RDB | RWANDA DEVELOPMENT BOARD

Horticulture The Rwanda Opportunity

Investing in the horticulture sector in Rwanda is a great opportunity

WHY?

I

Rwanda is **a dynamic country** with **a top tier business environment** particularly attractive for horticulture investments

11%
p.a. **GDP growth** between 2014-19

A **highly attractive business environment**

A **strong government support** of horticulture investors

II

The horticulture sector presents several **opportunities in high value crops due** to its **competitive advantages**

~27% export revenues growth between 2015-19

Possibility to produce **with healthy margins** a diversity of **high value crops** in **ideal climate** conditions thanks to **seasonality advantages**

I

Rwanda is **a dynamic country** with **a top tier business environment** particularly attractive to horticulture investments

Rwanda has experienced strong economic growth over the last 10 years

Rwanda at a glance

SOURCE: NSIR, RDB

Population

13 Mn

Govt. & Parliament

Presidential republic

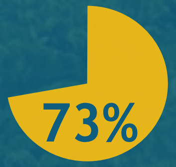
Bicameral parliament

Official languages

Kinyarwanda, French, English, Swahili

GDP per capita

USD 820 per capita



Literacy

15%

Unemployment

Currency /exchange rate[1]

Rwanda Francs (RWF)

~RWF 980/USD[1]

~RWF 1161/EUR[1]

GDP (10 year growth)

USD 10.4 Bn

(11 % p.a. between 2014-19)

Ratings

B+ stable

FitchRatings

'B+ Stable'

S&P Global Ratings

1. As of March 15th 2021 | Sources: World Atlas, World Bank, Fitch, S&P, NISR 2021

Rwanda can be considered an incredible success story in Africa because Rwanda is …

… fast growing and low risk

- **6th** fastest growing economy in Africa
- **Low debt ratio** & stable credit ratings
- **5th** safest country to walk at night worldwide

… business friendly

- **2nd** for doing business in Africa[1]
- **6hrs** to register a business (the fastest in East Africa)
- **Rapid** and **highly reliable electricity** (outages last 29 hr per year vs. 82 in Kenya)

… modern

- **1st** for Government transparency in Africa
- **9th** in global gender equality

… IT ready

- **1st** in EAC (3rd in Africa) for network readiness
- **95%** 4G LTE network coverage; 7,000km fiber

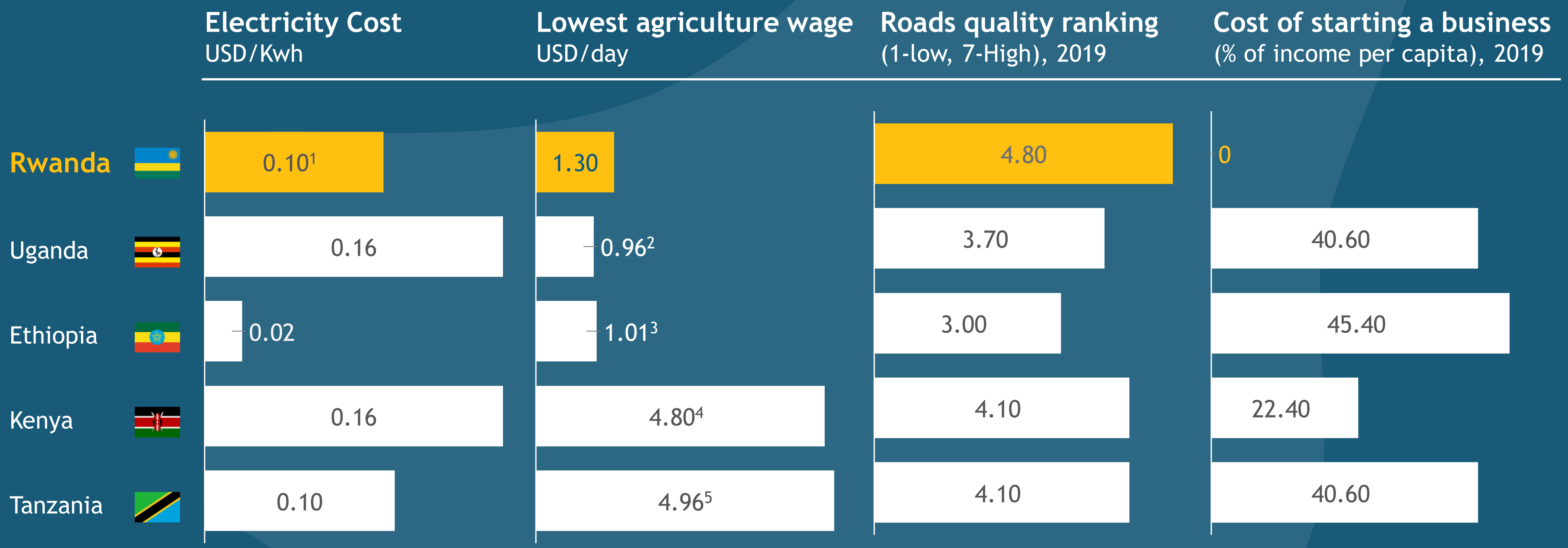
… a regional platform

- Strong East African **hub** potential; **connected** African airline and roads
- **3rd** in Africa in quality of roads
- **2nd** MICE City in Africa

1. Doing Business 2020.

Sources: Global gender gap 2020, UN (UN-HDI), World Bank, WEF, Global and Africa Competitiveness Report, ICCA, Global Gender Gap report, Gallup, ICCA, RDB, BSC, Government of Rwanda, Statistical year book, (majority 2019 & 2020), The global economy, RDB

Investors in Rwanda can benefit from a highly competitive environment



1. This is the large industries rate. Investor need to use non residential electricity rate for some time before being eligible to the small industries rate. Rate can go as high as 0.135 for small industries
2. 2017 data
3. 40.69 Ethiopian shilling per day for agriculture worker in 2014
4. Average wage of 135 USD/month for an unskilled laborer then 4.8 USD per day (28 days). Not specific to agriculture
5. Average monthly earnings of 321,972 TZS for agriculture sector in 2017

Source: World Economic Forum, RDB, Rwanda trade portal, Tanzania bureau of statistics, Ugandan bureau of statistics, ILO, Globalpetrolprices.com

The Government of Rwanda supports investors through tailored incentives and services

Tailored services

- Access to logistics resources (e.g., trucks, packhouses)
- Support in the acquisition of land and capital
- Dedicated support team

Openness to diverse ownership

- Free registration
- No restrictions on foreign ownership
- No restrictions on capital flows

Package of incentives

- Preferential corporate income tax rate[1], 0% if HQ in Rwanda
- Accelerated depreciation rates[2]
- Fiscal exemption on capital gains

  Investor income holiday tax up to 7 years[3]

Sources: RDB, Investors Presentation, 2018; Notes: [1] If >50% of production is exported [2] 50% for the 1st year if investment >$ 50k in manufacturing business [3] If investment >$ 50 Mn with at least 30% equity in a manufacturing business

Horticulture investors in Rwanda will connect to a rich ecosystem of local talent and committed institutional partners

A Ready Workforce

Supportive Institutions

Development Partners

300,000 additional jobs related to agriculture in the next 5 years

+2,700 **agricultural cooperatives** and out growers associations ready to work with investors – representing +857,000 farmers

Rwanda Institute for Conservation Agriculture: a world class institute for **research and education**

The Rwandan Development Board: Acts **as a single point of entry** for investors

National Agriculture Export Board: Promotes agricultural exports through **investment facilitation** and **business support**

The Ministry of Agriculture: Aims to transform agriculture into a **high-value and market-oriented sector**

A host of **bilateral and multilateral organizations** active in Rwanda's agriculture sector

A **Rwanda Horticulture Working Group** (RHWG) platform to bring together private and public sector organizations

Source: NSIR, NAEB, MinAgri, Rwanda cooperative agency

II

Rwanda’s horticulture sector presents several opportunities in high value crops due to its competitive advantages

Rwanda has a dynamic horticulture sector with a strong growth of ~11% p.a. between 2015-19

Macro-economics

180 Mn USD[1] revenues in 2019

11% growth of horticulture revenues between 2015-19

8% agriculture GDP in 2019

~**54%** of **women** employed in the agriculture sector

Players

Small scale holders: providing ~**95%** of the national output

Large farm holders: providing ~**5%** of the national output

Processing firms: +55 firms
Possibility to process ~**15kTon** of fresh fruits and vegetables

Production

314 kTon of fruit crops in 2019

351 kTon of vegetable crops in 2019 with a 3% growth between 2015-19

Key export products: tomatoes, cabbages, fruit bananas and avocados

Local demand

~**650 kTon** of horticultural produce demand in 2019

4% growth of domestic demand between 2015-19

1 Converted from Rwf to USD with the convert rate: 1 USD= 980 Rwf

Source: NAEB national strategy 2019-2024, national horticulture policy (2014), FAOSTAT, NSIR, Trademap

Horticulture exports revenues have risen by ~27%p.a. recently and are expected to grow by +50% in 2024

Exports

24 Mn USD[1] export revenues in 2019

~**27%** growth between 2015-19

Key products exported: French beans, tomatoes and macadamia

Main export destination: DRC (48% of exports), EAC – mainly Uganda and Tanzania (19%), Europe (9% - France and UK)

Imports

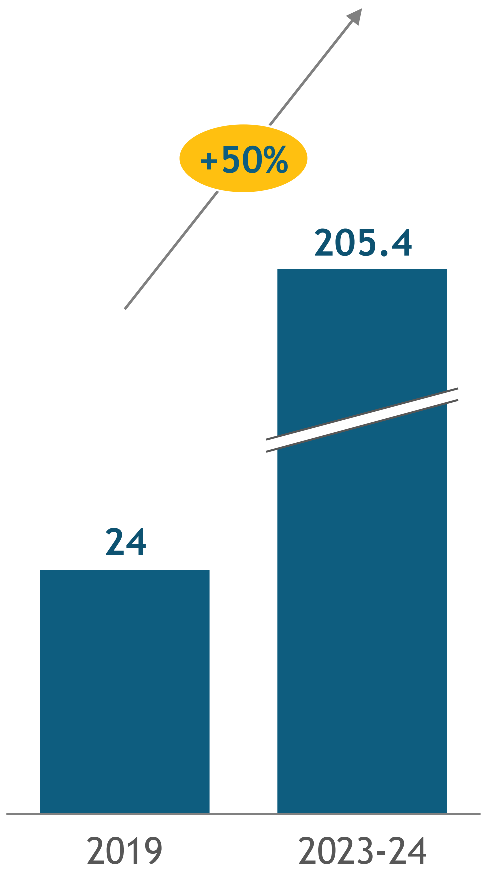
28 Mn USD[1] of imports in 2019

+11% growth between 2015-19

Key products imported : tomato preparations, mangoes and fruit juices

Main origin of imports: EU (26%),Tanzania (11%), China (9%)

Horticulture exports are expected to grow by +50% p.a. between 2019-24



1 Converted from Rwf to USD with the convert rate: 1 USD= 980 Rwf

Source: NAEB national strategy 2019-2024, national horticulture policy (2014), FAOSTAT, NSIR, Trademap

Rwanda's competitive advantages allow it to produce diverse high value crops for premium export markets

Rwanda competitive advantages in horticulture

Growing demand from high-value export markets
- e.g.: EU/Middle East

Ideal **climatic conditions and seasonality advantage**
- Fertile soil, wet climate, mild temperature

Regional platform with **high quality infrastructure**
- Facility of access to a **regional market** of +270 Mn people[1]
- **Best domestic road network** in the region
- Extensive investment in **irrigation infrastructure**

Strategic sector for GoR – several initiatives ongoing
- Gabiro Agribusiness hub
- Package of fiscal and non-fiscal incentives (e.g., VAT exemption on equipment, etc.)

0% duty to EAC markets & strong **air connections to** global markets in Europe, Asia Africa and Middle East
- several daily flights; subsidies in airfreight

Competitive labor
- Costs are **1.30-2.60 USD/day** for unskilled labor and **300-450 USD/month** and approximately for specialist staff

1. 287Mn people in DRC and ~185 Mn in EAC (Rwanda included)

SOURCE: Rwanda Trade portal (2016), RDB

RwandAir boasts daily flights to Europe and the Middle East that are available to export high value crops

— Existing direct connections to Kigali

— Planned direct connections to Kigali

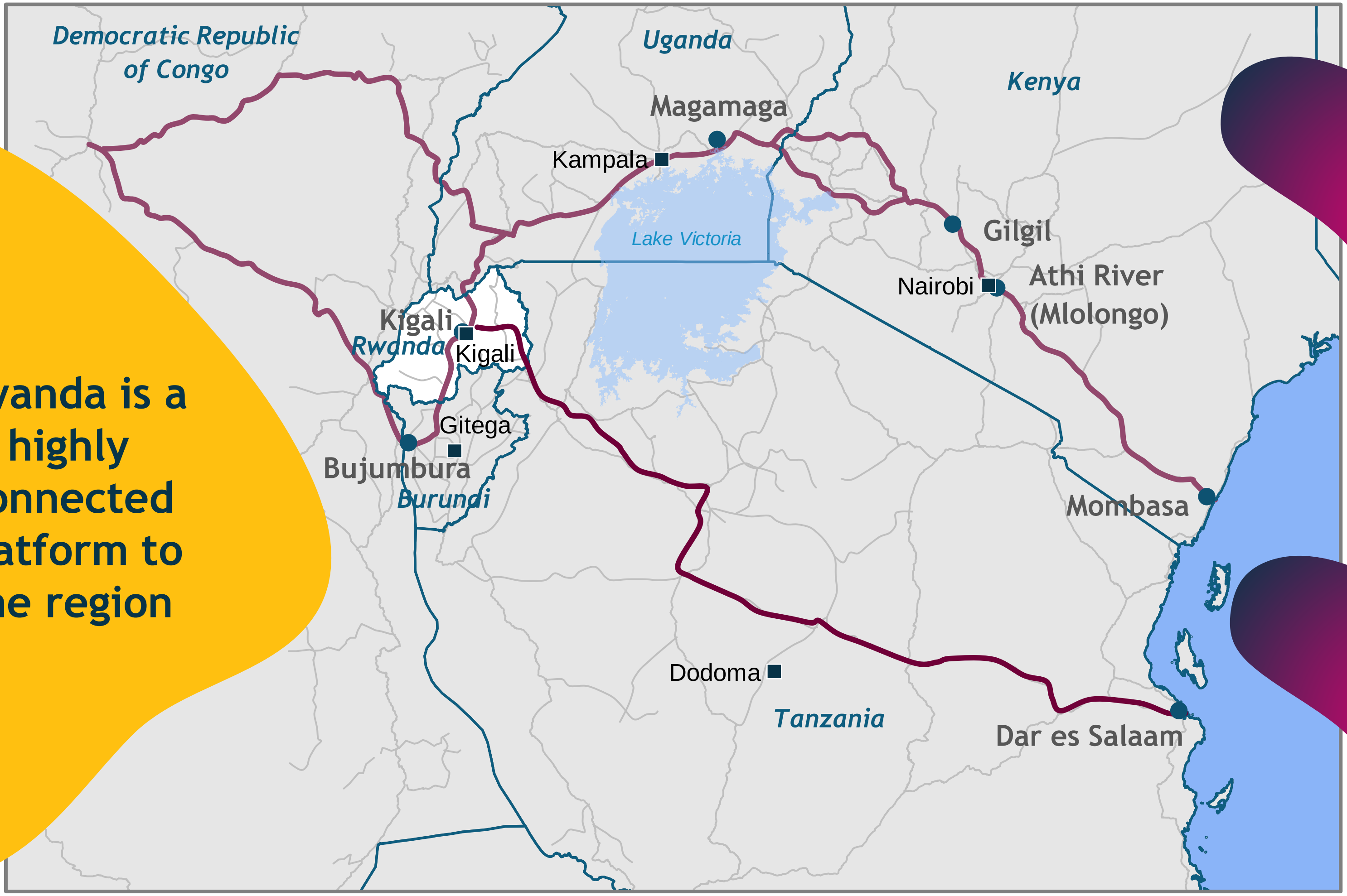
1.8 USD/kg[1]

Cost of air freight from Kigali to any destination

Sources: RwandAir, 2021; Rwanda Civil Aviation Authority, 2019; Expedia, 2019 ; Notes: [1] This Current price is $2.2/kg, but the government of Rwanda gives a subsidy of $0.4/kg

Rwanda is the 3rd country in Africa in terms of road quality with a commitment to continue improving road infrastructure

Main road
National roads
Country boundary
Capital cities



3,500 USD[1]
Cost of inland logistics between Mombasa and Kigali

2,900 USD[1]
Cost of inland logistics between Dar es Salaam and Kigali

Rwanda is a highly connected platform to the region

1. per 20 feet container

SOURCE: EAC northern and central corridor, world bank, Northern corridor transit authority

Rwanda is committed to bringing roads to every farmer

The rural feeder roads program has enabled Rwanda to go from 1000 km of unpaved roads in poor condition in 2012, to 1824 km additional paved roads, and more than 2000 km of newly rehabilitated and all-weather unpaved roads in 2018

Additionally, the government has committed to building a road within 2km of each farm by 2028 (30 000 km of road in 2028 vs 13 ,350 km in 2015)

Rwanda's horticulture sector presents several **high value crops** with a **strong demand** in premium export markets like Europe

Chilies

French beans

Passionfruit

Mushroom

Rwanda chilies production has a seasonality advantage to key competitors

European demand

~1,547,000 T
(2,747 million USD)

Rwanda comparative advantage

Seasonal advantage

Healthy margin possible

Investment in chilies could capture significant demand in high-value export markets like Europe

Annual demand for chilies is strong in high value export markets such as Europe and China

~1,547,000 T

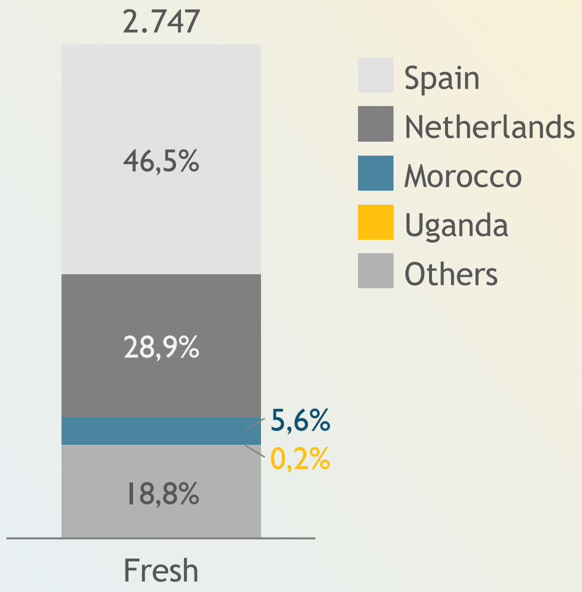
(2,747 million USD) demand[1] chilies in Europe[2]

~ 78,500T

(56 million USD) demand[1] in China

The main African countries supplying those markets are Morocco and Uganda…

European chilies imports by supplier, 2019 (million USD)



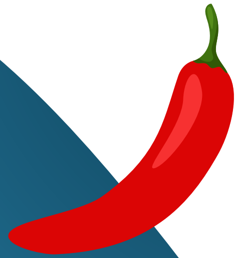
… however Rwanda is well positioned to capture this demand

- Several varieties of chilies **can grow well in Rwanda**, including birds eye, scotch bonnet, and green chilies;
- European buyers are **constantly looking for new reliable and cheaper sources**, given volume and quality inconsistencies in leading suppliers in producing countries

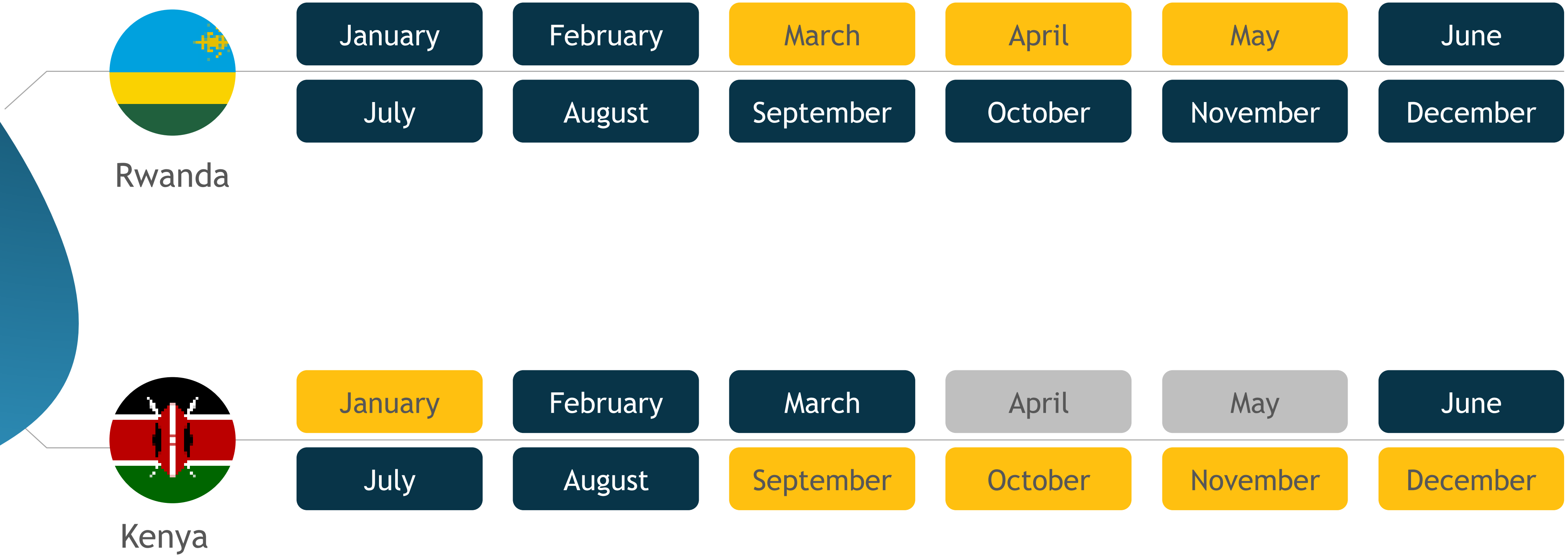
Source: Trademap 2021; Dalberg, ISP Rwanda: Commercial Opportunities in Agricultural Value Chains, 2018; Notes :[1] Import demand of 2019 from EU 28 calculated using following HS code 070960, [2] This includes 28 member states of the European Union, including the United Kingdom

Rwanda boasts a seasonality advantage in the production of chilies

Not in season   In season   Light supply



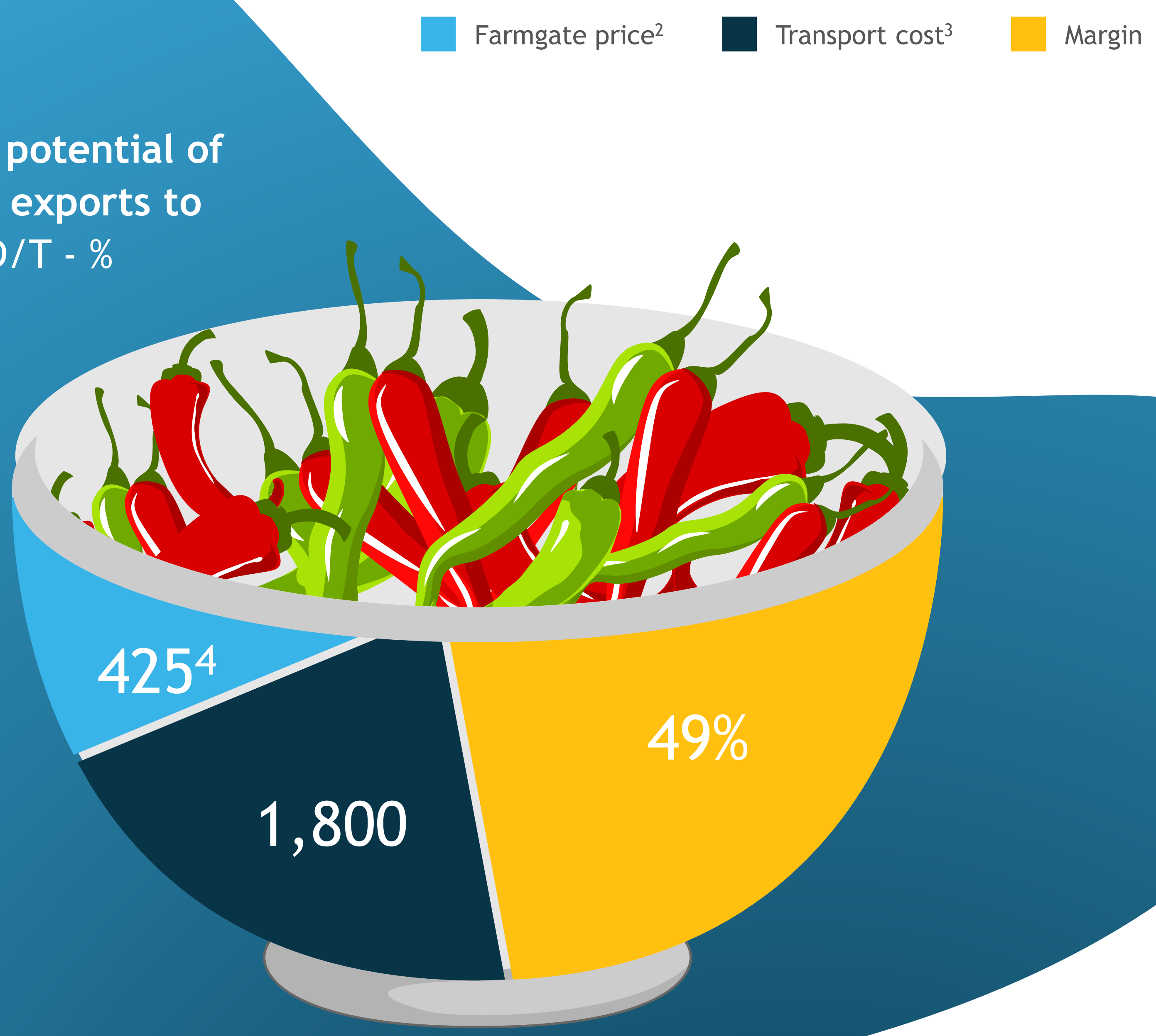
Rwanda's significant seasonality advantage allow it to produce chilies while its competitors are in light supply



Source: Dalberg, ISP Rwanda: Commercial Opportunities in Agricultural Value Chains, 2018

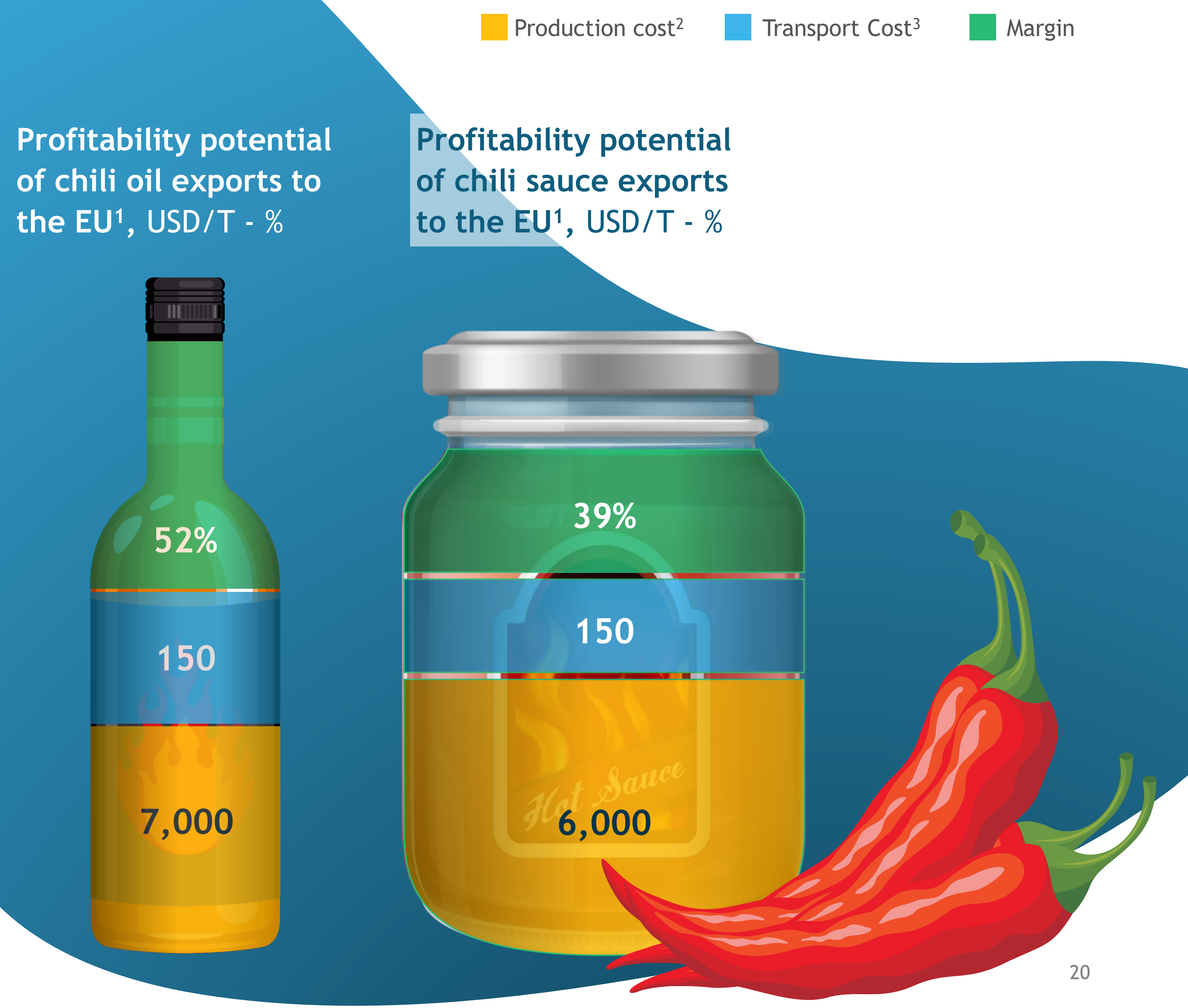
Chilies production in Rwanda has a high potential for healthy margins

Profitability potential of fresh chilies exports to the EU[1], USD/T - %



Source: Dalberg, ISP Rwanda: Commercial Opportunities in Agricultural Value Chains, 2018; Notes: [1] This assumes a wholesale price of 4,360 USD/T for fresh chilies; margins represent gross margins that would be shared across value chain actors, farmers excluded [2] Farmgate prices are driven by a variety of factors including yield, supply volume, and produce quality; figures presented are current farmgate prices [3] This assumes transport of products by airfreight with Rwandair subsidized tariffs [4] This assumes the average farmgate price of chilies. In 2021,fresh chilies farmgate prices vary between 350 to 500 USD/Ton

Processed chilies can be sold to European markets with generous margins



Source: Dalberg, ISP Rwanda: Commercial Opportunities in Agricultural Value Chains, 2018; Notes: [1] This assumes a wholesale price of 15,000 USD/T for chili oil and of 10,000 USD/T for chili sauce; margins represent gross margins that would be shared across value chain actors, farmers excluded [2] Production costs are driven by a variety of factors including yield, supply volume, and produce quality; figures presented are current farmgate prices [3] This assumes transport of chili processed products from Kigali to Dar es Salam (~93 USD/Ton) by road then to Europe by sea freight (~57 USD/ton) for a total price of ~150 USD/ton

Rwanda can supply French beans to markets at healthy returns

European demand

~1,071,000 T

(1,177 million USD)

Rwanda comparative advantage

Healthy margin possible

French beans demand is significant in high export markets like Europe

Source: ITC Trademap, 2021; Dalberg, ISP Rwanda: Commercial Opportunities in Agricultural Value Chains, 2018; Notes:[1] Import demand of 2019 from EU 28 calculated using following HS codes 071331, 071332, 071333, 200551, 200559; [2] This includes 28 member states of the European Union, including the United Kingdom

Demand for French beans is significant in European markets

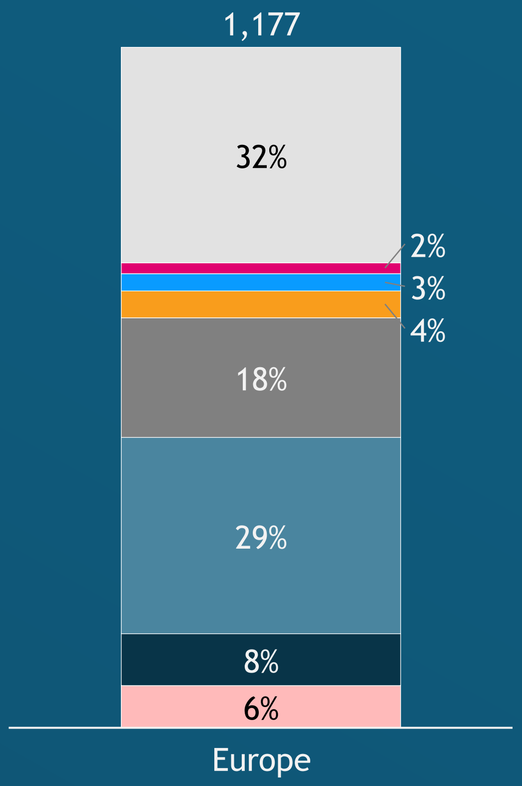
~1,071,000T

(1,177 million USD)

demand[1] in Europe[2]

Kenya and Ethiopia are one of the main suppliers of French beans to these markets

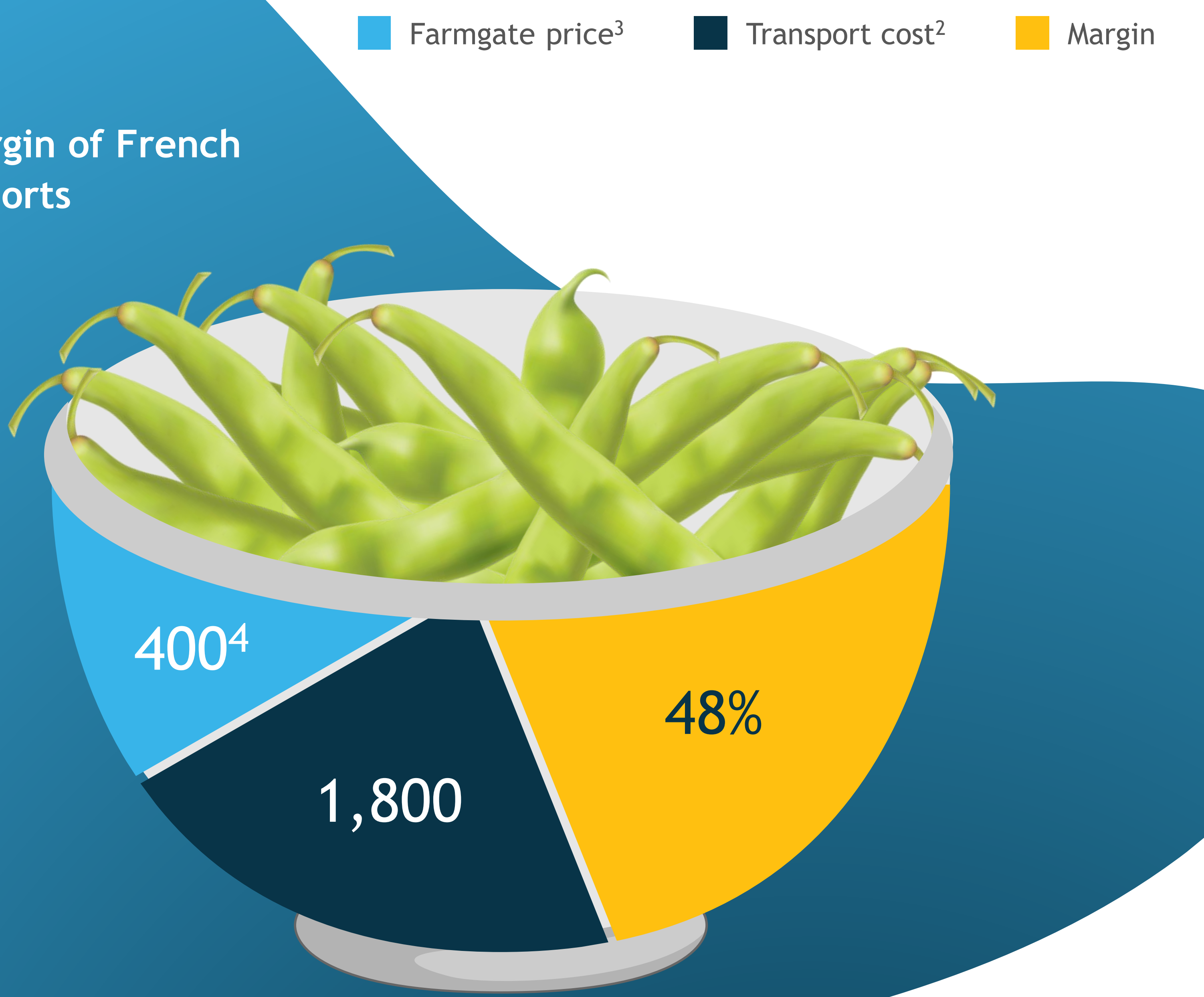
French bean imports in Europe by exporter (*Mn USD*)



Rwanda can export French beans to Europe with favorable margins

Profit margin of French beans exports

USD/T - %[1]



Source: Dalberg, ISP Rwanda: Commercial Opportunities in Agricultural Value Chains, 2018; Notes:[1] This assumes a wholesale price of 4,270 USD/T in the EU market; margins represent gross margins that would be shared across value chain actors, farmers excluded [2] This assumes transport of products by airfreight with Rwandair subsidized tariffs [3] Farmgate prices are driven by a variety of factors including yield, supply volume, and produce quality; figures presented are current farmgate prices of 2021; [4] This assumes the average farmgate price of French beans. In 2021, French beans farmgate prices vary between 300 to 500 USD per ton

Rwanda can produce passion fruits for Europe with a seasonality advantage over peers

European demand

~375,300 T
(861 million USD)

Rwanda comparative advantage

Seasonal advantage

Healthy margin possible

Investment in fresh passion fruit could capture significant demand in the European market

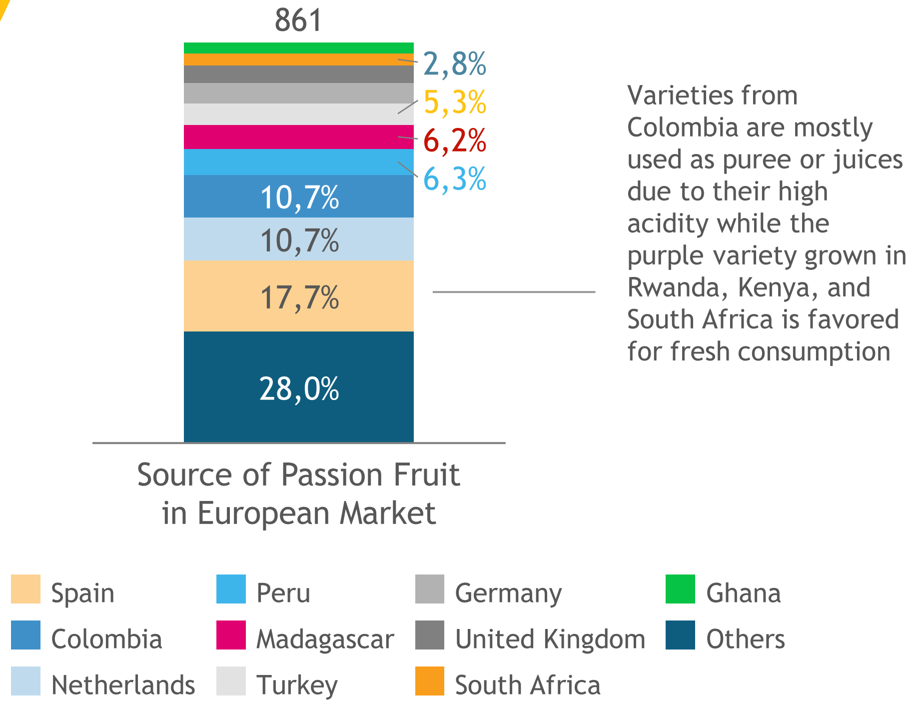
European markets are characterized by a strong demand for passion fruits

~375,300T

(861 million USD) demand[1] for passion fruits[3] in Europe[2]

Ghana, Madagascar and South Africa are the main African supplier of passion fruits to the European market…

Passion fruits[3] imports in Europe by exporter (Mn USD)



… and Rwanda is well positioned to seize a share of this market

Rwanda boasts **of very low and low slope land,** ideal for the production of **passion fruits**

Demand for passion fruits in high-value markets is sufficiently strong to allow for the entry of new producing countries

Purple passion fruits grown in Rwanda are the **preferred variety in EU markets**

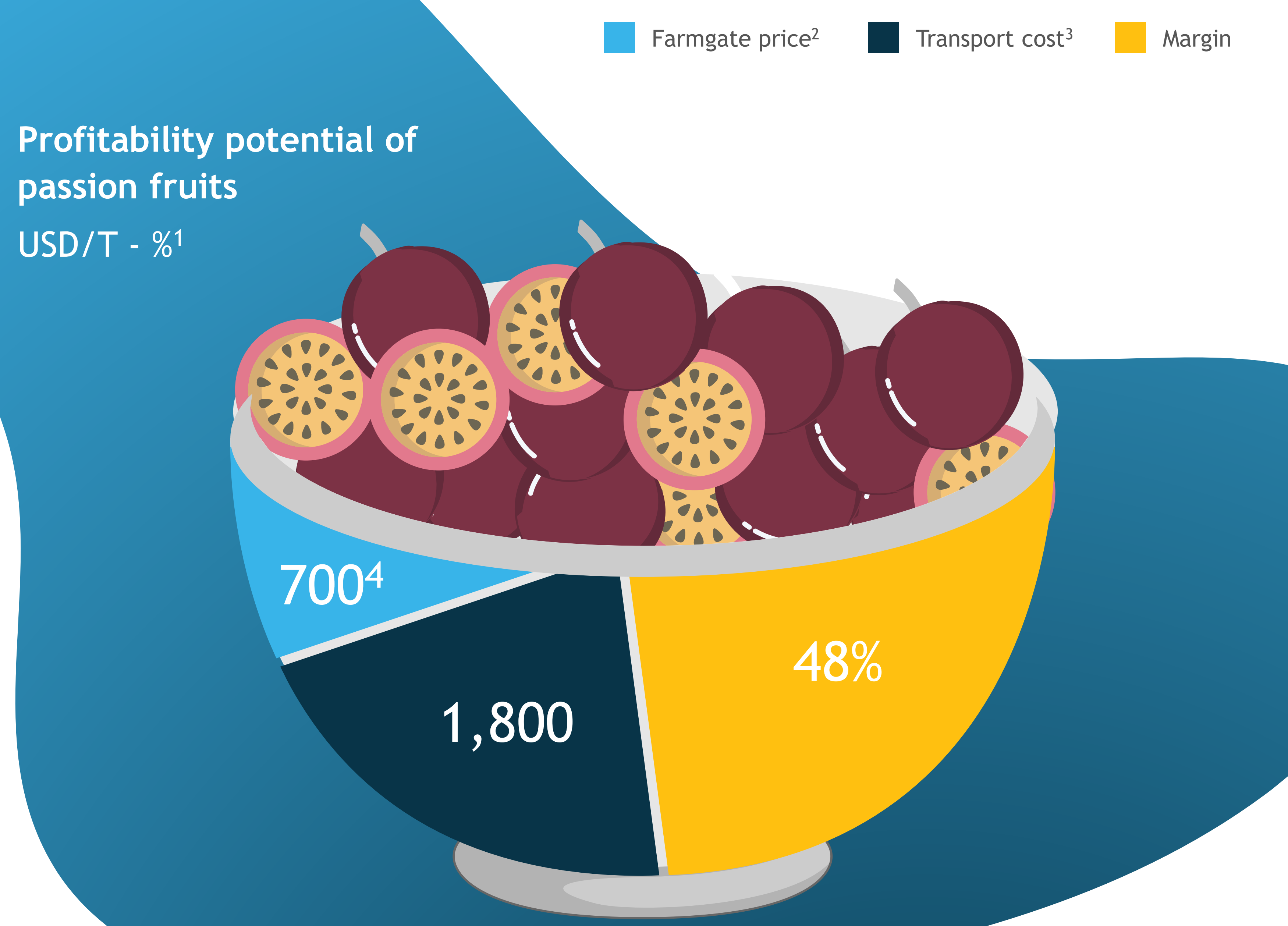
Source: ITC Trademap, 2021; Dalberg, ISP Rwanda: Commercial Opportunities in Agricultural Value Chains, 2018; Notes: :[1] Import demand of 2019 from EU 28 calculated using following HS code 081090, [2] This includes 28 member states of the European Union, including the United Kingdom, [3] : Data include Fresh tamarinds, cashew apples, jackfruit, lychees, sapodillo plums, passion fruit, carambola, ...

Rwandan passion fruits hold a seasonality advantage

Rwanda has a seasonality advantage during months of light supply in Kenya and South Africa…

Source: Dalberg, ISP Rwanda: Commercial Opportunities in Agricultural Value Chains, 2018

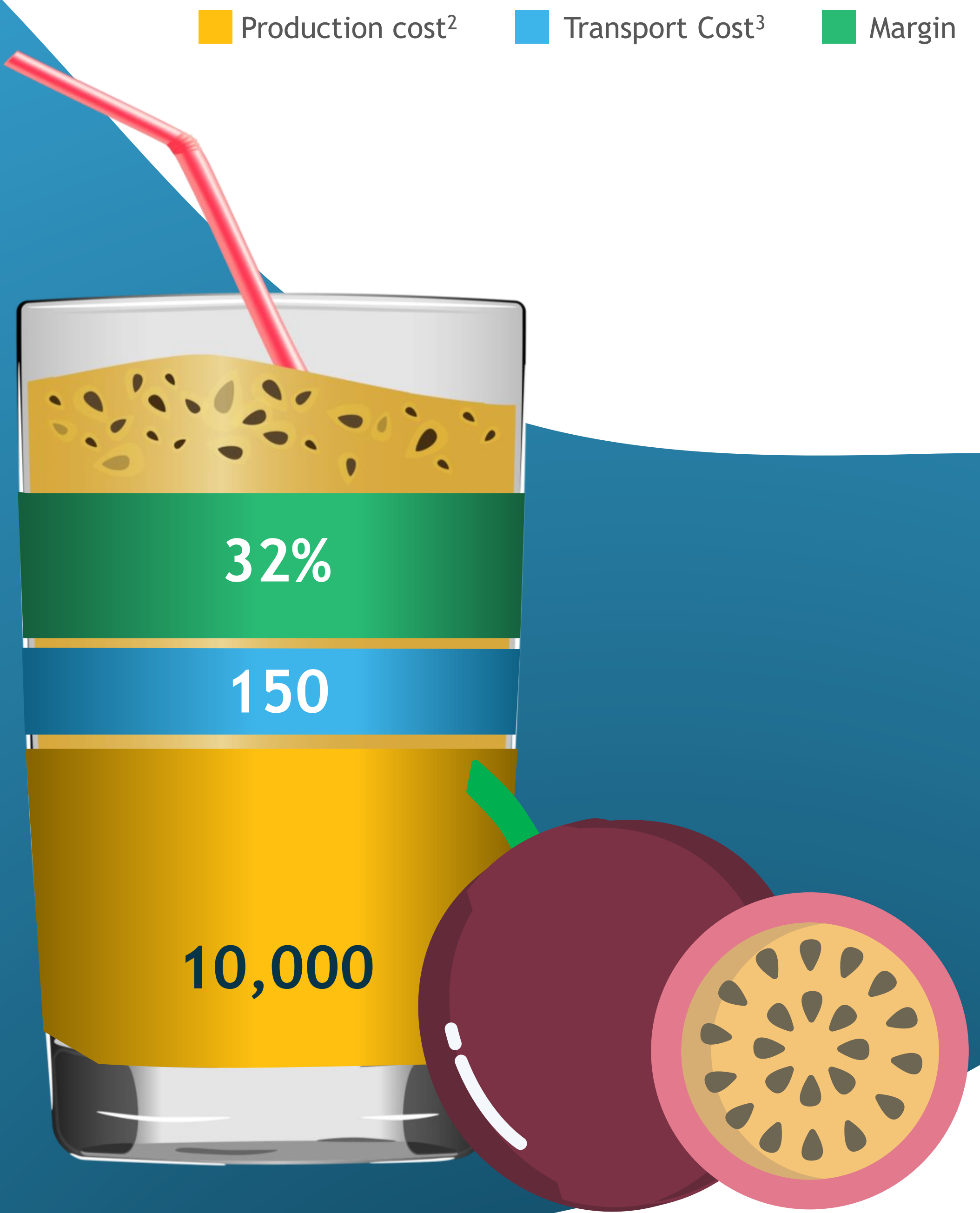
Fresh Passion fruits in Rwanda can be produced with healthy margins



Source: Dalberg, ISP Rwanda: Commercial Opportunities in Agricultural Value Chains, 2018; Notes: [1] This assumes a wholesale price of 4,840 USD/T for passion fruits in the EU market; margins represent gross margins that would be shared across value chain actors, farmers excluded [2] Farmgate prices are driven by a variety of factors including yield, supply volume, and produce quality; figures presented are current farmgate prices [3] This assumes transport of products by airfreight with Rwandair subsidized tariffs [4] This assumes the average farmgate price of passion fruits. In 2021,fresh passion fruits farmgate prices vary between 600 to 800 USD/T(up to 1,000 USD/Ton during the dry season (July-August)

Similarly passion fruit juices can be processed and exported from Rwanda at reasonable margins

Profitability potential of passion fruit juice exports to the EU[1],
USD/T - %



Source: Dalberg, ISP Rwanda: Commercial Opportunities in Agricultural Value Chains, 2018; Notes: [1] This assumes a wholesale price of 15,000 USD/T for passion fruits juices in the EU market; margins represent gross margins that would be shared across value chain actors, farmers excluded [2] Production costs are driven by a variety of factors including yield, supply volume, and produce quality; figures presented are current farmgate prices [3] This assumes transport of passion fruit juices from Kigali to Dar es Salam (~93 USD/Ton) by road then to Europe by sea freight (~57 USD/ton) for a total price of ~150 USD/ton

Rwanda can export high value mushrooms to Europe

European demand

~323,000 T

(699 million USD)

Rwanda comparative advantage

Healthy margin possible

Investment in mushrooms could capture significant demand in high-value export markets

Annual demand for mushrooms is strong in high-value export markets such as the European Union and the Middle East as well as African markets…

~323,000 T

(699 million USD)

demand[1] in Europe[2]

~ 18,500T

(100 million USD)

demand[1] in the Middle East[3]

~ 1,800T

(5 million USD)

demand[1] in Africa

The most imported types of mushroom in Europe are Chinese shiitake mushrooms

Source: ITC Trademap, 2021; Dalberg, ISP Rwanda: Commercial Opportunities in Agricultural Value Chains, 2018; Notes: [1] Import demand of 2019 from EU 28 calculated using following HS code 070951, [2] This includes 28 member states of the European Union, including the United Kingdom [3] This includes Egypt, Israel, Turkey, Palestine, Syria, Lebanon, Jordan, and the six member states of the Gulf Cooperation Council (GCC)

… and Rwanda is well positioned to capture this demand

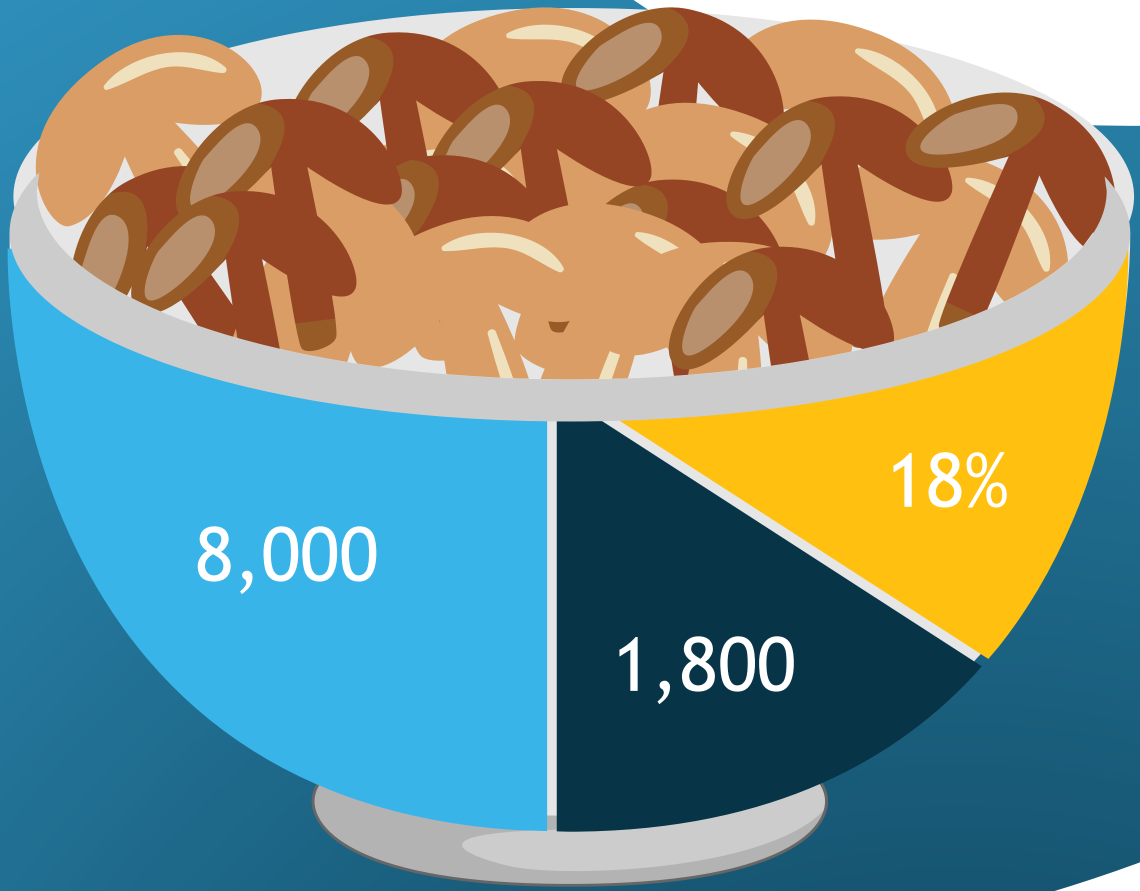
- **Agronomic conditions in Rwanda are ideal** for the **cultivation** of several **varieties of mushrooms,** including specialty mushrooms such as shiitake
- **Specialty mushrooms,** both fresh and dried, present a **particularly attractive opportunity** as wholesale prices can go up to $12,000/ton for fresh and $38,000/ton for dried

Rwanda can export with reasonable margins high-value specialty fresh mushrooms …

Profitability potential of shiitake mushrooms

USD/T - %[1]

Production cost | Transport cost[2] | Margin



Source: Dalberg, ISP Rwanda: Commercial Opportunities in Agricultural Value Chains, 2018; Notes:[1] This assumes a wholesale price of 12,000 USD/T in the EU market; margins represent gross margins that would be shared across value chain actors, farmers excluded [2] This assumes transport of products by airfreight with Rwandair subsidized tariffs

… as well as dried shiitake mushrooms

Profitability potential of dried shiitake mushrooms exports to the EU[1], USD/T - %

Source: Dalberg, ISP Rwanda: Commercial Opportunities in Agricultural Value Chains, 2018; Notes:[1] This assumes a wholesale price of 21,000 USD/T in the EU market; margins represent gross margins that would be shared across value chain actors, farmers excluded [2] Production costs are driven by a variety of factors including yield, supply volume, and produce quality; figures presented are current production prices of 2021 [3] This assumes transport of dried mushrooms from Kigali to Dar es Salaam (~93 USD/Ton) by road then to Europe by sea freight (~57 USD/ton) for a total price of ~150 USD/ton

Success stories

SOUK

Agribusiness company specialized in exports[1] of fresh horticulture produce

WORKING MODEL

Owns its farms and manages a network of ~70 out growers and contract farmers

MAIN PRODUCE

Chili

avocado

passion fruit

french beans

MAIN EXPORT MARKETS

UK

UAE

France

Netherlands

IMPACT

~300 employees

2000 tons exported per year

1. SOUK will soon start processinf some of its fresh produce

SOURCE: SOUK, GET IT

Get It

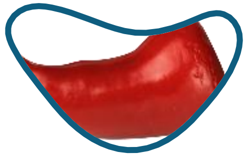
Fresh food distributor in Rwanda

WORKING MODEL

Manages its own farm and works with 400 smallholder families (~45 Ha of land to cultivate)

MAIN PRODUCE

Ginger



Vegetables and herbs including chilies, turmeric and garlic

MAIN CLIENTS

Rwanda's top hotels

Restaurants and caterers

Including ...

Marriott INTERNATIONAL

RwandAir

IMPACT

Working with **400+** landholding families

~675,000 USD revenues in 2019

Get started today!

Email:
Angelique.Karekezi@rdb.rw