UGANDA'S AFRICAN IT & ITES PROJECT PLAN PHASES

PHASE 1

Factualisation of IT & ITES market dynamics in Africa and heatmap for Uganda

PHASE 2

African value proposition arising from the research and heatmap opportunities

PHASE 3

Documentation and high level roadmap

Introduction of Value Proposition Africa

One-on-one meetings with Ugandan partners for input. Creation of heatmap and use it as background to shape the VP

Draft Value Proposition Africa feedback meeting

Presentation of the final value proposition*Roadmap for implementation

WHY THIS PROJECT

IT & ITES TERMINOLOGY USED IN THIS DOCUMENT

Analysis Scope

IT spent includes:

- Information technology -networks and systems integration, IT consultancy (excluding telecommunication networks)

- Business Process Management: Includes all business process management from voice (customer care) to non-voice (document management, finance, HRM, etc.)

- Software and hardware products

IT & ITES industry services: The first two points above, but part of "Software as Services"

Digital: portion of IT & BPM industry that uses new digital based technologies to enable the original services, or extend them (e.g. IT, cloud, BPM: big data and analytic services), digital distributed software Saas

Outsourcing and offshoring (Offshoring, Nearshoring, Reshoring):
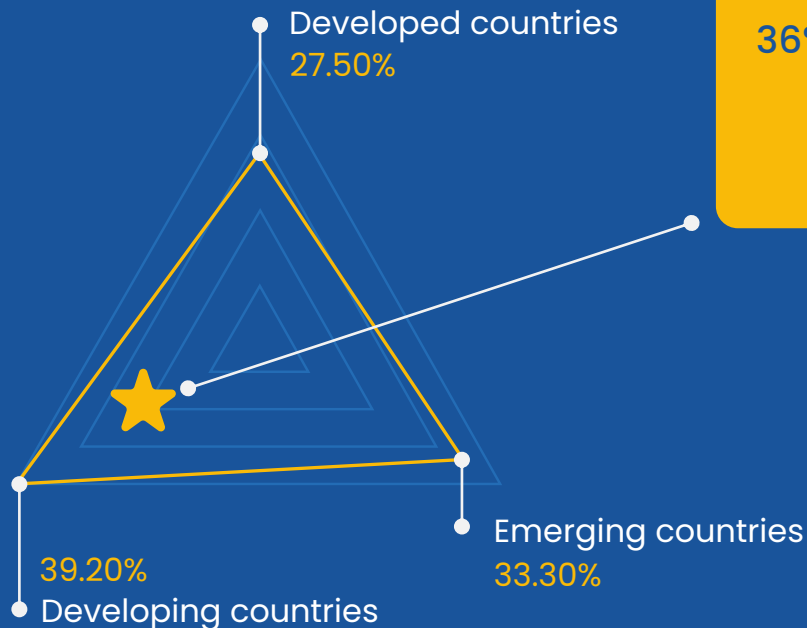
Offshoring - basing some of a company's processes or services overseas
outsourcing - third party managed services; offshoring; same but for third party countries.

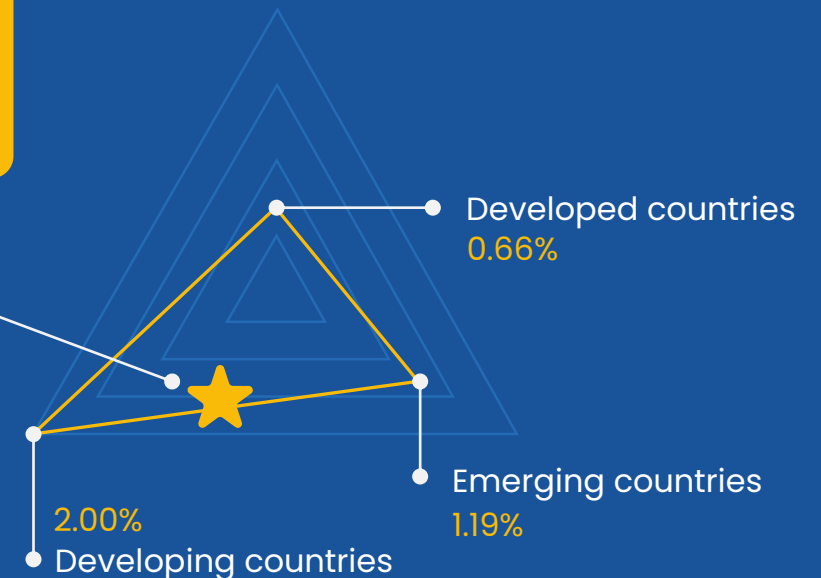# IN THE LAST 25 YEARS, IT & ITES HAS ACCOUNTED FOR 1/3RD OF WORLD ECONOMIC GROWTH, INCLUDING AFRICAN COUNTRIES

ICT Contribution, Share to GDP, 1995 - 2015

ICT Contribution to GDP, annual points 1995 - 2015

Africa 2012-2017 :
36% digital ICT contribution share, and 1,21% points of growth

Developed countries
27.50%

Developing countries
39.20%

Emerging countries
33.30%

Developed countries

Developed countries
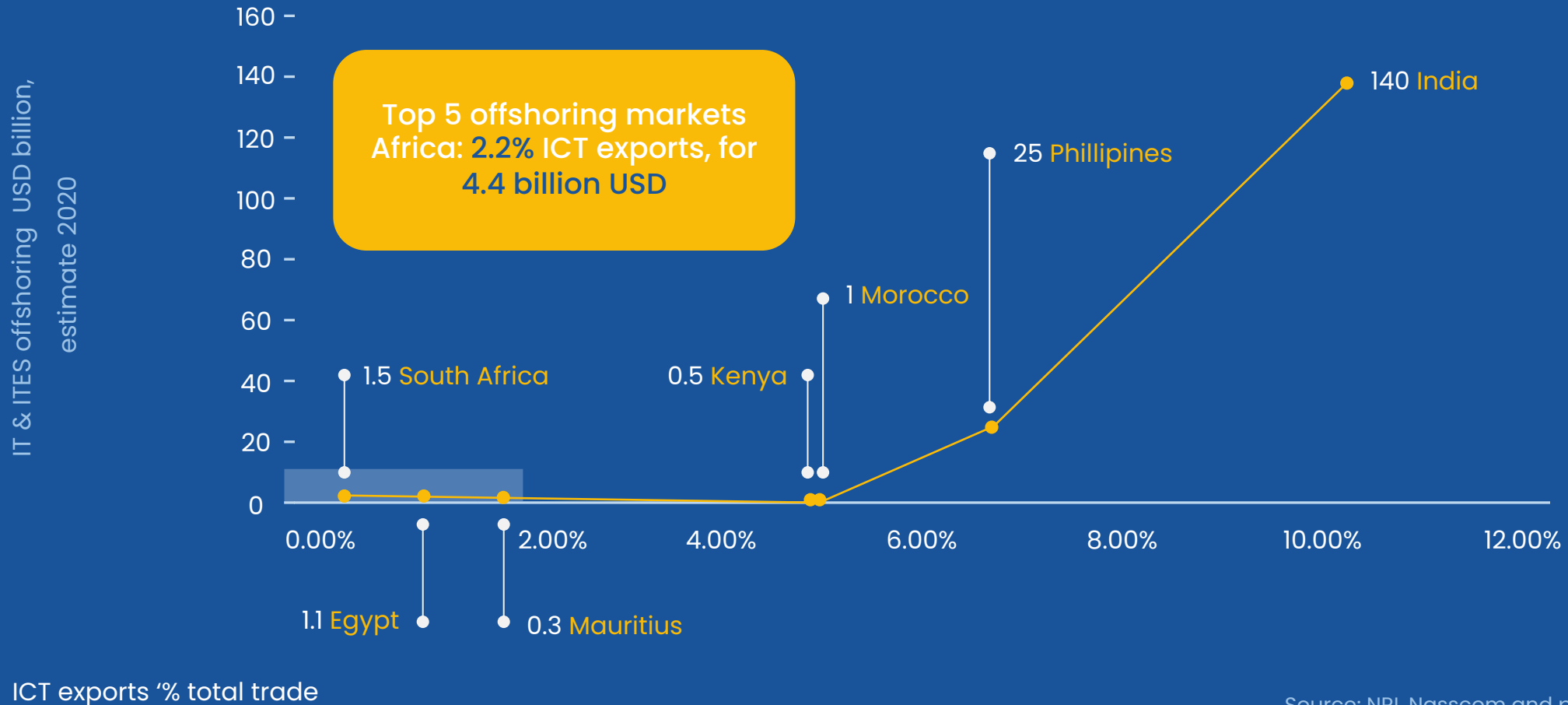0.66%

Developing countries
2.00%

Emerging countries
1.19%

Source:* own computation, derived from Jorgenson, W and Vu, K (2016), The ICT revolution, world economic growth, and policy issues, Telecommunication policy, and Niebel, T. (2018). ICT and economic growth–Comparing developing, emerging and developed countries. World Development; ** derived from Solomon and van Klyton, (2020). The impact of digital technology usage on economic growth in Africa. Utilities Policy

THE AFRICAN OFFSHORING INDUSTRY IS AN OPPORTUNITY THAT AWAITS TO BE CAPTURED

Africa offshoring versus World leaders

IT & ITES offshoring USD billion, estimate 2020

Top 5 offshoring markets Africa: 2.2% ICT exports, for 4.4 billion USD

160
140 — 140 India
120
100
80
25 Phillipines
60 — 1 Morocco
40 — 1.5 South Africa — 0.5 Kenya
20
0

0.00%   2.00%   4.00%   6.00%   8.00%   10.00%   12.00%

1.1 Egypt   0.3 Mauritius

ICT exports '% total trade

HEAT MAP INSIGHTS

THREE KEY MESSAGES FROM THE INSIGHTS

Presented and refined in two previous working sessions with stakeholders

IT spent : Opportunity in Africa

- Africa's IT & ITES industry is lagging other continents

- Most African countries' offshoring opportunities lay within Africa, not on other continents

Four African country-clusters define the Uganda opportunity

- First segment 40% (of revenue): nearby countries with English as common language (South Africa, Kenya, Tanzania, Ethiopia, Zimbabwe, Zambia)
- Second segment (40%): large and more advanced countries than Uganda in IT & ITES (Nigeria, Egypt, Ghana as main ones)
- Third Segment (10%): Nearshoring of smaller countries like Malawi or Rwanda
- Fourth Segment (10%): a smaller opportunity: Francophone and Central Africa, limited competitiveness for Uganda

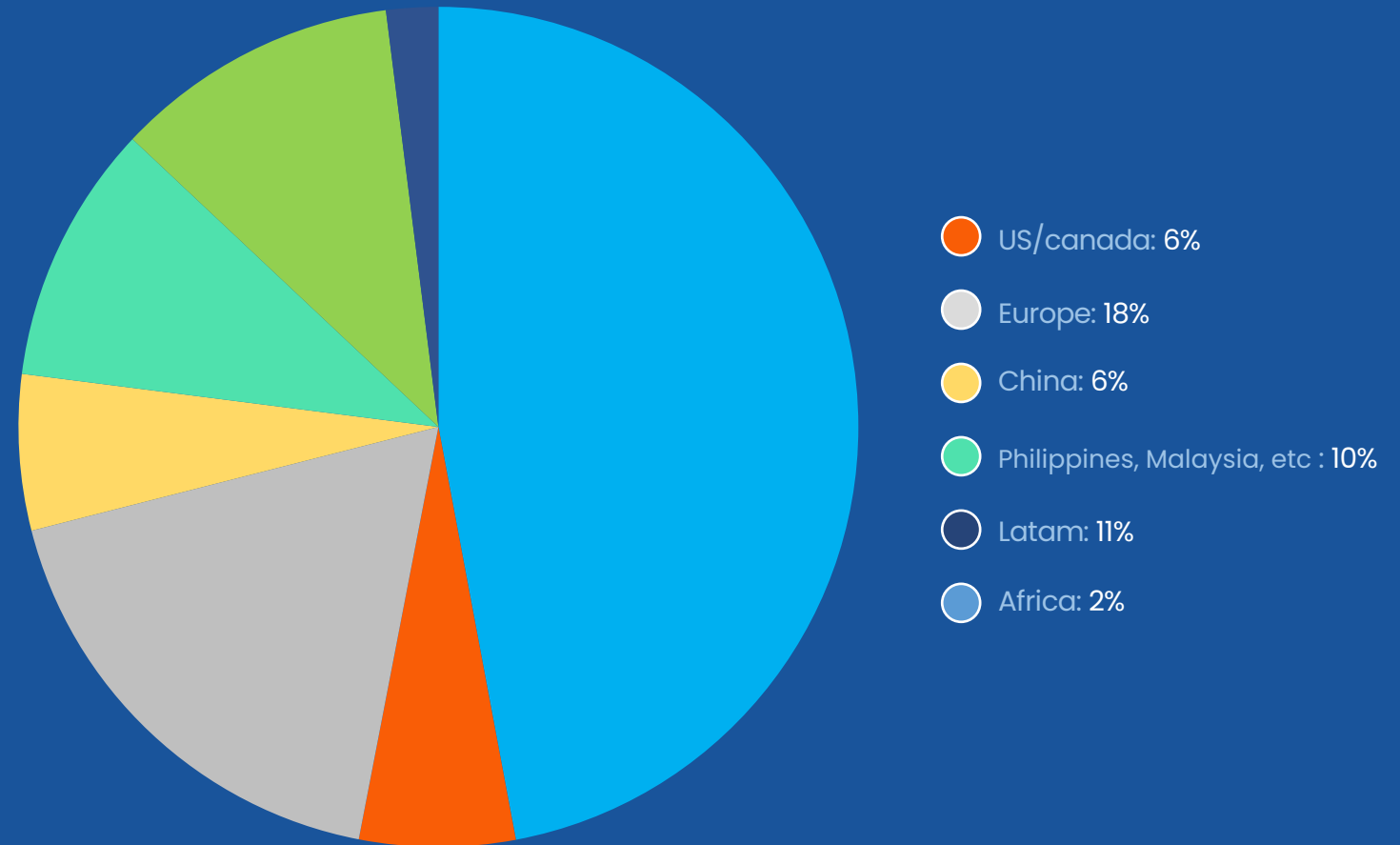**Market is moving into digital,**

Africa is lagging, except for Nigeria, South Africa, and Kenya. Generally, there is opportunity to scale the new IT & ITES opportunity for Uganda

AFRICA INSIGHTS

OFSHORING COUNTRY TENANTS, 2019, ESTIMATES

IT spent by African companies worldwide is 4%, only 1.5-2% of this is offshoring

- US/canada: 6%
- Europe: 18%
- China: 6%
- Philippines, Malaysia, etc : 10%
- Latam: 11%
- Africa: 2%

AFRICA INSIGHTS

% Content nearshoring

70%

70% —
60% —
50% —   45%
40% —
30% —   26%
20% —   21%
10% —
0% —
       Africa   Western Europe   Latam   North America
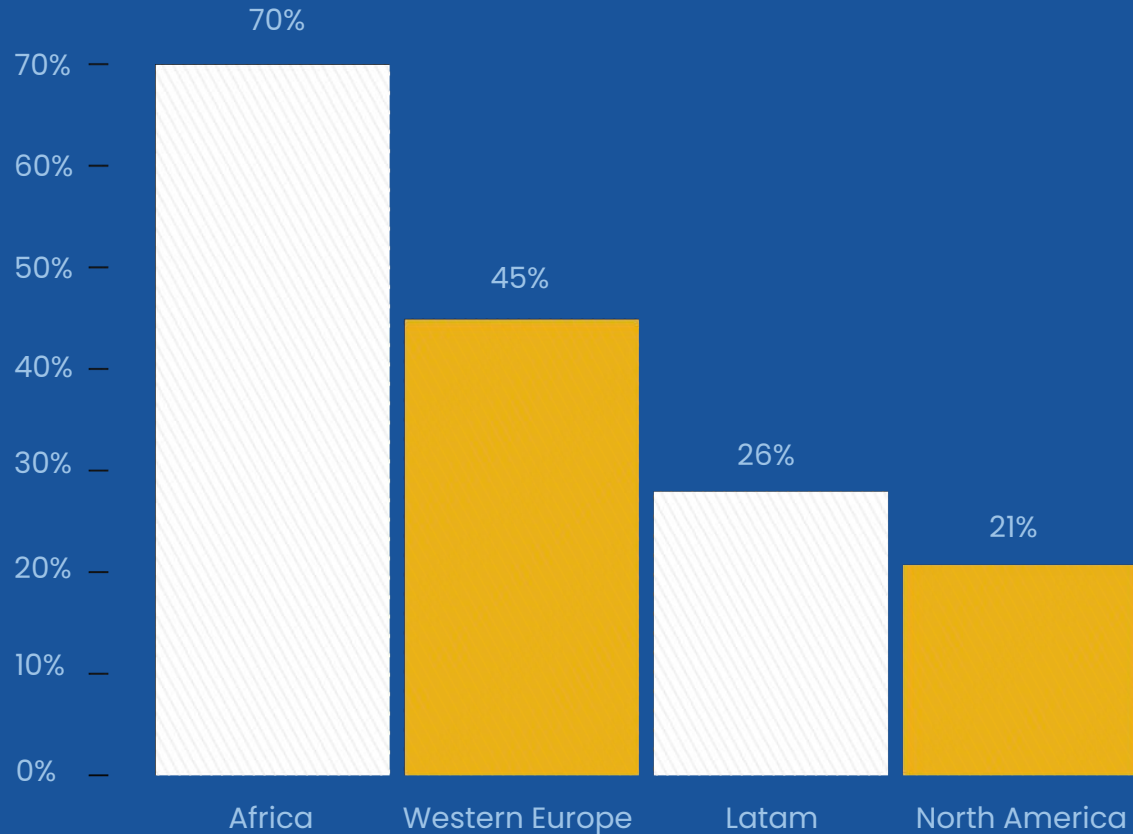
Source: Based on Jensen, P. D. Ø., & Pedersen, T. (2011). The economic geography of offshoring: the fit between activities and local context. Journal of Management Studies, 48(2), 352-372; own economic model of offshoring model

AfCFTA may scale the intra-continent trade

Africa Continental Free Trade Agreement (AfCFTA) came into force in May 2019, being ratified by the parliaments of 24 countries. Implementation of the AfCFTA Agreement is set to begin on 1 January 2021
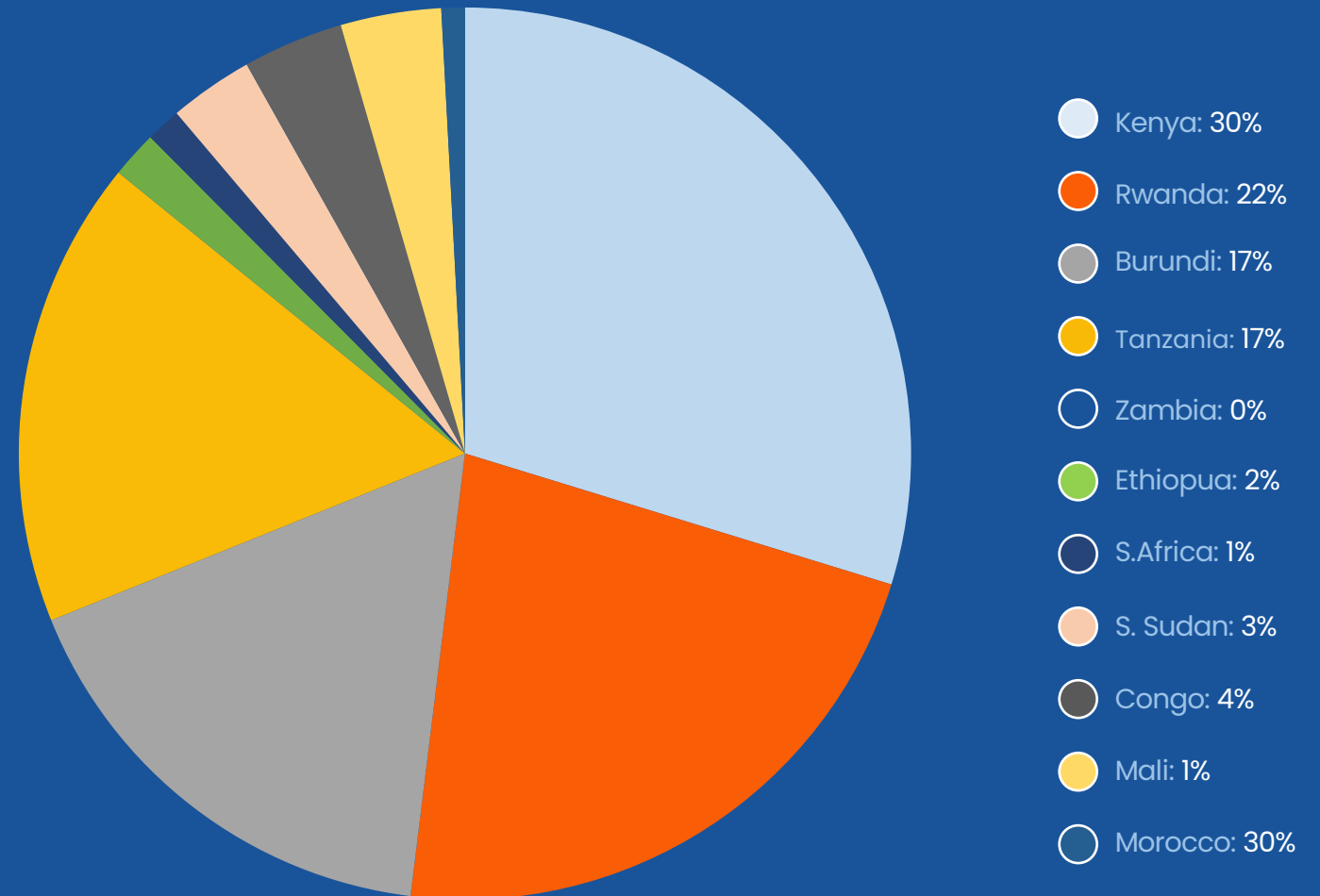
Case study examples of economic integration (such as Central and Eastern European countries joining the EU) suggest that pan-African trade can be boosted by 10-30% depending on the High Tech nature of goods and services

INSIGHTS ON UGANDA

Current African IT & BPM exports of Uganda firms, 2019 100% = 3,2% of total pan African offshoring

OFSHORING COUNTRY TENANTS, 2019, ESTIMATES

- Kenya: 30%
- Rwanda: 22%
- Burundi: 17%
- Tanzania: 17%
- Zambia: 0%
- Ethiopua: 2%
- S.Africa: 1%
- S. Sudan: 3%
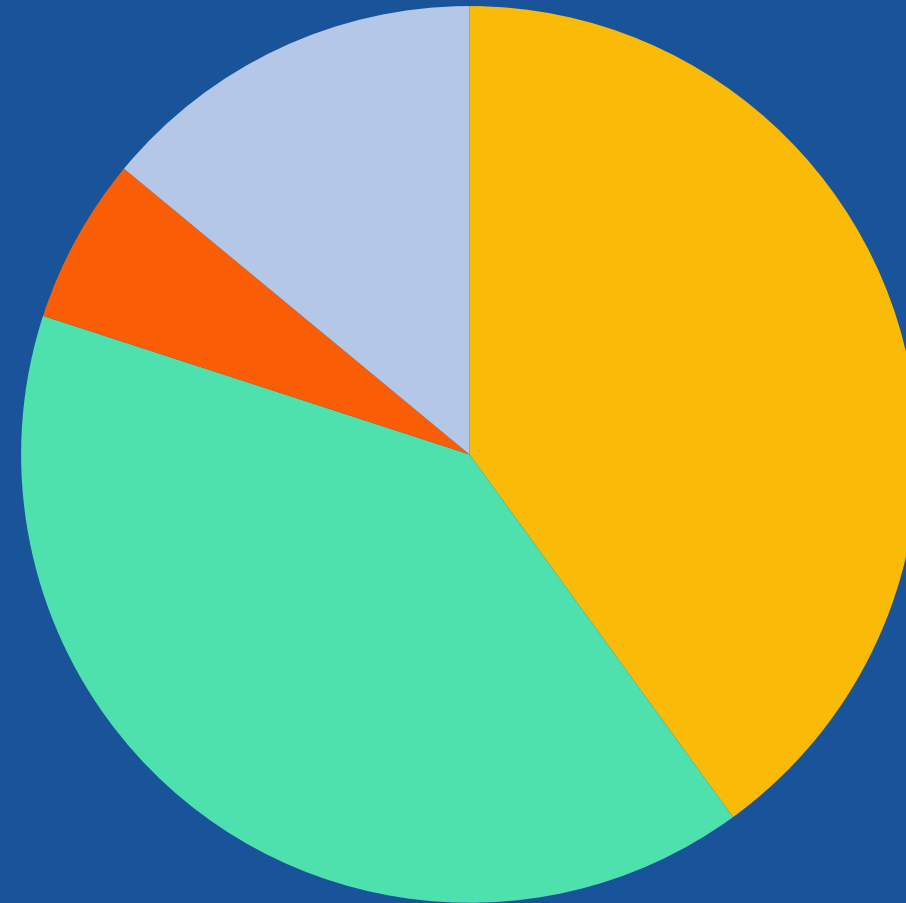- Congo: 4%
- Mali: 1%
- Morocco: 30%

Source: ITC directory Uganda, based on gold list, destination weighted by (employee) size of companies

OPPORTUNITIES FOR UGANDA

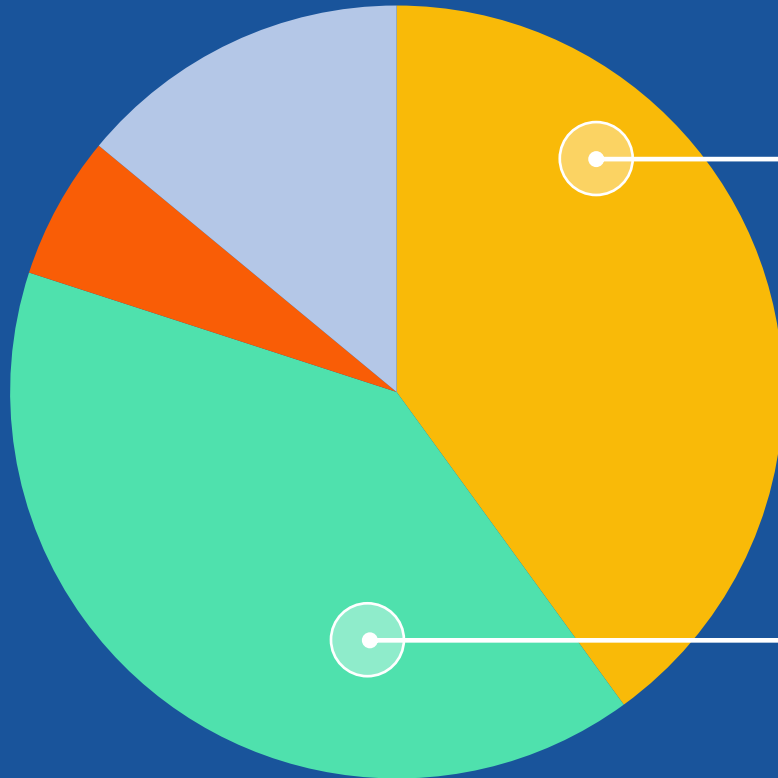## The African IT & ITES opportunities for Uganda is split among four segments

AFRICAN IT & ITES OPPORTUNITIES FOR UGANDA, REVENUE (%)

- Priority: 40%
- Sponsor: 40%
- Opportunist: 6%
- Watch out

UGANDA OPPORTUNITIES

AfCFTA may scale the intra-continent trade

Major countries with high IT demand (Egypt, Morocco, Nigeria)

Cost efficiency is the favorable feature of Uganda

Nigeria and Ghana are a large market that coud be a good sponsor for Uganda: seeing that Uganda has the language affinity and is digitally advanced

Can Egypt leverage Uganda as a sub-contractor?

Nearshore countries with a common language (English), but larger market than EAC

South Africa, Kenya, Ethiopia, Tanzania, Botswana, Zambia

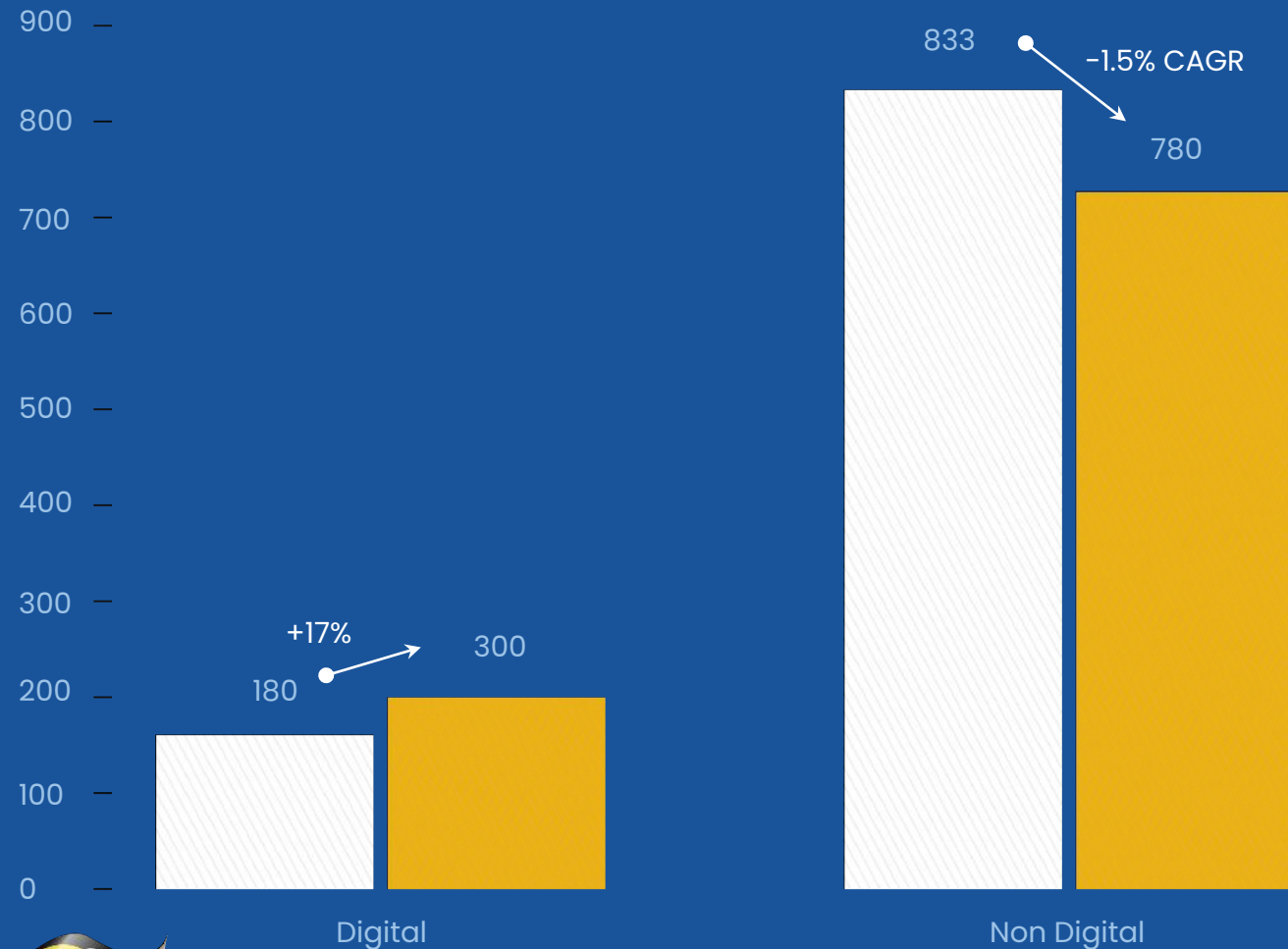Uganda IT offshore advantage is average, USP on cost effiency and to some extent digital savviness (except in Kenya)

● Priority: 40%   ● Sponsor: 40%   ● Opportunist: 6%   ● Watch out

UGANDA OPPORTUNITIES

Along the way, IT offshoring services are moving to digital

Digital split of total IT spent worldwide, USD billion

833

-1.5% CAGR

780

+17%

180

300

Digital

Non Digital

Digital IT offshoring spent share grew **from 17% in 2017 to 28% today**;

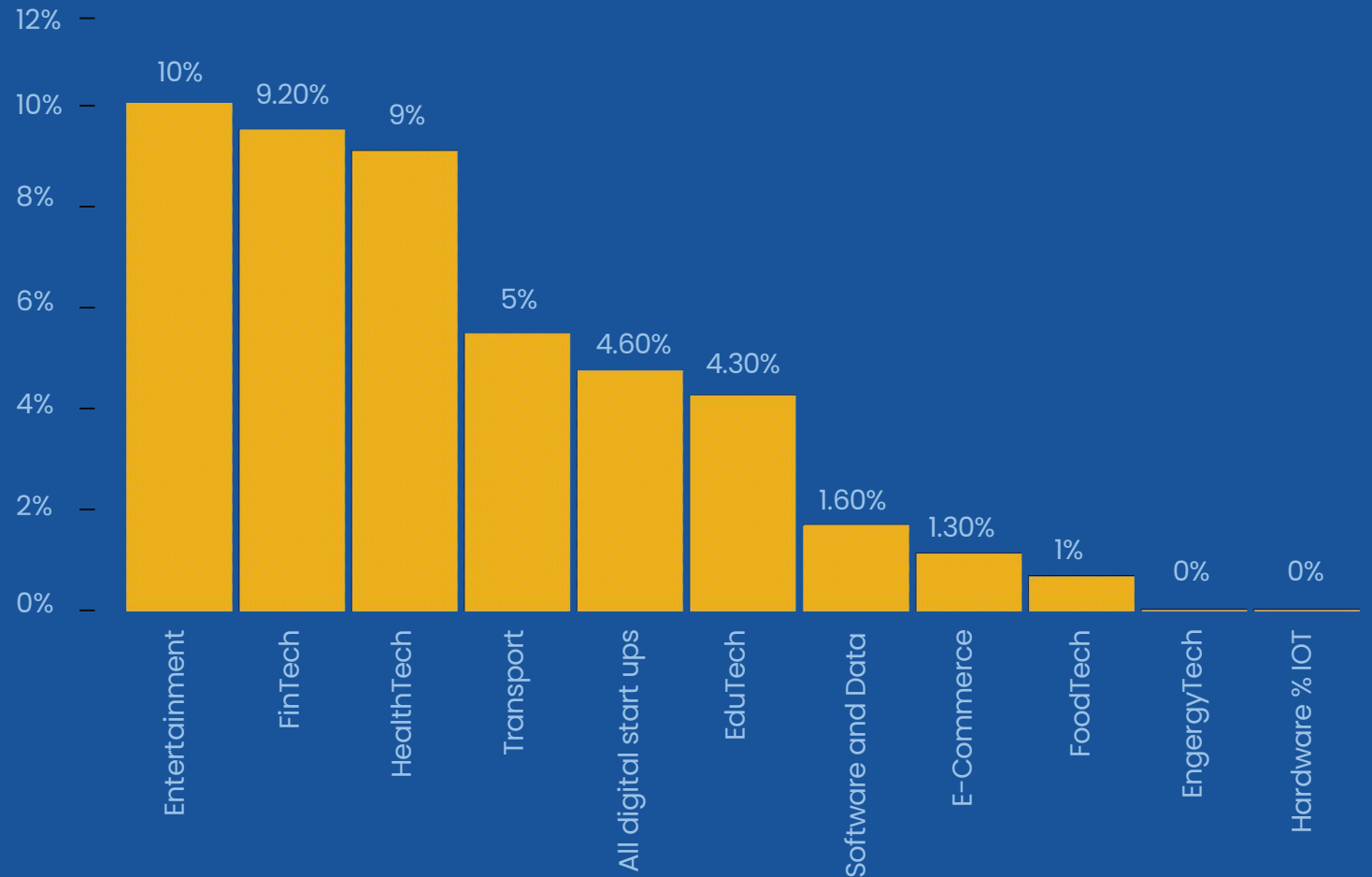The digital proportion of Africa's offshoring is about 15% so far*

DIGITAL SHIFT

Along the way, IT offshoring services are morphing to digital

● Uganda share in Africa
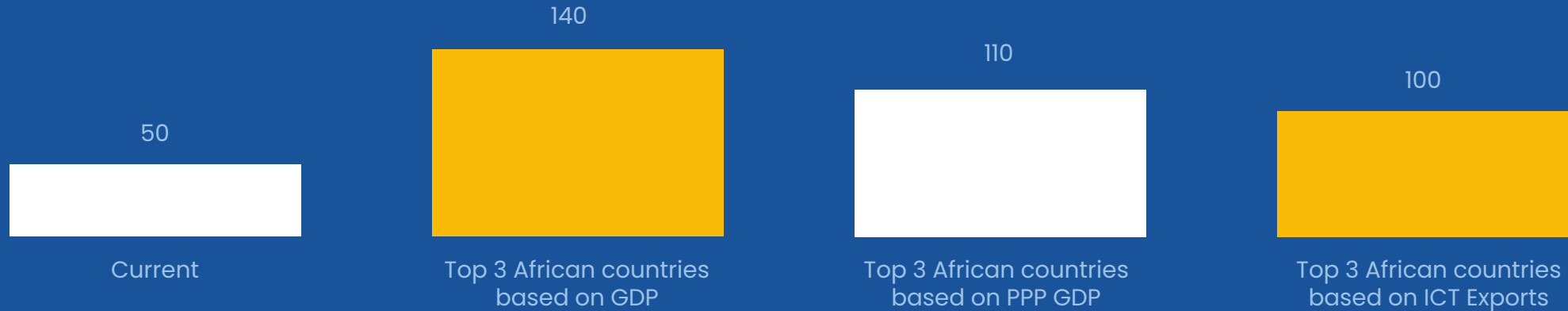
● Uganda Digital start up specialization

THE AMBITION

THERE IS POTENTIAL TO MORE THAN DOUBLE THE UGANDA IT & ITES OFFSHORING ON THE AFRICAN CONTINENT

Potential African offshoring, Uganda

50	140	110	100
Current	Top 3 African countries based on GDP	Top 3 African countries based on PPP GDP	Top 3 African countries based on ICT Exports

South African Development IT & BPM

In Billion Rands

21-23%

20.4	26.7	32.5	38.6	47.3
2014	2015	2016	2017	2018E[2]
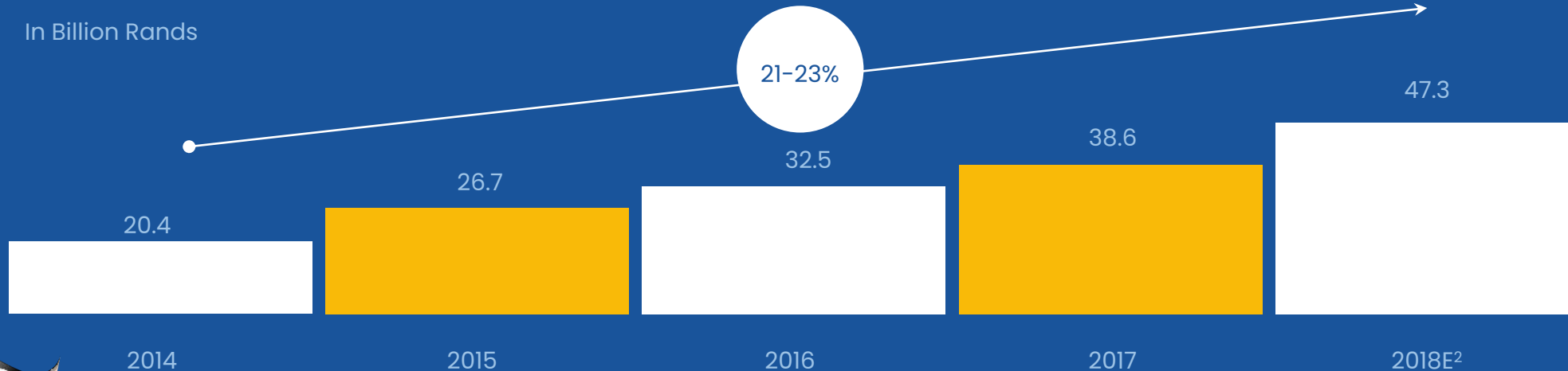
UGANDA SHOWS A SPIKE ON ICT INFRUSTRUCTURE AND COST EFFICIENCY VERSUS THE AVERAGE AFRICAN COUNTRY

UGANDA IT & ITES RANKING

Average

Mediane

Uganda

Cost efficieny

ICT Infrustructure

Institutional context

Knowledge workers
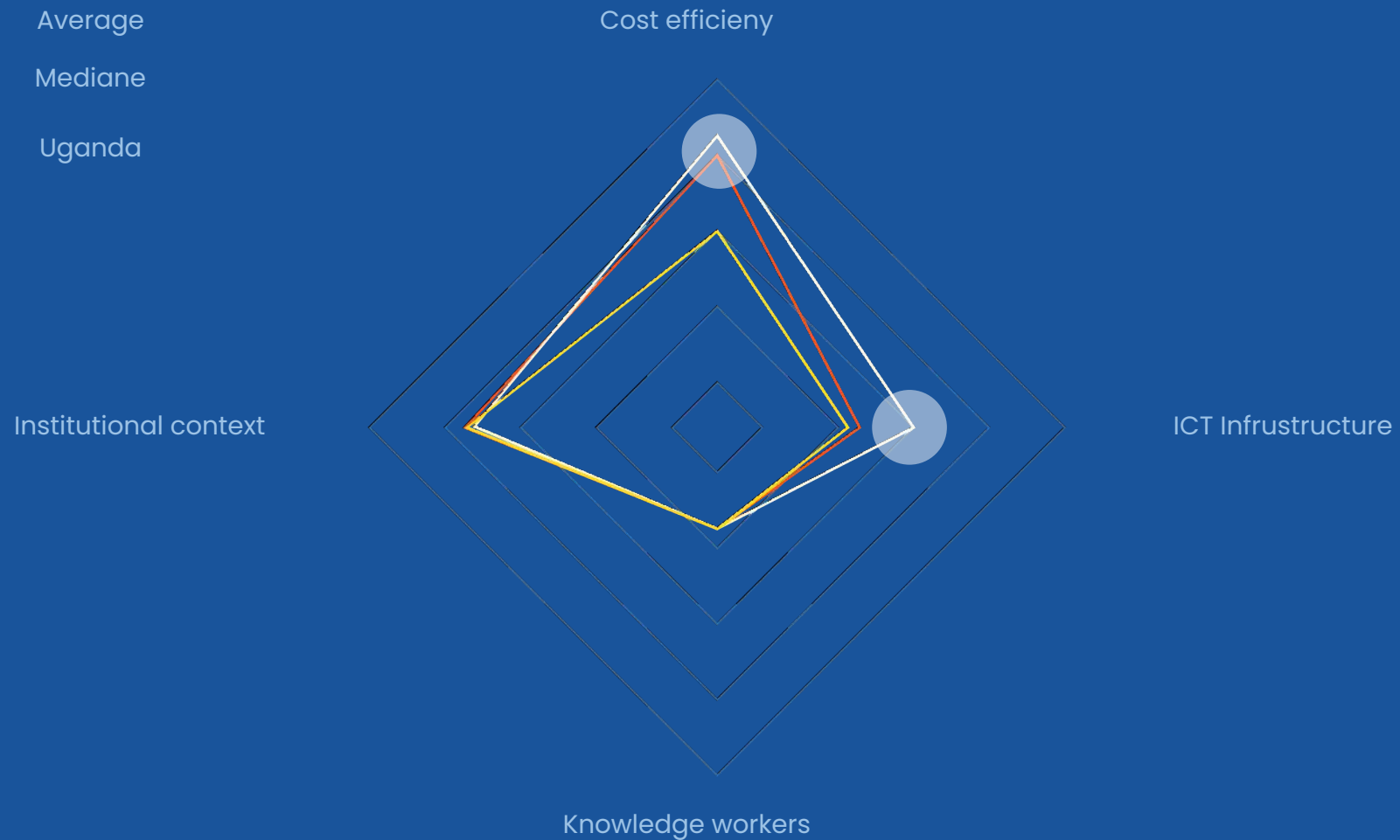
WHILE 12TH LARGEST GDP IN AFRICA, UGANDA RANKED 9TH IN AFRICAN COUNTRIES LINKED TO DIGITAL POTENTIAL

Top 15 countries -African countries ranking

TRADITIONAL OFFSHORING

120%

100% — EGYPT

MAURITIUS
80%

SOUTH AFRICA

60% — MORICCO

KENYA   NIGERIA

40%

TANZANIA
20%

GHANA   RWANDA

IVORY COAST

UGANDA

0% SENEGA 33%: 0%

0%   20%   40%   60%   80%   100%   120%

TUNISIA

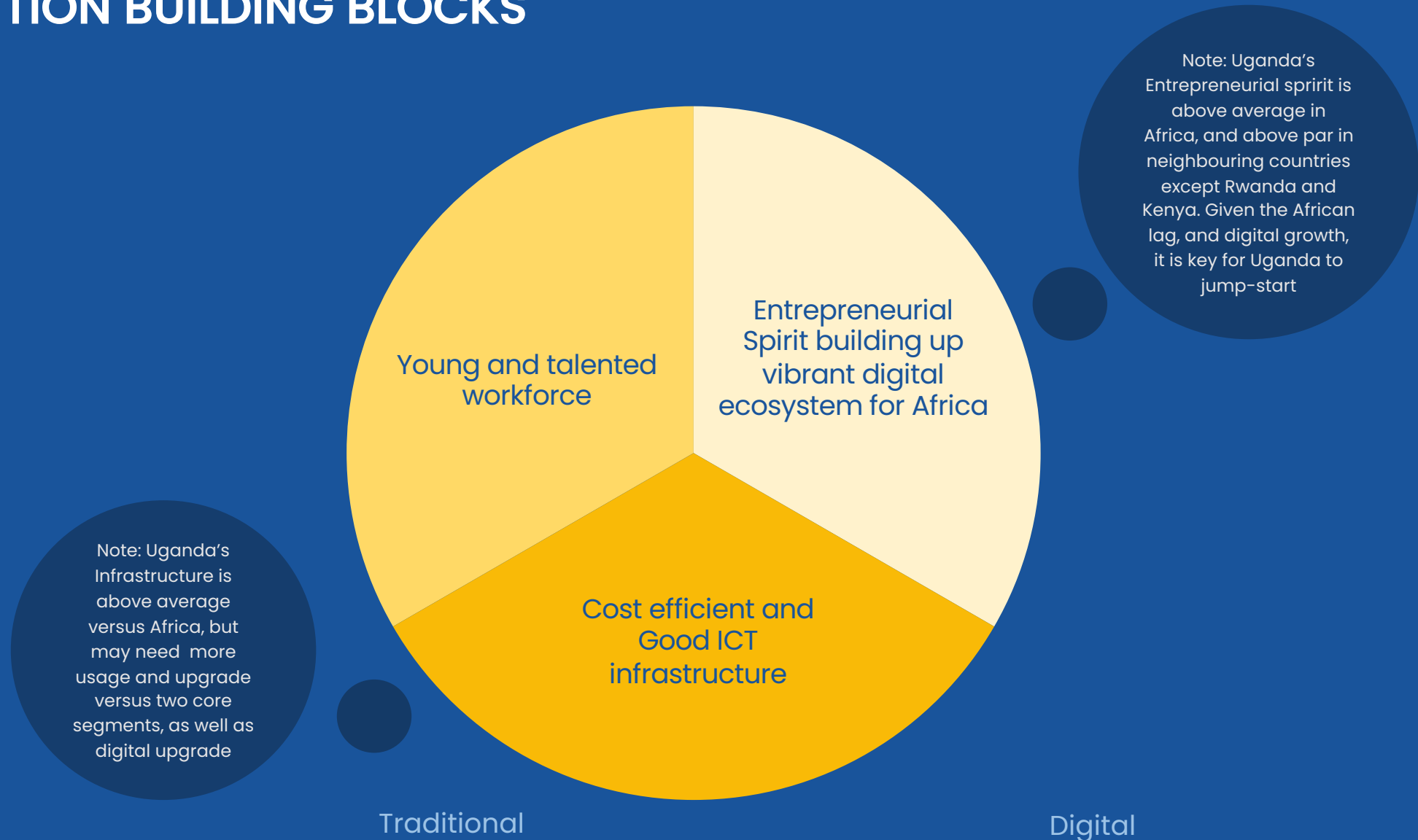IVORY COAST   ZIMBABWE

DIGITALLY AHEAD

Computed based on ranking of digital start ups and start up funding for digital, on GDP, Innovation and offshoring size.
Sources: TechAfrica, StartupBlink, ILMF, AT Kearney, 2019 data

THE VALUE PROPOSITION

UGANDA'S STRONG FOUNDATIONS : THE PITCH

Solid socio-economic story and cost efficient workforce

1 Economic growth: growth rate of 6,5%, unemployment rate below 10% (only 3% for youth)

2 Competitive labour costs with an average monthly wage of around $307

Good ICT infrastructure and ICT support by the government

1 Mobile phone penetration is large

2 Lower smartphone penetration than the other sub-Saharan countries, but catching up

3 3G and 4G connectivity with a penetration rate of 78% and 23% respectively in 2018

4 Uganda's National Backbone Infrastructure has connected all major towns in Uganda to an fibre-optic cable-based network and is being extended countrywide. The total span of fibre optic cables laid out across the country by both the government and private sector is 5110km, providing seamless connections

5 Uganda hosts some IT & BPM "brands" from global players like Techno Brain and iSON, to more regional and local players such as Service Corps, BDE Consult and Exquisite Solution,

6 Solid support from trade associations and governments for ICT expansion, e.g. Ministry of ICT and National Guidance, Ministry of Science, Technology and Innovation, National Information Technology Authority–Uganda, ICT Association of Uganda, Alliance for Trade in Information Technology and Service

7 IT firms registering for certification

8 Government pushing for partnerships with global ICT players, e.g. Google on "Project Link", Microsoft on innovation and skills' ICT sector

UGANDA'S YOUNG AND TALENTED WORKFORCE : THE PITCH

A large, young, English-speaking talent pool

1 One of the youngest populations in Africa, with 69% of the population under the age of 24;

Literacy

1 Large coverage of universities in the country, close to 50

2 Youth literacy close to 90% (vs. an average of 50% youth literacy in sub-Saharan countries)

3 High quality and employability of workforce according to WEF 2018 Global Competitiveness Index, on a scale of 1 to 7 (7 excellent), Uganda reaches 4.4 out of 7 on the ease of finding skilled workers (on sourcing talent with digital skills)

4 Moving digital– e.g active participation in Africa code week for young people aged 8 to 24 in 17 countries including Benin, Botswana, Cameroon, Egypt, Ethiopia, Ivory Coast, Ghana, Kenya, Madagascar, Morocco, Nigeria, Rwanda, Senegal, South Africa, Togo, Tunisia and Uganda.

ENTREPRENEURIAL SPIRIT WITH AN EMERGING DIGITAL ECOSYSTEM : THE PITCH

A young, English-speaking, digitally-savvy, entrepreneurial population:

1. One of the youngest population of Africa, with strong English literacy and good digital skills

2. Uganda was named the world's most entrepreneurial country by Global Entrepreneurship Monitor.

Uganda's role in forming a regional critical mass for Africa's digital break-out

1. Uganda ranked in the top 10 African countries when it comes to the quality and quantity of digital start ups and start up funding

2. Uganda is already above average in terms of startup financing (when measured in relation to GDP, or total population)

4. Part of a critical-mass regional hub, with Kenya and Rwanda forming other key components

5. Slowly investing in B2B software linked to analytics, big data, and automation, as major drivers of digital offshoring

10 ITEMS TO EXECUTE THE ROAD MAP (1/3)

01

Publicly launch the value proposition via a major even.

02

Delegate the charge of IT promotion and representation of the Uganda companies to these stakeholders. A steering group might be formed to monitor and oversee the development of progress on the implementation of the value proposition.

03

Hire a branding agency for a branding and marketing campaign. The branding should be instantly recognizable as referring to the IT & ITES sector. The branding agency will develop the campaign materials and define the rollout, especially with respect to target countries. Leveraging touch points like fares, international events (ITU, etc.) and commercial trade events will also be important.

10 ITEMS TO EXECUTE THE ROAD MAP (1/3)

04

Select a few of the most promising Ugandan companies that fit the value proposition, to serve as ambassadors for the country. Those companies should be recognized officially as IT leaders for the international markets, via a "Uganda label of IT excellence".

05

The government as the key local driver to develop the digital B2B space, through a list of digital projects, e.g. e-government services

06

Lay the foundation for digital skills upgrading through partnerships with universities as well as digital education programmes like Andela (already present in Uganda) or international programmes like Africa Code Week by SAP

10 ITEMS TO EXECUTE THE ROAD MAP (1/3)

07

Facilitate a conducive business environment for digital companies in Uganda. For example, through a joint public-private fund for digital IT services start ups, with the goal to double the number of hubs, and digital companies

08

Seek a country "sponsor" that may be a major client to scale the IT & ITES sector. As France is for Morocco, US for India, UK for South Africa, Egypt has potential for Uganda. Egypt has had a good tradition of training talents for Uganda; Uganda may revive that, and extend the relationship by making Uganda a sub-contractor of services at a lower price. While challenging, Nigeria may also be investigated as an opportunity for offshoring services by Uganda.

09

Reach out to the Uganda diaspora outside the country, (even in Europe or the UK) —and seek their investment in local IT companies while proactively prepare certification modules for local IT firms

THANK YOU