

Automotive Continental Value Chains in Africa



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Agenda

1

Project Background and Approach

Why and How?

2

Automotive Value Chains

Raw material to aftermarket and support services

3

Competitive Advantages

What makes a country competitive

4

Opportunities

Identified, evaluated, narrowed down and business cases developed

5

Conclusion

High potential projects.



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Project Background

The automotive industry is characterised by an **intricate value chain**, containing players who have the capacity to produce a variety of products, ranging from simple vehicle parts to complex systems.

The **value chain is automaker-driven**,

- with automakers owning car brands and maintaining their value through sales and marketing, after-sales services and quality assurance.

The African automotive value chain has several OEMs including Volkswagen, Toyota Motor Corporation, Groupe Renault, Ford Motor Company, Hyundai Motor Company and Isuzu Motors.

- Most of the mentioned **OEMs are looking into growth strategies for their Africa operations** by venturing into expansions, partnerships, product launches and production capabilities.

The African automotive industry presents **opportunities for local manufacturing of automotive components**.

Purpose of Project

- **Assess the automotive landscape across Africa** through a comprehensive situational analysis, mapping of value chains and visiting African countries to identify the potential localisation of components and manufacturing companies.
- To leverage the opportunities in the automotive industry by **identifying 10 automotive value chain projects** supported by implementable business cases.



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Approach



01

Project Inception

Kick-off and confirm objectives and process.

02

Situational Analysis

Status quo and potential

03

Opportunity Identification

Identify, apply evaluation criteria and prioritise

04

Business Case Development

For high potential projects

05

Close Out

Finalization and next steps



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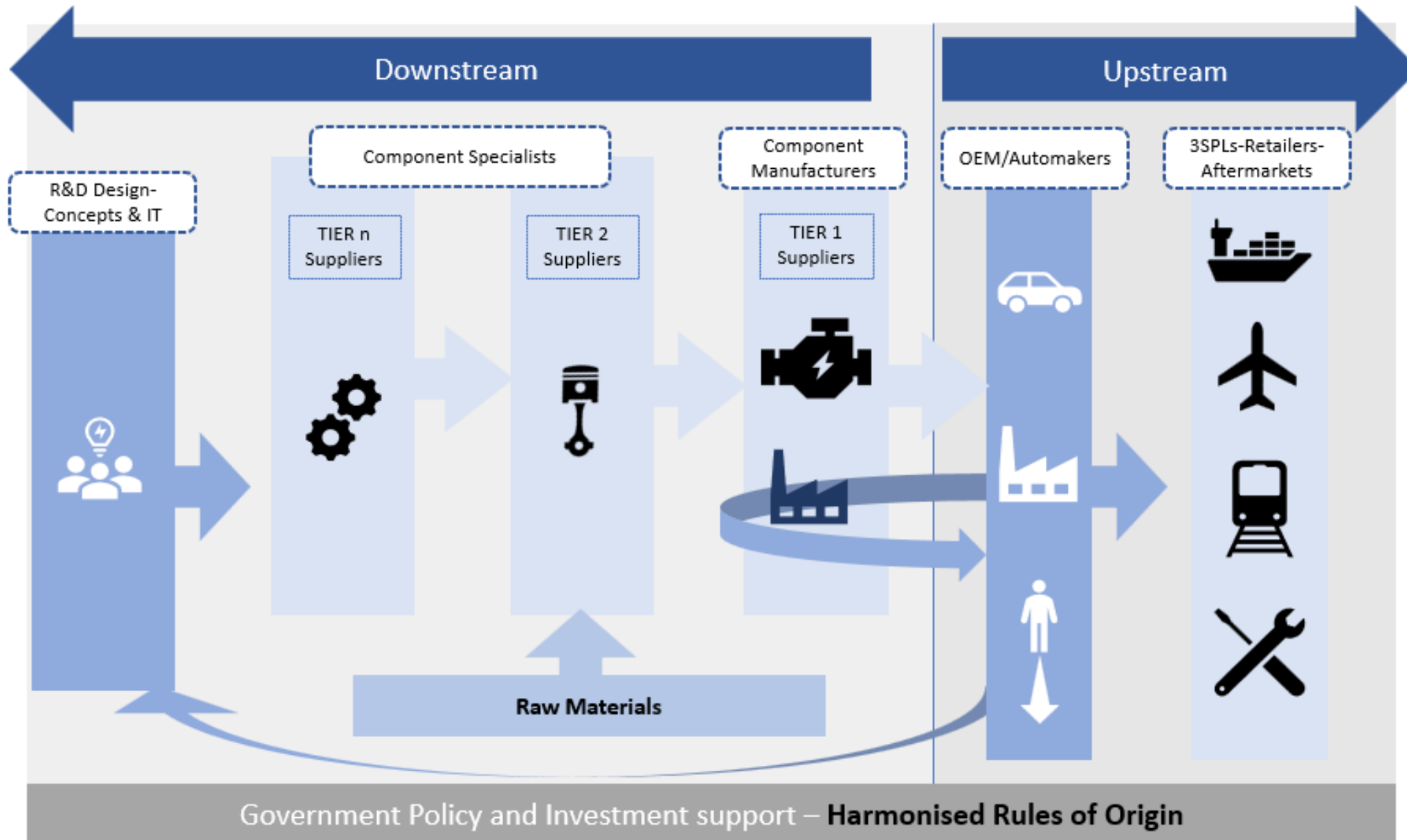
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Automotive Value Chain



Automotive Value Chain Components

Exterior Trim:

- Mirrors
- Door Handles
- Lights
- Badges
- Windshield & Windows
- Wiper system
- Moulded Bumpers
- Grilles
- Wheel Arches
- Locks

Drivetrain:

- Engine Block
- Pistons
- Crankshaft
- Manifold
- Gaskets & Seals
- Radiator
- Gearbox
- Exhaust line
- Driveshaft
- Bearings
- Air Filters
- Oil Filters

Electrical:

- Harnesses
- Starter Motors
- Alternators
- Wiper Systems
- HVAC System
- EV System

Body:

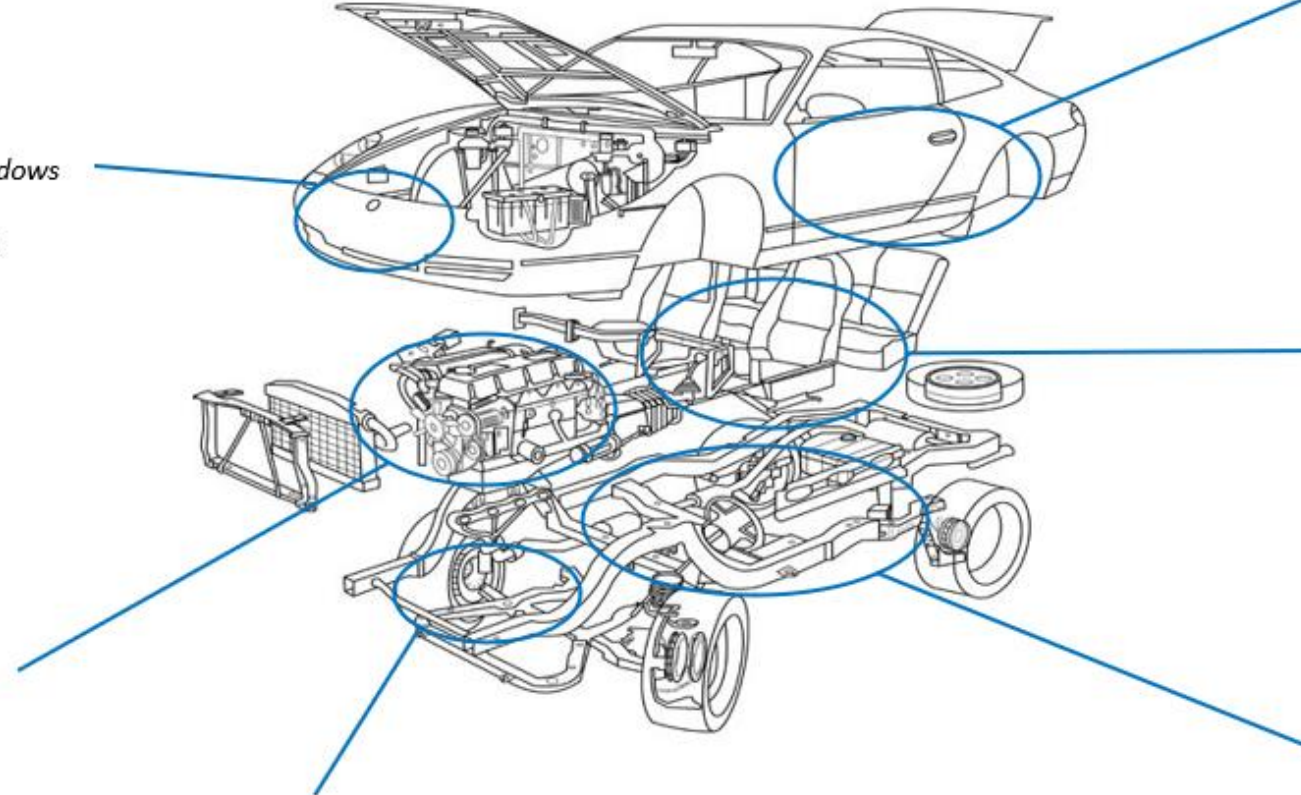
- Underbody
- Doors
- Side Structures
- Roof
- Cross Members

Interior Trim:

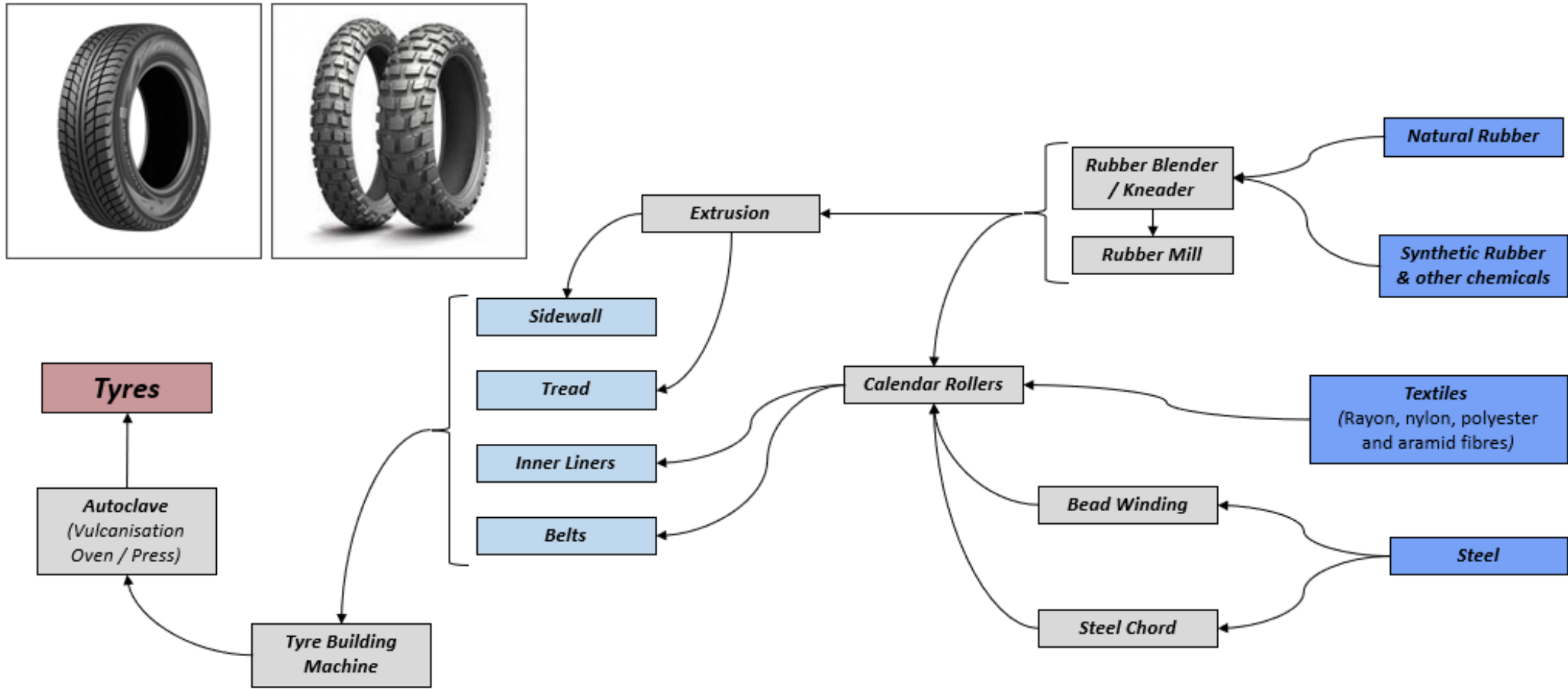
- Seats
- Door Trim
- Centre Console
- Airbags
- Safety Belts
- Carpets
- Air Vents
- Air Filters
- Headliner
- Dashboard / I.P.

Chassis:

- Frame
- Mounts
- Springs
- Axles
- Steering Components
- Fuel Tank
- Wheels
- Shock Absorbers














Value Chain Process – Chassis Tyres

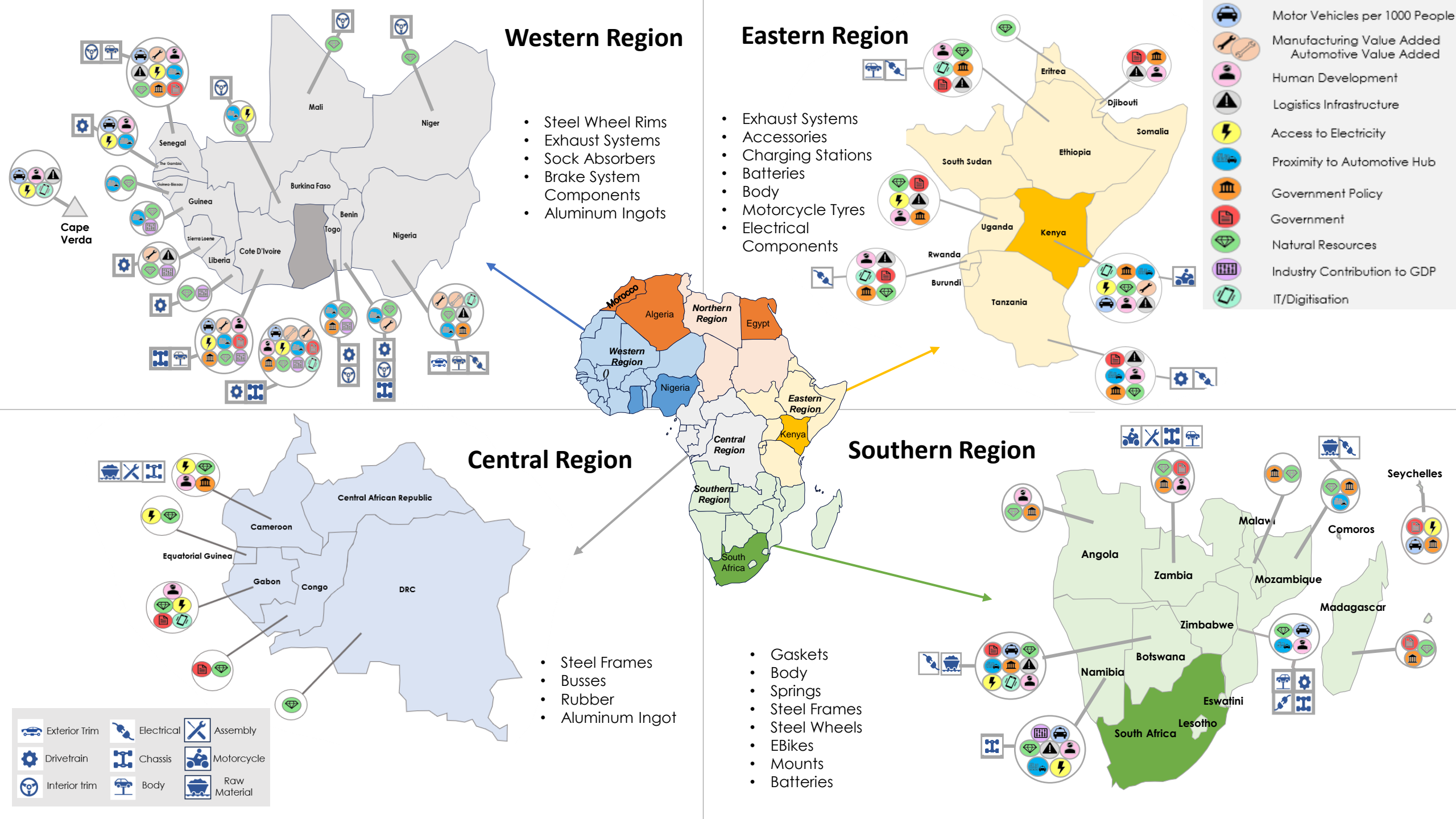


Tools/Equipment Raw Material WIP Component



Evaluation Criteria

Icon	Description	Definition	Source
	Motor Vehicles per 1000 People	Motor vehicles include cars, buses, and freight vehicles but do not include two-wheelers.	World Bank and OICA
	Manufacturing Value Added	Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs. Includes existing manufacturing and automotive industry.	The Global Economy
	Human Development	Assesses and is composed of Health, Education, Social Protection & Welfare and Sustainable Environment.	IIAG
	Logistics Infrastructure	Measures the extent of the total road network in km (per km ² of exploitable land area) and the total paved roads (km per 10,000 inhabitants) in a country.	IIAG
	Access to Electricity	Measures the extent to which a country's population has access to electricity and clean cooking fuels.	IIAG
	Proximity to Automotive Hub	Proximity to Automotive Hub and/or Port; Not Island / Land-locked.	IIAG
	Government	Good relations between government, organised labour and private sector that supports economic growth.	AIH Research
	Government Policy	A policy that is focused on industrialisation and automotive industry incentives.	AIH Research
	Natural Resources	Availability of primary and secondary raw material as an input factor to beneficiation to the automotive industry.	AIH Research
	Industry Contribution to GDP	Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs.	The Global Economy and World Bank
	IT/Digitisation	The Internet of Things (IoT) describes the network of physical objects—"things"—that are embedded with sensors, software, and other technologies for the purpose of connecting and exchanging data with other devices and systems over the internet.	AIH Research and Oracle



Western Region

- Steel Wheel Rims
- Exhaust Systems
- Sock Absorbers
- Brake System Components
- Aluminum Ingots

Eastern Region

- Exhaust Systems
- Accessories
- Charging Stations
- Batteries
- Body
- Motorcycle Tyres
- Electrical Components

Central Region

- Steel Frames
- Busses
- Rubber
- Aluminum Ingot

Southern Region

- Gaskets
- Body
- Springs
- Steel Frames
- Steel Wheels
- EBikes
- Mounts
- Batteries

Motor Vehicles per 1000 People

Manufacturing Value Added Automotive Value Added

Human Development

Logistics Infrastructure

Access to Electricity

Proximity to Automotive Hub

Government Policy

Government

Natural Resources

Industry Contribution to GDP

IT/Digitisation

Exterior Trim

Electrical

Assembly

Drivetrain

Chassis

Motorcycle

Interior trim

Body

Raw Material

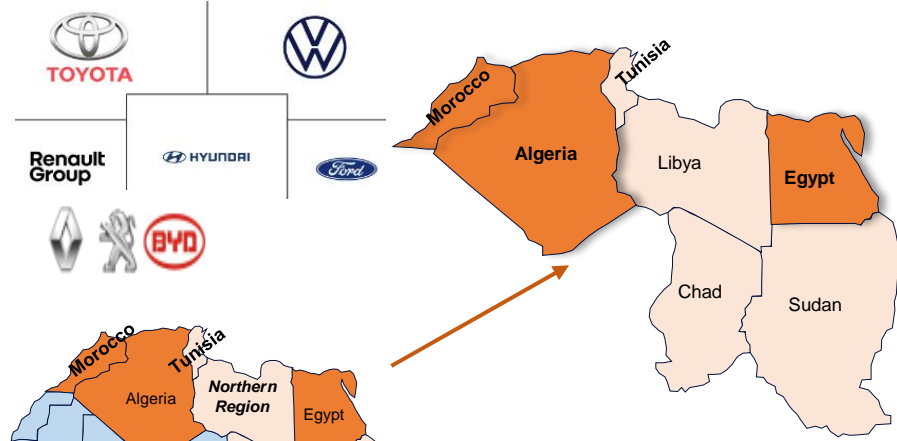
Morocco – Hub











Vehicle production increased by from 403 700 units produced in 2021 to 464 864 units produced in 2022. Manufacturers like Dacia, Renault, Peugeot, and new entrants like Chinese manufacturer BYD and German manufacturer Volkswagen have established production plants in Morocco.

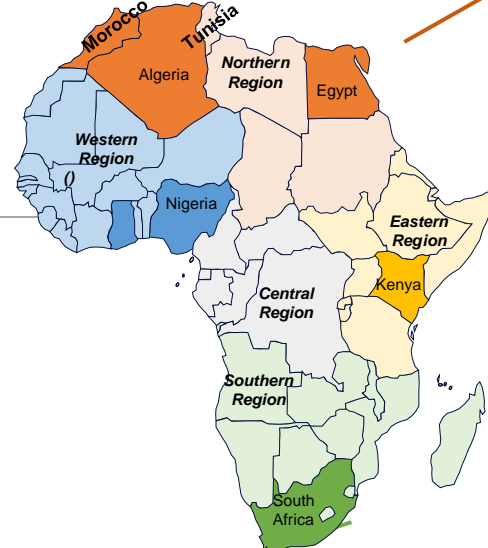
Egypt – Hub

Represented the third largest automotive production and consumption market on the continent in 2022. New vehicle sales totaled 185 043 units in 2022 and vehicle production totaled 54 580 units in 2021.

Northern Region



-  Arab American Vehicles
-  General Motors Egypt S.A.E.
-  Ghabhour Group
-  JAC
-  Mercedes-Benz Egypt
-  Bavarian Auto Group
-  Nissan Motors Egypt
-  Egyptian German Automotive
-  El-NASR Automotive Manufacturing
-  Saudi Group



Southern Region



South Africa - Hub

- South African vehicle production increased by 11,8%, from 499 087 units produced in 2021 to 555 889 units produced in 2022.
- BMW, Ford, Isuzu, Mercedes-Benz, Nissan, Toyota and Volkswagen.
- Export-oriented industry with 66,9% of vehicle production exported in 2022.



Top Opportunities Identified



Ghana – Krishna Metals



Aluminum brackets, Flanges,
Battery Housings, Engine Components



Investment – US \$ 1,0 million
Profit Yr 2 – US \$ 0,12 million



Jobs – 400



Ghana – Harlequin



Shock Absorbers, brake systems,
Exhaust systems



Investment – US \$ 10,0 million
Profit Yr 2 – US \$ 1,2 million



Jobs – 448



Cameroon – CDC



Rubber



Investment – US \$ 20,0 million
Profit Yr 2 – US \$ 2,4 million



Jobs – 400



Cameroon – Alucam



Aluminum



Investment – US \$ 10,0 million
Profit Yr 2 – US \$ 9,5 million



Jobs – 800



Ethiopia – TADKOB



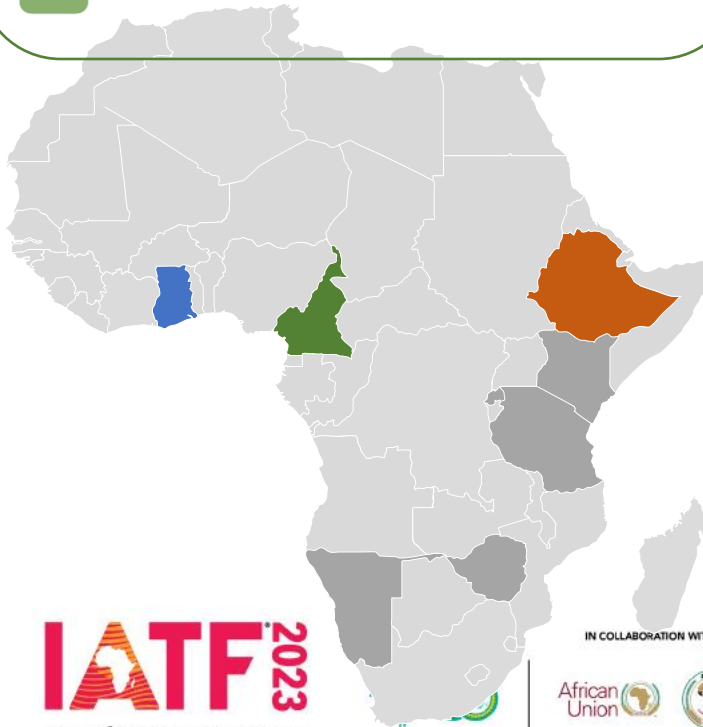
Lead acid batteries



Investment – US \$ 18,0 million
Profit Yr 2 – US \$ 3,7 million



Jobs – 880



Top Opportunities Identified



Namibia – Bikes for Africa



E-Bikes



Investment – US \$ 5,0 million
Profit Yr 2 – US \$ 0,24 million



Jobs – 100



Namibia – Micro-Factoru



E-Bikes



Investment – US \$ 5,0 million
Profit Yr 2 – US \$ 0,15 million



Jobs – 200



Kenya – Hudson Rubber



Motorcycle tyres



Investment – US \$ 25,0 million
Profit Yr 2 – US \$ 1,4 million



Jobs – 950



Tanzania – Hanspaul



Commercial vehicle conversions



Investment – US \$ 30,0 million
Profit Yr 2 – US \$ 0,155 million



Jobs – 200



Zimbabwe – Supreme Gaskets



Gaskets



Investment – US \$ 1,0 million
Profit Yr 2 – US \$ 0,25 million



Jobs – 60



Summary



7 Countries



10 Products



Investment – US \$ 125,0 million
Profit Yr 2 – US \$ 19,0 million



Direct Jobs – 1 122
Indirect jobs – 3 366



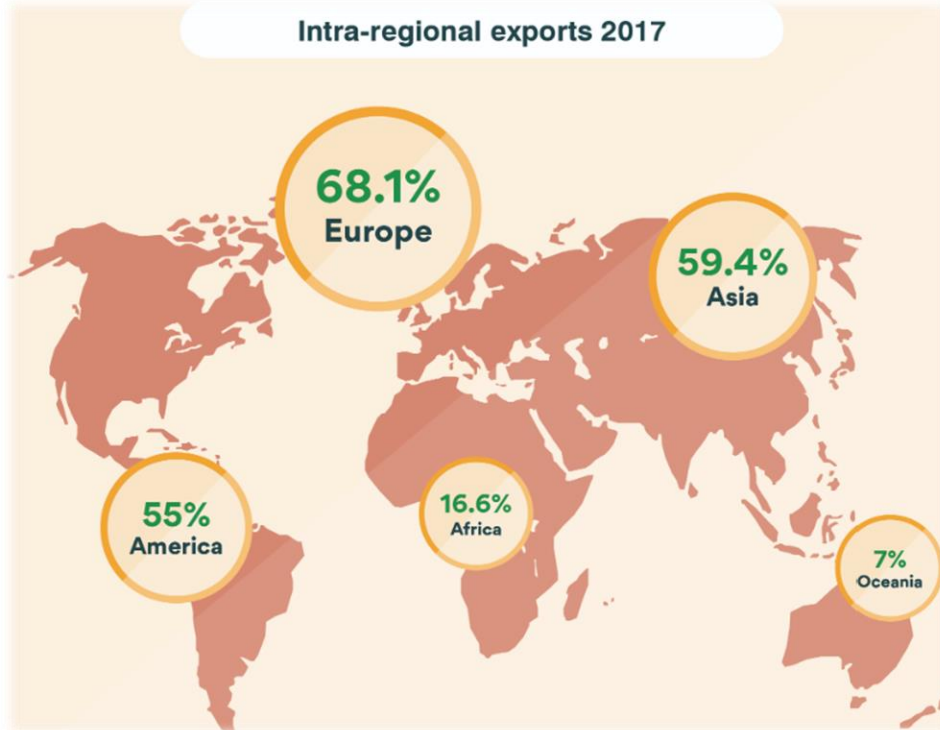
- Investigations conducted **across all African nations**.
- Grouping these countries by economic communities and geographic clusters, has enabled the project team to generate an **overview of the automotive industry's** status within these nations and regions, pinpointing existing challenges and opportunities.
- The data assembled has been placed in a **database and a set of selection criteria** applied in order to highlight competitive and comparative advantage for various regions and African countries.
- After conclusion of the Situational Analysis, Data Collection and Site Visits, 24 x **Component Manufacturing Opportunities** were identified in the various countries.



Why Africa needs AfCFTA

African trade integration is constrained by a patchwork of **unique legislation** in dozens of markets.

Governments frequently create **trade barriers** to protect their home markets from regional competition, making trading with close neighbours **more expensive** than trading with nations considerably further away.



member states of the AU have signed the **AfCFTA** agreement



44 have **deposited** their instrument of ratification



AfCFTA is the **largest free trade area** in the world **measured by the number of countries participating**



The **AfCFTA** has the potential to lift **30 million** out of extreme poverty



The AfCFTA connects **1.3 billion** people across **55 countries** with a combined GDP of **\$3.4 trillion**



88% of rules of origin have been **completed** with only automotive and textile sectors remaining, **41 countries** have submitted their tariff offers



AfCFTA is expected to boost Africa's income by **\$450 billion** by 2035 a gain of 7 percent

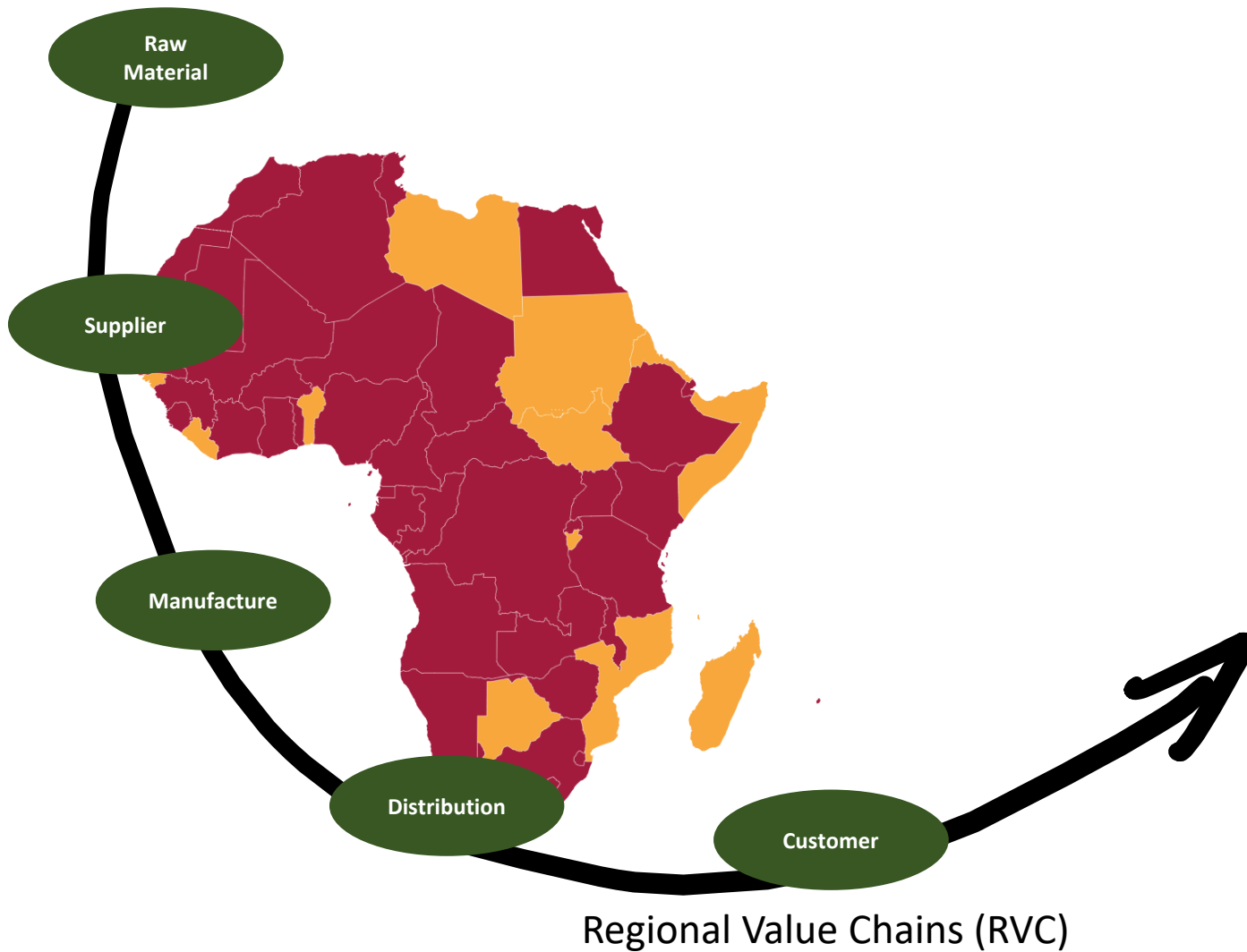
while adding **\$76 billion** to the income of the rest of the world



8 African countries already kick-started trade in **96 products** under the Guided Trade Initiative

Harmonised Rules of Origin.

Rules of Origin Finalization



Rules Of Origin (ROO)

Finalization of the Rules of Origin contribute to fast track the development of the automotive value chain in Africa.

- It would facilitate strategies in developing **regional and continental value chains.**
- It would assist in **developing national programmes**
- It would allow for **greater cooperation and trade**
- **It would unlock Afreximbank's \$1 billion facility** to support this objective and fund local content development in the automotive value chain.

Thank you

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Criteria Explanation (Continue)

Icon	Description	Definition	Source
	Exterior Trim	Includes: mirrors, door handles, lights, badges, windshield & windows, wiper system, moulded bumpers, grilles, wheel arches and locks.	AIH Research
	Drivetrain	Includes: engine block, pistons, crankshaft, manifold, gaskets & seals, radiator, gearbox, exhaust line, driveshaft, bearings, air filters and oil filters.	AIH Research
	Electrical	Includes: harnesses, starter motors, alternators, wiper systems, batteries, HVAC system and EV system.	AIH Research
	Body	Includes: underbody, doors, side structures, roof and cross members.	AIH Research
	Interior Trim	Includes: seats, door trim, centre console, airbags, safety belts, carpets, air vents, air filters, headline and dashboard / I.P.	AIH Research
	Chassis	Includes: frame, mounts, springs, axles, steering components, fuel tank, wheels and shock absorbers.	AIH Research
	Assembly	Includes: Accessories, frames, body, busses and mounts.	AIH Research
	Motorcycle	Includes: EBikes, two-wheelers and three-wheelers.	AIH Research
	Raw Materials	Includes: Mining of rubber and aluminum ingot.	AIH Research

Project Highlights and Conclusion

The project team has conducted investigations **across 55 African nations**. Grouping these countries by economic communities and geographic clusters, has enabled the project team to generate an **overview of the automotive industry's** status within these nations and regions, pinpointing existing challenges and opportunities.

The data assembled has been placed in a **database and a set of selection criteria** applied in order to highlight competitive and comparative advantage for various regions and African countries.

After conclusion of the Situational Analysis, Data Collection and Site Visits, **Component Manufacturing Opportunities** were identified in the various countries.

Country	Company	Component
Cameroon	CCMM	Bus frame manufacturing
	CDC	Rubber plantation
	Alucam	Aluminium manufacturing
Ethiopia	Mesfin Industrial	Metal components
	TADKOB	Battery manufacturing
Ghana	Krishna Metals	Aluminium ingots and components
	Harlequin	Shocks, exhaust systems, brake components
	Rana Motors	Steel wheel rims
Kenya	Hudson Rubber JV	Motorcycle tyres
Namibia	EBikes4Africa	Electric bikes
Rwanda	Sahasra Electronics	Electric components and LED lights
Tanzania	Hanspaul Automechs	Vehicle conversions and electric bikes
Zambia	CAMCO	SKD assembly
	Saro Agri Industrial	Steel parts manufacturing
Zimbabwe	Chloride Zimbabwe	Battery manufacturing
	United Springs	Spring manufacturing
	Supreme Gaskets	Automotive gaskets
	Kabot Brothers	Vehicle load boxes and fuel tanks

Countries Visited

-  Algeria
-  Tunisia
-  Kenya
-  South Sudan
-  Botswana
-  Zimbabwe
-  Namibia
-  Angola
-  Republic of Congo

-  Equatorial Guinea
-  Tanzania
-  Ethiopia
-  Mozambique
-  Gabon



-  Uganda
-  Cameroon
-  Mauritius
-  Rwanda
-  DRC
-  Zambia
-  Seychelles
-  Madagascar
-  Burundi
-  Malawi
-  Chad
-  CAR
-  Eswatini
-  Libya
-  Lesotho
-  Comoros



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AAAM
African Association of
Automotive Manufacturers

All Opportunities Identified



Kenya – Hudson Rubber

Product: Motorcycle Tyres



Ghana – Krishna Metals

Product: Aluminium Ingots and Components

Ghana – Harlequin

Product: Shocks, Exhaust Systems, Brake Components

Ghana – Rana Motors

Product: Steel Wheel Rims



Ethiopia – Mesfin Industrial

Product: Metal Components

Ethiopia – TADKOB

Product: Battery Manufacturing



South Africa

Company: Qora Mining

Product: Raw materials for Batteries



Botswana



Mozambique

Company: Aqora Battery

Product: Battery Manufacturing



Cameroon - CCMM

Product: Bus Frame Manufacturing

Cameroon - CDC

Product: Rubber Plantation

Cameroon - Alucam

Product: Aluminium Manufacturing



Namibia – EBikes4Africa

Product: Electric Bikes



Rwanda – Sahasra Electronics

Product: Electronic Components and LED Lights



Tanzania – Hanspaul Automechs

Product: Vehicle Conversions

Tanzania – E-Motion

Product: Vehicle Conversions



Zambia - CAMCO

Product: SKD Assembly

Zambia – Saro Agri Industrial

Product: Steel Parts Manufacturing



Zimbabwe – Supreme Gaskets

Product: Automotive Gaskets

Zimbabwe – United Springs

Product: Spring Manufacturing



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Top Opportunities Identified



Kenya – Hudson Rubber

Product: Motorcycle Tyres
Investment Required: \$25 million
Maturity: Value Chain under development between CDC in Cameroon and Hudson Rubber. Business Case available.



Ethiopia - TADKOB

Product: Lead Acid Batteries
Investment Required: \$18 million
Maturity: Full Business Case Completed. Warehouse already built.



Namibia – Ebikes4Africa

Product: Ebikes
Investment Required:
Maturity: Existing company seeking finance to grow.



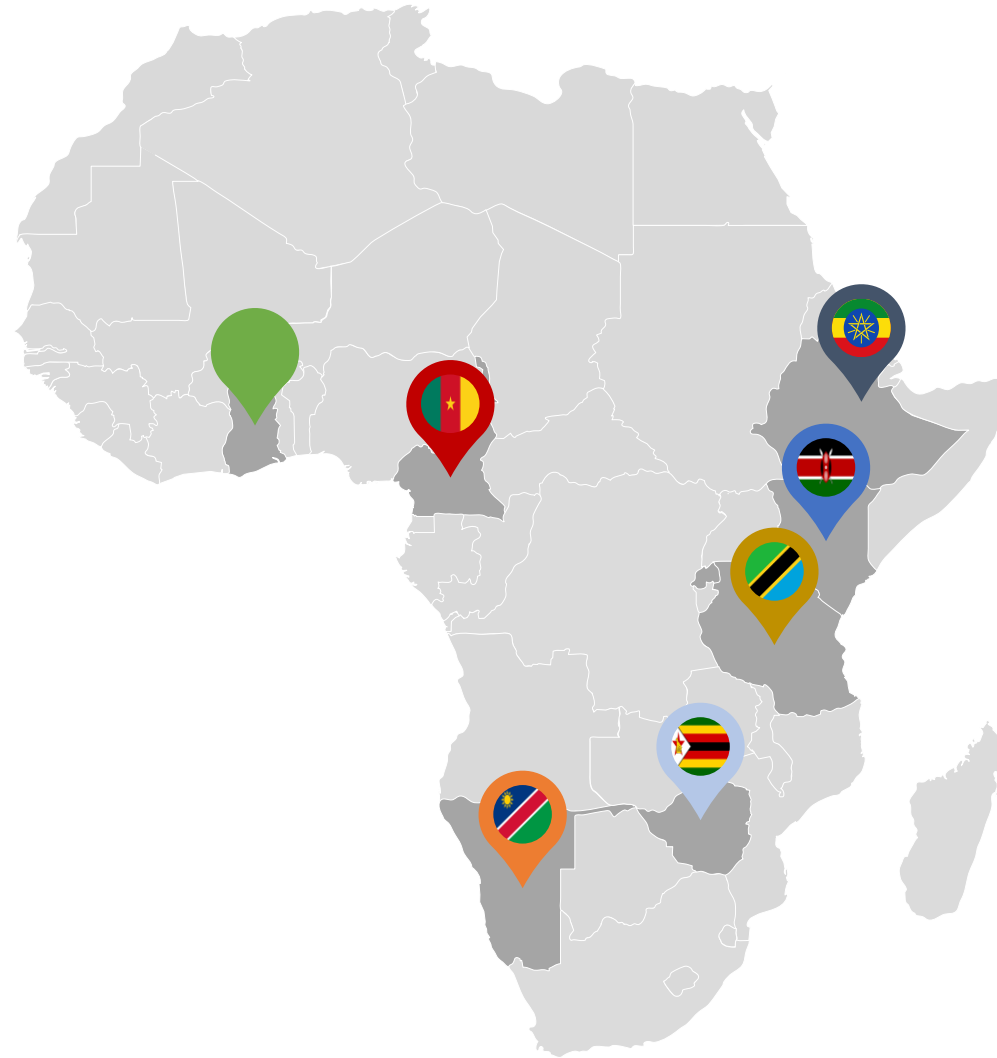
Ghana – Krishna Metals

Product: Aluminium Ignots, Battery Housings, Brackets, Engine Components
Investment Required: \$1 million
Maturity: Full Business Case with expansion of Automotive Components.



Ghana - Harlequin

Product: Shocks, Brakes and Exhaust Systems
Investment Required: \$10 million
Maturity: Market Study Still Required.



Tanzania – Hanspaul Automechs

Product: Custom built body's for Commercial Trucks and Agricultural Tractors
Investment Required:
Maturity: Premature Business Case and Financial Model



Cameroon - CDC

Product: Raw Rubber
Investment Required: \$20 million
Maturity: Full Business case with Financial Model. Discussions with Hudson Rubber.



Cameroon - Alucam

Product: Aluminium Ignots (Possible Expansions for Alluminium Components for Automotive Sector)
Investment Required: \$10 million
Maturity: Business Case Completed by Alucam. NDA was signed.



Namibia – Micro Factory

Product: Ebikes and Spare Parts
Investment Required: \$5 million
Maturity: Financial Model Completed



Zimbabwe – Supreme Gaskets

Product: Automotive Gaskets
Investment Required: \$1 million
Maturity: Full Business Case with Financial Model



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Top Opportunities Identified

Hudson Rubber in South Africa is the biggest manufacturer of **rubber and plastic products**. They have their own mixing plant with capacity in of 500 tons per month. **New JV initially** to target 10%. Opportunities for further development of the **Value Chain** is **sourcing rubber from Cameroon (CDC)**.

Hudson Rubber
Kenya

Alucam
Cameroon

Alucam was established in 1957, producing **aluminium**. The company is 93% owned by the Cameroon government and 7% by the French Development Agency. **Opportunity to upgrade the plant to increase production capacity to 125 metric ton** (Canadian company busy with due diligence) for supply to manufacturers of automotive components.

The **Cameroon Development Corporation** is an Agro-Industrial Complex that grows, processes and markets tropical export crops. Their products include **semi-finished rubber**, palm oil and palm kernel oil. They are looking for a **Technical Partner to assist with rehabilitation of abandoned plantations and factories**. We have already discussed purchase of rubber by **Hudson Rubber**.

CDC
Cameroon

Harlequin
Ghana

Harlequin is involved in **fabrication, engineering, and hydraulic services for the mining, oil and gas ports, power generation, and agricultural industries**. Potential to manufacture exhaust systems, brake systems and shock absorbers. **Commitment from both Harlequin and Tenneco confirmed**.

CCMM was established in 2005 specialising in **metal work**. Currently it also **manufactures frames for buses** and do the **assembly of the buses**, under a partnership agreement with Mercedes. Opportunity to upgrade the plant **to increase production capacity to 50 per month**. Further opportunity to localise chassis, metal body sheets and trim components.

CCMM
Cameroon

Krishna Metals
Ghana

Krishna Metals is a Free Zone registered for **aluminium ingots and aluminium circles** in Accra. 95% of all produced aluminium comes from recycled materials. Potential to supply aluminium ingots, which is widely used in many automotive components such as **exhausts, brakes, flanges, cable ends, battery housings and engine components**.

TADKOB being a company who has been in the **importation and distribution of batteries for ages in Ethiopia**, it has strong market network, TADKOB has conducted a study which shows there is a huge demand supply gap in Ethiopia. TADKOB **has invested in the construction of the purpose-built battery manufacturing plant** and now it requires finance for the various machines.

TADKOB
Ethiopia

Sahasra Elec-
tronics
Rwanda

Sahasra Electrics has interests in **electronic contract manufacturing**, IT products and mobile accessories, distribution of electronic products, energy saving and friendly LED lighting, solar products and solutions. Potential to manufacture automotive electronics such as: ***Head/taillights, *Glove box button, *Speedometers / dashboards**

Hanspaul was established in 2007. They are **building 4x4 Safari & Multi-purpose vehicles** on Toyota, Nissan, Ford & Land Rover Frames. They would like to **increase the annual vehicle conversion, expand the press shop and invest in aftermarket accessories**.

Hanspaul
Auto-
mechs
Tanzania

Ebikes
4Africa
Namibia

Ebikes4Africa manufactures a **range of utility electric bikes** for various uses in tourism, wildlife, farming, commuter transport, security. This is niche project of interest for **tailor-made green funding and technical support**. While currently a SME operation, EBikes4Africa has potential to grow into a competitive supplier of fit-for-purpose electric E-Bikes

