 17%
- **Roads, minerals and foundations: 44%**
- Buildings and concrete sector: 9%

MAIN EXPORTS

- Bars and rods for reinforced concrete: €228 m
- Boring or sinking machinery parts: €5 m
- Manual winches: €2 m

MAIN COUNTRIES OF DESTINATION

- United Arab Emirates: 43%
- Saudi Arabia: 23%
- Kuwait: 17%
- France 51st: 0.01%

Market potential

SECTORS

DEVELOPMENT LEVERS FOR SECTOR



Roads

- Expressways programme 2012-2018 (€16 bn):
 - construction of 900 km of new roads and expressways
 - maintenance and resurfacing of existing network
 - infrastructure connected with the 2022 World Cup and Qatar National Vision 2030
- Local road network drainage programme, up to 2022 (€13 bn):
 - maintenance of local roads and drainage network in the five regions of the country (Qatar North, Qatar South, Doha North, Doha South and Doha West)
 - 200 projects in total

MASTER PLANS

Several road programmes
€29 bn
up to 2022

LEVEL OF INNOVATION & OTHER MAJOR ISSUES

- ★ Provision of a nationwide road network capable of supporting the future development of the country:
 - high population growth
 - necessity of redesigning the sewerage and wastewater treatment system in Doha, Al Wakrah and Messaied in view of demographic growth (IDRIS plan)
- ★ Very short project timescales, fast work pace.
- ★ Climate issues (very hot weather 6 months of the year, humidity in excess of 70%), cooling hard hats under study, cooling overalls worn by workers, work forbidden at hottest times.
- ★ Necessity of improving workers' conditions (international pressure)
- ★ Automated multi-storey parking systems (Parking Master Plan 2017 - currently nearing completion).



Engineering structures

- A large number of projects within the stated road and railway projects: 30 major projects to be delivered as part of the Expressway Programme (engineering structures, bridges, etc.).
- Roads: up to 2020, construction of 200 bridges, 30 tunnels and 240 interchanges, including 4-level interchanges.
- Railway: 111 km of tunnels to be built on the 3 major HSL and tram projects

No consolidated data



Railways

- 3 railway and urban transport projects: Doha metro, Lusail tram, High speed line: GCC Railway Project;
 - 10 joint ventures and 35,000 employees mobilised
 - 37 metro stations and 37 tram stations
- Urban transport previously inexistent
- Infrastructure relating to the 2022 World Cup and Qatar National Vision 2030 (WC2022 and QNV2030).
- Reduction in road traffic (tram and metro).
- Connecting Doha with other cities in the country and other Gulf nations (HSL)

Several railway projects approx.
€30 bn
2014-2030

- ★ Intermodality: interconnection between Lusail tram and Doha metro (at two stations) and between the metro and the airport. At Musheireb station (Major Station), the three lines will converge.
- ★ Driverless shuttles at Education City, Port Hamad and Aspire City
- ★ Promotion of jobs in ICT by government in the field of ticketing, passenger information systems and customer service.
- ★ Strong interest in French expertise in intermodality and ITS.

TOP 3

high-potential sectors

1/Roads 2/Railways 3/Buildings

SECTORS

DEVELOPMENT LEVERS FOR SECTOR

MASTER PLANS

LEVEL OF INNOVATION & OTHER MAJOR ISSUES



- Urban development projects:
 - construction of city of Lusail
 - transformation of new Musheireb district into a connected eco-district
 - congestion alleviation in centre of Doha
- Development of hotel stock: objective of an additional 46,000 beds in Doha by 2022.
- Increase in number of dwellings for 2022 World Cup
- Healthcare infrastructure development Master Plan 2015-2033 (€15 bn), with the construction of:
 - 60 new primary healthcare facilities
 - 7 diagnosis and treatment units
 - units specialising in transmissible diseases
 - 1 rehabilitation institute and 1 female wellness centre

Several urban, property and healthcare projects
€71 bn
2015-2033

- ★ Smart cities and smart buildings
 - make the Musheireb district the showcase of the Qatari connected city
 - eco-districts focussing on eco-materials and uses
 - Lusail smart city.
- ★ Development of healthcare infrastructure in line with population growth and illnesses.



- Diversification of energy mix to reduce dependency on hydrocarbons
- Objective: 20% of energy needs covered by renewables by 2020
- Strong focus on solar energy, construction of a 220 MW solar power station costing (€600 m)
- Construction of desalination and drinking water storage units (if possible combined with solar power).
- Greenbuilding: Qatar aims to have the largest number of green or carbon neutral buildings in the MENA region.

Qatar Vision 2030 running up to 2030

- ★ Few incentives for energy efficiency (subsidised prices)
- ★ 220 LEED-certified projects currently underway in Qatar, of which many are developed by the Qatar Foundation (Musheireb Properties currently developing almost a hundred)



- Expansion project which should increase the airport's capacity to 50 million passengers:
 - extension of main terminal, with a surface area to rise to 1 sq.km from the current 400,000 sqm.
 - construction of two new terminals (C and D)
 - opening of a metro station to take people to the city centre on the Red Line
 - construction of 45,000 sqm of interior gardens
 - construction of 18,000 sqm of retail and catering space.
- Air traffic growing fast and anticipation of passenger influx generated by the 2022 World Cup

Extension of Hamad international airport
€7 bn

- ★ Extension postponed following a reduction in public spending, but it will become essential in the coming years because the current airport has reached maximum passenger capacity

TOP 5

requirements for construction equipment and materials

- Steel for structures
- Concrete
- Asphalt
- Plaster, cement
- Mechanical, Electrical and Plumbing (MEP) contracting

Main imports of construction equipment

| TOTAL IMPORTS (IN EUR) | | | | | | |
|---|------------|-------------|-------------|------------------|--|---|
| | 2012 | 2014 | 2015 | Change 2012-2015 | Top 5 exporting countries | Brands sold |
| Earthmoving & demolition | | | | | | |
| Boring and sinking machinery parts | 92,539,788 | 92,103,190 | 89,224,870 | -4% | 1/ Singapore 2/ Saudi Arabia 3/ United Arab Emirates 4/ USA 5/ China | Atlas Copco, Komatsu, Rockwell Automation, Zoomlion |
| Wheeled excavators | 31,124,851 | 18,631,221 | 28,754,659 | -8% | 1/ United Kingdom 2/ Italy 3/ United Arab Emirates 4/ India 5/ USA | Bobcat, Caterpillar, New Holland Construction |
| Derricks and self-propelled cranes | 9,921,002 | 17,447,930 | 19,468,654 | 96% | 1/ Saudi Arabia 2/ United Arab Emirates 3/ China 4/ Japan 5/ Netherlands | Hitachi, Komatsu, Kubota, Liugong, Sany, XCMG, Zoomlion |
| Earthmoving machines | 4,966,763 | 13,504,477 | 15,674,312 | 216% | 1/ France 2/ Belgium 3/ Germany 4/ Japan 5/ Finland | Hitachi, Kubota, Liebherr, Sakai, Sennebogen, Wacker Neuson |
| Earth- boring tools | 6,288,270 | 12,074,870 | 11,837,029 | 88% | 1/ Germany 2/ USA 3/ United Kingdom 4/ Saudi Arabia 5/ South Korea | Bobcat, Caterpillar, JCB, Liebherr, Wacker Neuson |
| Lifting, handling and transportation | | | | | | |
| Road tractors for semi-trailers | 24,893,806 | 68,319,916 | 113,018,378 | 354% | 1/ Germany 2/ Belgium 3/ Netherlands 4/ United Arab Emirates 5/ Japan | Isuzu, Mitsubishi, Scania |
| Lifts and skip hoists | 36,399,505 | 47,920,632 | 54,163,015 | 49% | 1/ China 2/ Germany 3/ Thailand 4/ Spain 5/ Italy | Sennebogen, Still, Thyssenkrupp |
| Tower cranes | 22,293,277 | 24,455,179 | 50,685,778 | 127% | 1/ United Arab Emirates 2/ Germany 3/ Spain 4/ China 5/ Kuwait | Sennebogen, XCMG, Zoomlion |
| Non-electric-propelled fork lift and works trucks (all sectors) | 13,463,712 | 27,723,235 | 34,081,940 | 153% | 1/ United Kingdom 2/ China 3/ Japan 4/ USA 5/ South Korea | Caterpillar, Doosan, Hyundai, JCB, Kubota |
| Other self-propelled machines | 11,904,123 | 20,383,785 | 27,727,626 | 133% | 1/ Japan 2/ Italy 3/ United Arab Emirates 4/ Saudi Arabia 5/ USA | Bobcat, Caterpillar, Kubota, Link-Belt Cranes, Manitowak, New Holland Construction, Tennant |
| Roads, minerals and foundations | | | | | | |
| Track-laying excavators | 44,701,442 | 149,525,948 | 251,369,407 | 462% | 1/ South Korea 2/ China 3/ Japan 4/ India 5/ United Arab Emirates | Doosan, Hitachi, Hyundai, Kubota, Sany, XCMG, Zoomlion |
| Mechanical shovels, excavators and shovel loaders | 27,081,580 | 52,792,997 | 77,058,869 | 185% | 1/ China 2/ South Korea 3/ United Arab Emirates 4/ Japan 5/ United Kingdom | Doosan, Hyundai, JCB, Kubota, Liugong, Sany, XCMG, Zoomlion, |
| Crane lorries | 18,391,892 | 60,042,382 | 52,931,599 | 188% | 1/ Germany 2/ China 3/ Netherlands 4/ Japan 5/ Italy | Komatsu, Kubota, Liebherr, Liugong, Sany, Wacker Neuson, XCMG, Zoomlion |
| Boring or sinking machines | 4,258,842 | 24,903,075 | 36,010,374 | 746% | 1/ USA 2/ Germany 3/ India 4/ Italy 5/ China | Bobcat, Komatsu, Liebherr, Liugong, New Holland Construction, Sany, Wacker Neuson, XCMG, Zoomlion |
| Crushing and grinding machines | 6,066,781 | 18,091,522 | 33,439,825 | 451% | 1/ United Kingdom 2/ Belgium 3/ Spain 4/ Canada 5/ Germany | Hitachi, JCB, Kleemann, Liming Heavy Industry, Metso Nordberg |
| Buildings and concrete sector | | | | | | |
| Shuttering | 32,430,596 | 33,589,183 | 111,157,659 | 243% | 1/ Germany 2/ Turkey 3/ India 4/ Austria 5/ China | Cukorova, Hunnebeck, Palfinger |
| Concrete pumps | 37,582,636 | 38,271,519 | 58,825,840 | 57% | 1/ Germany 2/ Italy 3/ China 4/ France 5/ Turkey | Cukorova, Elba, Schwing, Sany, Shenzhen Potential Industries, Wacker Neuson, XCMG |
| Bars and rods for reinforced concrete | 47,076,614 | 30,648 | 66,814,886 | 42% | 1/ Austria 2/ Germany 3/ United Arab Emirates 4/ China 5/ Oman | Arcelor Mittal, DUBAL-EGA, EGA-EMAL, Emirates Steel, Qatar Steel |

Source: Comtrade.

Projects

LUSAIL SMART CITY

Construction of a new city in Lusail

The new city will have a four-line "light metro" system, two marinas, car parks, residential zones, holiday resorts located on the island, shopping malls, luxury goods boutiques and leisure facilities including two golf courses and 22 hotels. These facilities will be able to accommodate up to 450,000 people.

€40 bn

- **Financing:** public
- **Location:** Doha-Lusail
- **Contracting authority:** Lusail Real Estate Development Company (Qatari Diar), UDC, Musheireb Properties (Qatar Foundation).
- **Investors:** Government - Qatari Diar
- **Prime contractors:** RTKL, Hyder Consulting, Halcrow Group, Samsung C&T, Al Sraiya Group (local), HBK Contracting (local), Al Jaber Group, Atlantic Contracting
- **French prime contractors:** Vinci (QDVC), Bouygues Construction
- **Timescale:** delivery between 2020 and 2022

EXPRESSWAY PROGRAMME

Construction of major roads

The programme consists of a national road infrastructure system which will improve the way that people and places are connected. It will provide 900 km of new roads, 240 main interchanges, expressways and new arteries throughout Qatar. In total there are more than 30 large projects to be delivered on this programme. Ashghal, the public works authority, is in charge of designing, building, delivering and maintaining all of the expressways and main roads.

The public works authority Ashghal aims to increase mobility, shorten journey times and improve public safety on the roads. The Expressway programme will provide a road network capable of supporting the future development and expansion of world class infrastructure in Qatar.

€16 bn

- **Financing:** public
- **Location:** Qatar (national programme)
- **Contracting authority:** Public Works Authority - Qatar
- **Investors:** Government
- **Prime contractors:** Kellogg Brown & Root Pty Ltd (KBR) is in charge of programme management
- **Timescale:** works ongoing, delivery in 2020.

LOCAL ROAD DRAINAGE PROGRAMME

Renovation of roads in Qatar

The country is seeking to modernise its road infrastructure in preparation for the 2022 FIFA World Cup and the National Vision 2030. The Qatar public works authority Ashghal has allocated €20 bn to renovate the country's roads. New sections from Doha to Al Rayyan (South west) and Al Khor (north) are also planned in order to reinforce the existing network.

€15-20 bn

- **Financing:** public
- **Location:** Qatar (national programme)
- **Contracting authority:** Public Works Authority - Qatar
- **Timescale:** work in progress, completion expected in 2025

Projects

DOHA METRO

Construction of the metro

Construction work on the Doha metro commenced in the first quarter of 2014. At the end of 2015, the tunnel was already 90% complete (99 km out of 111 km). This project comprises 48 stations along 131 km of track in the first phase and 44 stations on 100 km of track in the second phase. The first phase of the metro should be finished in 2019-2020 and the second in 2026.

€15 bn

- **Financing:** public
- **Location:** Doha-Lusail
- **Contracting authority:** Qatar Rail
- **Investors:** Government
- **Prime contractors:** Mitsubishi Heavy Industries, Samsung, OHL, QDVC, Impregilio, Porr, HBK, Qatar Building Co, GS E&C, Darwish Engineering, DB International
- **French prime contractors:** Vinci (QDVC), Thalès, Systra and Egis
- **Timescale:** delivery in 2026

NEW DOHA PORT

Construction of a commercial and economic port and a naval base

The new Port Hamad is one of the flagship projects in Qatar. It includes a commercial port, a naval base and an economic zone (in progress) on a site spanning 27 sq.km, for an overall cost of €7.4 bn. It was inaugurated at the beginning of December. Development and extension projects are planned.

€7.4 bn

- **Financing:** public
- **Location:** Al Wakrah
- **Contracting authority:** The New Port Steering Committee
- **Investors:** Siemens LLC
- **Timescale:** inauguration and commissioning at end of 2016. Completion of all phases in 2020.

FIFA WORLD CUP STADIUMS

Construction of 7 stadiums for the World Cup

Following the award of the 2022 World Cup to Qatar, the construction of the stadiums is progressing fast. Seven new stadiums are being built and an existing facility will be modernised. 90% of the tenders for the stadiums have been awarded, however there are still several contracts available in finishing works, stadium fixtures and outdoor fittings.

€6.4 bn

- **Financing:** public - Government
- **Location:** Doha
- **Contracting authority:** Qatar 2020 Supreme Committee
- **Timescale:** 90% of tenders awarded. Delivery between 2017 and 2019.

Projects

NEW DISTRICT OF MUSHEIREB

Construction of a smart city in Doha

The new district of Musheireb, the future model of the smart city, is another flagship project for Doha and will be located at the heart of the city centre. This project will span almost 300,000 sqm and its objectives will be to regenerate and preserve the historical city centre of Doha.

The Musheireb project combines heritage with modern technology and focuses on sustainability and harmony with the environment. It will comprise more than 100 buildings, with a mix of commercial and residential property, cultural and entertainment facilities. The first phase, the Diwan Amiri Quarter currently under construction, comprises three large government buildings, heritage sites, a museum, a cultural forum and national archives.

The whole project is founded on a sustainable design consuming less resources, generating less waste, costing less to operate and enabling a reduction in the carbon footprint.

€5 bn

- **Financing:** public-private
- **Location:** Doha
- **Contracting authorities:** Lusail Real Estate Development Company (Qatari Diar), UDC, Musheireb Properties (Qatar Foundation).
- **Prime contractors:** RTKL, Hyder Consulting, Halcrow Group, Samsung C&T, Al Sraiya Group (local), HBK Contracting (local), Al Jaber Group, Atlantic Contracting
- **French prime contractors:** Vinci (QDVC), Bouygues Construction
- **Timescale:** delivery ongoing. Final completion between 2020 and 2022.

LUSAIL TRAM

Construction of a tramway

In line with the vision of Lusail, the Lusail Tram network will serve the residents of the city by providing an environmentally-friendly mode of transportation that will not only connect destinations within Lusail, but also to Doha by way of the Doha Metro.

The Lusail tram system will stretch 28 km and will have four lines, 37 stations and interchanges with the metro and the future regional high speed railway line.

€3 bn

- **Financing:** public
- **Location:** Doha-Lusail
- **Contracting authority:** Qatar Rail
- **Investor:** Government
- **French prime contractors:** Alstom, Thalès, Systra and Egis
- **Timescale:** delivery in 2020

URBAN SHUTTLE IN EDUCATION CITY

People mover project

The project relates to the development of a transport system for the Qatar Foundation's Education City campus to the west of Doha.

This project, set to be the first people mover system (PMS) in Qatar, uses battery-powered trams and aims to reduce road traffic on the campus. A fleet of 19 vehicles will operate along an 11-km route, with a capacity of 3,300 passengers per hour per direction. They will run at 4-minute intervals in both direction on the busiest sections of the network.

€100 m

- **Financing:** public
- **Location:** Education City - Doha
- **Contracting authority:** Qatar Foundation
- **Investor:** Government budget through the Qatar Foundation
- **Prime contractors:** Siemens Tram Consortium, Leighton Contracting Qatar WLL, Siemens AG
- **Timescale:** delivery in 2018-2019

UNITED ARAB EMIRATES.

While still being dependent on revenue from petroleum exports, the Emirati economy is one of the most diversified in the region. For its continued development, the country continues to focus on the "hub" of Dubai, ideally positioned between Europe and Asia. As a true platform for the region, the city is to host EXPO 2020, which should attract more than 25 million visitors between October 2020 and April 2021 and is already stimulating growth in the country (infrastructure, transport, hotels, etc.). In this respect, several major projects have already commenced, such as the extension of the metro and the new airport. While lower oil prices have impacted growth, the country's fundamentals remain solid. To maintain a revenue at a sufficient level to support the continuation of major infrastructure projects, the authorities have increased taxes (airport, tourism, water, electricity) and are preparing to introduce VAT at a rate of 5% in the first half of 2018, in the same way as all other Gulf nations.



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MACROECONOMIC AND TRADE DATA*

GDP €349 bn

Per capita GDP €35,369

Debt/GDP 18.9%

5% Growth rate
Forecast up to 2025

Gross fixed capital formation 27%



Balance of trade
€17.8 bn

Country risk A4

Main clients
Japan
India
China

Trade ranking
30th

Ranked 26th Business-friendly nation

Main suppliers
China
India
USA



CONSTRUCTION EQUIPMENT: MAIN TRADE FLOWS*



IMPORTS

BY EXPERTISE HUB:

- Earthmoving and demolition: 24%
- Lifting, handling and transportation: 24%
- Roads, minerals and foundations: 27%
- Buildings and concrete sector: 25%

MAIN IMPORTS

- Boring or sinking machinery parts: €707 m
- Bars and rods for reinforced concrete: €508 m
- Road tractors for semi-trailers: €409 m

MAIN SUPPLIER COUNTRIES

- USA: 17%
- China: 16%
- Turkey: 13%
- France 8th: 3%



EXPORTS

BY EXPERTISE HUB:

- Earthmoving and demolition: 21%
- Lifting, handling and transportation: 20%
- Roads, minerals and foundations: 18%
- Buildings and concrete sector: 41%

MAIN EXPORTS

- Boring or sinking machinery parts: €325 m
- Bars and rods for reinforced concrete: €208 m
- Shuttering: €175 m

MAIN COUNTRIES OF DESTINATION

- Oman: 19%
- Saudi Arabia: 19%
- Qatar: 11%
- France 42nd: 0.2%





TOP 3
high-potential sectors

1/Buildings

2/Roads

3/Airports

Market potential

| SECTORS | DEVELOPMENT LEVERS FOR SECTOR | MASTER PLANS | LEVEL OF INNOVATION & OTHER MAJOR ISSUES |
|--|--|--|---|
|  Roads | <ul style="list-style-type: none">Dubai EXPO 2020- road and bridge projects by RTA (€10.06 bn):<ul style="list-style-type: none">- upgrading, widening and modernisation works on main roads- construction of 7 bridges and 2 roads (€197.5 m): Al Yalayis Road and Al Asayel Road- introduction of a Bridge Monitoring and Maintenance System (BMMS)- road improvement programme (€732.7 m).Abu Dhabi 2030 Plan (€4.7 bn):<ul style="list-style-type: none">- road projects including bridges, tunnels and the light metro- development contracts for city of Mohammed bin Zayed: construction of new roads (7.7 km) and improvement in infrastructure (water networks, evacuation systems, electrical lines, irrigation, drainage and rainwater systems and road lighting). | <p>Several national investment plans €14.76 bn up to 2030</p> | <ul style="list-style-type: none">★ Deployment by RTA (Roads and Transport Authority) of ITS due to road congestion:<ul style="list-style-type: none">★ modern traffic monitoring systems in the Dubai region: connected mobile cameras, powered by solar panels, and remote sensors★ smart access barriers for expressways and application of digital signage (in partnership with AIMS and SCALA)★ Installation of a traffic regulation system in Abu Dhabi |
|  Airports | <ul style="list-style-type: none">Extension of Al Maktoum international airport (€30.2 bn) - Dubai EXPO 2020:<ul style="list-style-type: none">- work in progress to extend capacity to 26 million passengers in 2017-2018 and, ultimately, to 160 million passengers and 12 m t of cargo per year.- new baggage handling systemExpansion of the Nibras Al Ain Aerospace Park. Abu Dhabi: motor maintenance workshop currently under consideration.Construction of Midfield Terminal at Abu Dhabi airport (€2.6 bn) | <p>Several investment plans €32.8 bn up to 2030</p> | <ul style="list-style-type: none">★ Increase in total capacity of Dubai and Al Maktoum international airports to 350 million passengers between now and 2023.★ Launch of "real-time technology" system aimed at helping airport operators and airlines in managing aircraft changes, crowd control and back-end operations.★ LiveAir solution by DTP and SAP, in which passengers and airport staff can ask questions and receive answers about the airport, boarding times, etc. |
|  Ports | <ul style="list-style-type: none">Construction of 1,000 metres of quay walls by Abu Dhabi Ports - Abu Dhabi Plan 2030 (€6.4 bn):<ul style="list-style-type: none">- addition of 600,000 sqm of space for port handling (gantry cranes), increasing the port's capacity to 15 million TEU per year by 2030- Dredging contract concluded between Abu Dhabi Ports Company and NDCConstruction of Terminal 4 of Jebel Ali port in Dubai (€1.4 bn): to increase the port's capacity to 22.1 m TEU by 2018. | <p>Several investment plans €7.8 bn up to 2030</p> | <ul style="list-style-type: none">★ Bankruptcy of Hanjin Shipping: 10 vessels operated by the Korean company are moored in Dubai Jebel Ali port and two others are in the Khalifa container terminal in Abu Dhabi (debts of €5.04 bn owned to UAE). |
|  Mines and quarries | <ul style="list-style-type: none">Increase in production of mineral products and mineral fuels (+46% in 2016): cement (40 m t/year), iron and steel, liquefied petroleum gas (LPG) and nitrogen, lime (346 kt in 2016) and sulphur (3.9 mt in 2016).Economic Vision 2030 of Abu Dhabi authorities: government investment in infrastructure and energy. | <p>No consolidated data</p> | <ul style="list-style-type: none">★ Plan 2021: sustainable quarry management system. |
| SECTORS | DEVELOPMENT LEVERS FOR SECTOR | MASTER PLANS | LEVEL OF INNOVATION & OTHER MAJOR ISSUES |
|  Engineering structures | <ul style="list-style-type: none">Drains project in Dubai: Dubai Strategic Sewerage Tunnel project (€3.11 bn), awarded to Parsons Overseas Limited: 70 km of underground tunnels lying at a depth of 90 m and 140 km of link sewers between main sewers and main pumping stations.Dubai 2020 Urban Master Plan (€1.28 bn): projects linked with EXPO 2020 (infrastructure, drainage, residential, etc.), in particular in the southern quarter of Dubai.STEP Plan project in Abu Dhabi: works to commence in 2018 (€1.3 bn): construction of an underground tunnel (41m underground, 43 km long) to carry Abu Dhabi's wastewater. | <p>Several investment plans €5.7 bn up to 2022</p> | <ul style="list-style-type: none">★ Temporary postponement of construction of several tunnels on order to avoid traffic disruption on ground level★ Use of highly specialised materials and machinery |
|  Railways | <ul style="list-style-type: none">Plan to extend Dubai metro - Dubai EXPO 2020 (€2.2 bn):<ul style="list-style-type: none">- a 15-km extension- 7 stations, including 5 above ground and 2 undergroundAbu Dhabi metro project, Abu Dhabi Plan 2030 (tenders scheduled for 2018), construction:<ul style="list-style-type: none">- of an 18-km Red line including 5 km underground, with 17 stations (phase 1A),- of a 13-km Green line with 21 stations (phase 1B),- of a 15-km Blue line with 24 stations (phase 1C). | <p>Several investment plans more than €2.2 bn up to 2020</p> | <ul style="list-style-type: none">★ Major issue for Dubai municipality: deal with the population increase expected over the next 15 years. Developing the existing network will help to reduce congestion on main thoroughfares.★ Automatic train operation on Green and Red lines★ Electrification of new lines under construction★ Improvement in network safety. |
|  Buildings | <ul style="list-style-type: none">2017 revenue up 15% on 2016High population growth (9.3% in 2017) and the perspective of EXPO 2020: delivery of 40,000 additional hotel rooms.High requirements in hotels; business activity forecast to rise by 10.8% every year to €2.3 bn in 2020Real estate projects connected with development of new districts or cities:<ul style="list-style-type: none">- directly related to the development strategy of each of the Emirates- project owners are major semi-public property developers (shareholders either the government or reigning families), all or part of the lots for development are then subcontracted to privately-owned property developers. | <p>Several investment plans more than €39 bn up to 2030</p> | <ul style="list-style-type: none">★ Public investment expected to slow down in 2017, impacting the launch of new property projects★ Substantial presence of Anglo and regional consulting firms: importance of making contact with purchasing specifiers (consultants, architects and interior designers). |
| <div><div>TOP 5 requirements for construction equipment and materials</div><ul style="list-style-type: none">Materials for production of prefabricated components (wood, concrete panels)Tower cranesMarble and graniteSteel and aluminiumEarthmoving equipment: Track-laying and wheeled excavators</div> | | | |

Sources: Business France, Dubai office

Main imports of construction equipment

| TOTAL IMPORTS (IN EUR) | | | | | | |
|--|-------------|-------------|-------------|---------------------|--|--|
| | 2012 | 2014 | 2015 | Change 2012-2015 | Top 5 exporting countries | Brands sold |
| Earthmoving & demolition | | | | | | |
| Boring or sinking machinery parts | 583,952,372 | 620,707,757 | 707,817,397 | 21% | 1/ Singapore 2/ USA 3/ Saudi Arabia 4/ China 5/ Kuwait | FERMAT, Goratu, Honor, Hwacheon, Mitsubishi Carbide, Rockwell Automation, Siemens |
| Earth boring tools | 65,550,057 | 96,838,127 | 100,714,597 | 54% | 1/ USA 2/ China 3/ Singapore 4/ Saudi Arabia 5/ United Kingdom | Diamix, Super Cut, Yata Tools |
| Derricks and self-propelled cranes | 66,299,482 | 49,763,718 | 66,387,131 | 0% | 1/ Japan 2/ Saudi Arabia 3/ China 4/ Germany 5/ USA | Caterpillar, Komatsu, Volvo |
| Wheeled excavators | 39,591,563 | 52,533,909 | 47,452,853 | 20% | 1/ United Kingdom 2/ India 3/ USA 4/ Qatar 5/ Saudi Arabia | Bobcat, Caterpillar, Hitachi, Hyundai, JCB, Kobelco, Komatsu, Liebherr, Volvo |
| Buckets, shovels, grabs and grips | 19,324,024 | 12,057,306 | 20,700,783 | 7% | 1/ Netherlands 2/ Turkey 3/ USA 4/ Germany 5/ South Korea | Caterpillar, Hitachi |
| Lifting, handling and transportation | | | | | | |
| Road tractors for semi-trailers | 171,862,094 | 633,567,351 | 409,548,788 | 138% | 1/ Germany 2/ Netherlands 3/ Spain 4/ Sweden 5/ Belgium | DAF, FUSO, Iveco, MAN, Mercedes Benz, Renault, Scania, Volvo |
| Non-electric-propelled fork lift and works trucks (all sectors) | 85,543,787 | 108,430,915 | 140,443,358 | 64% | 1/ United Kingdom 2/ Japan 3/ China 4/ USA 5/ France | Dingli Manlifts, Doosan, Feeler Forklifts, Genie, Komatsu, Mitsubishi, Nissan, TCM |
| Lifts and skip hoists | 77,661,315 | 90,047,141 | 125,495,717 | 62% | 1/ China 2/ Thailand3/ Spain 4/ Germany 5/ Italy | Liebherr, Tadano |
| Other self-propelled machinery | 106,630,071 | 52,719,438 | 106,614,277 | 0% | 1/ Japan 2/ Germany 3/ Australia 4/ China 5/ Italy | APFEL, CIDAN, CNC, Fezer, Techno Mark, Wieland |
| Tower cranes | 24,758,187 | 63,634,315 | 83,835,709 | 239% | 1/ China 2/ France 3/ Germany 4/ Saudi Arabia 5/ Italy | Comansa, Favelle Favco, JOST, Kroll, Terex |
| Roads, minerals and foundations | | | | | | |
| Boring or sinking machines | 68,569,604 | 238,140,261 | 333,157,556 | 386% | 1/ China 2/ Saudi Arabia 3/ Netherlands 4/ India 5/ USA | Herrenknecht, Wirth GMBH |
| Mechanical shovels, excavators and shovel loaders | 192,867,245 | 145,945,727 | 153,034,588 | -21% | 1/ Japan 2/ China 3/ USA 4/ India 5/ Czech republic | Caterpillar, Hitachi, Kobelco, Komatsu |
| Track-laying excavators | 243,440,821 | 155,019,160 | 130,086,529 | -47% | 1/ Japan 2/ China 3/ South Korea 4/ India 5/ Qatar | Bobcat, Caterpillar, Hitachi, Hyundai, JCB, Kobelco, Komatsu, Liebherr, Volvo |
| Crane lorries | 100,452,771 | 80,188,807 | 118,262,351 | 18% | 1/ Germany 2/ China 3/ Japan 4/ Qatar 5/ South Korea | AMCO Veba, Ferrari, HIAB, Man Trucks |
| Bulldozers | 64,797,425 | 102,977,811 | 115,985,168 | 79% | 1/ Japan 2/ Brazil 3/ Qatar 4/ Thailand5/ Saudi Arabia | Caterpillar, Komatsu |
| Buildings and concrete sector | | | | | | |
| Bars and rods for reinforced concrete | 489,804,322 | 565,505,635 | 508,139,500 | 4% | 1/ Turkey 2/ South Korea 3/ Oman 4/ Ukraine 5/ Germany | Emirates Steel, Ghazal UAE, Gulf Precast Concrete |
| Shuttering | 57,329,647 | 73,611,572 | 159,954,167 | 179% | 1/ India 2/ Germany 3/ Austria 4/ China 5/ Oman | Peri Up, RMD Kwikform, SGB, S20 Timver Beams Kufmann, Zhenda |
| Concrete pumps | 124,060,559 | 125,497,877 | 135,986,359 | 10% | 1/ Germany 2/ USA 3/ France 4/ Italy 5/ Russia | Putzmeister, Sany, Schwing Stetter |
| Concrete mixer lorries | 8,648,067 | 23,815,956 | 39,004,380 | 351% | 1/ Germany 2/ China 3/ Turkey 4/ Italy 5/ Qatar | Putzmeister, Schwing Stetter, Wait Zinger |
| Machines; for agglomerating, shaping or moulding solid mineral fuels | 9,566,013 | 15,603,893 | 29,597,384 | 209% | 1/ Germany 2/ China 3/ Italy 4/ France 5/ Belgium | PFT |

Source: Comtrade.

Projects

ABU DHABI URBAN PLAN 2030

Development of the city of Abu Dhabi

49 million square metres will be built under the urban development plan of the city of Abu Dhabi. This includes the construction of residential buildings incorporating office space, federal buildings, embassies and international institutions, universities, hospitals, schools, parks and places of worship.

DEVELOPMENT OF JUMEIRAH GATE COMPLEX AT DUBAI MARINA

The contract involves the construction of two 74-floor towers, 303 m high on the Gulf coast, representing a total of 225,000 square metres.

ABU DHABI MIDFIELD TERMINAL

Creation of a 742,000 sqm building to accommodate 30 million passengers per year

The Midfield Terminal Complex is currently under construction between two runways of the Abu Dhabi International Airport. This building spanning 742,000 sqm is designed to cater to up to 30 million passengers a year and will have 65 boarding gates and 3,500 sqm of retail space. It will offer connection times of 45 minutes including baggage transfer. The terminal should also be fitted with more than 4,300 closed circuit television (CCTV) cameras. The civil engineering contract was won by TAV Construction (Turkey) and the Consolidated Contractors Company headquartered in Athens.

DUBAI METRO - ROUTE 2020

Extension of network from Red Line

The "Route 2020" plan entails the construction of a 15-km metro line spurring off from the existing Red line. This new line will also provide services to Al Maktoum International Airport. Approximately 11 km of line will be elevated, with 5 stations above ground and 2 underground.

€37.2 bn

- **Location:** Abu Dhabi
- **Contracting authority:** Abu Dhabi Urban Planning Council
- **Architects / design consultancies:** AECOM Middle East - Abu Dhabi, Mott MacDonald Limited - Abu Dhabi, Pringle Brandon Perkins + Will
- **Prime contractor:** Aecom
- **Equipment manufacturers:** Bobcat, Caterpillar, Hitachi, Hyundai, Kobelco, Liebherr, Komatsu, JCB, Volvo
- **Timescale:** works to commence in 2018, delivery in 2030

€4 bn

- **Location:** Dubai
- **Contracting authority:** Abu Dhabi-based Al-Ain Properties
- **Investor:** Emaar Properties
- **Architects / design consultancies:** Killa Design
- **Equipment manufacturers:** Caterpillar, Komatsu, Volvo Group
- **Timescale:** contractor tender

€2.6 bn

- **Location:** Abu Dhabi
- **Investor:** Abu Dhabi Tourism Development and Investment Company
- **Contracting authority:** Abu Dhabi Airports Company
- **Architects / design consultancies:** Kohn Pedersen Fox Associates (KPF), Ove Arup (United Kingdom), Naco (Netherlands) and BNP Associates (India).
- **Prime contractor:** Parsons
- **Equipment:** luggage cart management services and conveyors and supply and installation of furniture
- **Timescale:** work in progress, 2015-2019

€2.2 bn

- **Location:** Dubai
- **Contracting authority:** Roads and Transport Authority (RTA)
- **Architects / design consultancies:** Acciona (Spain), Gulermak (Turkey), UK Atkins
- **Equipment manufacturers:** Kobelco, Caterpillar, Hitachi, Komatsu, Alstom (France)
- **Timescale:** work in progress, 2015-2020

Projects

ICD COMPLEX - EXPANSION OF "ATLANTIS THE PALM"

Construction of a hotel complex and residential towers

The investment relates to the construction of hotels and residential towers 46 floors high with total surface area of 218,500 sqm. The complex will have 780 rooms and suites, 232 apartments with services, recreational, entertainment and service facilities, restaurants, luxury boutiques, a spa, a health club, private gardens, private infinity-edge pools including one 90 m long, and a beach club.

€1.3 bn

- **Location:** Dubai
- **Investors:** Government
- **Architects / design consultancies:** Sangyong Engineering & Construction Co. Ltd. and the firm Belhasa Six Construct.
- **Prime contractors:** Sybille de Margerie Design, Faithful Gould, Kohn Pedersen Fox Associates, WSP Parsons Brinckerhoff Middle East
- **Timescale:** work in progress, 2016-2018

ROAD IMPROVEMENTS IN DUBAI AND ABU DHABI

RTA invited contractors to bid for 6 road projects in mid-August 2017. Projects include a new bridge at Jebel Ali and the improvements of parallel roads and the express way at Al-Ain. Tenders are also expected for the construction of Shindagha Bridge (Burdubai, Dubai).

€733 m

- **Location:** Dubai / Abu Dhabi
- **Contracting authority:** Roads and Transport Authority
- **Prime contractor:** Parsons
- **Timescale:** 2018-2020

ALDAR YAS ISLAND ANSAM APARTMENT RESIDENCE

Construction of a new residential complex in Abu Dhabi

The project consists of the construction of an apartment residence made up of a multiple use zone, barbecue areas, swimming pools, gyms, multipurpose halls for indoor functions, shops, garden-type public space and a community mosque. Phase 2 of the project will include the construction of 1,200 residential apartments and related facilities.

€557 m

- **Location:** Abu Dhabi
- **Contracting authority:** ALDAR
- **Investor:** Government
- **Architects / design consultancies:** Benoy Limited - Abu Dhabi, Khatib & Alami - Consolidated Engineering Company).
- **Prime contractor:** EllisDon Construction Incorporated
- **Timescale:** work in progress, 2016-2018

NAKHEEL'S PALM GATEWAY

Construction of 3 towers on Palm Jumeirah

The project involves the construction of three towers (Tubular Tower, Central Tower and Beach Tower) which will take approximately three years to complete. The Tubular Tower will be 261 metres high and will have 61 floors; it will have the largest ceramic façade in the world. The Central Tower, 211 m high, will have 49 floors. Finally, the Beach Tower will have 48 floors and will rise 205 m high. The complex will include a beach club, retail space, restaurants, and health and fitness establishments.

€348 m

- **Location:** Palm Jumeirah
- **Contracting authority:** Nakheel
- **Investor:** Dubai Investments Company
- **Architects / design consultancies:** Shapoorji Pallonji (India), Trojan General Contracting (Abu Dhabi), Arabian Construction Company form Lebanon (ACC) and Multiplex (Canada)
- **Prime contractor:** Al Wasl
- **Equipment manufacturers:** Peri Up, SGB, RMD Kwikform, S20 Timber Beams Kufmann, Zhenda
- **Timescale:** 2018-2020

Projects

CONSTRUCTION OF SHEIKH ZAYED ROAD, SHEIKH MOHAMMED BIN ZAYED ROAD AND EMIRATES ROAD

Construction of roads in municipality of Dubai

Al Yalays Road is a 6-km road starting from the 7th bridge of Sheikh Zayed Road. The RTA will also build Al Asayel Road, 5km in length, which will run from the seventh bridge to Jafza, the Jumeirah islands and Emirates Hills. The total cost of the 2 roads amounts to approximately €197.5 m.

€200 m

- **Location:** Dubai
- **Contracting authority:** Roads and Transport Authority
- **Investor:** Dubai Investments Company
- **Architects / design consultancies (invited to tender):** Al Naboodah Contracting, Belhasa Six Construct, China State Construction Engineering, Larsen & Toubro, Wade Adams.
- **Prime contractor:** Aecom
- **Equipment manufacturers:** Herrenknecht, Wirth GmbH
- **Timescale:** 2018-2020

UNITED KINGDOM

Since the vote in favour of Brexit, the British economy has so far proven all the predictions wrong. The country has one of the highest growth rates in the G7 together with robust consumption, and its unemployment is at a historical low (4.8%) The Bank of England has even predicted growth of 2% in 2017 and 1.6% in 2018 (low estimate: 1.4% - Trading Economics). The United Kingdom is furthermore committing substantial investment to infrastructure. The major projects in rail (high speed lines), energy (Hinkley Point) and property (Greater London) are generating substantial needs for specialist machinery. British imports of construction equipment are constantly on the increase and focus mainly on lifting, roads and the foundations industry.



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MACROECONOMIC AND TRADE DATA*

GDP €2,062 bn

Per capita GDP €31,425

Debt/GDP 89.7%

1.4% Growth rate
Forecast for 2017-2018

Gross fixed capital formation 17%



Balance of trade
-€202.5 bn

Trade ranking
9th

Ranked 7th Business-friendly nation

Country risk A3

Main clients
USA
Germany
Switzerland



Main suppliers
Germany
China
USA

CONSTRUCTION EQUIPMENT: MAIN TRADE FLOWS*



IMPORTS

BY EXPERTISE HUB:

- Earthmoving and demolition: 11%
- Lifting, handling and transportation: 38%
- Roads, minerals and foundations: 37%
- Buildings and concrete sector: 14%

MAIN IMPORTS

- Track-laying excavators: €718 m
- Road tractors for semi-trailers: €584 m
- Non-electric propelled telehandlers: €410 m

MAIN SUPPLIER COUNTRIES

- Germany: 22%
- Netherlands: 10%
- Belgium: 8%



EXPORTS

BY EXPERTISE HUB:

- Earthmoving and demolition: 28%
- Lifting, handling and transportation: 24%
- Roads, minerals and foundations: 45%
- Buildings and concrete sector: 3%

MAIN EXPORTS

- Wheeled excavators: €999 m
- Dumpers: €833 m
- Non-electric propelled telehandlers: €780 m

MAIN COUNTRIES OF DESTINATION

- USA: 25%
- Germany: 7%
- Ireland: 5%

Market potential

SECTORS

DEVELOPMENT LEVERS FOR SECTOR

MASTER PLANS

LEVEL OF INNOVATION & OTHER MAJOR ISSUES



Roads

- Upgrading, lane widening and modernisation works on main roads (A-roads).
- Devolution of responsibilities to local authorities: infrastructure development programmes, in particular on roads, in the north of England (Northern Powerhouse) and in the Midlands (Midlands Engine).
- Creation of a roads fund using revenue from excise duty to guarantee long-term financing.
- A €175.5 m innovation and research fund aiming to improve the use of innovative road safety and traffic regulation technology.

National plan
€14.5 bn
up to 2020

- ★ Smart motorways to deal with traffic congestion; real-time traffic management
- ★ Intelligent transport systems to enable communications between a connected or autonomous vehicle and road infrastructure: already in use on some road sections
- ★ Development of intelligent variable speed limit systems



Airports

- Projects to extend the major airports (Heathrow, Gatwick, Manchester) whose infrastructure does not allow for increases in capacity. Creation of a third runway at Heathrow and/or a second runway at Gatwick.
- Implementation of an Airports National Policy Statement to improve access to airports (road and rail in particular) whilst limiting the environmental footprint. Specific financial aid from the government to remain among the world's best-connected countries (third worldwide network behind USA and China).

National airport
(and port) plan
€6.2 bn
up to 2020

- ★ Development of noise abatement technology
- ★ Modernisation and digitalisation of new check-in and boarding areas.



Ports

- Increase in capacity of some ports and harbours through the construction of new quays, such as in London Gateway port.
- Modernisation of existing infrastructure
- Projects to develop new marinas to promote tourism, currently under examination
- Development of rail and road infrastructure to facilitate access to ports.
- Deployment of offshore wind turbines (e.g. near Great Yarmouth)

National airport
(and port) plan
€6.2 bn
up to 2020

- ★ Deployment of new-generation quay cranes (e.g. London Gateway, 138 m high)
- ★ Limitation of environmental impact of port infrastructure and improvement in water quality through dredging operations
- ★ Optimisation of safety and surveillance systems.



Mines and quarries

- Deployment of a national mining strategy to meet the current challenges: a drop in domestic production and a substantial increase in imports
- Development of rail and road infrastructure and modernisation of port and rail terminals for transfer of aggregates.

No consolidated data

- ★ Limitation of environmental footprint of the sector's activity
- ★ Rehabilitation of disused land



Engineering structures

- Environmentally-friendly construction methods (number of sites reduced from 45 to 24)
- London Tideway (sewer): €5 bn
- Queensferry Crossing (bridge): €1.6 bn

€6.6 bn

- ★ Use of highly specialist and environmentally friendly materials and equipment
- ★ Off-site and modular construction methods

TOP 3
high-potential sectors

1/Nuclear 2/Railways 3/Buildings

SECTORS

DEVELOPMENT LEVERS FOR SECTOR

MASTER PLANS

LEVEL OF INNOVATION & OTHER MAJOR ISSUES



- Construction of conventional lines (Crossrail 2) and high-speed lines (Highspeed 2, Highspeed 3)
- Line electrification; 11% of existing lines will be electrified under a €4.7 bn programme. On completion, more than 50% of lines will be electrified.
- Regional devolution as part of local development programmes (Northern Powerhouse, Midlands Engine)

National plan (public investment)
€53 bn up to 2020

- Improved signalling system
- Deployment of Wi-Fi in stations and on trains
- Improvement in ticketing systems (Internet and mobile)
- Line modifications for high-speed trains
- Innovation in reducing noise caused by rail services.



- Road infrastructure to develop new building sites
- Construction of 400,000 new dwellings
- Creation of 600,000 jobs in the sector
- Detention centres, schools and healthcare facilities are the government's three priorities.
- Necessity for increased competition and better integrated supply chain.

Investment in new-build housing
€23.4 bn up to 2018

- BIM (Building Information Modeling)
- Adoption of modern construction methods (off-site and modular)
- Digitalisation of schools
- Modernisation of security processes in prisons



- Programme to regenerate British nuclear facilities including:
 - Hinkley Point C: EDF Energy builds a nuclear power plan (2 reactors) in Somerset (south west of England). The project cost is estimated at €21 bn.
 - Nugeneration - Moorside: the Toshiba-Engie joint venture plans to build a nuclear power station (3 reactors) in Cumbria (north west of England) at a cost of €16.5 bn.
 - Horizon - Wylfa Newydd and Oldbury: Hitachi plans to build two new nuclear plants - cost not yet disclosed.

New nuclear power plant projects
€60 bn up to 2025
Decommissioning programme
€3.5 bn every year

- Priority given over to the renaissance of civil nuclear power, as part of the national energy mix.
- High ambition of country in the development of small modular reactors (SMR)
- Objective of training a qualified workforce to become a major industry player internationally
- Development of deep underground solutions for radioactive waste storage and disposal.

TOP 5

requirements for construction equipment and materials

- Multidirectional scaffolding
- Mast-climbing work platforms
- Material lifts
- Cranes
- Wood and prefabricated wooden panels

Main imports of construction equipment

| | TOTAL IMPORTS (IN EUR) | | | | | |
|--|------------------------|-------------|-------------|---------------------|--|---|
| | 2012 | 2014 | 2015 | Change 2012-2015 | Top 5 exporting countries | Brands sold |
| Earthmoving & demolition | | | | | | |
| Boring and sinking machinery parts | 353,821,831 | 278,441,825 | 255,481,974 | -27.79% | 1/ USA 2/ United Kingdom 3/ Norway 4/ Germany 5/ Italy | Auger Torque, Bauer, Casagrande, Boart Longyear, Comacchio, Fraste, GP, Herrenknecht AG, Klemm, Liebherr, Monark AS, NFM Technologies, Sandvik, Soilmec |
| Buckets, shovels, grabs and grips for machines | 69,984,565 | 83,285,222 | 109,215,423 | 56.06% | 1/ Sweden 2/ Germany 3/ Belgium 4/ China 5/ Hungary | Arden Equipment, Bobcat, Brokk, Heppenstall, Kinshofer, MDB Technology, Palfinger, Sennebogen, Secatol, Stemm |
| Derricks and self-propelled cranes | 38,454,146 | 44,381,548 | 72,839,533 | 89.42% | 1/ China 2/ Germany 3/ Austria 4/ Japan 5/ Thailand | Cargotec, Hitachi, Hitachi Sumitomo, Jekko, Kato, Kobelco, Komatsu, Konecranes, Liebherr, Link-Belt, Manitowoc, Mammoet, Mantis, Palfinger, Sennebogen, Tadano, Terex, Zoomlion |
| Earth-boring tools | 45,843,042 | 44,263,820 | 51,482,131 | 12.30% | 1/ USA 2/ China 3/ Germany 4/ Norway 5/ France | Atlas Copco, Sollroc, Monark AS, Robit, Prodrill, Geax, Sandvik, |
| Wheeled excavators | 88,322,662 | 96,024,504 | 48,177,718 | -45.45% | 1/ Japan 2/ Germany 3/ USA 4/ Finland 5/ Austria | Atlas, Case, Caterpillar, Doosan, Hitachi, Hyundai, Komatsu, Liebherr, Terex, Takeuchi, Volvo |
| Lifting, handling and transportation | | | | | | |
| Road tractors for semi-trailers | 344,668,858 | 293,969,314 | 583,489,076 | 69.29% | 1/ Belgium 2/ Netherlands 3/ Sweden 4/ France 5/ Poland | DAF, Iveco, MAN, Mercedes-Benz,, Renault, Scania, Volvo |
| Non-electric propelled fork lift and works trucks (all sectors) | 272,256,509 | 368,680,389 | 410,826,183 | 50.90% | 1/ France 2/ Germany 3/ Ireland 4/ Netherlands 5/ South Korea | Caterpillar, Cesab, Hyster, Jungheinrich, Lndia, Magni, Manitou, Mitsubishi, Nissan, Still, Toyota, Yale |
| Electric propelled fork lift and works trucks (all sectors) | 255,290,341 | 367,074,316 | 398,705,398 | 56.18% | 1/ Germany 2/ Sweden 3/ Italy 4/ Netherlands 5/ Ireland | Bendi, Lndia, Hyster, Still, Toyota, Yale |
| Lifts and skip hoists | 165,233,939 | 178,052,996 | 211,095,620 | 27.76% | 1/ Netherlands 2/ Italy 3/ Germany 4/ USA 5/ Finland | Daldoss, Dingli Machinery, Elex, Haulotte Holland Lift, Kone Thyssenkrupp, Kleemann, Orona, Otis, PB Liftechnik, Schindler, Skyjack, Tüv Süd |
| Cranes mounted on road vehicles | 79,817,563 | 117,712,561 | 162,489,872 | 103.58% | 1/ Austria 2/ Italy 3/ Netherlands 4/ Belgium 5/ Poland | Amco, Copma, Cormach Veba, Fassi, HIAB, Link-Belt Palfinger, PM, Terex |
| Roads, minerals and foundations | | | | | | |
| Track-laying excavators | 475,314,904 | 699,510,744 | 718,292,631 | 51.12% | 1/ Japan 2/ Netherlands 3/ Belgium 4/ France 5/ Germany | Case, Caterpillar, Daewoo, Fuchs, Hitachi, Hyundai, Komatsu, Kobelco, Kubota, Liebherr, LuiGong, Takeuchi, Volvo |
| Front-end shovel loaders | 159,485,758 | 227,058,067 | 322,508,115 | 102.22% | 1/ South Korea 2/ Sweden 3/ Belgium 4/ Japan 5/ Germany | Case, Caterpillar, Daewoo, Doosan, Hitachi, Hyundai, Kramer-Allrad, Komatsu, Kubota, Liebherr, Volvo |
| Crane lorries | 84,775,042 | 192,404,952 | 202,137,814 | 138.44% | 1/ Germany 2/ Italy 3/ France 4/ Netherlands 5/ Australia | DAF, Hino, Iveco, MAN, Mercedes-Benz, Mitsubishi, Renault, Scania, Terex, Volvo |
| Dumpers | 121,393,957 | 139,462,148 | 196,852,112 | 62.16% | 1/ Sweden 2/ Germany 3/ USA 4/ Netherlands 5/ Austria | Caterpillar, Doosan, Komatsu, Neuson, Terex Volvo |
| Asphalt spreaders and levellers | 43,187,814 | 93,793,444 | 81,557,008 | 88.84% | 1/ Germany 2/ USA 3/ Italy 4/ Switzerland 5/ Spain | Ammann, Atlas, Bomag, Caterpillar, Volvo, Wirtgen |
| Buildings and concrete sector | | | | | | |
| Shuttering | 108,348,460 | 232,486,407 | 238,404,567 | 120.04% | 1/ China 2/ Germany 3/ Sweden 4/United Arab Emirates 5/ India | Altrad, Doka, Qingdao Hilong Machinery Co. Ltd, SGB, Werner Co |
| Bars and rods for reinforced concrete | 123,302,955 | 227,062,252 | 219,272,846 | 77.83% | 1/ China 2/ Portugal 3/ Spain 4/ Ireland 5/ Belarus | BRC Reinforcement, ROM |
| Laser metal cutting machines | 59,082,639 | 84,317,170 | 103,394,083 | 75.00% | 1/ Germany 2/ Italy 3/ France 4/ USA 5/ Austria | Amada, Bystronic, Claind, Lissmac, LVD, Trumpf Gmbh |
| Sawing of cutting-off machines | 26,522,844 | 21,774,553 | 29,578,617 | 11.52% | 1/ Italy 2/ Spain 3/ China 4/ Germany 5/ Taiwan | Altech, Bauer, Danobat, Geka, MEGA machina Co, Reimu, TCI Cutting, Waytrain |
| Concrete mixer lorries | 11,458,378 | 20,374,065 | 26,947,182 | 135.17% | 1/ Germany 2/ China 3/ Canada 4/ USA 5/ Turkey | Bay-Lynx, Carmix, Holcombe Mixers, Hydromix, Putzmeister, Sami, Semix, Sermac, Schwing Stetter, Silla, Terex |

Source: Comtrade.

Projects

HS2 LINE

Construction of new high-speed line HS2 between London and Manchester

HS2 is a high-speed line project in several phases. The first phase takes the line from London to Birmingham. The second phase plans for two lines from Birmingham: one to Manchester and the other to Leeds via Sheffield. This project is a major challenge for the country, which is lagging behind its European neighbours in the area of high-speed rail.

CROSSRAIL 2 LINE

Construction of a new railway line to alleviate congestion in London

Crossrail (the Elizabeth Line) is now 80% finished, and Transport for London and Network Rail, the rail network owner, are now studying the Crossrail 2 project, a new railway line crossing London from north to south. The British government is investing €93.5 m in the project.

HINKLEY POINT C NUCLEAR POWER PLANT

Construction of a nuclear power station in Somerset

This project consists of the construction of a nuclear power plant on the site of Hinkley Point (county of Somerset). It will house two EPR reactors (2 x 1.6Gwe). EDF Energy is also planning the construction of two EPR reactors at Sizewell on the east coast of England. This project contributes to the British national energy mix diversification policy.

EXTENSION OF HEATHROW AIRPORT

Construction of a third runway

The construction of the third runway at Heathrow International Airport has been approved by the British government. It is nonetheless subject to a final vote by MPs, which has just been postponed by the Prime Minister to autumn 2018. With 75 million passengers per year, Heathrow is Europe's leading airport, ahead of Paris-CDG (65 million and 4 runways). It currently operates at 99% of its capacity.

€65.8 bn

- **Financing:** mixed
- **Location:** London to Manchester and Leeds
- **Investors:** Participation of China Development Bank, approved by Parliament
- **Prime contractor:** China CSR and CNR (2 large Chinese high-speed rail rolling stock manufacturers)
- **Timescale:** Phase 1: 2017 for delivery in 2026. Phase 2: delivery in 2033.

€31.5 bn

- **Location:** London

€21 bn

- **Financing:** mixed
- **Location:** Somerset
- **Contracting authority:** EDF Energy NNB
- **Investors:** EDF Energy / China General Nuclear Power Group
- **Technological system:** Areva, Alstom/GE
- **Civil engineering:** Bouygues, Laing O'Rourke, Kier Barn, Costain
- **Mechanical and electrical installations:** Cavendish Boccard, Balfour Beatty, NG Bailey
- **Equipment manufacturers:** Komatsu, Volvo, Hyundai, Wirtgen, Caterpillar
- **Timescale:** work in progress, 2016-2023.

€20 bn

- **Contracting authority:** Heathrow Airport Ltd
- **Architect / design consultancy:** Grimshaw Architects, Mace, Turner & Townsend, CH2 M and Aru NC
- **Prime contractor:** Amec Foster, Wheeler, Arup, Atkins, Grimshaw, Mott MacDonald, Jacobs and Quod
- **Timescale:** works due to commence in 2020, delivery scheduled for 2026.

Projects

BATTERSEA POWER STATION

Reconversion of the former Battersea coal-fired power station

Located in the south west of London, the Battersea Power Station area will be converted to housing and shops. This zone will have 116,000 sqm of office space, 73,000 sqm of public space, 4,353 new dwellings, 40 cafés and restaurants and 250 shops.

QUEENSFERRY CROSSING

Construction of a cable-stayed road bridge in Scotland

This cable-stayed road bridge is being built in Scotland, and is due to open to traffic at the end of 2017. The bridge, built next to the Forth Road Bridge, crosses the Firth of Forth and will connect Edinburgh (via South Queensferry) with Fife (via North Queensferry).

THAMES TIDEWAY

Construction of two tunnel sections

The Thames Tideway Tunnel was initiated to deal with the problem of non-treated wastewater (and run-off rainwater) overflowing directly into the Thames. The East package is one of three making up the project, which will stretch 25 km overall. Two sections of tunnel will be built in the east of London: a main tunnel running 5.5 km and a second running 4.6 km. Bored at depths of 45 to 65m underground, the tunnels will be excavated using slurry shield tunnel boring machines.

€10 bn

- **Financing:** private
- **Location:** London
- **Contracting authority:** Battersea Power Station Development Company Limited
- **Investors:** S P Setia Berhad, Sime Darby, Employees Provident Fund
- **Architect / design consultancy:** Rafael Viñoly, Foster + Partners and Frank Gehry
- **Prime contractor:** Mace (Phase 1), Skanska (Phase 2)
- **Equipment manufacturers:** NFM, Casagrande, Magni, Bauer, Liebherr
- **Timescale:** 2013-2025.

€1.6 bn

- **Financing:** public
- **Location:** Lothian and Fife, Scotland
- **Contracting authority:** Forth Crossing Bridge Constructors (Dragados, Hochtief, American Bridge and Morrison Construction)
- **Investors:** Transport for Scotland (Scottish government)
- **Architect / design consultancy:** Jacobs Arup Joint Venture, Grontmij, Gifford, Ramboll and Leonhardt Andra and Partners
- **Prime contractor:** FCBC
- **Equipment manufacturers:** Liebherr, Kubota, Putzmeister, Doka
- **Timescale:** work in progress, 2011-2017.

€858 m

- **Financing:** Bazalgette Tunnel Limited
- **Location:** East London
- **Contracting authority:** Bazalgette Tunnel Limited
- **Investors:** Allianz, Amber Infrastructure, Dalmore Capital et DIF
- **Prime contractor:** VINCI Constructions Grands Projets, Bachy Soletanche Ltd, Costain
- **Equipment manufacturers:** Robbins, Liebherr, Hitachi, Caterpillar
- **Timescale:** works commenced in 2016-2017. Delivery planned for 2023.

Projects

BISHOPSGATE

Construction of a 180-m tower at the heart of the City of London

This 40-floor tower with 73,000 sqm of space will accommodate offices and a large amount of retail space. Its façade will be entirely glazed. The project also plans for the construction of two adjacent 6- and 7-storey buildings which will hold restaurants and office space. The Multiplex group is currently developing ten projects in London.

€803 m

- **Financing:** private
- **Location:** London
- **Contracting authority:** The 100 Bishopsgate Partnership
- **Investors:** Staff - Axa Investments Managers Real Assets & Morrison and Arney Fender Katsalidis
- **Architect / design consultancy:** PLP Architecture, Allies & Morrison and Arney Fender Katsalidis
- **Prime contractor:** Brookfield Multiplex Construction Europe Limited, Keltbray
- **Equipment manufacturers:** Kobelco, Terex, Liebherr, Caterpillar, Bauer, Doosan
- **Timescale:** delivery expected in 2019.

ABERDEEN HARBOUR EXPANSION

The port of Aberdeen is currently being extended. The aim is to attract new clients and enable its current users to diversify their interests. 1,400 metres of quay are being built. The project will give a significant boost to the local economy.

€412.7 m

- **Financing:** public, European funds
- **Location:** Scotland
- **Contracting authority:** Dragados UK Ltd
- **Investors:** Scottish government - Aberdeen City & Region Deal / European Investment Bank
- **Prime contractor:** Aberdeen Harbour
- **Timescale:** delivery scheduled for 2020.

SMART MOTORWAY

Conversion of a section of motorway

This is the first contract under the Smart Motorway project worth a total of €803 m. Approximately 18 km of the three-lane M5 motorway have been converted to four lanes thanks to the smart use of the hard shoulder. The project employs active traffic management according to traffic density, using ground sensors which transmit data to a control centre. This section commenced operations in May 2017.

€65 m

- **Financing:** public
- **Location:** Section of M5 motorway south west of Birmingham
- **Investors:** Highways England
- **Prime contractor:** Vinci Construction Grands Projets, Taylor Woodrow and Balfour Beatty
- **Equipment manufacturers:** Liebherr, Volvo
- **Timescale:** project on M6 motorway currently under examination. Works to commence in 2017-2018 depending on results from M5.

Reporting scope of the Observatory: customs codes

Earthmoving and demolition

| | |
|---|--------|
| Track-laying excavators | 842952 |
| Crushing and grinding machines | 847420 |
| Mechanical shovels, excavators and shovel loaders | 842951 |
| Demolition equipment | 820330 |
| Sawing or cutting-off machines | 846150 |
| | 820713 |
| Earth-boring tools | 820719 |
| | 842649 |
| Derricks, Self-propelled cranes | 842930 |
| Self-propelled scrapers | 843050 |
| | 843069 |
| Earth-handling machines | |
| Buckets, shovels, grabs and grips | 843141 |
| Bulldozer blades | 843142 |
| Bulldozers | 870130 |
| Boring or sinking machinery parts | 843143 |
| Wheeled excavators | 842959 |

Roads, minerals and foundations

| | |
|---|--------|
| Tamping and compacting machines | 842940 |
| Screening machines | 847410 |
| Dumpers | 870410 |
| Graders and levellers | 842920 |
| Front-end shovel loaders | 842951 |
| | 843020 |
| Winter maintenance equipment, asphalt spreaders | 847910 |
| Crushing and grinding machines | 847420 |
| Mowers and brush cutters | 843320 |
| Asphalt mix plants | 847432 |
| | 842911 |
| Bulldozers and angle dozers | 842919 |
| | 842952 |
| Track-laying excavators | 843010 |
| Pile-drivers | 843041 |
| | 843049 |
| Boring or sinking machines | 842820 |
| | 842832 |
| Elevators and conveyors, pneumatic, for goods or materials | |
| Elevators and conveyors; continuous-action, for goods or materials, bucket type | 842833 |
| Elevators and conveyors; continuous-action, for goods or materials, belt type | |
| Elevators and conveyors; continuous-action, for goods and materials, specially designed for underground use | 843031 |
| Crane lorries | 870510 |

Lifting, handling and transportation

| | |
|--|--------|
| Tower cranes | 842620 |
| Cranes and derricks designed for mounting on road vehicles | 842691 |
| | |
| Tractors, road, for semi-trailers | 870120 |
| Other self-propelled derricks and cranes | 842641 |
| Lifts and skip hoists | 842810 |
| | 842820 |
| Elevators and conveyors | 842839 |
| | 842511 |
| Electric pulley hoists | 842519 |
| Manual Pulley hoists | |
| Electric winches | 842531 |
| Manual winches | 842539 |
| Non-electric-propelled fork lift and works trucks | 842720 |
| Electric-propelled fork lift and works trucks | 842710 |
| Manually-operated Fork lift and works trucks | 842790 |
| Portal or pedestal jib cranes | 842630 |
| Cable derricks and cranes | 842699 |

Buildings and concrete sector

| | |
|---|--------|
| Concrete plants | 846490 |
| Sawing or cutting-off machines | 846410 |
| | 847431 |
| Concrete mixer lorries | 870540 |
| | 841340 |
| Concrete pumps | 870590 |
| | 848060 |
| Moulds for pre-cast concrete | 845690 |
| Water jet metal cutting machines | 845610 |
| Laser metal cutting machines | 846150 |
| Metal cutting machines | 441840 |
| | 730840 |
| Shuttering | 730840 |
| Scaffolding | 847480 |
| Machines; for agglomerating, shaping or moulding solid mineral fuels (ceramic paste, unhardened cements, plastering materials in powder or paste form), machines for forming foundry moulds of sand | |
| Bars and rods for reinforced concrete | 721310 |
| | 721420 |
| Grinding, sanding or polishing machines, for working wood, hard plastic materials, etc. | 846420 |
| Grinding machines | 846420 |

Notes

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Notes



S.E. INTERMAT brings together trade organisations from the construction and import sectors:

- **CISMA**, Association of Equipment Manufacturers for Construction, Infrastructure, Steel and Handling Equipment Industries
- **SEIMAT**, Association of International Civil Engineering, Mining, Construction and Hoisting Equipment industries
- **COMEXPOSIUM**, the leading European event organiser.



The **COMEXPOSIUM** Group, one of the world's leading event organisers, is involved in more than 170 B2C and B2B events across 11 different sectors, including food, agriculture, fashion, security, digital, construction, high-tech, optics and transport. Comexposium hosts more than 3 million visitors and 45,000 exhibitors in 26 countries around the world. Comexposium operates across 30+ global economic growth zones, such as: Algeria, Argentina, Australia, Belgium, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Korea, Monaco, Netherlands, New Zealand, Philippines, Qatar, Russia, Singapore, Spain, Thailand, Turkey, UAE, UK, USA.

