

Creating Commercially Viable Projects from the Onset



MML Turner & Townsend

27th August 2019

making the **difference**



Health & safety moment



Think safe, travel safe, work safe, be healthy

We are a global consultancy

Turner & Townsend is an independent professional services company specialising in programme management, project management, cost and commercial management and advisory across the **real estate**, **infrastructure** and **natural resources** sectors.

With **108 offices** in **45 countries**, we draw on our extensive global and industry experience to manage risk while maximising value and performance during the construction and operation of our clients' assets.

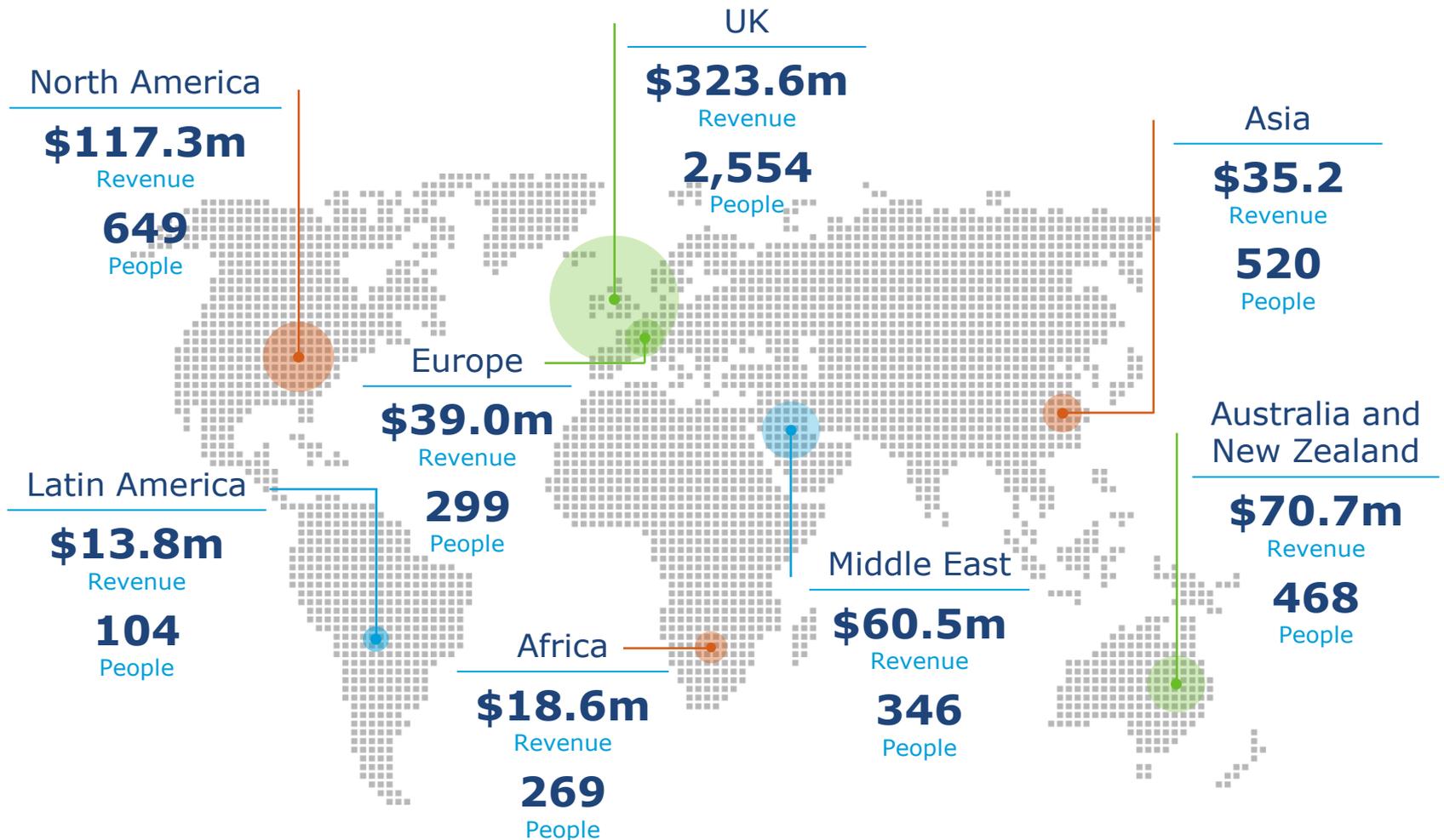


Our Local Business

Nairobi based MML Turner & Townsend has for the past 32 years built up a reputation as the largest and most respected project and cost management consultancy in East Africa.



We work across 8 regions



As a partnership we act as one business globally

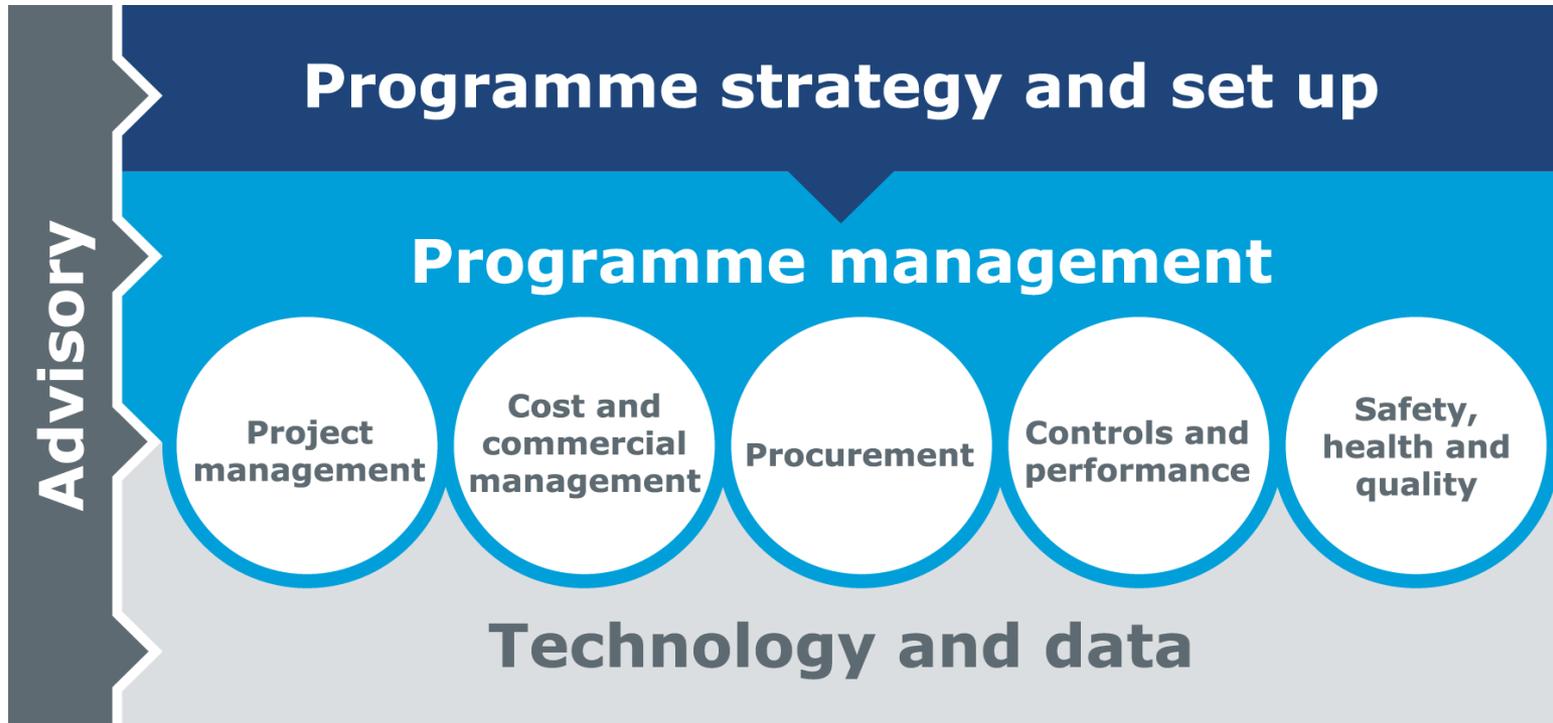
110

Offices

45 Countries



We deliver the following services across sectors in Africa



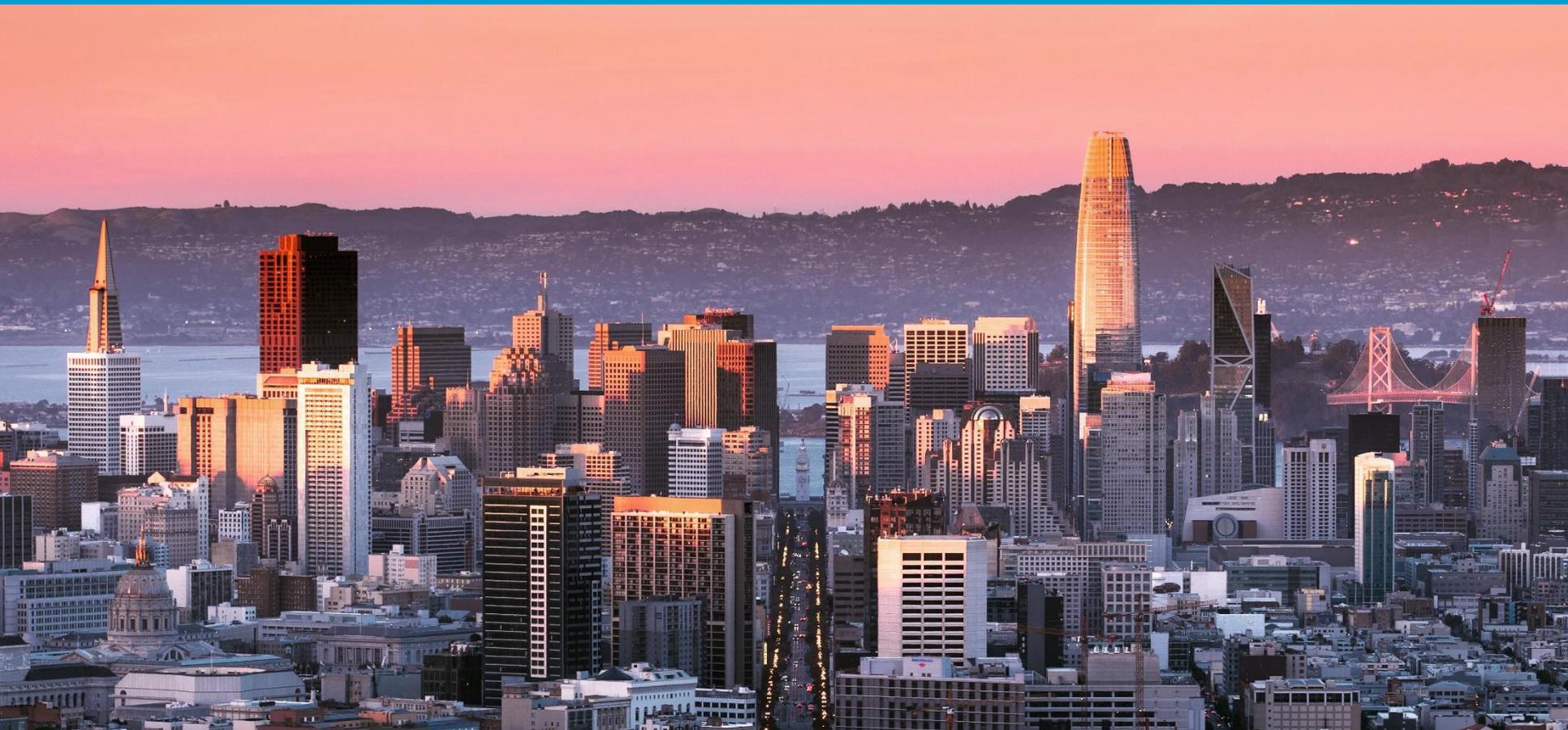
International construction market survey 2019



MML Turner & Townsend

Rewel Kariuki , Director - Cost Management

making the **difference**



An introduction to ICMS

Overview:

The annual survey of **64 markets** revealing the cost of building around the world. Drawing on information from over £655bn of global real estate investment

Audience relevance:

For those considering real estate construction expenditure – the survey helps to identify the **key global trends** and **enables informed investment decisions** to drive the best return.

Companies and individuals who benefit from using the data include:

- Companies investing in several locations
- Multinationals
- Investor developers
- Architects

Takeaway:

With our insight and data on the markets we operate we can advise on the right tactics to deploy to manage risks, control costs and capitalise on opportunities in the set-up and delivery of major projects and programmes.



26,000+
downloads
since the
launch

The data includes . . .



\$655bn

Data comes from over \$655Bn of global real estate projects/ investments



9

Different build categories



64

Data included from 64 markets around the world



6

Data included from 6 markets in Africa

1. Kenya
2. Rwanda
3. South Africa
4. Tanzania
5. Uganda
6. Zimbabwe

The data comes from our involvement on projects in East Africa

1

Industrial

- Mitchel Cotts Cargo Handling facility at JKIA
- Unilever Omo Factory Nairobi
- KBL Bottling Deport in Nyeri
- Tissue Culture and molecular laboratory for coffee Research Foundation
- Swiss sport Air Cargo handling facility at JKIA
- Bidco warehouse and plant

2

Commercial

- Garden City Business park
- The Junction Mall
- Barclays Diani Shopping Centre
- Village Market Expansion phase II
- Capital Centre Mall
- Phased refurbishment of over 100 Branches for KCB Bank
- Refurbishment of Caltex Petrol Stations

3

Hotels

- Safari Park Hotel
- Mount Kenya Safari Club
- The Sarova Stanley Hotel
- Southern Sun Mayfair Hotel
- Windsor Golf &Country Club
- Sweet waters tented camp in Nanyuki

4

Hospitals

- Agha Khan Hospital, Nairobi
- Aga Khan Hospital, Uganda
- Gertrude's Children's Hospital

5

Commercial – Fit -out

- Sage
- Philips
- Jaguar Land Rover
- BMW
- CDC offices

6

Residential

- Riverbank by Centum
- Pearl Marina, Uganda
- Mae Ridge Housing
- Riverside Park
- ISK staff Housing

Global key highlights

35

markets are warm,
hot or overheating

23

markets are
warming up

5

markets
are cooling

18

new markets in
the 2019 survey



Economic overview:

Global

3.5%

forecasted GDP growth in 2019

3.6%

forecasted GDP growth in 2020

USA

2.5%

forecasted GDP growth in 2019

1.8%

forecasted GDP growth in 2020

What does the ICMS say about the East Africa real estate market?



Africa

- ▲ Dar es Salaam
- ▲ Kampala
- ▲ Kigali
- ▬ Nairobi
- ▼ Harare
- ▬ Johannesburg

1

The current tendering condition in East Africa is lukewarm, but looking to heat up in the future in Rwanda, Tanzania and Uganda.

2

Kenya's current tendering situation looks to remain the same for the near future.

... continued

3 Construction cost inflation should remain consistent across East Africa this year

Region	Markets	Cost inflation in 2018	Forecasted cost inflation in 2019
Africa	Johannesburg	4.7%	6.0%
	Dar es Salaam	4.0%	4.0%
	Kigali	3.2%	3.2%
	Harare	3.0%	3.0%
	Kampala	3.0%	3.0%
	Nairobi	3.0%	3.0%

4 Nairobi is the 4th least expensive place to build across the 64 markets surveyed

Five least expensive places to build



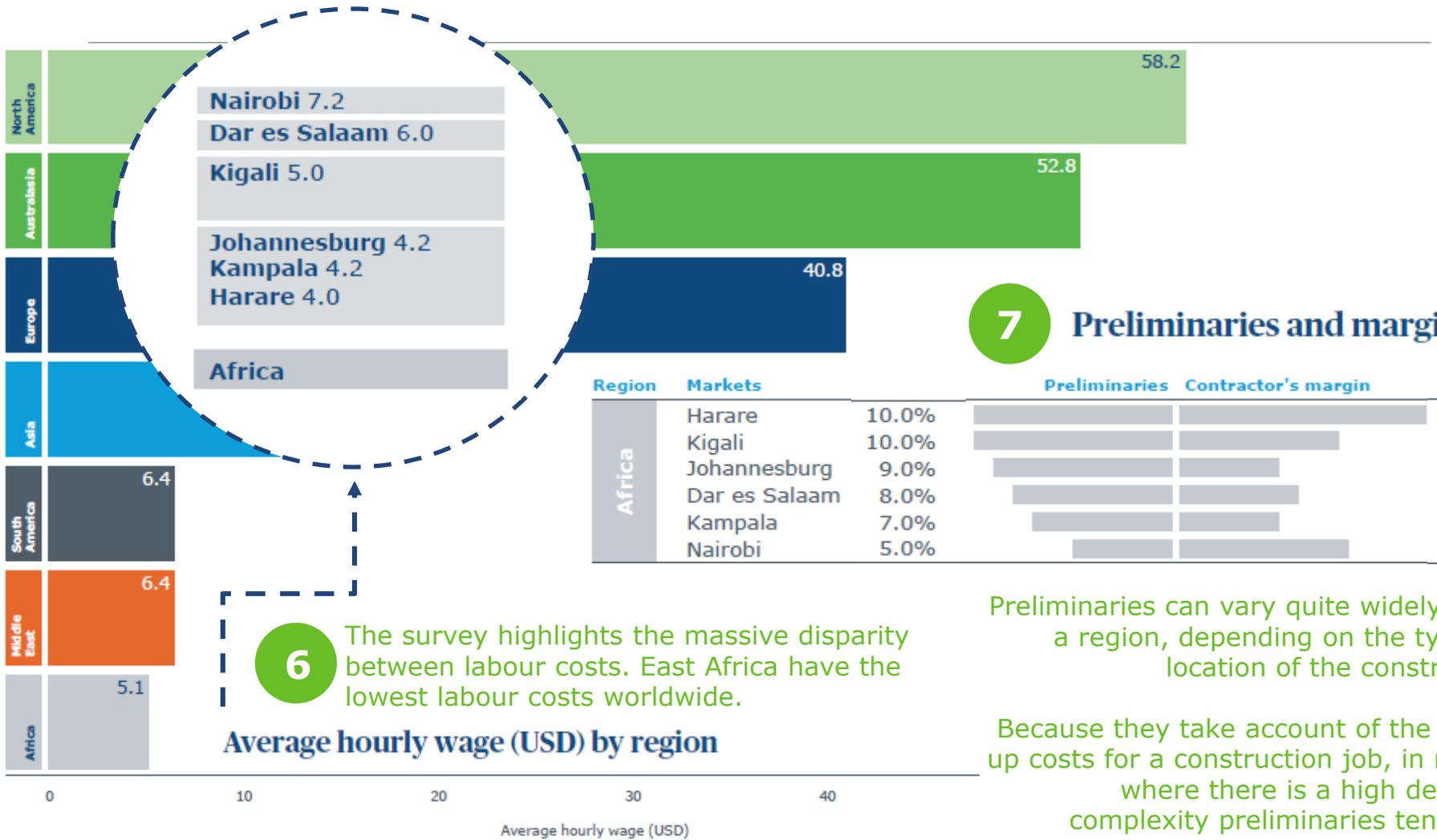
1. Bangalore 2. Istanbul 3. Guangzhou 4. Nairobi 5. Beijing

5 Ave. cost of six building types in US Dollars

Region	Markets	Average cost of six building types	USD
Africa	Harare		1,683.3
	Kigali		1,085.4
	Kampala		967.3
	Johannesburg		952.2
	Dar es Salaam		922.3
	Nairobi		738.4

1. High-rise apartments
2. Office blocks
3. Large warehouse distribution centres
4. General hospitals
5. Primary and secondary schools
6. Shopping centres and malls

... continued



6

The survey highlights the massive disparity between labour costs. East Africa have the lowest labour costs worldwide.

Average hourly wage (USD) by region

7

Preliminaries and margins

Preliminaries can vary quite widely within a region, depending on the type and location of the construction.

Because they take account of the setting up costs for a construction job, in regions where there is a high degree of complexity preliminaries tend to be higher.

... continued

8

Kampala and Kigali, while considered only lukewarm are still reporting skills shortages. This raises the question of **where labour will come from as and when these markets heat up from lukewarm to hot.**

Nairobi and Dar es Salaam are in balance.

Surplus
Edmonton
Istanbul
Muscat
Riyadh
São Paulo

7.8%
(2018: 6.5%)

In balance
Barcelona
Bogotá
Brisbane
Buenos Aires
Dar es Salaam
Doha
Harare
Ho Chi Minh City
Houston
Mexico City
Moscow
Nairobi
Paris
Perth
Santiago
Scotland
UAE

26.6%
(2018: 34.8%)

65.6%
(2018: 58.7%)

Skills shortage

Amsterdam
Atlanta
Auckland
Bangalore
Beijing
Berlin
Chicago
Christchurch
Dublin
Frankfurt
Guangzhou
Hong Kong
Indianapolis
Jakarta
Johannesburg
Kampala
Kigali
Kuala Lumpur
London
Madrid
Melbourne
Munich
New York City
Northern Ireland
Ottawa
Phoenix
San Francisco
Seattle
Seoul
Shanghai
Singapore
Stockholm
Sydney
Tokyo
Toronto
UK Central
UK North
UK South
Vancouver
Vienna
Warsaw
Zurich



The East Africa market in summary

Kenya Nairobi

Biggest growth sectors are **residential** and **social housing**; **industrial manufacturing** and **distribution**; **power** and **utilities**

Over supply of high-priced housing and commercial developments.

Suppressed investment due to cap on interest rates and banks not lending as much.

Construction costs set to rise 3% due to rising land and import costs

Rwanda Kigali

Government developing infrastructure to support a competitive private sector

Rwanda has three initiatives for growth – technology, foreign investment and tourism.

Made in Rwanda policy launched to reduce its trade deficit and **upscale local manufacturing**

Tanzania Dar es Salaam

Growth in residential and commercial property projects

Demand for affordable housing is at three million. Commitment by government to build 200, 000 annually.

Boost in tourism expected after expansion of the Mwanza airport on eastern shores of Lake Victoria.

Construction costs set to rise 3% due to rising land and import costs

One of China's Belt and Road destinations.

Uganda Kampala

Growth in commercial offices, large mixed-use developments and private housing.

Economy likely to grow with increasing investment in infrastructure.

East Africa Crude **Oil pipeline** will bring opportunities

Risk of economic uncertainty and increased costs may follow 2021 elections

Data available in the ICMS

Around the globe

Africa

Kenya Nairobi

Construction opportunities will change on shift in policy focus

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Economic overview

Economic activity in Kenya outpaced expectations in 2018 with annual GDP growth hitting 6.3 percent. Inflation was 5.5 percent, within target range, and interest rates have been eased down to 9 percent to support expansion.

The nation's budget and policy have been directed towards President Kenyatta's Big Four – food security, affordable housing, manufacturing, and affordable healthcare for all.

Construction market and trends

The biggest growth sectors are residential and social housing, industrial manufacturing and distribution and power and utilities. But the surge in recent years of high-priced housing and commercial development has created an oversupply, suggesting a slowdown in 2019.

Meanwhile, a cap on interest rates, leading banks to ration credit, has suppressed investment.

In infrastructure, the focus on the Big Four has limited funding. Several projects are due to finish in 2019, including the 9,000 m² semi-automated air cargo handling facility for Mitchell Cotts Freight Kenya Ltd.

Two key hospitality projects in Nairobi are currently ongoing; a 235-bed Hyatt hotel fit-out in Westlands and 170-bed four-star hotel apartments under the Ascott Somerset brand in Rosslyn.

Construction cost are set to rise 3 percent in 2019, pushed up by rising land and import costs. The supply of skilled labour currently presents few problems.

Future outlook

Construction activity is likely to ease over 2019, in line with an expected slowdown in global growth.

Construction of affordable housing and low-cost health facilities should help to offset the slowdown in high-end private sector development.

International building costs per m ² of internal area, in 2018	KSH	USD (exchange rate: 101)
Airports (Building only)		
Domestic terminal, full service	267,000	2,644
Low-cost carrier terminal, basic service	200,000	1,980
Car parks		
Multi-storey – above ground	42,000	416
Multi-storey – below ground	45,000	446
Commercial		
Offices – Business Park	65,000	644
CBD Offices – up to 20 floors medium (A-Grade)	72,000	713
CBD Offices – high-rise prestige	95,000	941
Education		
Primary and secondary	45,000	446
University	50,000	495
Hospitals		
Day centre (including basic surgeries)	85,000	842
Regional hospital	103,000	1,020
General hospital (e.g. city teaching hospital)	125,000	1,238
Hotels		
3 Star travellers	102,000	1,010
5 Star luxury	130,000	1,287
Resort style	120,000	1,188
Industrial		
Warehouse/factory units – basic	35,000	347
Large warehouse distribution centre	50,000	495
High-tech factory/laboratory	100,000	990
Residential		
Individual detached or terrace style house – medium standard	52,000	515
Individual detached house – prestige	80,000	792
Townhouses – medium standard	60,000	594
Apartments – low-rise medium standard	55,000	545
Apartments – high-rise	65,000	644
Aged care/affordable units	35,000	347
Retail		
Large shopping centre including mall	67,500	668
Neighbourhood including supermarket	57,500	569
Prestige car showroom	72,500	718

Kenya international building costs	KSH	USD (exchange rate: 101)
Composite trade rates		
Excavate basement (m ²) (1800m ² job)	400	4
Excavate footings (m)	350	3
Concrete in slab (m ²) (1500m ² job)	14,000	139
Reinforcement in beams (tonne)	120,000	1,188
Formwork to soffit of slab (m ²)	700	7
Blockwork in wall (m ²) (10,000 block job)	1,800	18
Structural steel beams (tonne)	240,000	2,376
Pre-cast concrete wall (m ²)	2,500	25
Curtain wall glazing incl support system (m ²) (1000m ² job)	20,000	198
Plasterboard 13mm thick to stud wall (m ²) (3000m ² job)	3,250	32
Single solid core door incl frame and hardware (no) (50 door job)	39,500	391
Painting to walls primer + 2 coats (m ²)	400	4
Ceramic tiling (m ²) (1000m ² job)	2,500	25
Vinyl flooring to wet areas (m ²) (500m ² job)	2,400	24
Carpet medium tufted (m ²) (4500m ² job)	5,000	50
Lighting installation (m ²) (5000m ² + job)	1,000	10
Copper pipe 15mm to wall (m) (1000m + job)	2,600	26
Fire sprinklers (per m ²) (5000m ² job)	3,200	32
Air conditioning incl main plant (m ²) (5000m ² + job)	10,500	104
Labour costs, per hour		
Group 1 Tradesman eg plumber, electrician	800	8
Group 2 Tradesman eg carpenter, bricklayer	800	8
Group 3 Tradesman eg carpet layer, tiler, plasterer	800	8
General labourer	500	5
Site foreman	1,500	15
Material costs		
Concrete 30 MPa (m ³) (1500m ³ job)	11,000	109
Reinforcement bar 16mm (tonne) (120 tonne job)	86,000	851
Concrete block (400x200) per 1000 (>10,000 block job)	60,000	594
Standard brick per 1000	50,000	495
Structural steel beams (tonne) (100 tonne + job)	175,000	1,733
Glass pane 10mm tempered (m ²)	9,000	89
Softwood timber for framing 100mm X 50mm (m)	500	5
13 mm plasterboard (m ²)	1,500	15
Emulsion paint (litre)	685	7
Copper pipe 15 mm (metre) (1000m + job)	1,450	14
Copper cable (metre) (3C + E, 2.5mm PVC) (100,000m + job)	360	4
Plant costs		
Hire 50t mobile crane + operator (day)	120,000	1,188

Terms and references

Building costs per m²

Costs for the construction of the building, including:

- Preliminaries (or general conditions) costs and substructure
- Columns
- Upper floors
- Staircases
- Roof
- External walls and external doors
- Internal walls and internal doors
- Wall finishes
- Floor finishes
- Ceiling finishes
- Fitments
- Plumbing and HVAC
- Fire protection
- Electrical and communication systems and transportation systems

It is assumed that building costs are based on the typical building standards and building methods for the region

Exclusions from buildings costs per m²

- External works
- Landscaping
- Professional fees
- Demolition
- Loose furniture
- Fittings and equipment
- Developers internal costs and finance
- Local authority fees and headworks charges
- Land
- Legal
- Finance and holding costs
- GST or sales taxes
- Site investigation and test bores
- Removal of significant obstructions in the ground
- Abnormal footings
- Allowance for underground or onsite car parking (unless stated otherwise)

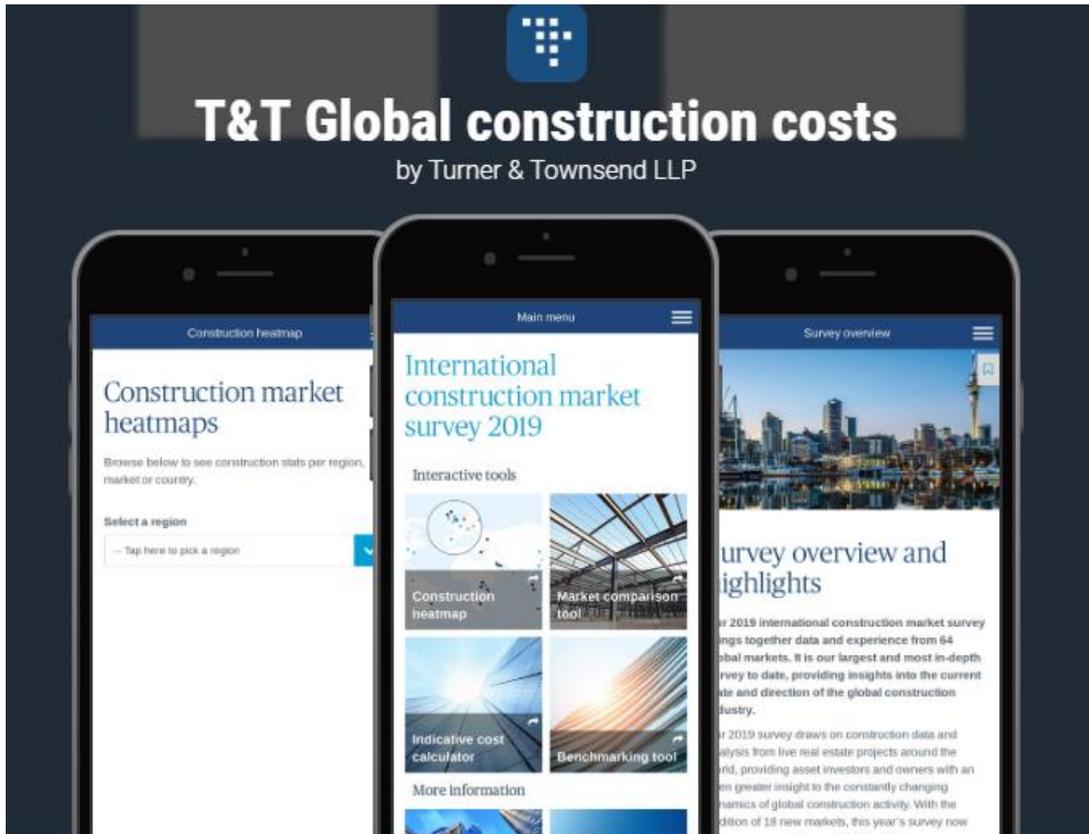
Labour Costs

All-inclusive cost to the employer which includes:

- Basic hourly wage
- Allowances
- Taxes
- Annual leave cost
- Workers compensation and health insurance
- Pensions
- Travel costs and fares

It excludes overheads, margins and overtime bonuses

ICMS App



Download it now

To download the ICMS app, select from the options below or search for 'Turner & Townsend' in the Apple or Google Play store.



Different methods to use the data

Method one: convert to a single currency such as USD

This is the most common means of comparison, useful for a multinational organisation paying for projects in its home currency.

Advantages

- Easy to understand and visualise.
- Gives the cost of typical building in each country.

Disadvantages

- A change in the exchange rate makes a huge difference: if a particular currency is strong compared to the base currency, the cost of construction looks expensive.
- Is not a reliable indicator of relative costs and efficiency of construction between countries.

Single currency method

Method two: Purchasing Power Parity (PPP)

The PPP measure shows costs in relation to cost of living in the country. It indicates the construction cost per square metre in the local currency, relative to the costs of a basket of construction materials and labour. The PPP cost of a particular building type is calculated by dividing the cost in m² in local currency by the PPP coefficient. A lower PPP cost generally indicates more efficient construction (see page 113 for more detail).

Advantages

- Leaves exchange rate out of the equation.

- Useful for governments, policy-makers and researchers to compare costs and efficiency with other countries.

Disadvantages

- For a global firm looking to build overseas, it can be more convenient to look at cost in its home currency.
- The cost of the basket of goods ignores contractors' margins, labour productivity and preliminaries.

Purchasing Power Parity

Method three: location factors

Location factors extend the basket of goods approach used in method two (PPP) by adding labour productivity, market conditions, contractors' preliminaries and margins.

A similarly specified building constructed for USD100m in London (location factor 100) should cost USD108m in Toronto (location factor 108) at the exchange rate as of the first quarter of 2018.

Advantages

- Useful for a company considering a complex investment in several locations and wanting to know the cost in a single currency.
- Will show the difference in cost between countries of buildings built with similar specifications and inclusions.

Disadvantages

- As this method uses a common currency, it is subject to the same disadvantages as method one.
- In practice, local building codes, methods and specifications are different between regions.

Location Factors

Takeaways from today

Let us help you take a more commercial approach to conceptualizing projects



- Using the ICMS and the data behind the survey we can help property developers and architects to **drive more informed decisions upfront about the viability of certain construction projects** in specific cities.
- We can **help international companies** coming into the country **understand costs relative to where they come from.**
- Given the way we manage big data we are able to very **quickly check the viability of a project at the very early ideas stage** with the developer and architect. **This way time isn't wasted conceptualizing something that won't work financially.**
- Redrawing designs reduces the profitability of the architect's services and for the developer time is of the essence when they are looking to commercialise their property. **Let us help prevent you having to go back to the drawing board.**
- Our data covers labour costs, material costs and plant costs covers projects across residential, retail, hotels, hospitals, schools, universities, commercial offices and car parks, industrial warehouses and even airport buildings.

"Turner & Townsend can provide numbers that property developers and their professional teams can trust."



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International construction market survey 2019

Cost data and analysis from 64
global markets

Find out more on www.turnerandtownsend.com

making the difference