



Market Review | Ivory Coast

April, 2020

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Country Overview



Population & Economy

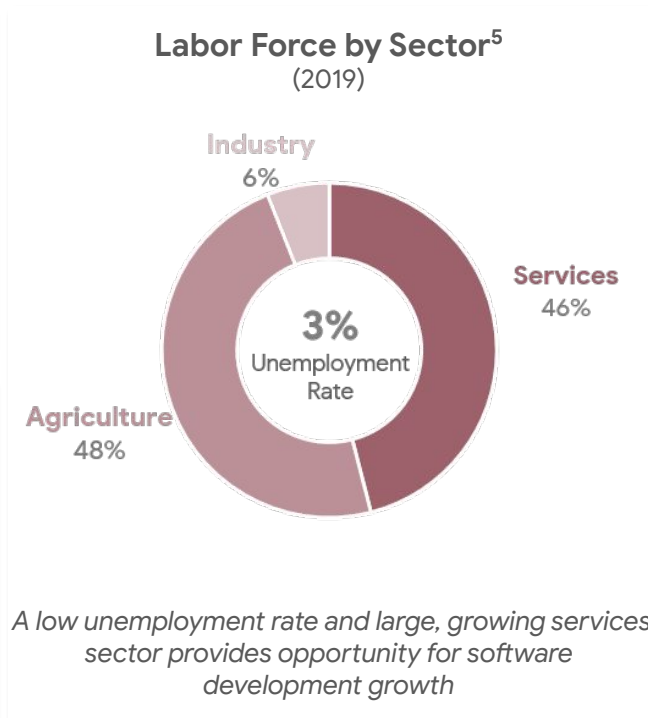
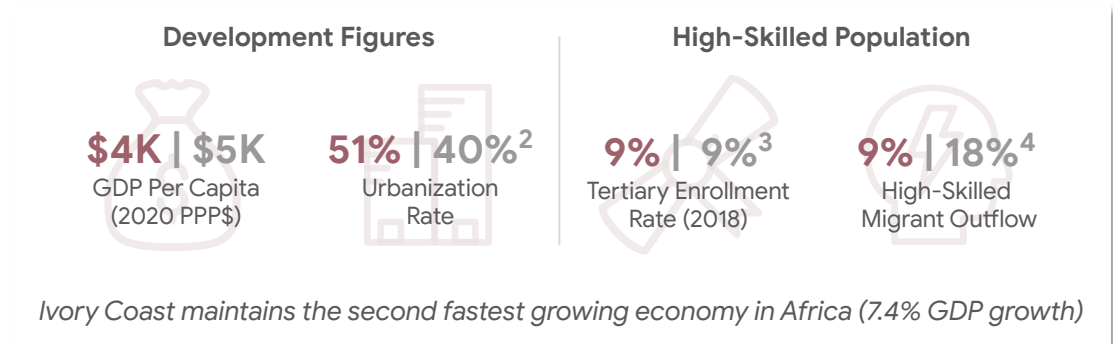
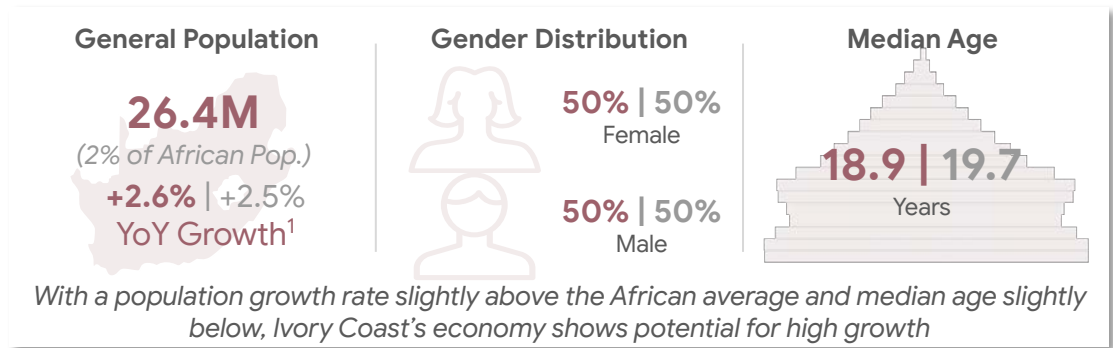


Technology Infrastructure



Government Involvement

A young population and large services sector drives tech ecosystem growth



Ivory Coast's technology infrastructure is scaling rapidly to meet the needs of a mobile-first economy

Infrastructure Indicators

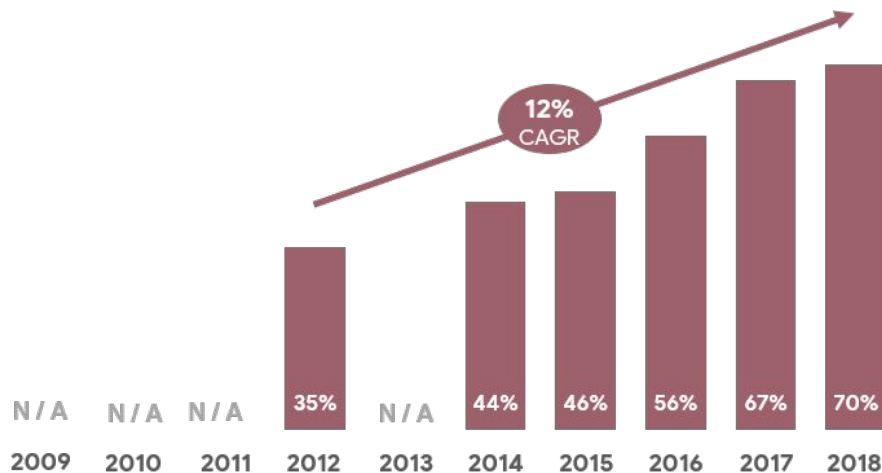
Above / Below Global Average | Global Average

53% 59%	135 69
Internet Penetration (FY20E)	Mobile Phone Subscriptions per 100 People
16.3 30.5	\$4.10 \$8.53
Mobile Internet Download Speed (Mbps)	Cost of 1GB Mobile Internet (PPP\$)
19.2 74.3	\$81 \$50
Fixed Internet Download Speed (Mbps)	Monthly Cost of 5GB Fixed Internet (PPP\$)
76 1,620	66% 89%
Servers shipped (FY20E)	Population with Access to Official Electric Grid

Lack of affordable and high speed fixed connections have led to high mobile penetration

Population Covered by at Least 3G (2018)

(90% global average)



Ivory Coast's 3G coverage has consistently grown, doubling in the last 6 years, but still lags behind the global average

The Ivory Coast regulatory environment supports economic growth and continues to improve conditions for a developing tech ecosystem

Notable Government Policies



The government **eased the regulatory environment for IT-related businesses** as part of an overhaul of the national tech infrastructure



It takes eight days to start a new business, **the fastest in Africa and only three days longer than the US**, facilitating economic growth

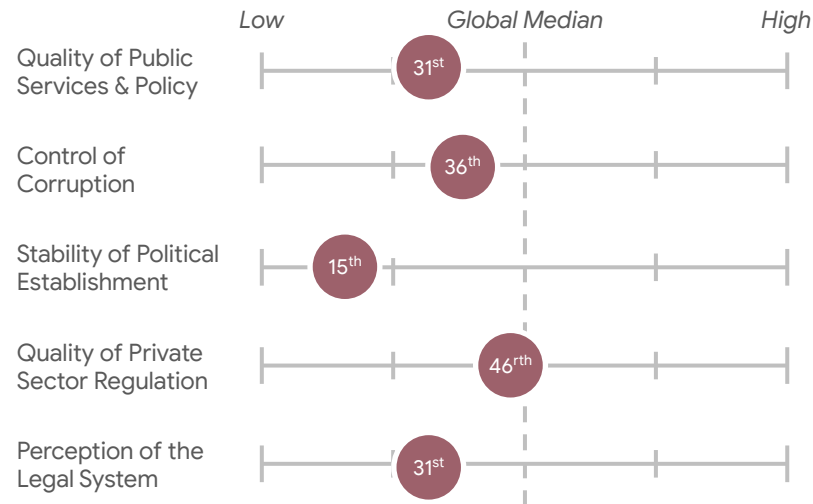


The government launched tech parks, the largest is near Abidjan, in 2019 to **provide workspace and training to new businesses**



The Ivory Coast is mandating additional educational programs to assist in the **development of human capital for coding**

Governance Indicator Percentiles



Ivory Coast's government is developing the policies and institutions to promote long-term growth in the tech ecosystem



Developer Population



Demographics



Education



Employment



Experience

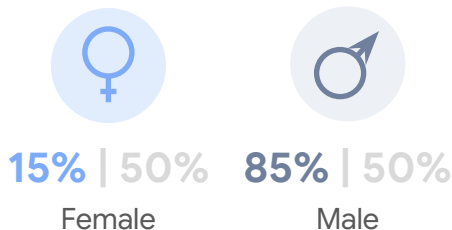
Nearly all coders in Ivory Coast are under the age of 34 and reside in Abidjan

Developer Population (FY20E)

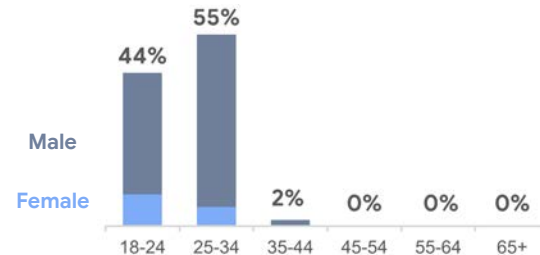


Gender Breakdown^{1,2}

Developer Pop | Ivory Coast General Pop



Age Distribution^{1,2}



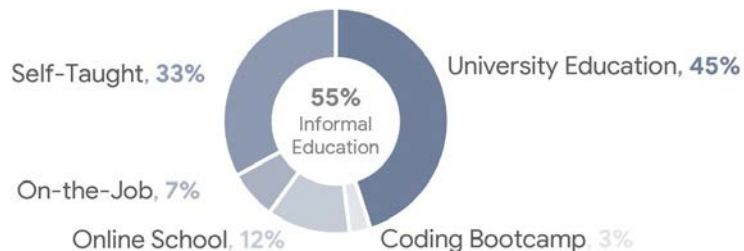
Top Cities for Developers

- 1 Abidjan
- 2 Yamoussoukro
- 3 San-Pedro (region)

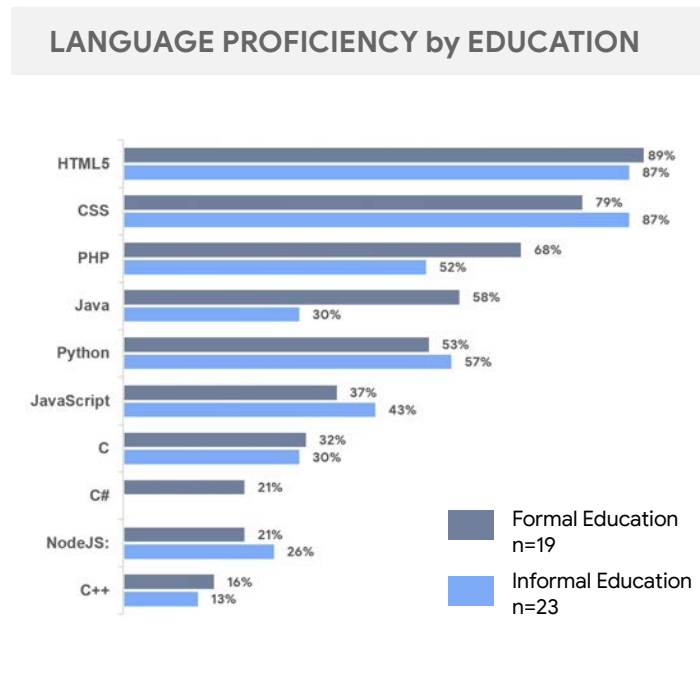
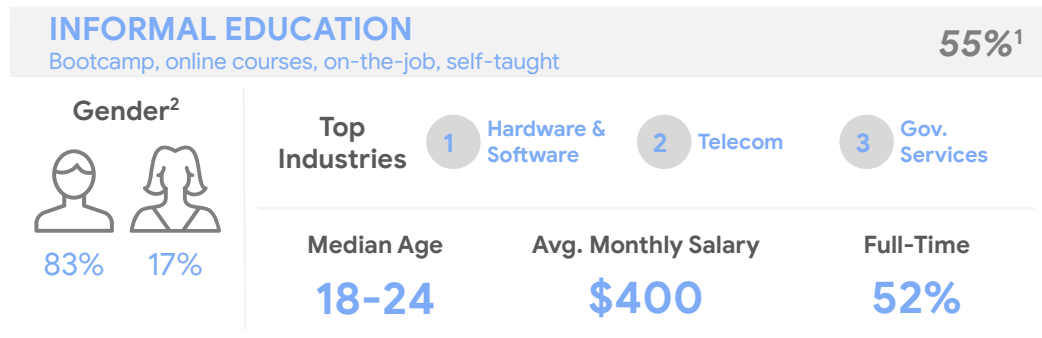
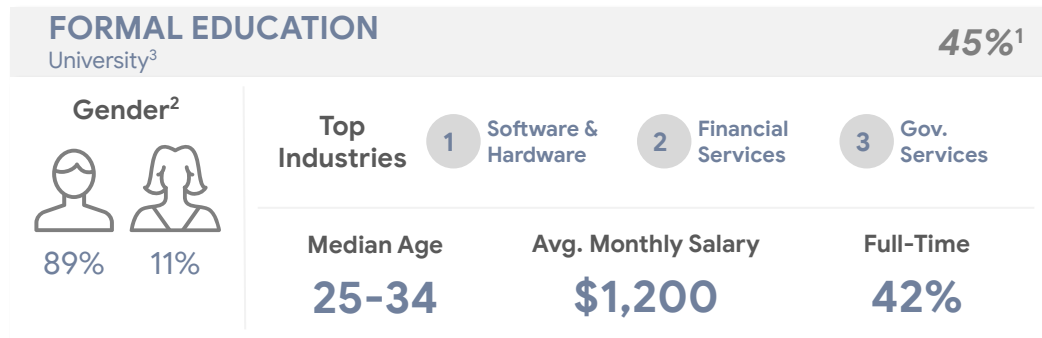
Activities¹



Technical Education

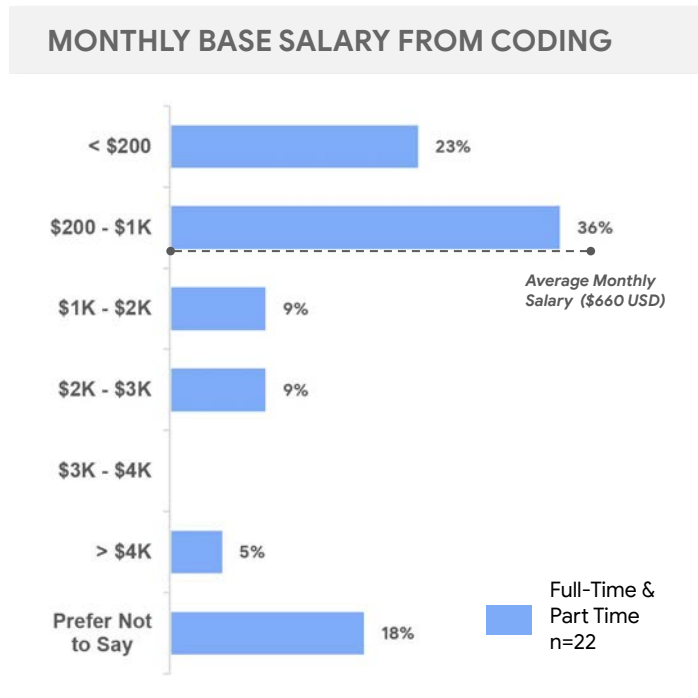
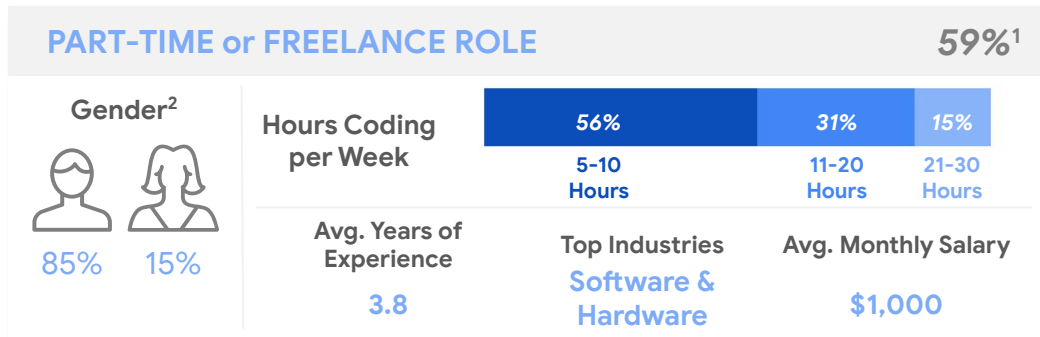
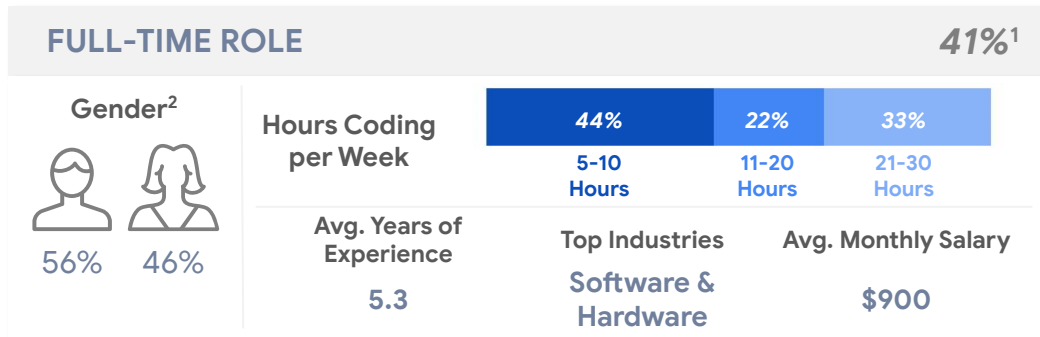


Approximately half of software developers learn how to code at universities and are likely to earn 3x more than informally educated coders



Question: How did you primarily learn to program or code?

Female coders represent nearly half of the full-time roles for coders in Ivory Coast



Question: How do you spend your time coding or programming?

Less experienced, junior developers comprise the vast majority of the Ivory Coast developer talent pool

JUNIOR DEVELOPER

Less than 6 years of coding experience

89%¹

Gender²



Open Repository Contributions



Top Languages

1. HTML5
2. CSS
3. PHP

Top Industry
Software &
Hardware

Avg. Monthly Salary
\$700

Full Time
50%

SENIOR DEVELOPER

Over 6 years of coding experience

11%¹

Gender²



Open Repository Contributions



Top Languages

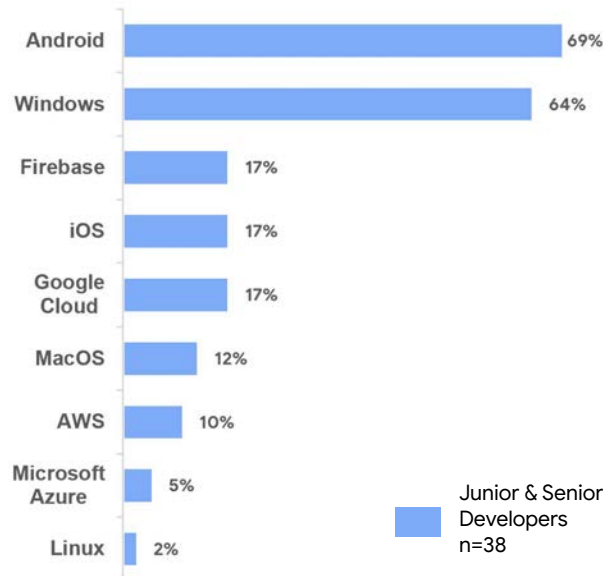
1. Java
2. HTML5
3. PHP, C++

Top Industry
Software & Hardware,
Gov. Services

Avg. Monthly Salary
\$1,400

Full Time
75%

TOP PLATFORMS



Junior & Senior
Developers
n=38

Question: How many years of professional coding or programming experience do you have?



Technology Ecosystem



Innovators (*focus areas*)



Innovators (*fundraising*)



Investors



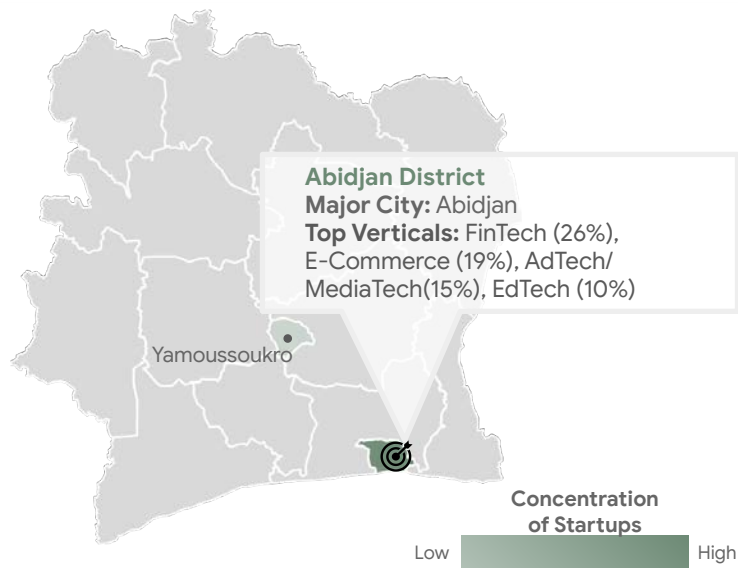
Educators



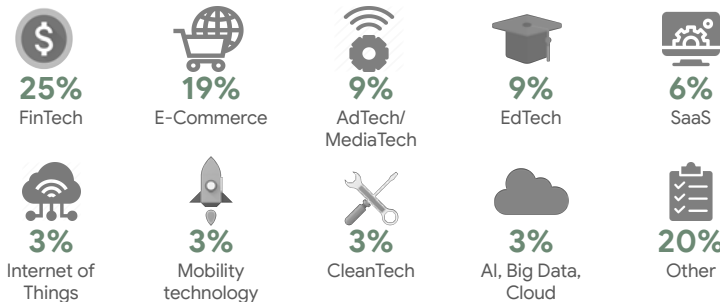
Enablers



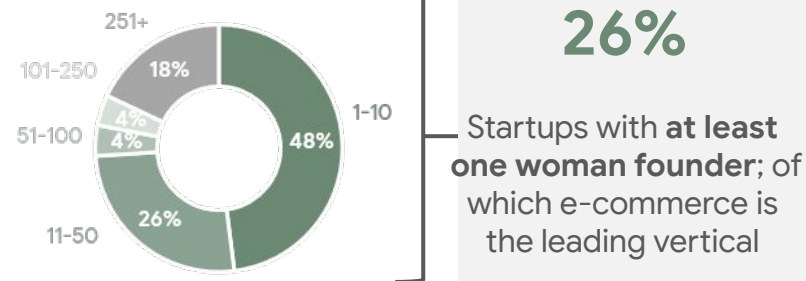
Fintech and e-commerce startups form the hub of the tech ecosystem in Abidjan



Breakdown by Top Verticals



Headcount & Founder Demographics (2020)

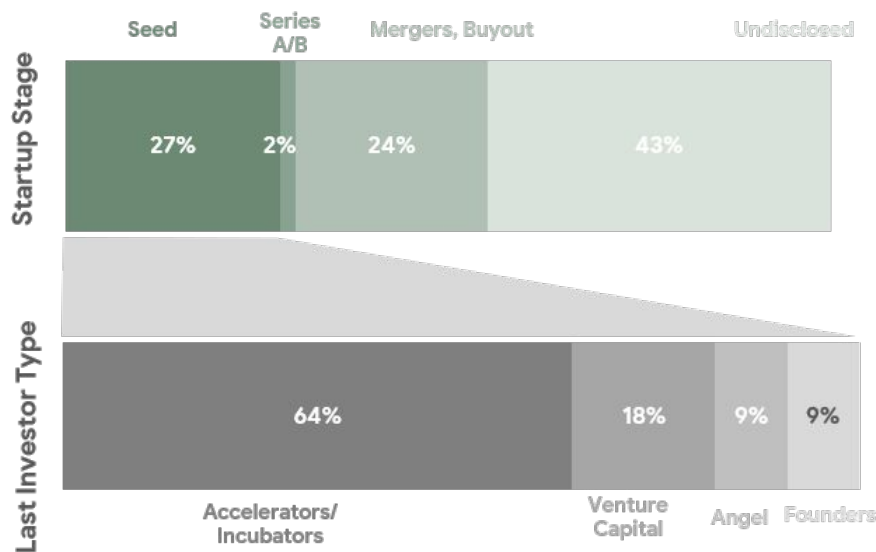


"The startup teams are a mix of foreigners and locals and the strong collaboration creates a stronger, more exciting ecosystem."
 - Enabler, Abidjan



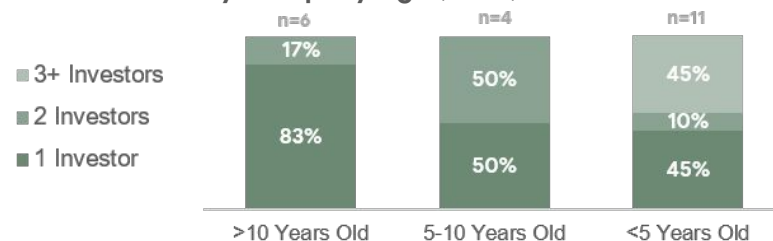
Accelerators and incubators provide the majority of funding for seed and early stage companies

Distribution of Startups by Stage (2020)



Relative to peers, a very high percentage of startups are in an undisclosed funding stage

Investor Count by Company Age (2020)



The majority of startups in Ivory Coast are less than five years old and nearly a third of them have more than one investor

Innovator Characteristics

39%

of the startups primarily focus on the B2B market



33%¹ of the startups operating in Ivory Coast are headquartered internationally



27% of the startups are part of the financial services sector



Local investors comprise a large portion of the investor pool, but foreign venture capital firms outnumber domestic venture capital firms by a wide margin

Investors



Leading Ivory Coast Investors



AdiWale Partners invest €3-7M in equity funding transaction, with the ability to provide follow-up capital of up to €10M, focusing on West African companies



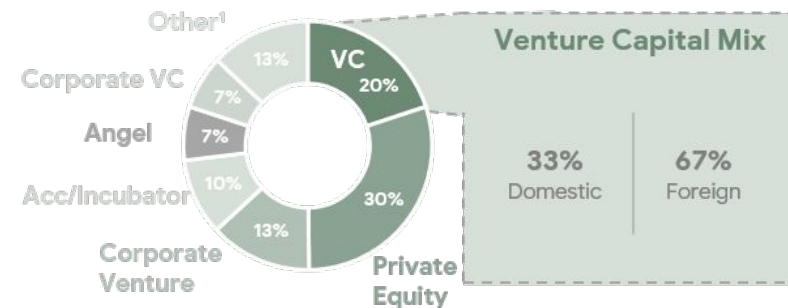
Janngo is a social African startup studio focused on digital platforms that leverage tech and capital to invest in SMEs and grow their digital businesses



Comoe Capital is an impact investment firm focused on providing between 20-300M FCFA per deal to SMEs across all sectors in the Ivory Coast

"Compared to other countries, Ivory Coast hasn't seen as much investment from investors in APAC."
- Educator, Abidjan

Type of Investors (2020)



Areas of Focus



46% of foreign investors only invest in seed or early stage



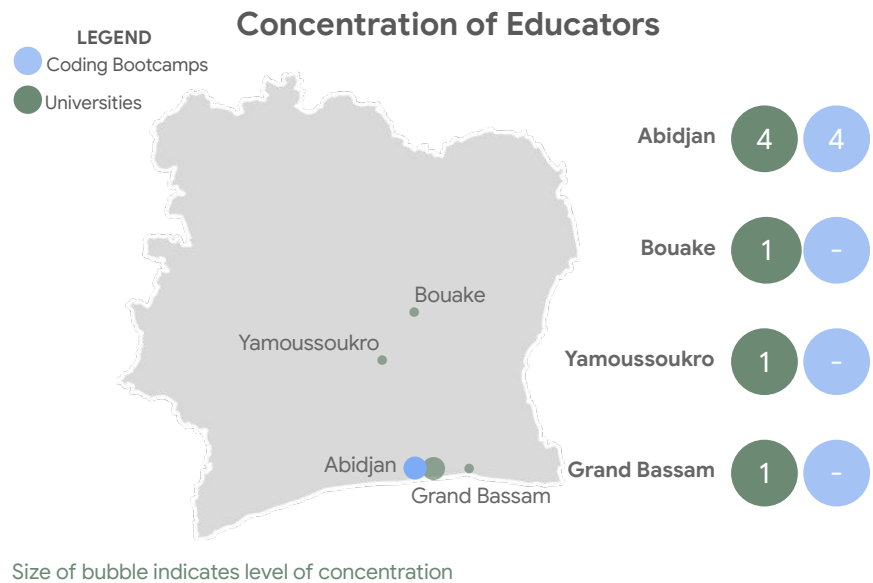
~45% of investors active in Ivory Coast invest in financial services sector



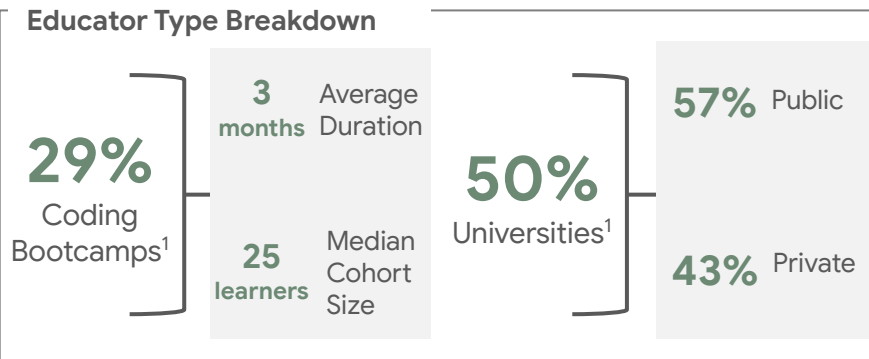
21% of investors active in Ivory Coast invest in fintech and mobile technology



Formal education channels are available throughout the country, while bootcamps have not expanded beyond the hub in Abidjan



"There is an increase in government initiatives to provide technical education in universities and business schools."
- Enabler, Abidjan



Case Study: Orange Digital Academy

Overview: Offers two training sessions per year with ~20/session, averaging 20% female. About 6,500 students applied for the first session in 2019. The course not only focuses on coding education, but provides the opportunity to develop concrete business projects and professional mentoring.

Tech Areas of Focus:



Artificial Intelligence



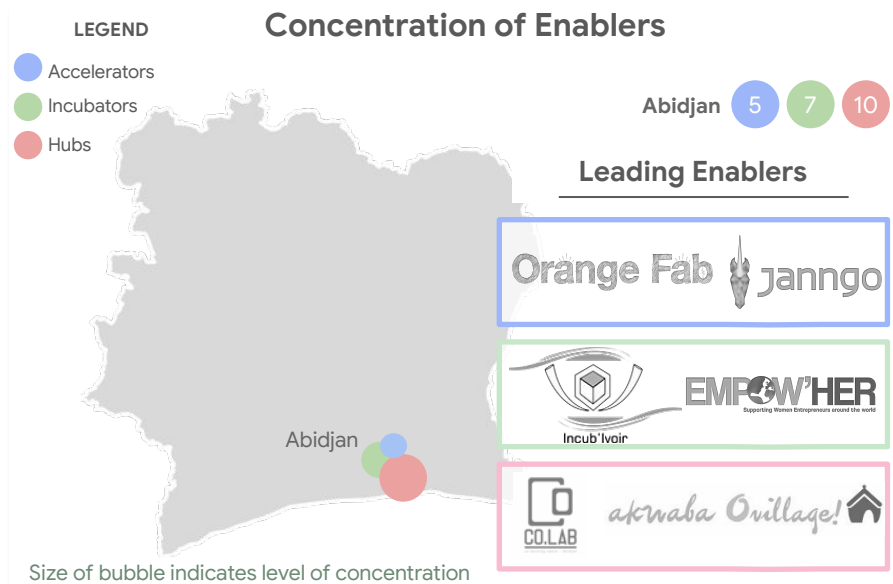
Internet of Things



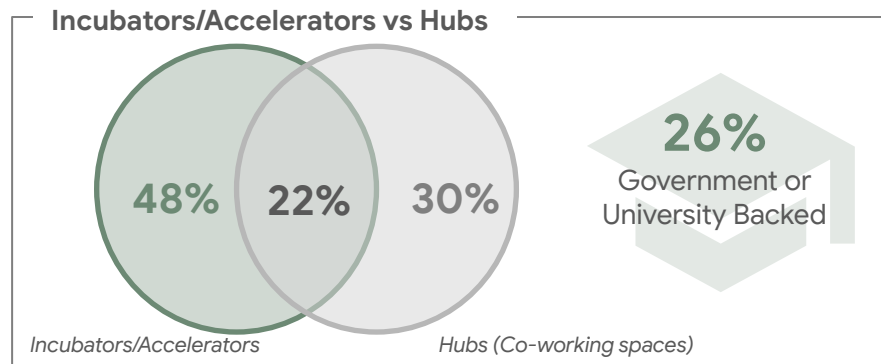
Augmented/
Virtual Reality



Government and formal education partners play a major role in Ivory Coast's growing enabler network as the tech ecosystem scales



"Seedstars, a global enabler, ran a program focused on agritech in Ivory Coast in partnership with the government."
- Enabler/Investor, Global



Case Study: Janngo

Overview: A "Social Startup Studio" looking to develop digital ecosystems in high-growth sectors. Not only invests in startups, but also builds startups to help growing sectors become more digital. Also provides professional development opportunities to youth and women.

Growth Sectors:

- Fashion (Icon: Dress)
- Agribusiness (Icon: Leaf in bag)
- Media (Icon: Gear with signal waves)
- Education (Icon: Graduation cap)
- Healthcare (Icon: Heart with pulse line)



Supporting Materials

Glossary

Term	Definition
Countries Analyzed	South Africa, Egypt, Morocco, Nigeria, Kenya, Ghana, Rwanda, Ethiopia, Uganda, Tanzania, Ivory Coast
African Startup	A company that meets the following criteria: <ul style="list-style-type: none">• In growth stage of funding (e.g., seed round, series A - F)• Technology-focused• Headquartered in Africa or driving the majority of its revenue in Africa
Tech Ecosystem	The network of people, organizations and institutions that enable innovation
Innovator	African startup (see definition above)
Investor	Provides funding in the tech ecosystem (e.g. venture capital, corporate venture capital, angel investors, government funding, private equity)
Educator	Provides technical training or education (e.g. university, bootcamps, online courses, on-the-job training)
Enabler	Provides support in the form of work space, training, education, mentorship or funding (e.g. accelerators, incubators, work hubs)
Professional Developer	An individual that is employed in a job that involves coding and spends 5 or more hours per week coding
Junior Developer	An individual with less than six years of coding experience
Senior Developer	An individual with six or more than six years of coding experience
Formal Education	Universities or secondary schools that provide information communication technology (ICT) curriculum
Informal Education	Bootcamps, online course, self-taught or on-the-job curriculum to teach coding skills
Female Founded Startup	Startup with at least one female founder