

THE ARAB CONTRACTORS (OSMAN AHMED OSMAN & CO)

Covid-19 Response Report

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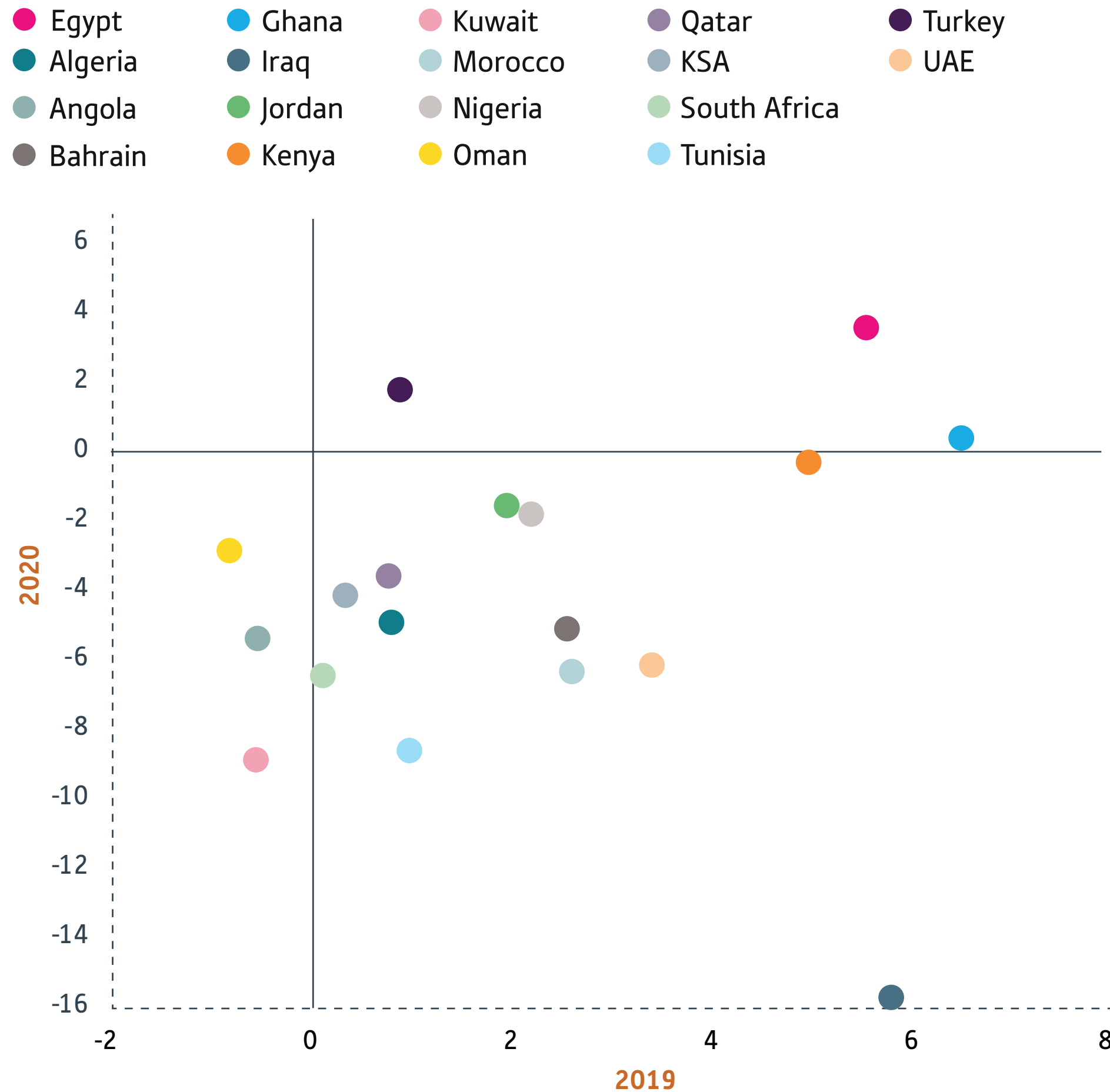
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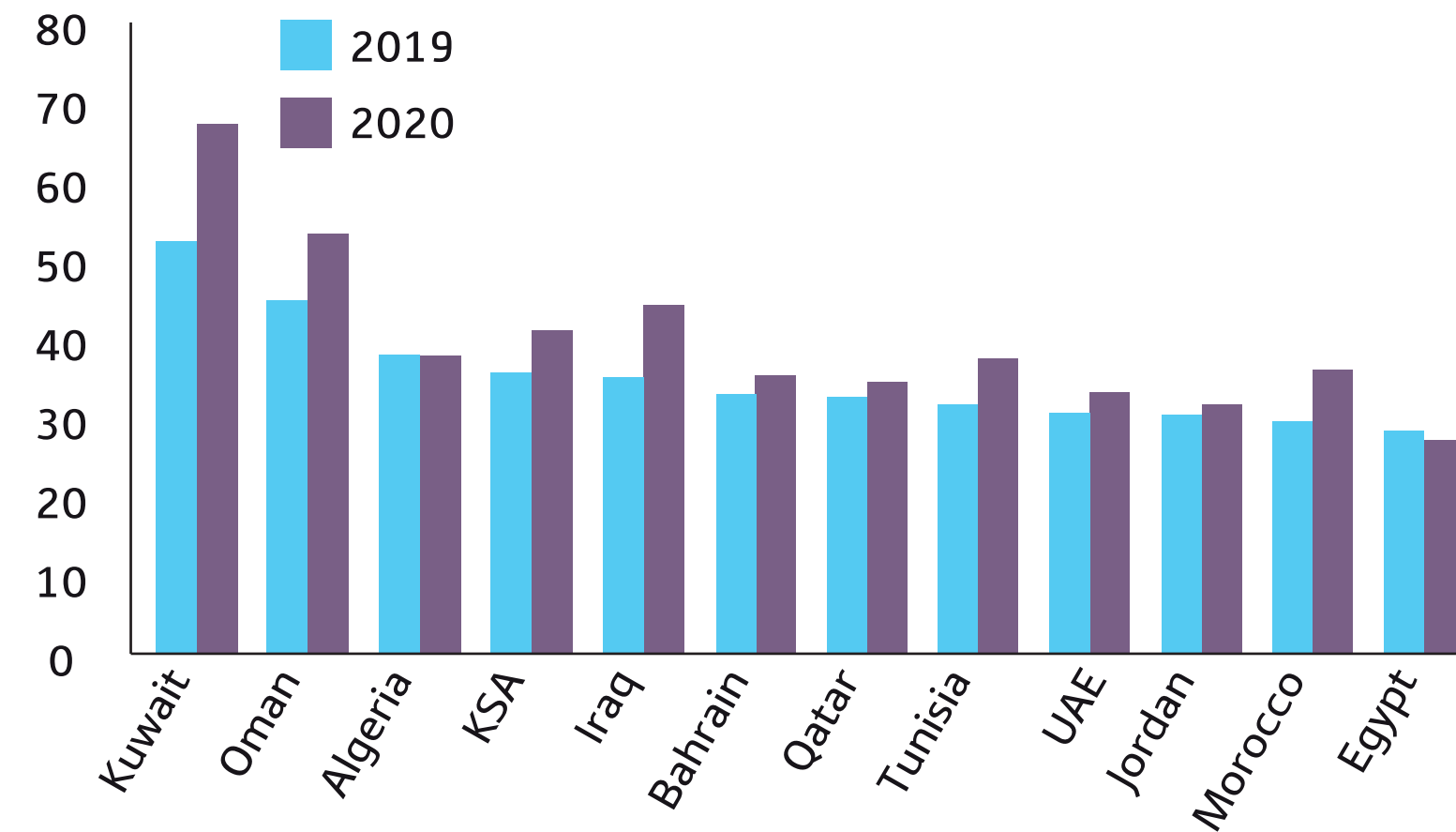


Economic reforms and population growth drove construction activity and economic expansion pre-pandemic

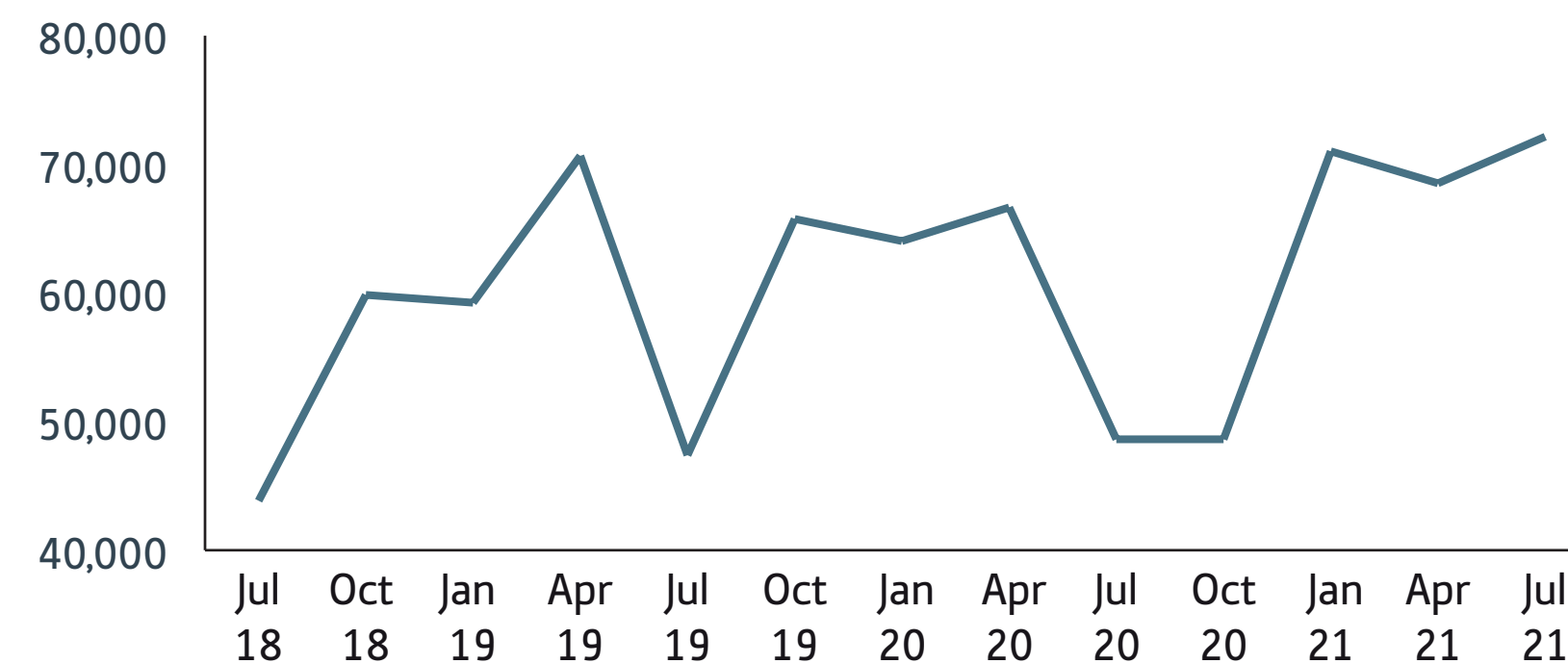
Egypt's economic growth compared with other markets in Africa and the Middle East (% change)



Egyptian government expenditure compared to other markets in MENA (% of GDP)



Total economic output contributed by Egypt's construction sector (LE m)

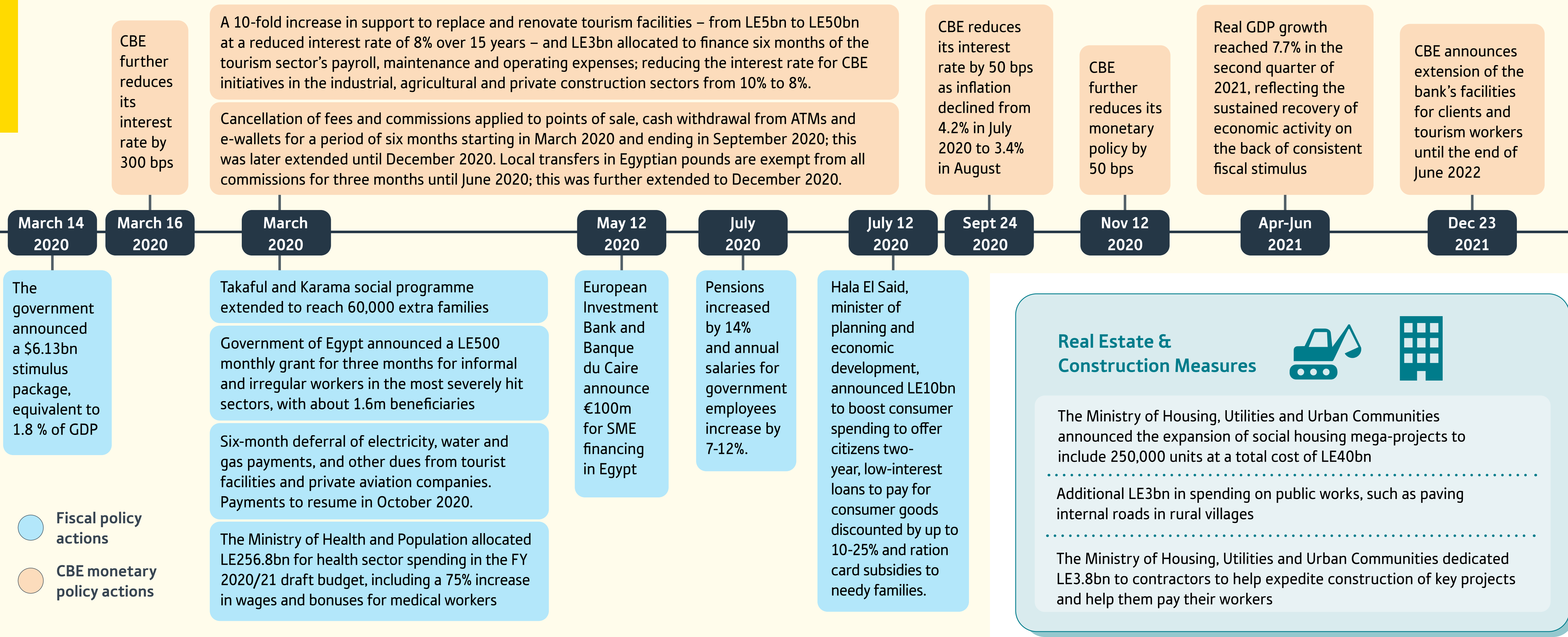


Dynamic pre-pandemic growth

Before the pandemic Egypt's broad-based structural reforms placed the country in good stead to weather the external economic shock from Covid-19. As such, Egypt's reduced government spending provided additional flexibility to introduce robust economic packages to counter the fall in economic activity during the early months of the crisis. This, in combination with healthy economic growth previously, resulted in Egypt being one of the few countries globally to post positive GDP growth in 2020. Owing to its fast-paced population growth, much of the economic expansion was linked to construction projects, particularly those related to the expansion of water, energy, transport and urban infrastructure.

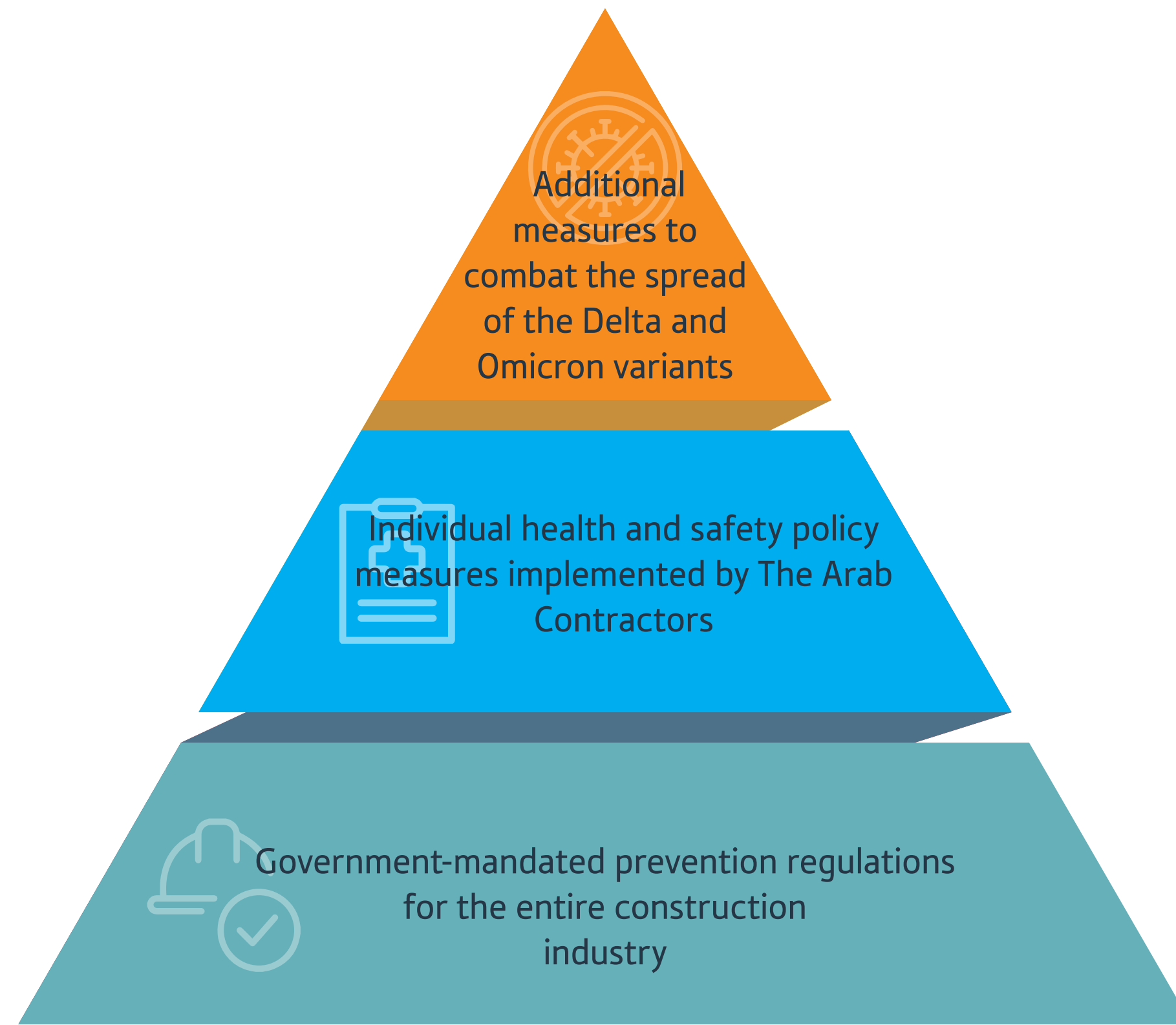


Substantial fiscal and monetary policies were implemented by the Egyptian government in response to the pandemic

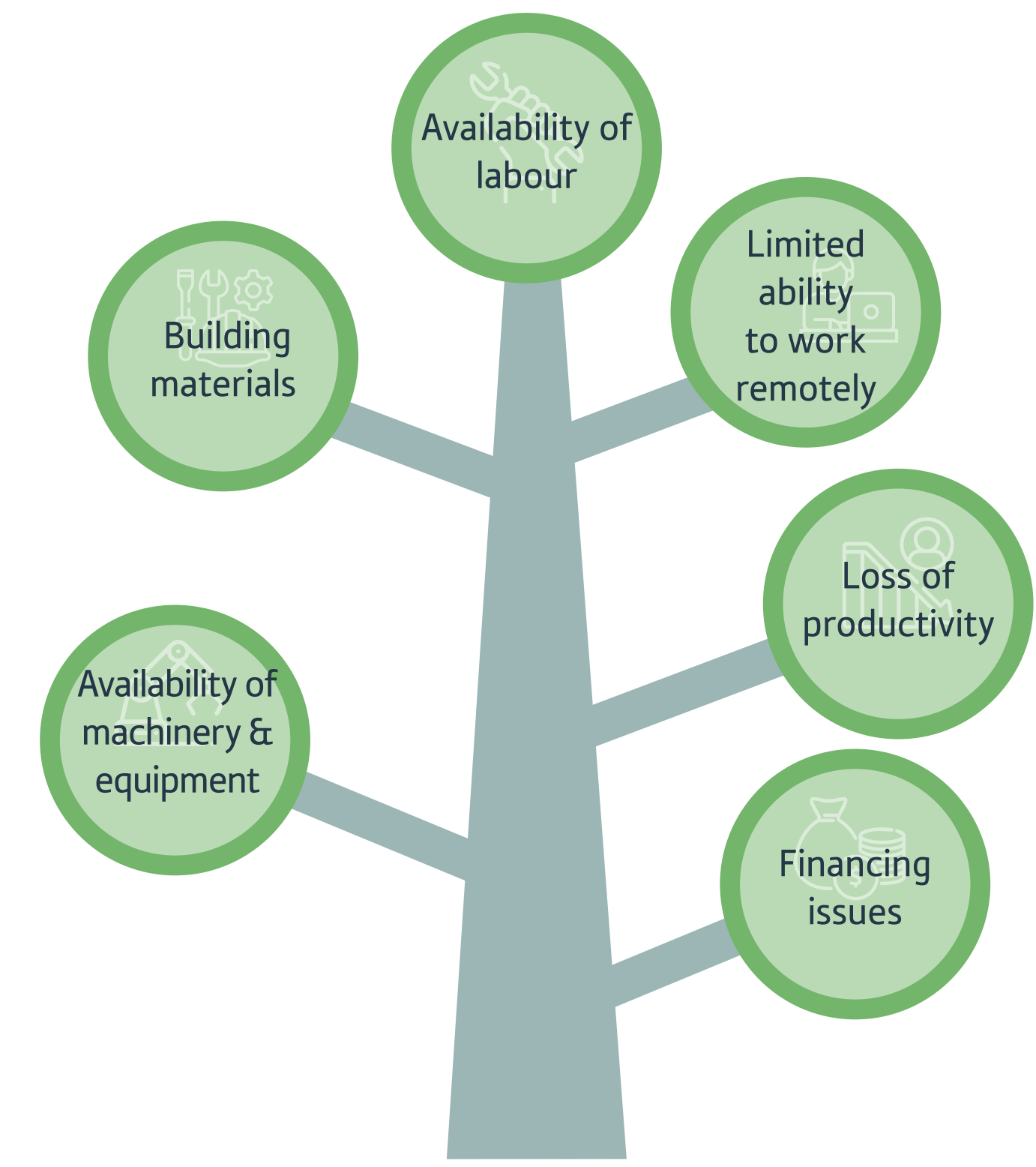


CASE STUDY: How the construction sector responded to the pandemic

Pyramid of Covid-19 prevention measures



Immediate challenges for the construction sector to overcome



Key Guidelines devised by The Arab Contractors

Maintaining physical social distancing in the workplace

Limitations of the number of employees transported

Extra personnel protective equipment so that staff are adequately protected

Efficient but rigorous temperature taking of employees on site



Strong economic foundations have galvanised infrastructure development across numerous sectors

CONSTRUCTION

- Continued growth momentum: 6.6% CAGR forecast for 2021-25
- Construction output expected to reach \$44.34bn by 2025

RENEWABLE ENERGY

- The government plans to increase the share of sustainable power in the nation's total energy from 3% in 2016 to 20% in 2022 and 42% by 2035
- Renewable power capacity in Egypt is expected to increase from 3.51 GW in 2020 to 13.7 GW in 2030

ELECTRICITY

- Egyptian government's total investment target for the electricity sector in the plan for the year 2021/22 is an estimated LE43bn
- Main projects include the electrical feeding project for the East Al Owainat region, electrical feeding project for land reclamation projects in the Toshka area, and the project to complete electricity connection to neighbouring Sudan



ENERGY

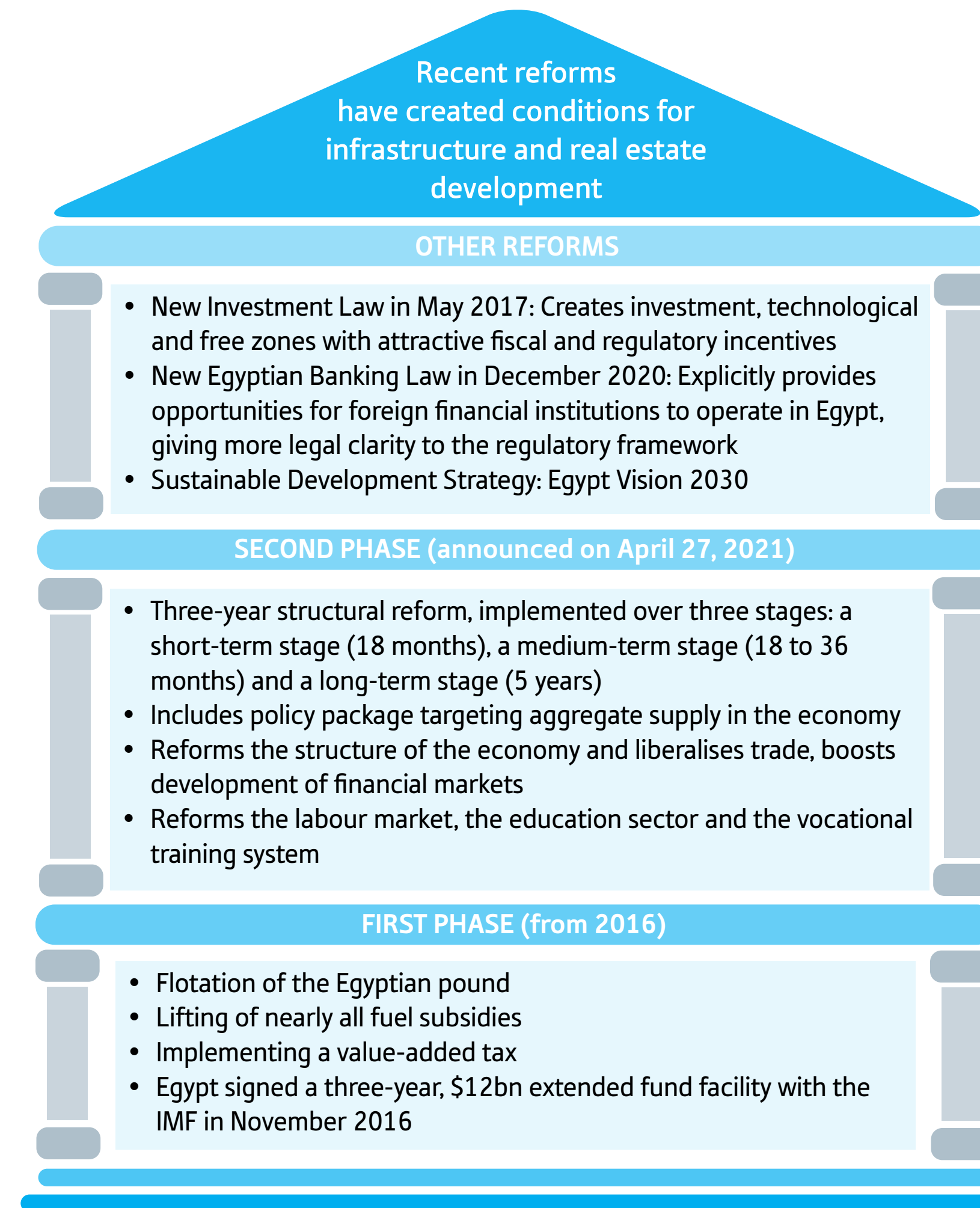
- Egyptian government to invest LE65.3bn in petroleum sector in FY 2021/22
- LE48.7bn for extraction activities (75% of total), and EGP16.6bn for petroleum refining activities (25% of total).

WATER

- \$50bn investment in water conservation that extends until 2050 and may climb to \$100bn
- 19 new desalination facilities to come on-line by 2022, worth a combined LE11bn and with total production of 550,000 cu metres per day

TRANSPORT

- Around 30,000 km of new and developed roads will be completed by the end of 2024
- The first, 460-km phase of Egypt's \$23bn, 1000-km high-speed rail network is being built, connecting Cairo with Ain Sokhna on the Red Sea



Recent reforms have created conditions for infrastructure and real estate development

OTHER REFORMS

- New Investment Law in May 2017: Creates investment, technological and free zones with attractive fiscal and regulatory incentives
- New Egyptian Banking Law in December 2020: Explicitly provides opportunities for foreign financial institutions to operate in Egypt, giving more legal clarity to the regulatory framework
- Sustainable Development Strategy: Egypt Vision 2030

SECOND PHASE (announced on April 27, 2021)

- Three-year structural reform, implemented over three stages: a short-term stage (18 months), a medium-term stage (18 to 36 months) and a long-term stage (5 years)
- Includes policy package targeting aggregate supply in the economy
- Reforms the structure of the economy and liberalises trade, boosts development of financial markets
- Reforms the labour market, the education sector and the vocational training system

FIRST PHASE (from 2016)

- Flotation of the Egyptian pound
- Lifting of nearly all fuel subsidies
- Implementing a value-added tax
- Egypt signed a three-year, \$12bn extended fund facility with the IMF in November 2016

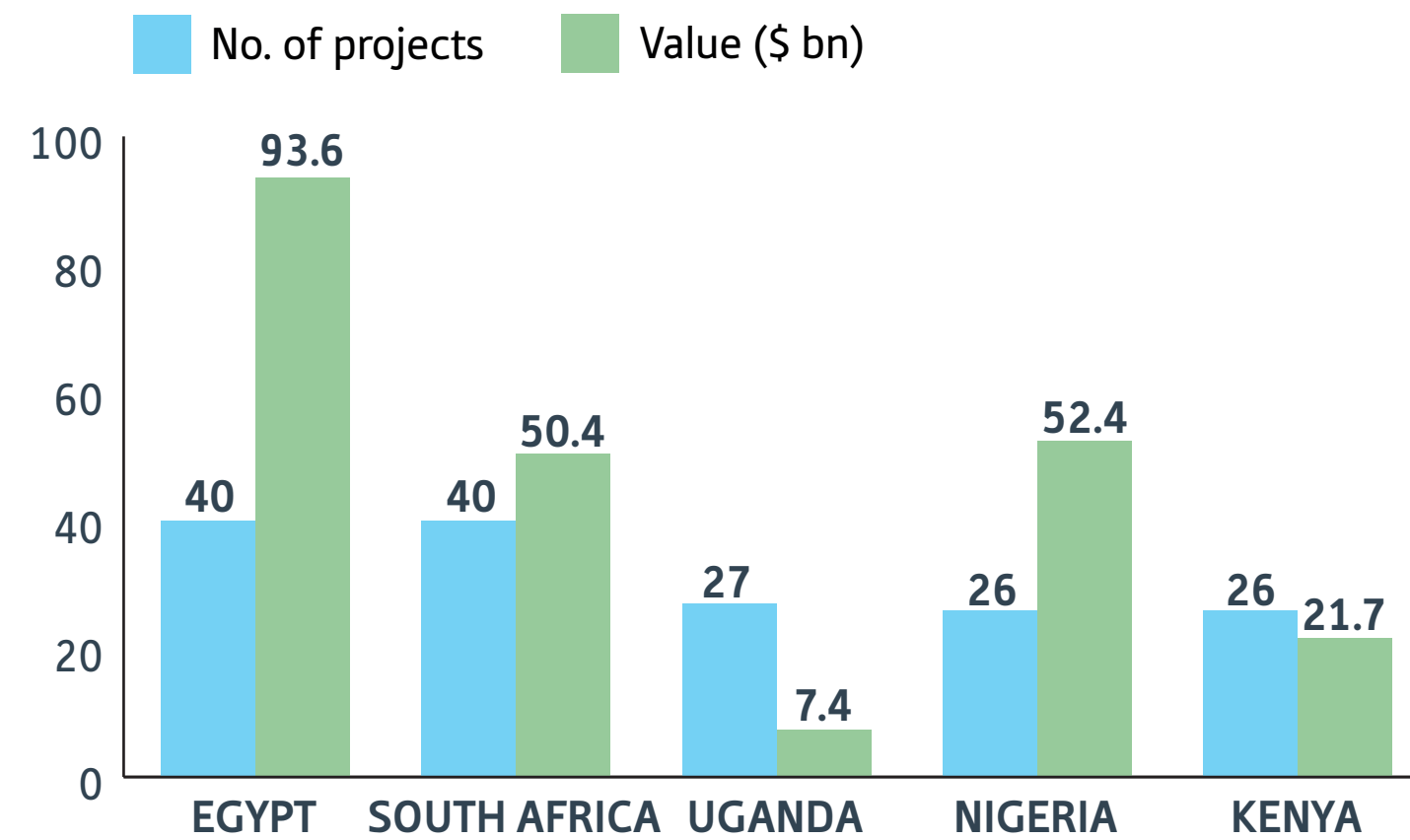
Continued momentum

On the back of the new investment law in 2017, the country embarked on large-scale, transformational infrastructure programmes in order to meet the rising demand in urban centres and the associated utilities and infrastructure needed for such expansion. The momentum created by these reforms, in conjunction with demand-side pressures, will continue to drive the appetite for and viability of mega-projects across the country. As such, despite a slight slowdown in activity in 2020, Egypt's construction industry outperformed regional peers. Fitch estimates that by 2039 the sector will account for some 30% of the MENA construction market.

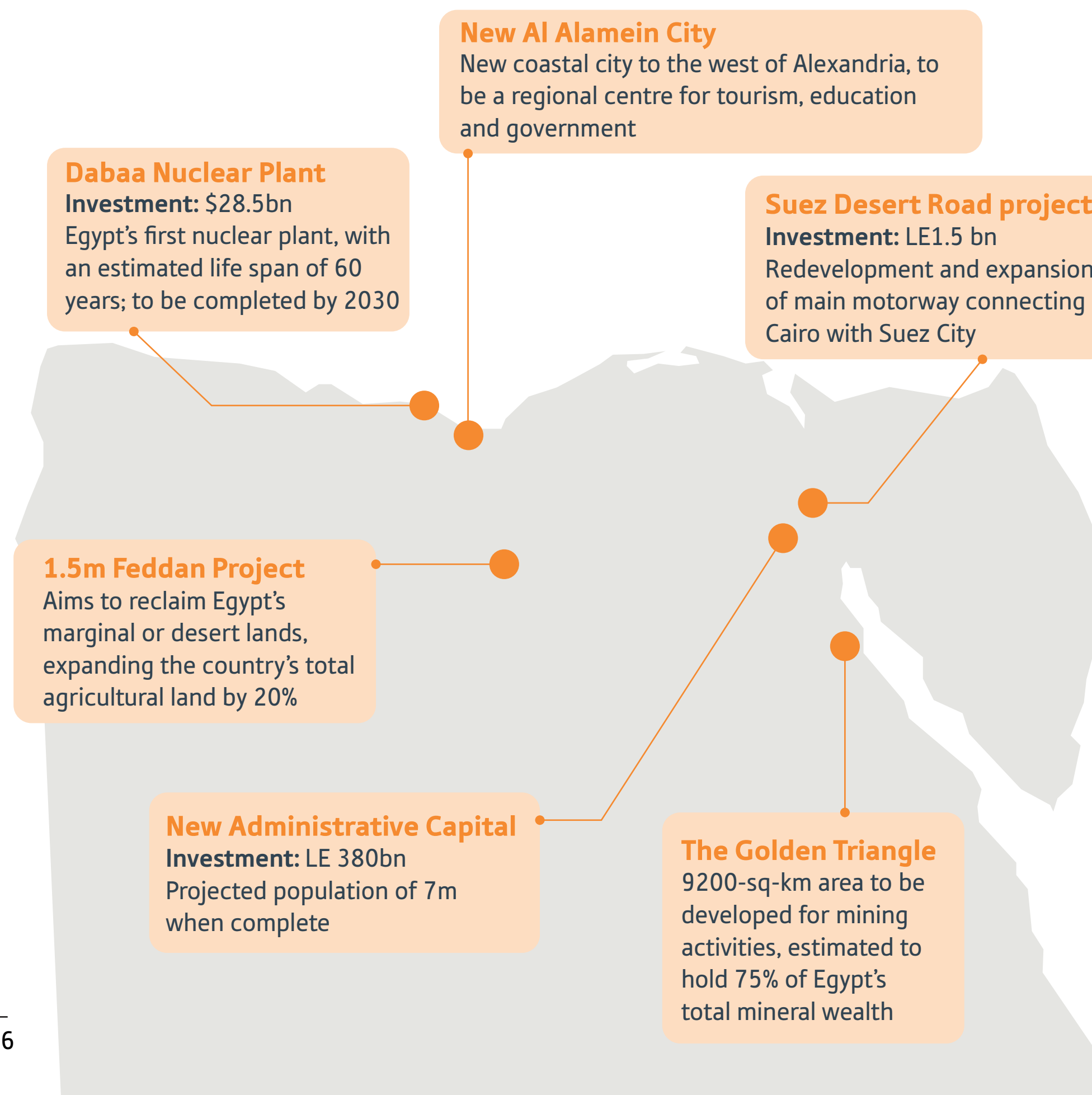


Robust project pipeline positions Egypt as a regional leader in infrastructure construction

Top-5 countries in Africa by number of construction projects



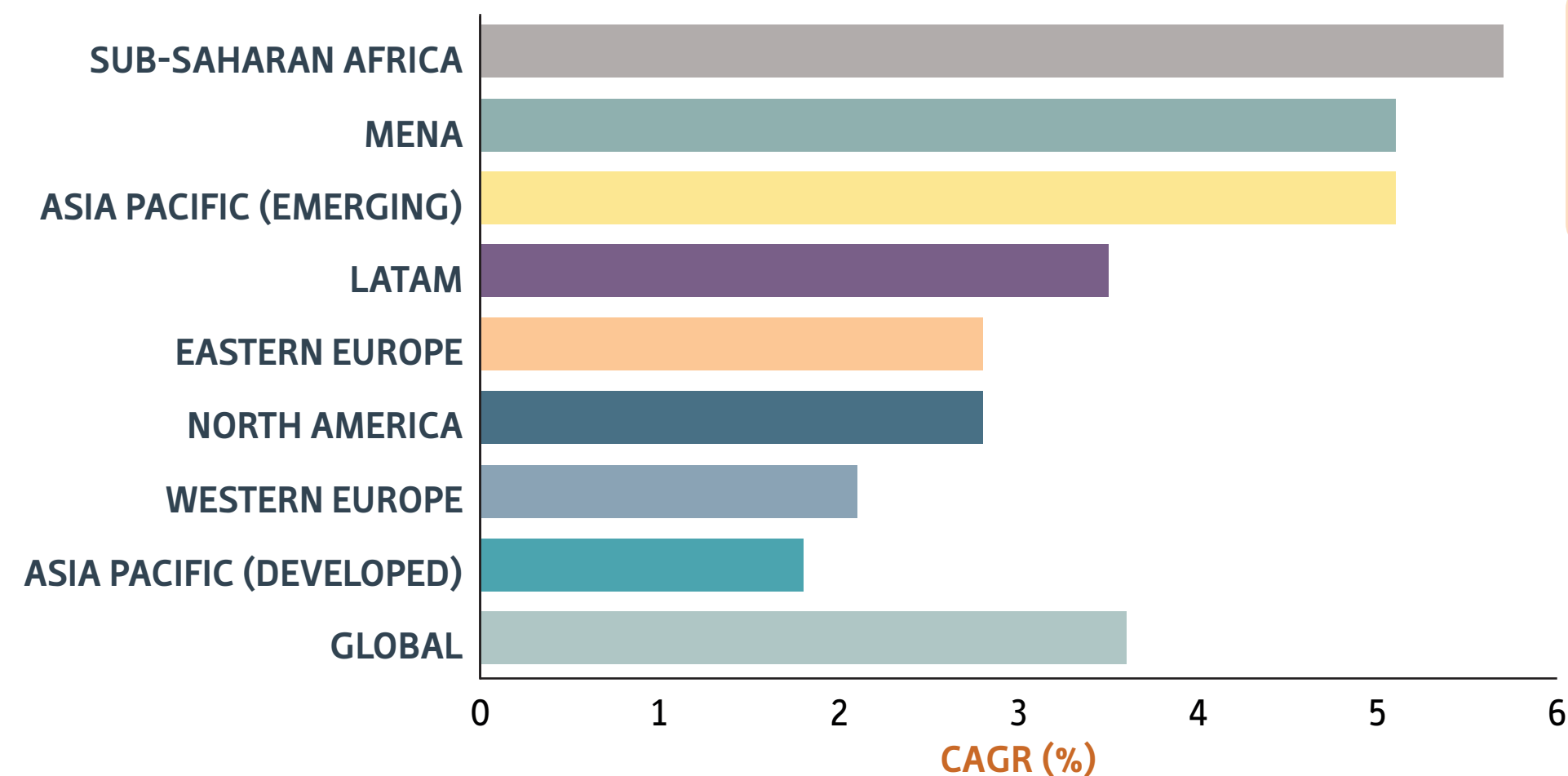
Key upcoming projects in Egypt



Regional growth driver

Egypt is the regional leader in the construction sector in Africa by both the number of projects and their overall value. Egypt represents 56% of projects in the North Africa region by volume and 84% of their total value. Given the robust project pipeline since 2020, the sector has been one of the key drivers of economic growth during the Covid-19 pandemic and should continue to be past 2025, outpacing manufacturing, the extractive sector and the services industry. More widely, the MENA region is projected to be the third-fastest-growing region for construction globally through to 2030, largely driven by the boom in infrastructure development that has been taking place in Egypt.

Regional projected growth in the construction sector, 2021-30F



CASE STUDY: Rail infrastructure in Cairo



Project: Cairo Metro Line 3 - Phase 4B



Total investment: \$6.2m

Timeline: 34 months

Partners: The Arab Contractors and Orascom Construction Joint Venture



Project description

- Cairo Metro Line 3 Phase 4B is expected to transport 1.5m passengers per day, stretch over 11 km and 10 stations, and have the largest depot in the Middle East
- The project is the first integrated metro project in Egypt executed by Egyptian contractors as the sole lead EPC contractors, and includes one of Greater Cairo's important intermodal stations

Construction details

- A major challenge overcome by the Egyptian joint venture stemmed from the line's location along the median of one of Cairo's main motorways. To minimise disruption to the utilities and nearly halve the amount of foundation concrete, the team built the viaduct on a single row of 2-metre-diameter concrete columns up to 16 metres tall. Each column was founded on a 2.4-metre diameter monopile.
- The project included a 65-feddan (27-hectare) workshop with 32 buildings – said to be the largest depot in the Middle East and Africa
- The fact that it is the first integrated metro project to be overseen purely by Egyptian companies will positively affect the domestic capability of the Egyptian construction industry and reduce future reliance on foreign expertise

Economic relevance

- Meeting the substantial demographic and economic transport demands along the route's catchment area
- Reduction of the traffic density of the other means of transport with a rate equivalent to 2m daily trips
- Linking the east and west of Cairo, since Line 3 is the first transversal line. Existing Lines 1 and 2 link the north and south of Cairo.
- Interchange with Lines 1 and 2 in Attaba, Gamal Abdel Nasser and Cairo University stations, each a key nexus within Cairo's metropolitan area
- An estimated annual added value of LE2.7bn for the wider economy



Project: Cairo Monorail Project - New Administrative Capital and 6th of October Lines

Total Investment: \$4.5bn

Timeline:

- New Administrative Capital Monorail: 34 months
- 6 October City Monorail: 42 months

Partners: The Arab Contractors, Consortium of Alstom and Orascom Construction Joint Venture



Construction details

- The project will be completed with safety as the top priority
- The mixed Egyptian and international consortium aims to ensure the highest standards across the board during the entirety of the project

Economic relevance

- The advanced technology and high-spec safety features will dramatically improve the quality of life for millions of residents by significantly reducing their daily commuting time, cutting pollution, and reducing traffic congestion
- The two lines will be able to transport 45,000 people per hour in each direction at maximum capacity. Significant economic benefit for all areas along the route, as well as the rest of Cairo by increasing urban interconnectivity



New cities and mega-projects, in combination with sustainability, characterise Egypt’s urbanisation agenda

Sustainable Urbanisation

Fourth-generation cities

Total spending on the 4G cities in Upper Egypt amounted to **LE12.4bn** between 2014 and 2021

Breakdown:

- **LE7.3bn** to establish 24,798 housing units
- **LE1.2bn** to implement 68 projects in the services sector
- **LE2bn** in the facilities sector
- **LE1.9bn** to develop roads

Goals: Alleviate congestion in existing urban areas, build advanced and eco-friendly infrastructure, enhance green spaces for citizens

37 smart cities being built or in planning stages

New Administrative Capital: The first phase of construction work has been under way for five years. Once the three phases are completed, the fully developed new capital will accommodate almost 7m people across 70,000 ha (approx. size of Singapore)

New Al Alamein City: New development west of Alexandria to house up to 2m people

Qantara and New Ismailia will be together house more than 350,000 residents

New Aswan City: Spans more than 22,000 feddans and is expected to provide social housing for over 850,000 people. First phase launched December 2021.

Badr City: The largest medical city in the Middle East, with \$1.2bn in investment planned in three medical institutes, 2000 beds, a landing strip for flying ambulances and a teaching hospital.

Sustainable Partnerships

In 2021 Egypt and the European Bank for Reconstruction and Development (EBRD) signed an MoU to boost green infrastructure and sustainability across Egypt’s cities

6th of October City joined Cairo and Alexandria as a member of the EBRD’s flagship urban sustainability programme, EBRD Green Cities

In Cairo, the EBRD seeks to support rehabilitation and upgrade of the metro’s Line 2

In Alexandria, the existing metro line connecting Alexandria with Abu Qir will be upgraded and electrified

The EBRD has invested **€7.2bn** in 127 projects in Egypt since 2012

Urban sustainability

Egypt’s Vision 2030 embraces a sustainable development strategy that has shaped the strategic planning of its new cities being built across the country. Sustainable partnerships with the EBRD and other international bodies have helped secure additional funding to increase the sustainability and resilience of critical transport networks and urban infrastructure. The fourth generation of new urban cities seek to introduce new technologies, green solutions to enhance living areas and alleviate congestion and pollution. Meeting real estate development targets will be key to ensuring access to affordable housing and the successful integration of Egyptians into these new urban centres.

190m projected population by 2052

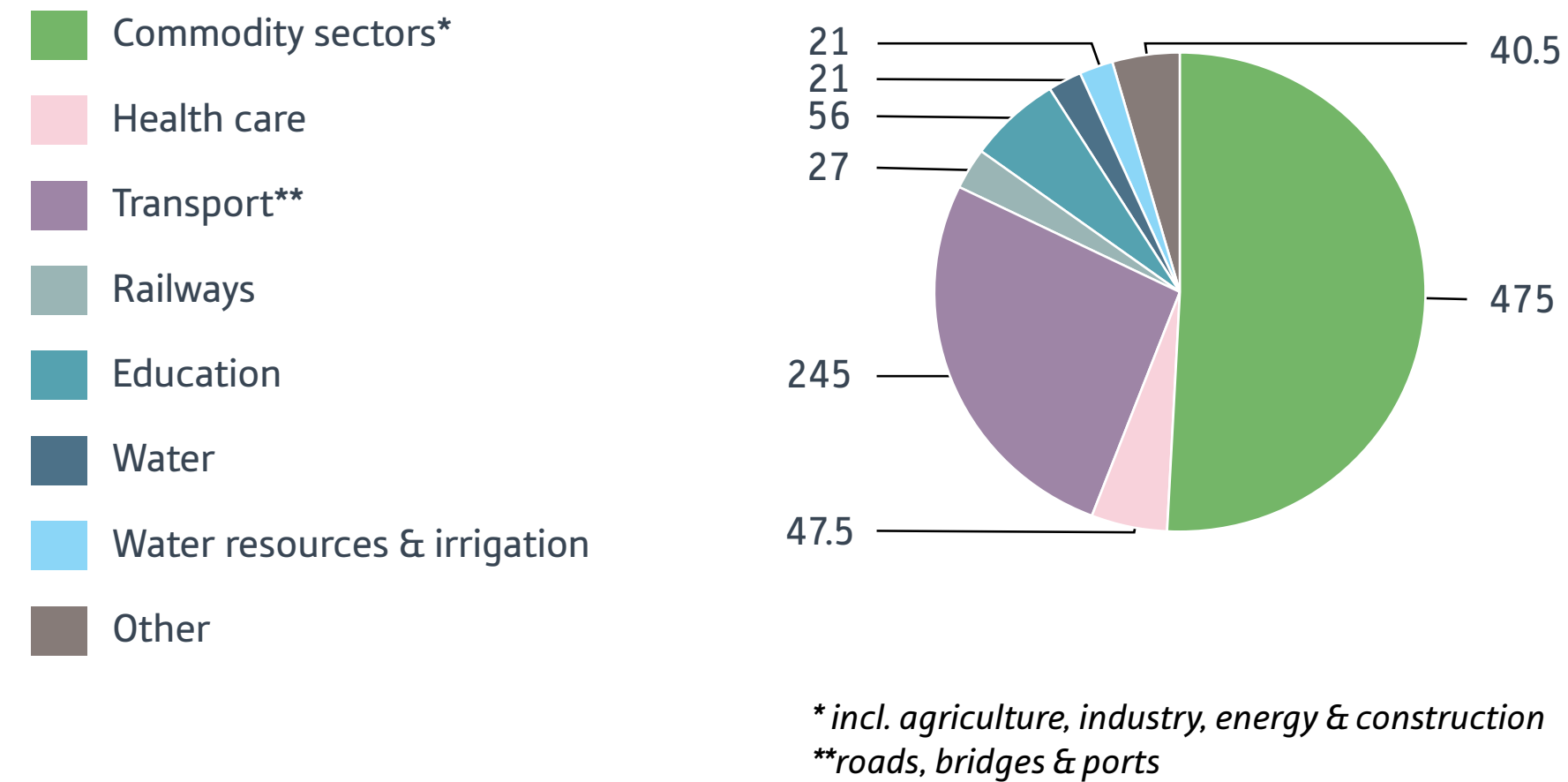
LE165bn in investment under the One Million Housing Initiative, which will see 765,000 housing units built between 2020 and 2023

210,000 units completed in FY 2022/23

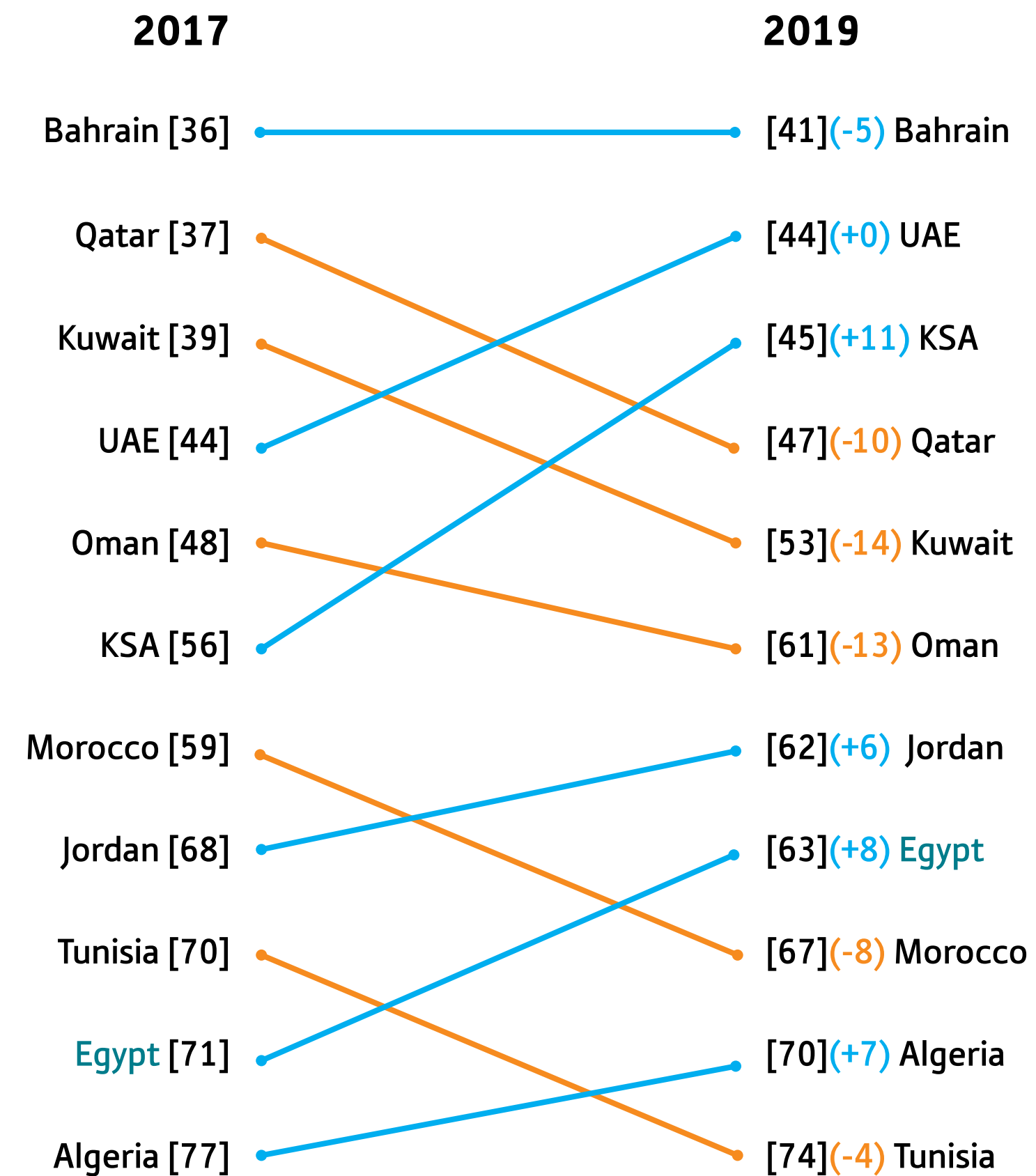


Utilities infrastructure as both a driver and a consequence of demographic and economic growth

Public investment by sector, 2022 (LE bn)



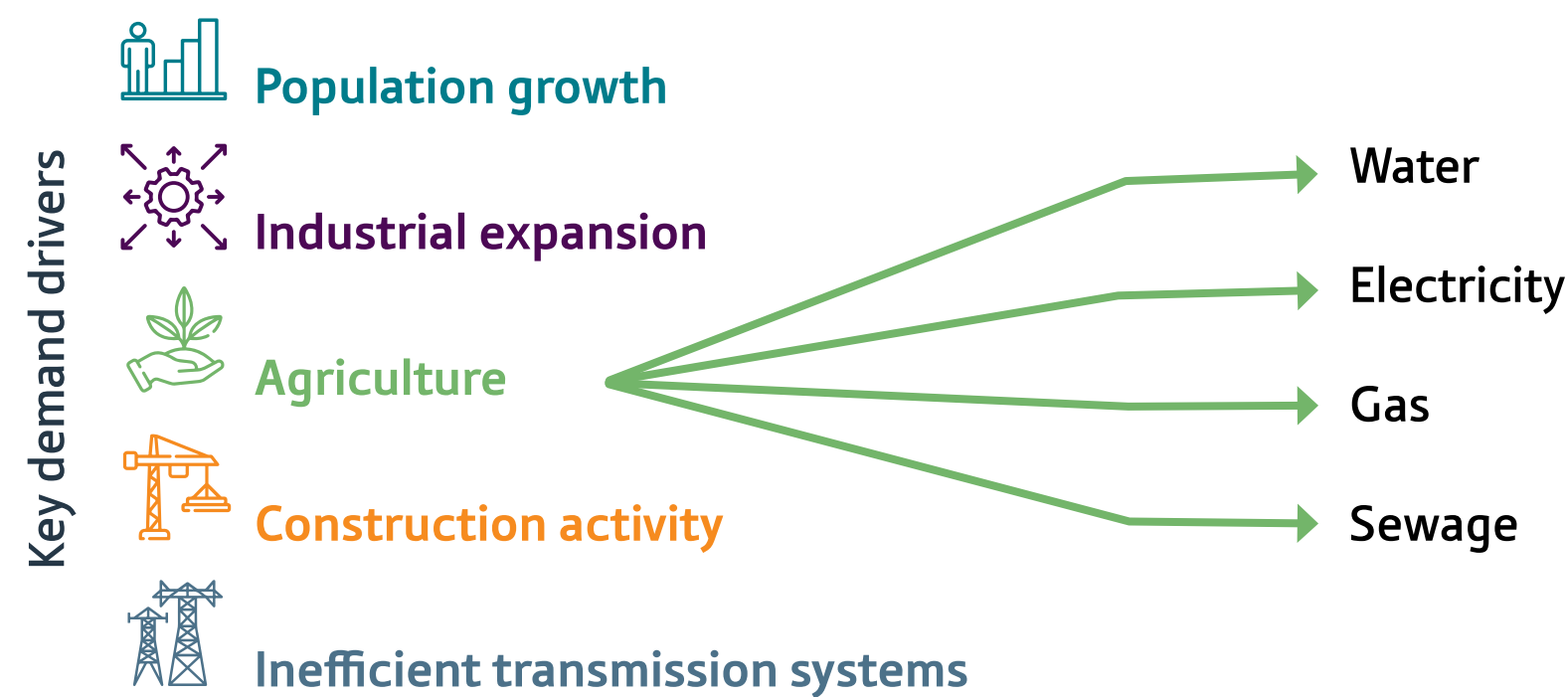
Global Competitive Index: Water infrastructure rankings



Sustainable utilities

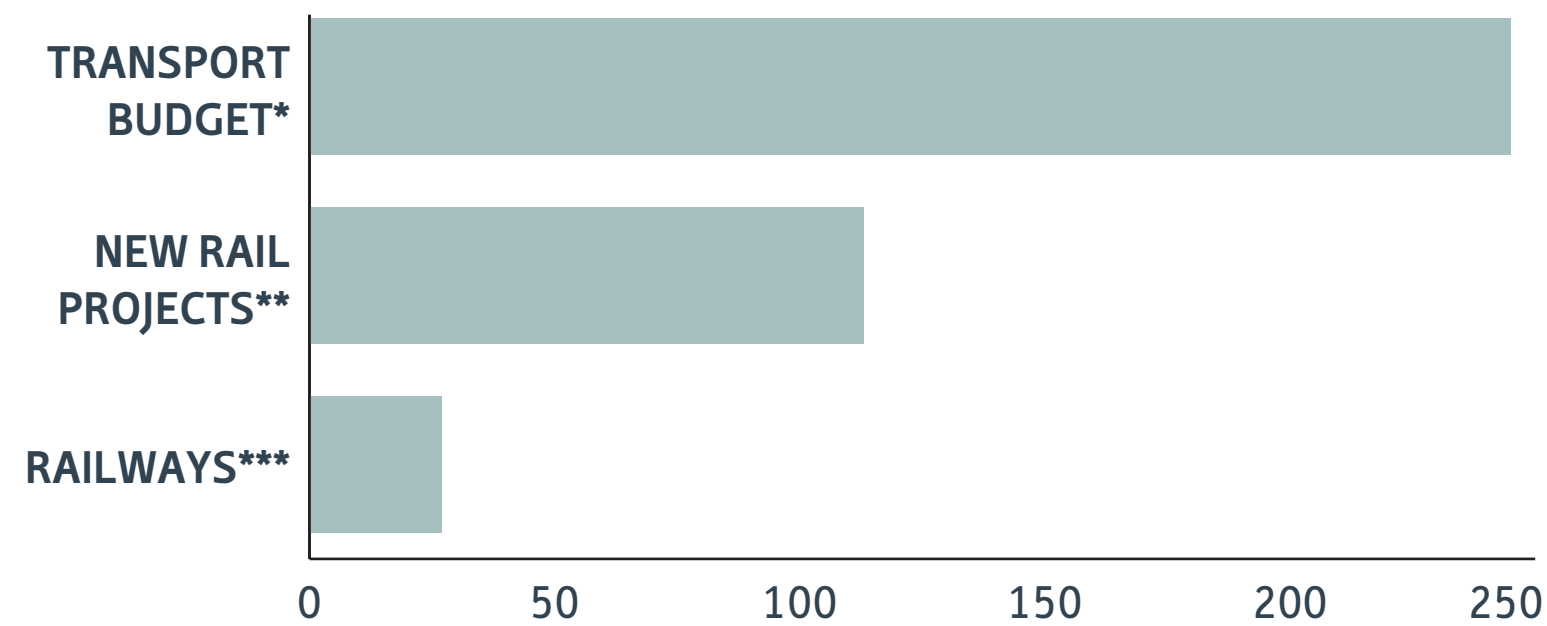
Egypt is looking to address the pressures on its utilities infrastructure by creating more advanced and sustainable projects with a broader view of progressing towards the UN Sustainable Development Goals. For instance, through to 2027 Egypt expects to more than quadruple its water desalination capacity, most of which will be powered by solar energy, helping the country to reduce its overreliance on the Nile as a water source. After a period of intermittent electricity blackouts, Egypt now has a power surplus. This recent energy sovereignty will see electricity exports to neighbouring countries significantly increase in the near term, providing an additional source of foreign income.

Demographic factors & economic activity are driving demand for all utilities in Egypt



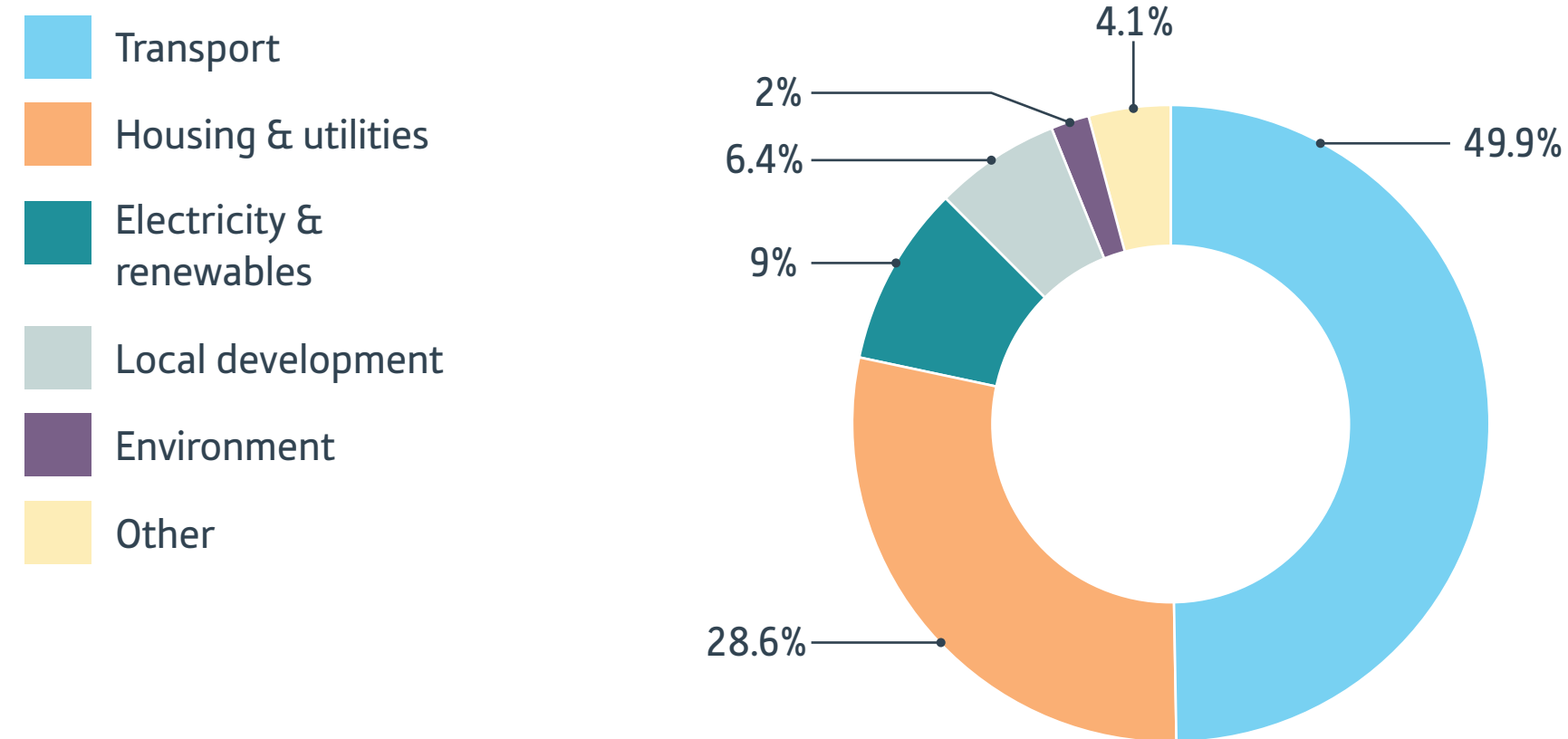
Transport infrastructure development has become a key policy priority

Egypt's transport budget, FY 2021/22 (LE bn)

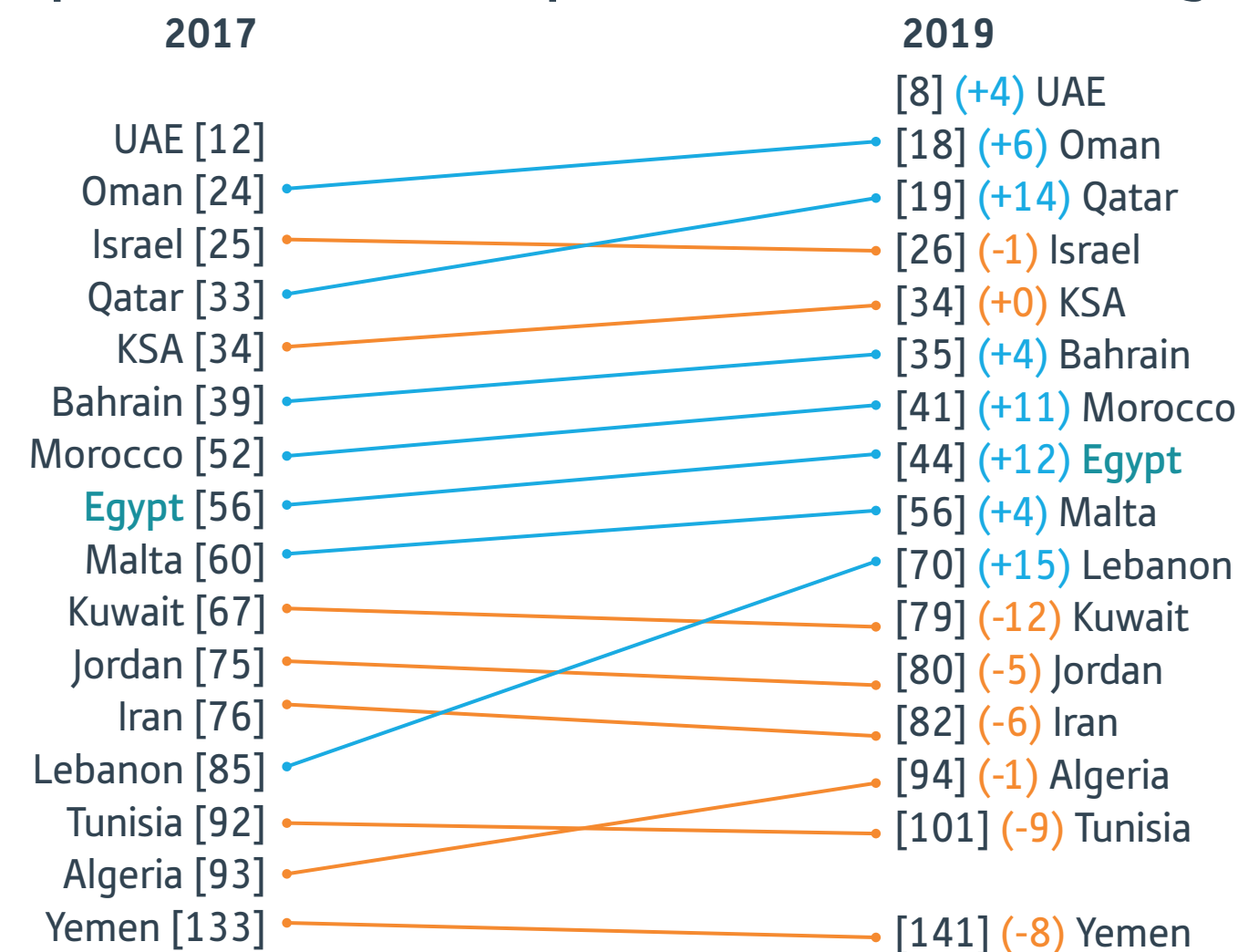


*incl. roads, bridges & river ports, & all National Authority for Tunnels projects
 ** incl. high-speed electric rail, monorail & Cairo Metro
 ***separate from transport budget & incl. traditional main rail lines

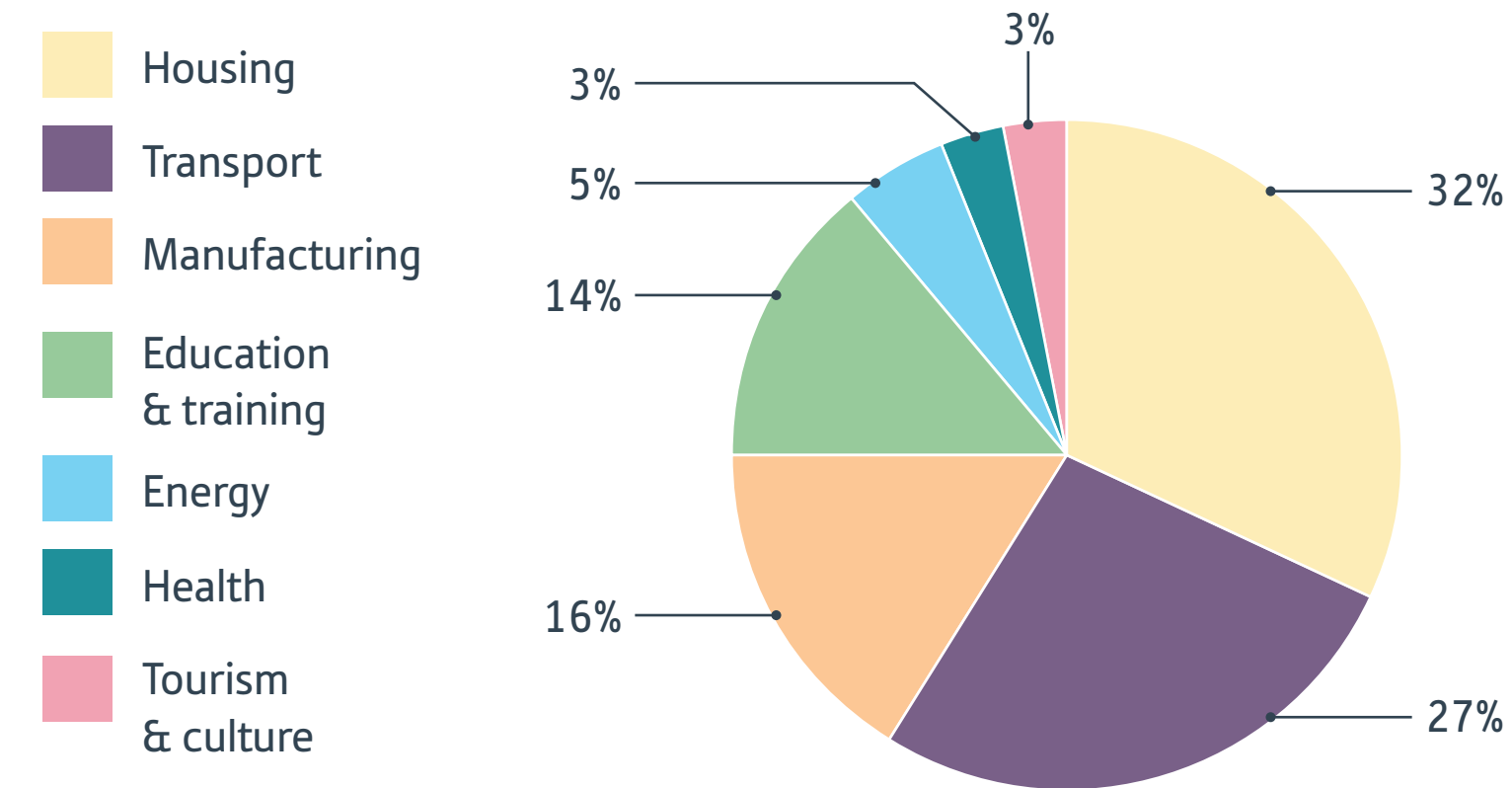
Government investment in green projects by sector, FY 2020/21



Global Competitive Index: Transport infrastructure rankings



Megaprojects by sector, FY 2020/21



Shifting transport priorities

Almost 30% of combined public investment in FY 2021/22 will be directed towards transport infrastructure. The government is implementing its National Roads Project, which will add 7000 km to the national network, but the most substantial and sustainable investments are in railways, metro, monorail and high-speed electrical rail. Together, these projects will increase passenger capacity by more than 650m per year. Egypt also aims to convert 400,000 cars to operate on natural gas within three years, as these vehicles produce 20-30% less greenhouse gases than conventional vehicles. Looking ahead, electric vehicle infrastructure will be needed, particularly in urban centres.



CASE STUDY: Julius Nyerere Hydropower Plant and Dam, Tanzania



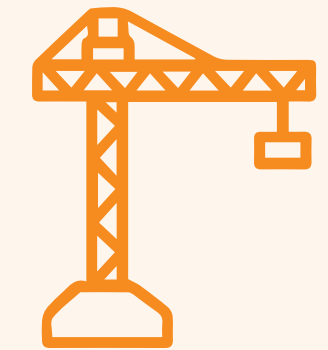
Project description

- Tanzania's largest hydroelectric project, with the dam's length totalling 1025 metres and its height reaching 131 metres
- Total planned hydropower capacity is set to be 2115 MW
- Project implementation involves the Ministry of Housing, Utilities and Urban Communities, with the support of the Egyptian Cabinet



Construction details

- Initial work was set back due to heavy flooding at the project site, sinking some equipment and leading to a work stoppage at the river diversion tunnel
- Logistical and operational challenges have arisen, given that the project is taking place in remote locations, with the dense nature of the forest being a particular issue
- Consortium began installing the first turbine for the project in August 2021 as part of a series of nine turbines, each with a capacity of 235 MW



Economic relevance

- The dam is set to become a symbol of cooperation between Egypt and Tanzania, with important geopolitical benefits to be gained from Egypt sharing its construction knowledge and expertise
- Broader cooperation, the sharing of expertise and technical assistance will enhance Tanzania's building capabilities, with training courses to be provided
- Project emphasises the importance of multilateral collaboration on water resource utilisation at a time when challenges regarding water distribution in Eastern Africa remain



Total investment: \$2.9bn



Timeline: 42 months, including 6-month mobilisation



Partners: The Arab Contractors & Elsewedy Electric JV



Future trends in construction materials, technologies and methods



Digitalisation benefits

Globally, the construction sector has lagged behind in the adoption of new technologies compared to other industries. In Egypt, however, the country's main construction companies have begun to embrace lean methods such as just-in-time construction, ensuring that all materials arrive on site to enable immediate use. These transformations have the potential to increase efficiency in projects and reduce waste significantly. The local market is eager to address pain points across the construction process by digitalising core practices. As a result, the country's construction leaders have continued to streamline new technologies into core practices, boosting their competitiveness in regional markets.



Sayed Farouk, Chairman and CEO, The Arab Contractors



How has Egypt's construction sector remained resilient, and in what ways has the company's diversified portfolio contributed to this?

FAROUK: The Arab Contractors' position as one of the oldest companies in the engineering, procurement and construction segment – as well as its diversified portfolio of construction and infrastructure works – has helped it remain resilient in the face of unexpected challenges such as the Covid-19 pandemic. In addition to servicing projects at home – including single structures, heavy construction and shipbuilding – The Arab Contractors operates across the MENA region and throughout the African continent.

The firm's involvement in mega-projects that have been prioritised by the government as key to future economic growth has also helped it weather the pandemic-related economic downturn. For example, we were involved in the construction of Port Said tunnels crossing the Suez Canal, as well as the new Parliament building in the New Administrative Capital. We are also partnering with international companies in order to strengthen Cairo's public transport system, including Line 3 and Line 4 of the Cairo Metro.

In which ways has the construction project pipeline in Egypt changed the nature of construction operations in recent years, and to what extent did the Covid-19 pandemic have an effect on this?

FAROUK: A series of mega-projects has helped us add value to our operations in recent years, and we have worked to ensure projects are completed in a timely manner. In order to achieve an accelerated timeline while ensuring projects were completed in line with international standards, we have invested in technology, human resources and high-quality inputs. We have also focused on bolstering ties with clients and consultants, which has required sustained financing. It is no surprise that the Covid-19 pandemic negatively affected many of the

opportunities that would have normally been present in Egypt. The low price environment in some markets after the initial outbreak of the virus affected some tenders and the pipeline of projects. However, it has also led to new opportunities: the halting of projects in certain countries gave us the chance to acquire some of the resources – such as equipment – that were available in those markets and would have otherwise stood idle.

To what degree are domestic construction contractors in Egypt able to compete with international companies?

FAROUK: Egyptian companies that have the resources and experience needed for the local market are in a position to offer their services at a competitive price compared to international firms. Indeed, we can compete because foreign companies that drive down their prices often put healthy profit margins at risk. While this has largely been the case, foreign companies with experience in mega-projects have posed a challenge in recent years. Certain countries are also investing strongly in their domestic construction sectors, and this has highlighted the influence these countries can have on material prices due to the extent of their operations both at home and abroad.

What can firms in the construction sector do in order to plan more effectively for risks such as raw material inflation?

FAROUK: It is important that companies in the construction sector take a forward-looking view when planning for both individual projects and longer-term growth plans. For risks such as raw material inflation, contracts that include fair pricing adjustments can enable large-scale projects to be completed both on time and on budget. If the risk of inflation of key materials is calculated into the contract, it is possible to adjust prices should they increase. However, there remains the risk of losing money as these clauses are not automatic.

“
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6 Key Takeaways

1

Egypt entered the pandemic on a stable economic footing, driven by its strong macroeconomic fundamentals – particularly its continual demographic growth, in combination with lower fiscal spending following broad-based IMF-backed economic reforms.

2

The Egyptian construction sector was permitted to continue essential work during the early months of the Covid-19 pandemic, meaning that although activity slowed, the sector was still able to make progress on key infrastructure projects.

3

The construction industry will continue to benefit from the strength of the broader Egyptian economy, with a robust post-pandemic recovery driving growth – and therefore construction activity – across multiple sectors of the economy.

4

Utilities infrastructure is benefitting from significant investment, particularly to increase the availability of water resources in growing urban areas. In tandem with this, electricity capacity has expanded substantially, helping to bolster Egypt's energy sovereignty.

5

As with utilities, population growth has increased the need for more comprehensive transport infrastructure in the country, which will see a pivot away from roads in the near term in favour of a heightened focus on high-speed electric rail projects.

6

The new construction methods and technologies being adopted by companies in the sector will drive down costs and increase efficiency across all segments of the construction sector in Egypt, thereby helping domestic firms remain competitive.



