Decision Support Modelling in Export Planning and Analysis

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South Africa's maize exports

A Strategic Export Market Analysis Approach

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Outline of Presentation

1. **Context**
2. **Methodology**
3. **Results**
4. **Summary and Conclusions**

Context

South Africa within the global context

Background

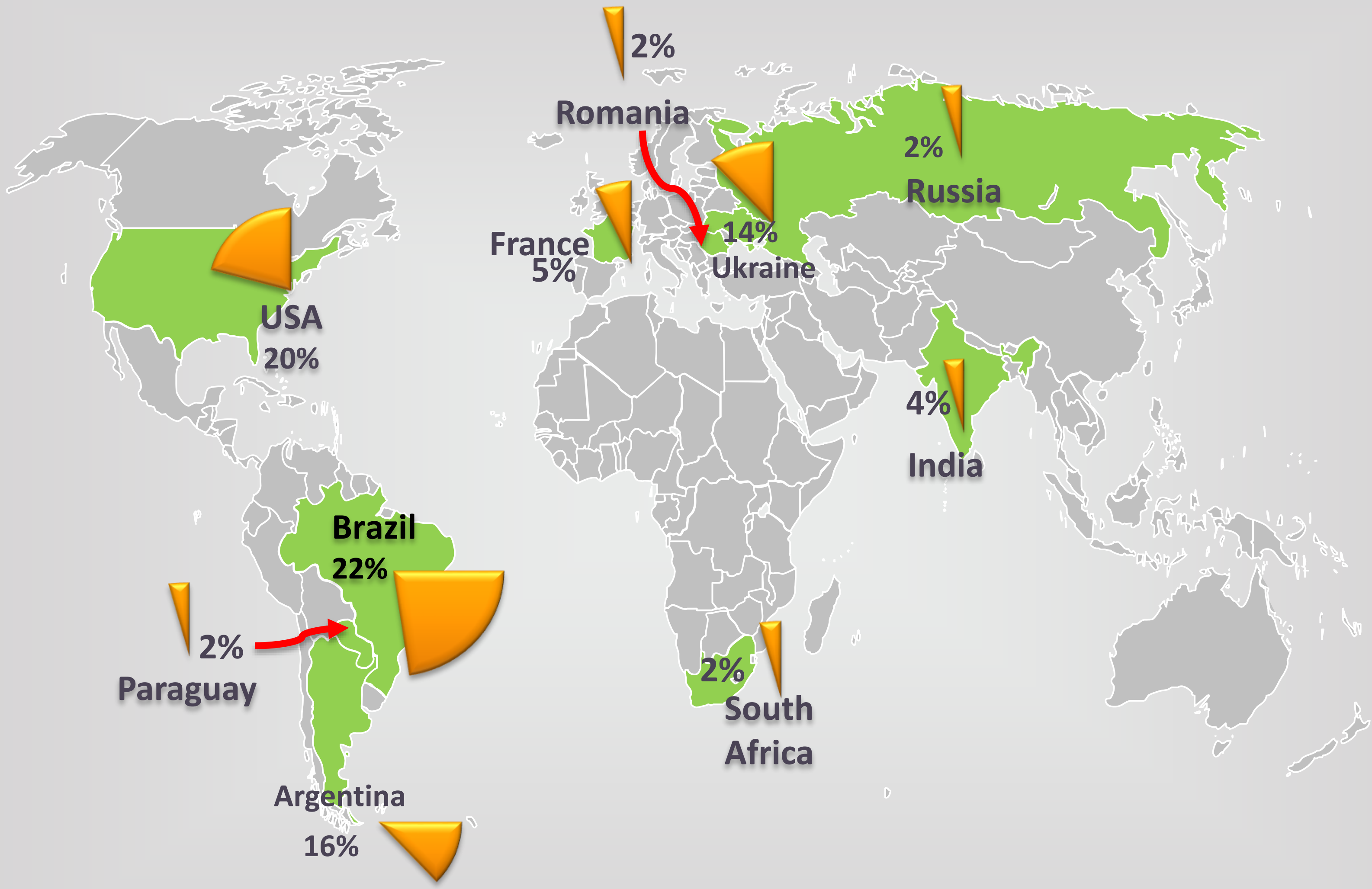
- Saturated domestic market, slow local demand growth and increased competition compelling more agribusinesses to consider exporting or, if already operating in international level, to diversify into new export markets.

- Key Question are:
  - Which markets should SA prioritise and focus its attention on, given limited resources?
  - How do we generate the trade intelligence to answer this question?

Problem Statement

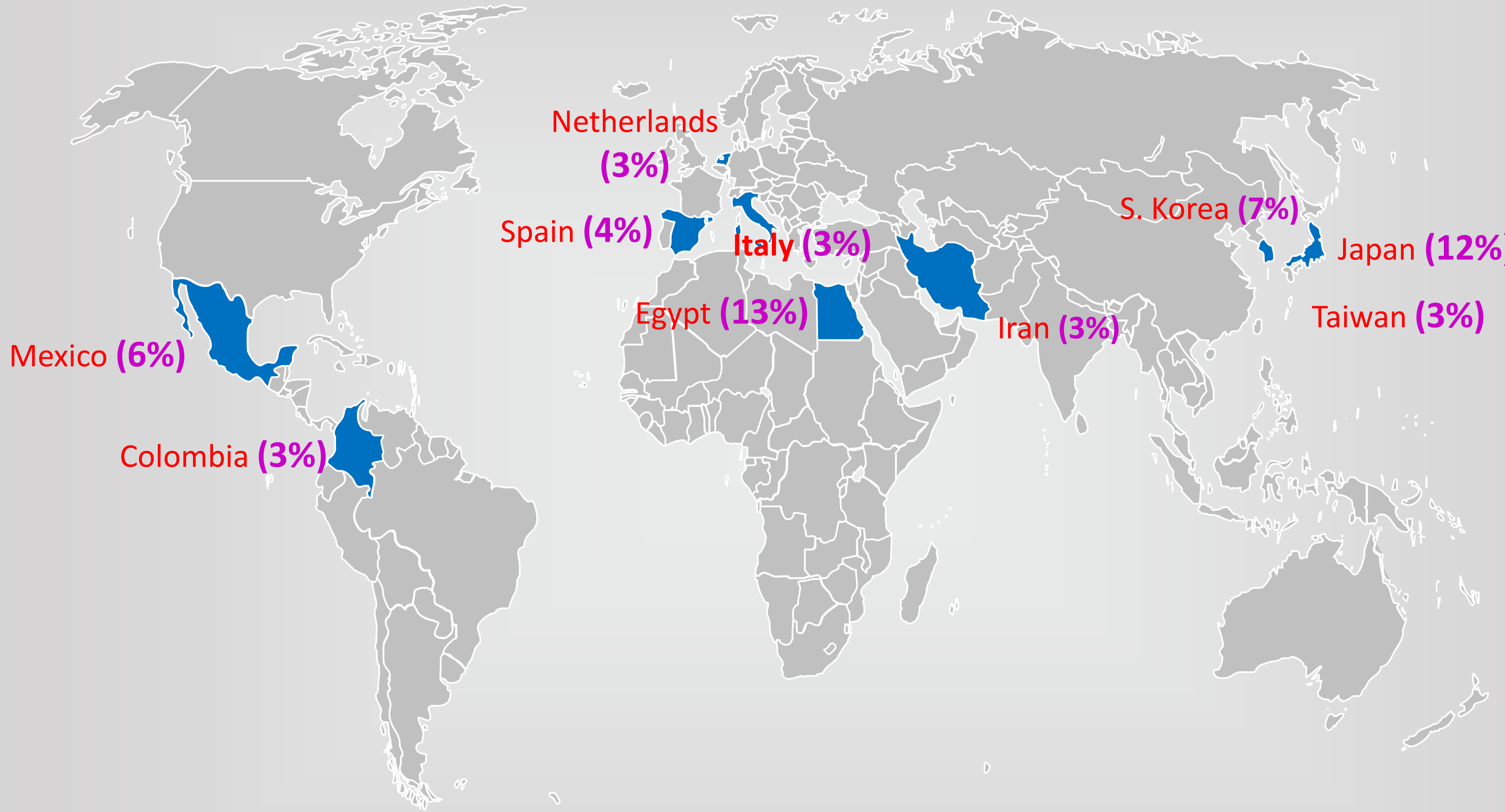
- Outside of the SADC region, SA’s maize markets are irregular and inconsistent
- SA’s exports are highly concentrated i.e. a large share of maize exports goes to a few countries
- This increases exporter’s risk in a global market that is already uncertain and highly unpredictable
- This motivates the need for “export planning and analysis” in order to identify available and potential market opportunities
- The aim is to prioritise a diverse set of countries towards which market development activities can be committed

Top10 largest global maize export markets (2013)



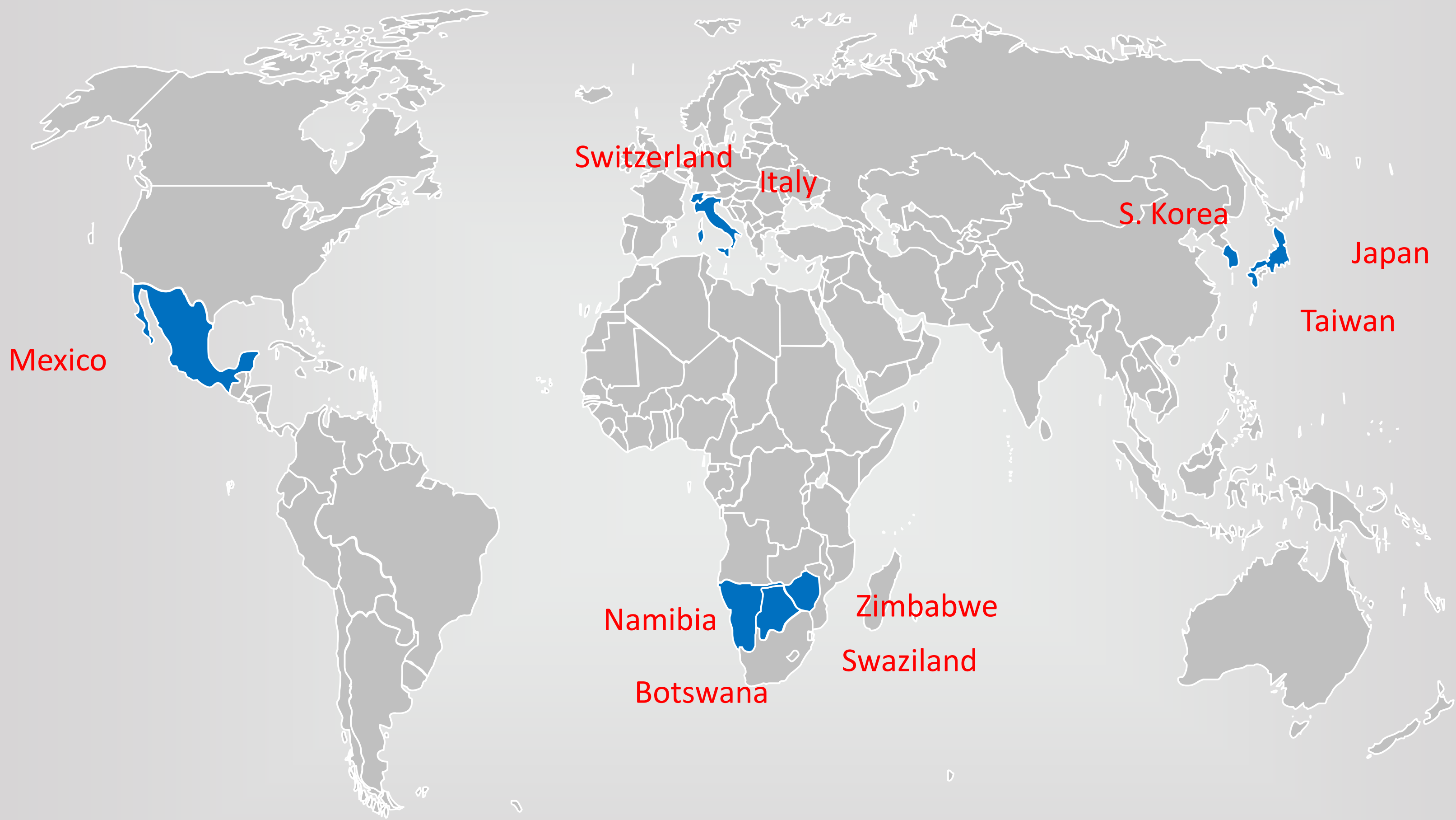
The top 10 largest maize exporters by value (2013) account for 89% of total global maize exports

Top 10 largest maize importers by volume (2013)



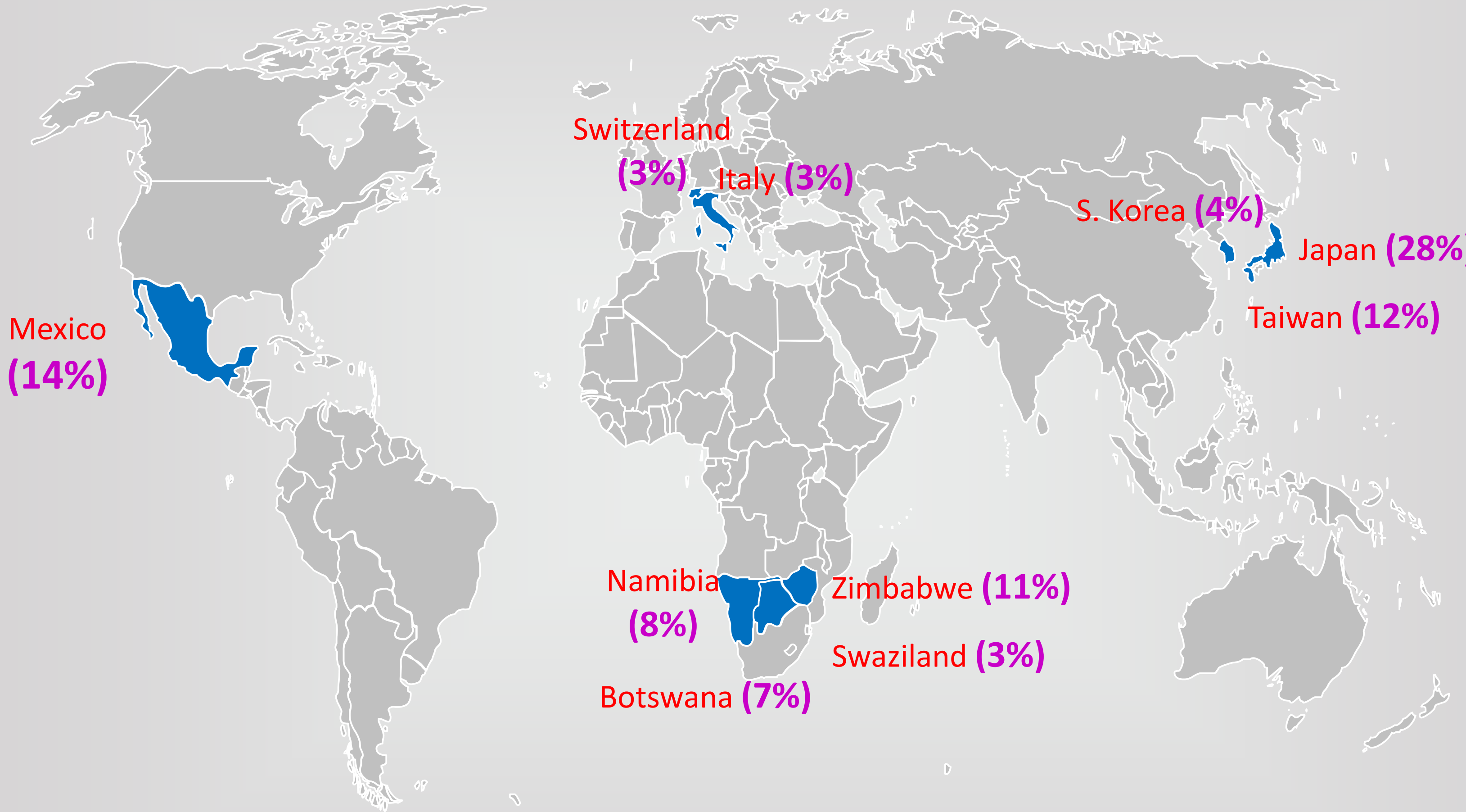
The top 10 largest maize importers by value (2013) account for 57% of total global maize trade

SA's Top largest maize export markets (2013)



23% of exports went to Southern Africa; 44% Far East; 6% EU; 14% Americas, 12% others

SA's Top largest maize export markets (2013)



The top 10 largest maize export markets account for 92% of SA's total maize exports in 2013

Methodology

The Strategic Export Market Analysis Approach

The data

- We use trade data from the Harmonized System (HS) - *a numerical classification system of products used as a basis for international trade statistics by almost all countries.*
- Data sourced from the International Trade Centre (ITC)

- A breakdown of trade data into 3 clusters:

=> HS-2 digit: the chapter of the good (sector)

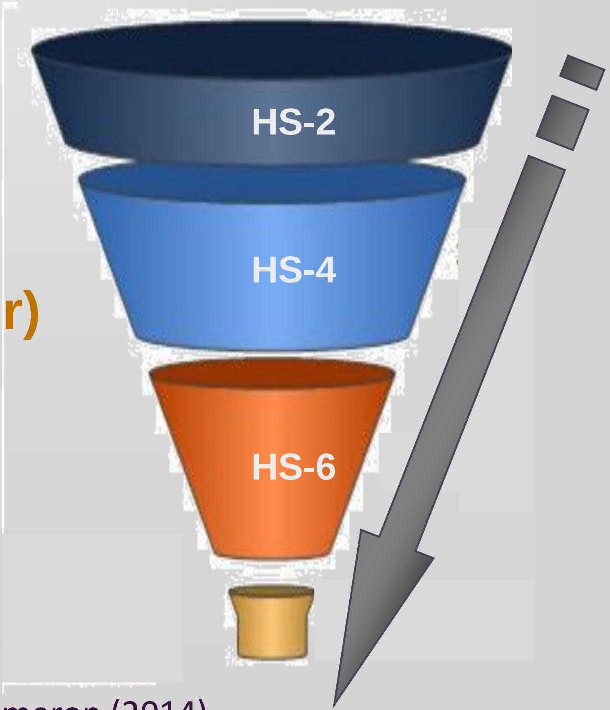
E.g. 10 = Cereals

=> HS-4 digit: group within the chapter (sub-sector)

E.g. 1005 = Maize (corn)

=> HS-6 digit : product within the group

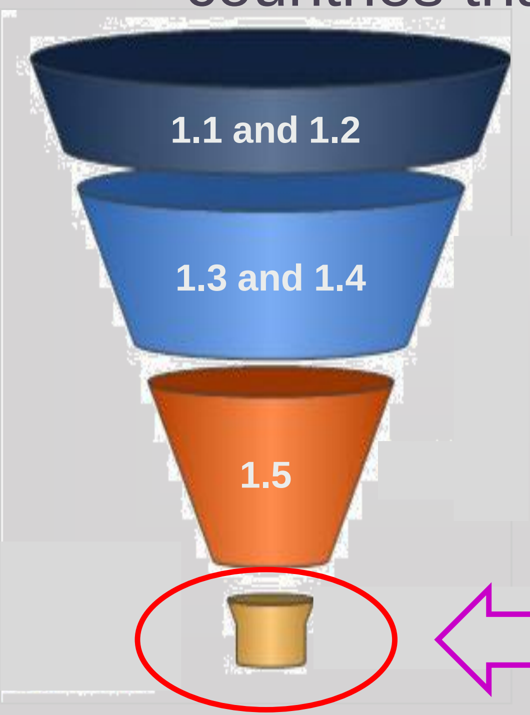
E.g. 100590 = Maize (corn) nes



Source: Vivier and Cameron (2014)

The SEMA model

- The Strategic Export Market Analysis approach is a “rules based” decision support tool
- It uses a sequential filtering process (5 filters) that eliminate less promising export opportunities, and focuses on those countries that show the most potential



Filter 1.1: export growth (*+ve* or *–ve*; *high* or *low*)

Filter 1.2: market share (*+ve* or *–ve*; *high* or *low*)

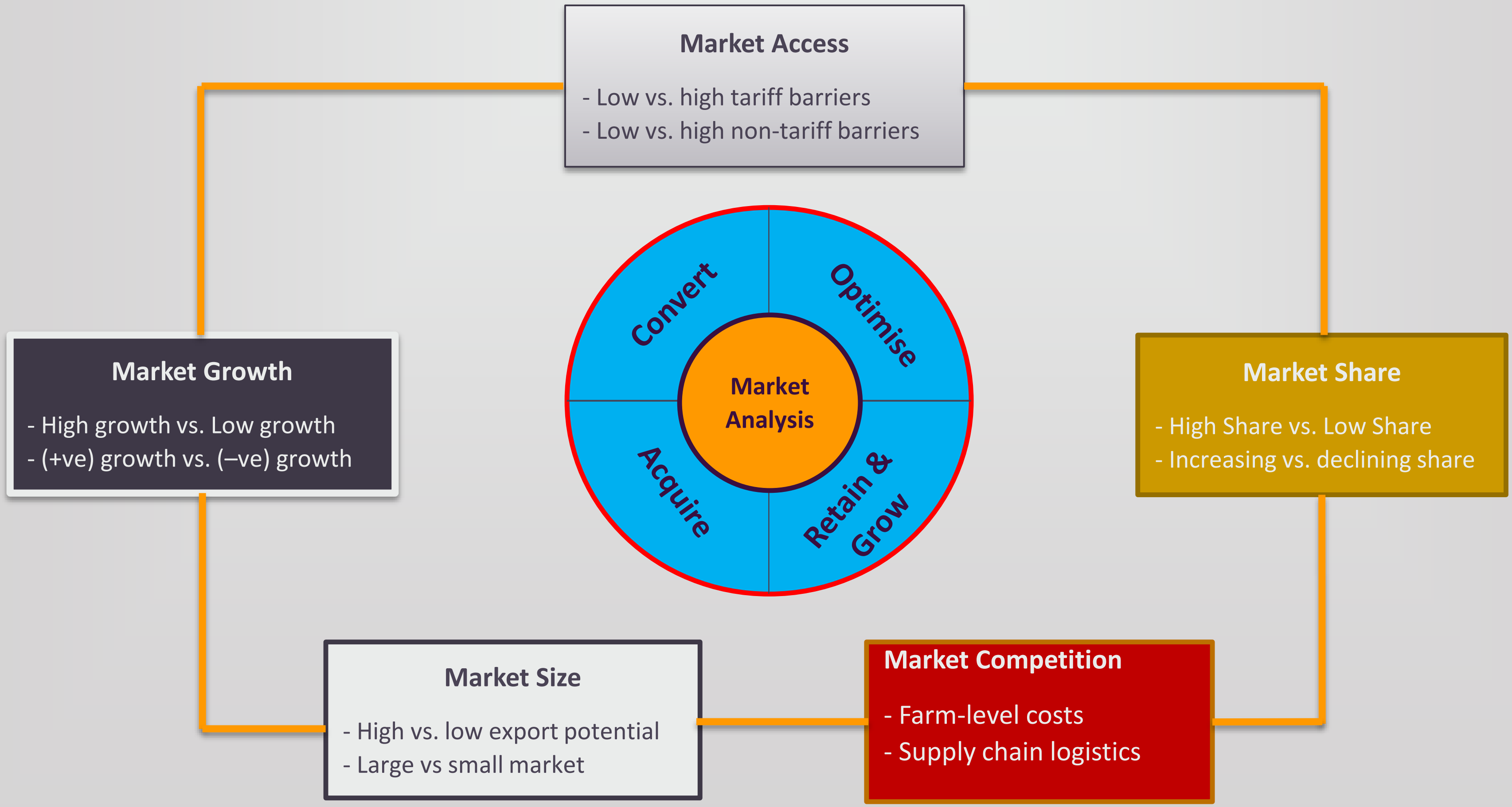
Filter 1.3 market size (*big* or *small*;*high* or *low* potential)

Filter 1.4 market access (high or low tariff and NTM)

Filter 1.5 market competitiveness (high or low costs)

High Potential
“strategic” markets

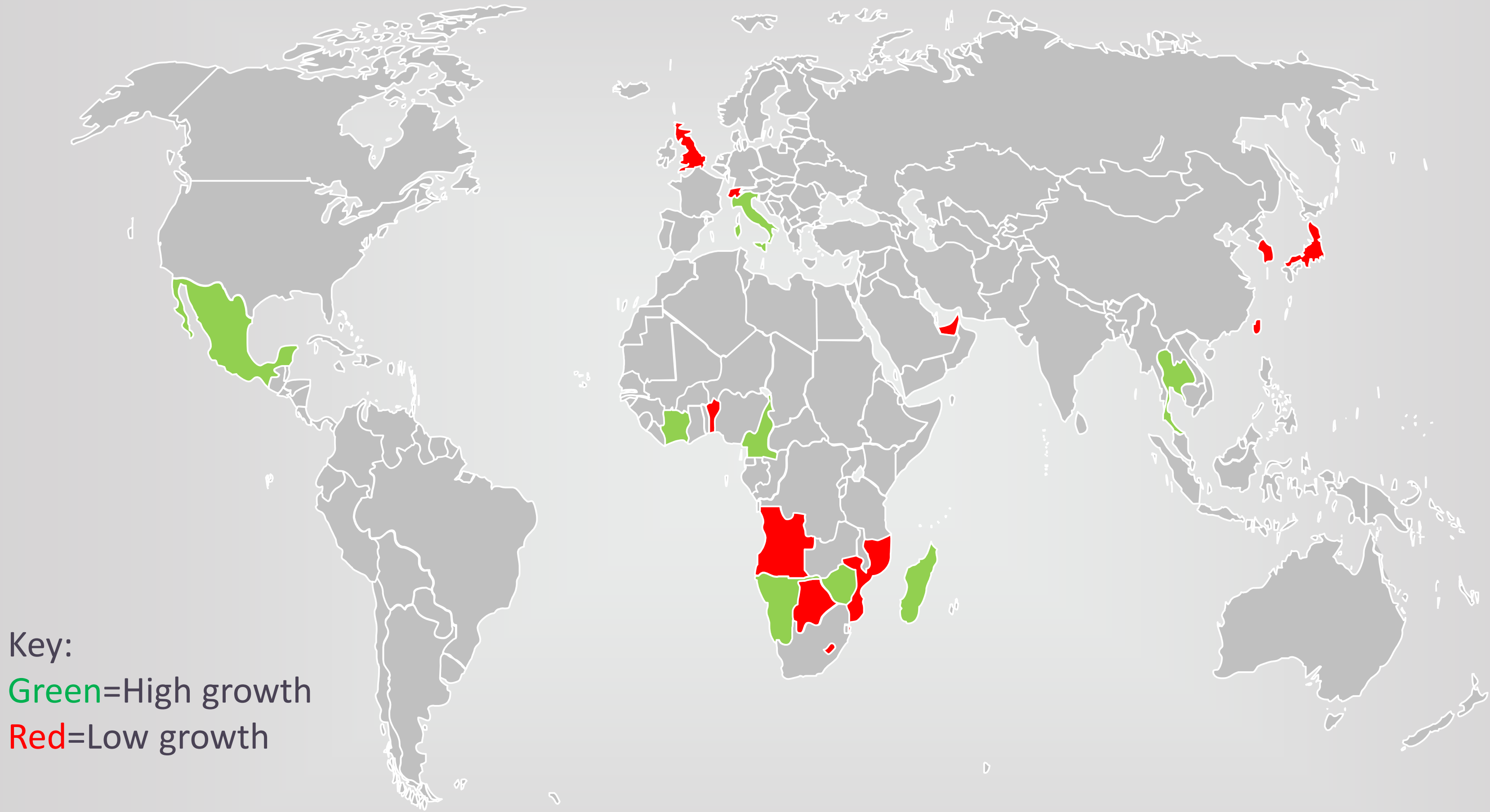
The Conceptual Framework



Results

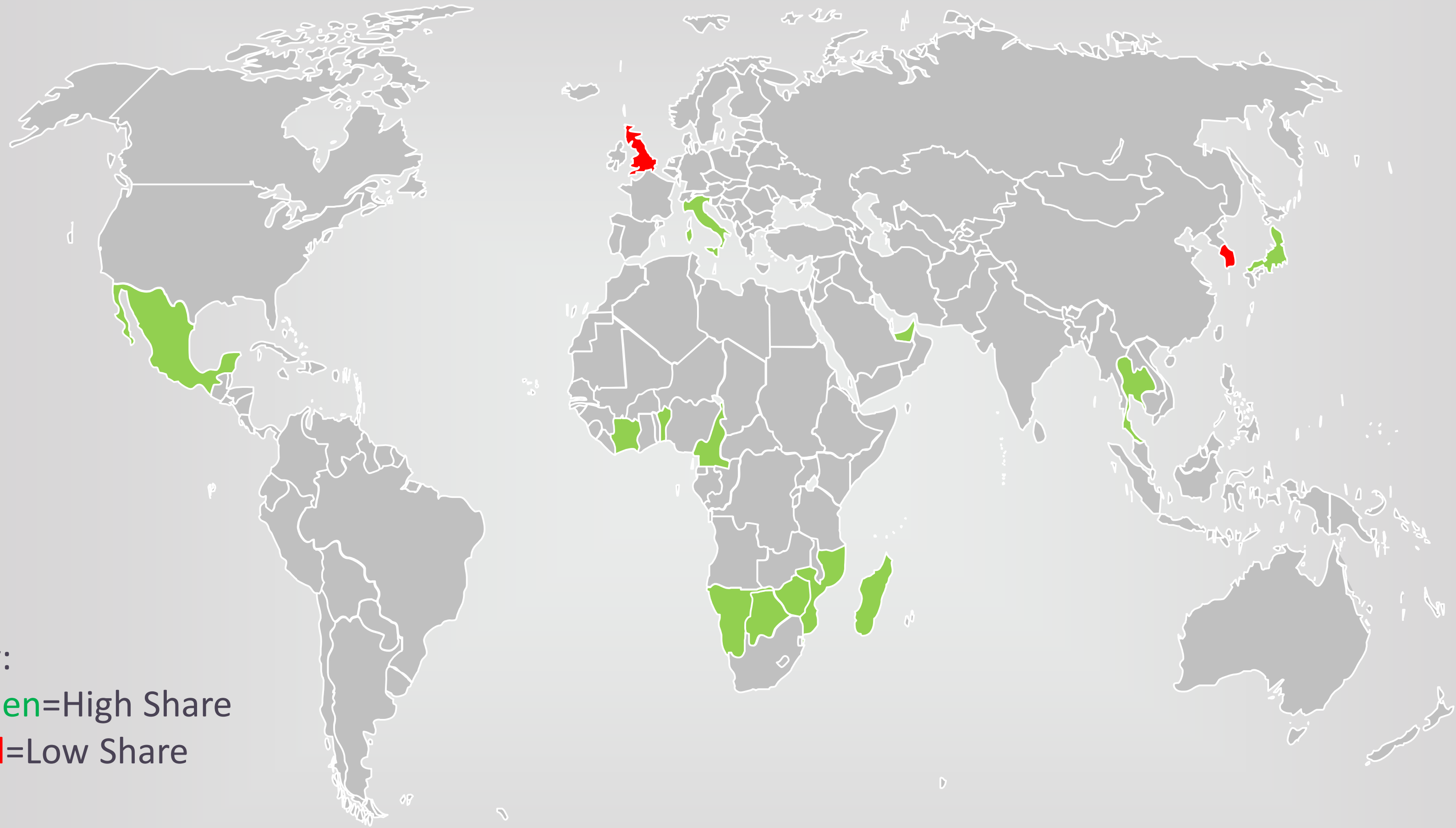
The outcome of a filtering process…

Filter 1.1: export growth
What is SA's Market Growth



The world growth rate of 13% is used as a benchmark to separate low from high growth markets

Filter 1.2: Market Share
What is SA's Market Share?



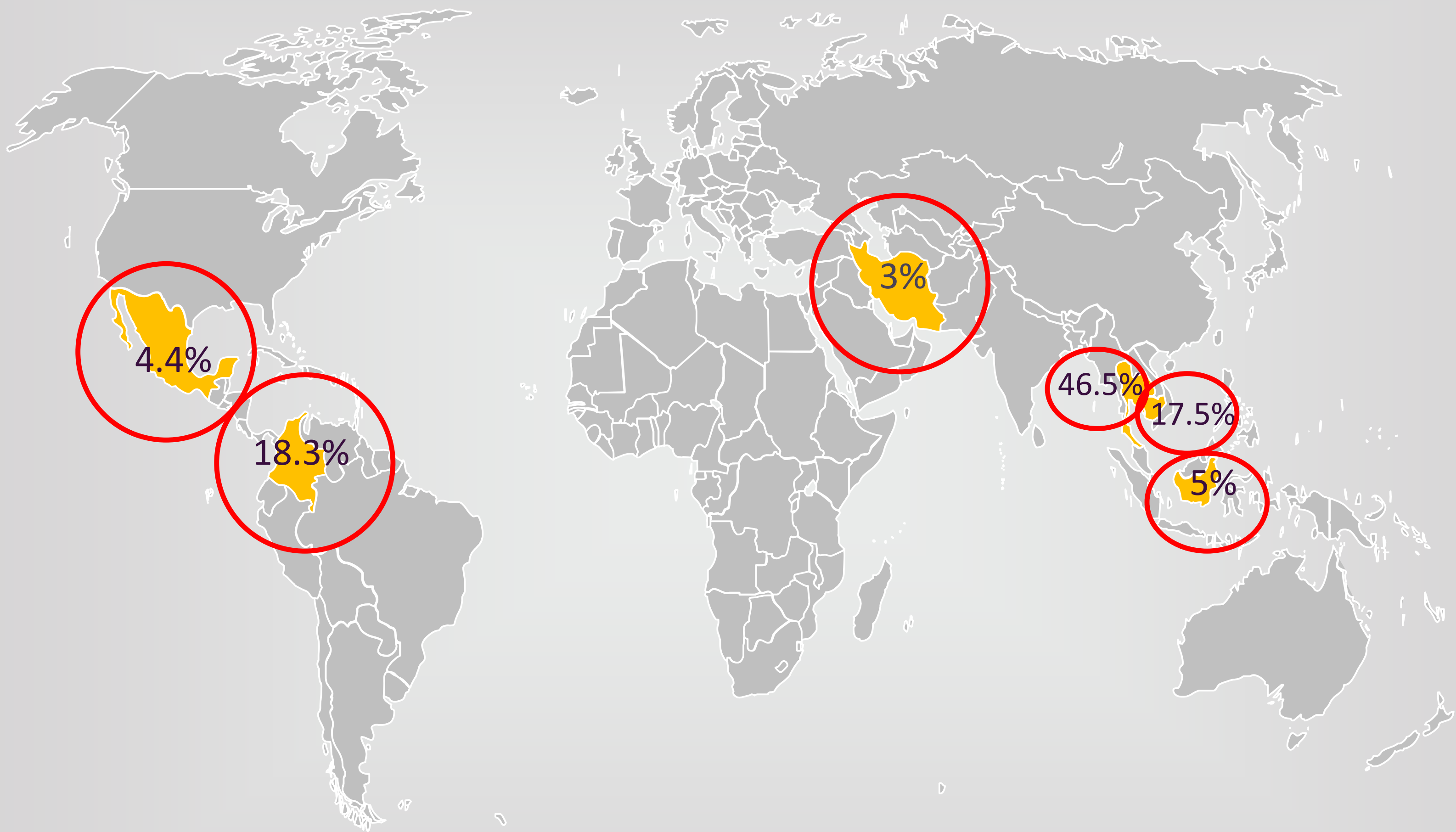
Key:
Green=High Share
Red=Low Share

SA's market share of the world of 2% is used as a benchmark to separate low from high share markets

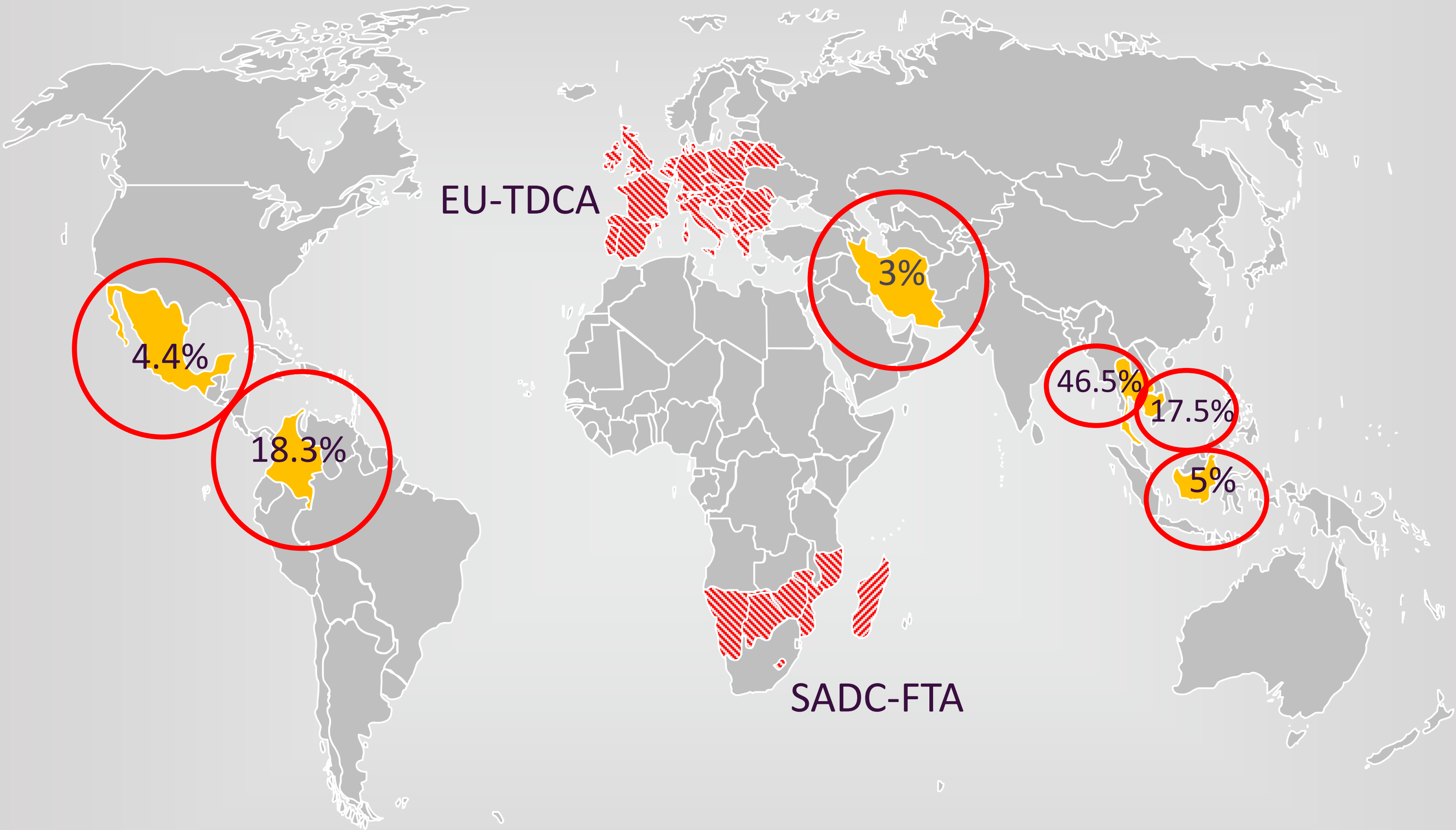
Filter 1.3 Market Size
What is the Market Demand?

Indicative Trade Potential (ITP) to measure SA's unutilised export potential. Bubble graphs to illustrate potentially exploitable market size

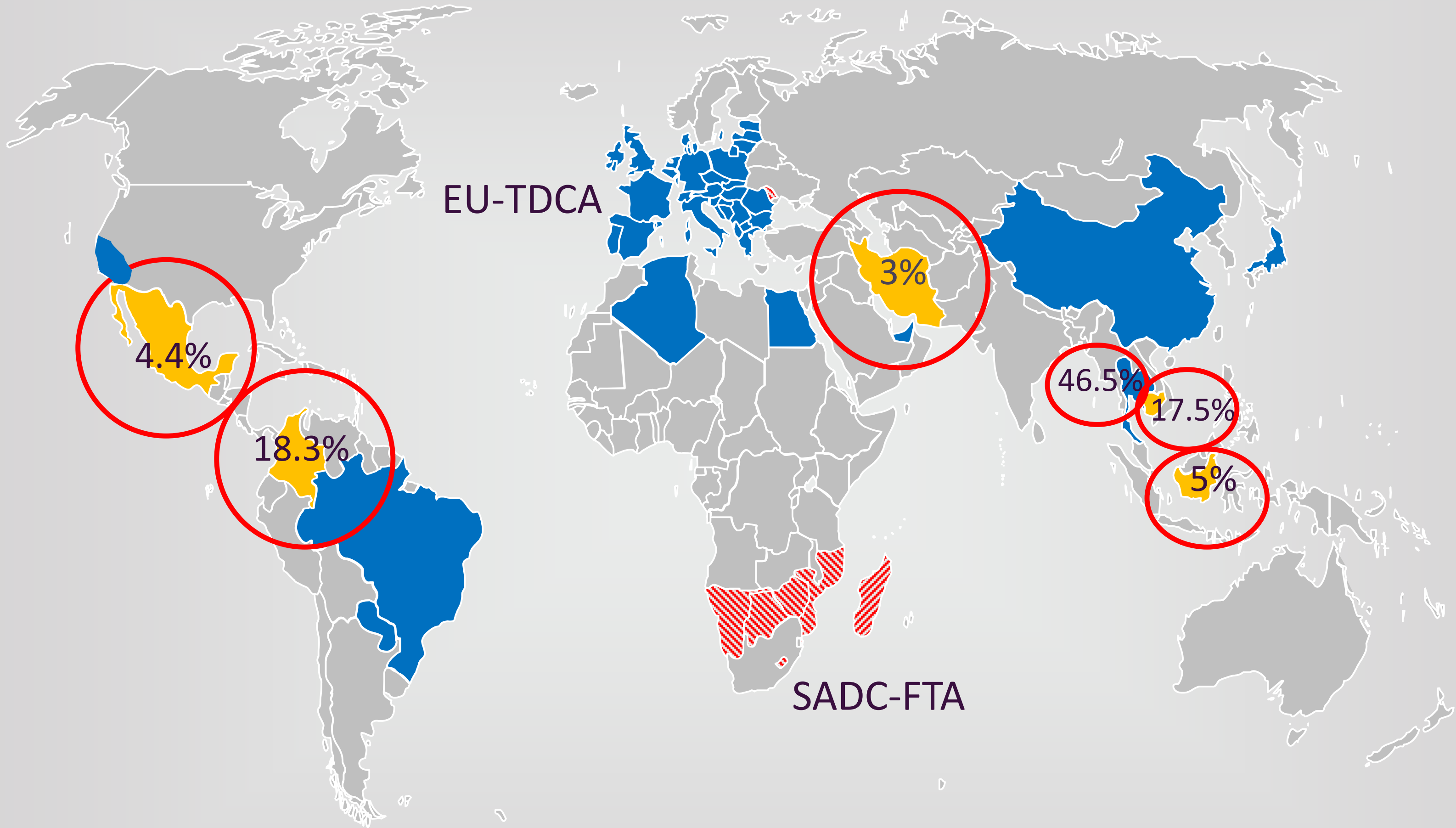
Filter 1.4 Market Access
What/Where are the highest tariffs?



Filter 1.4 Market Access
What/Where are the highest tariffs? Trade Agreements?

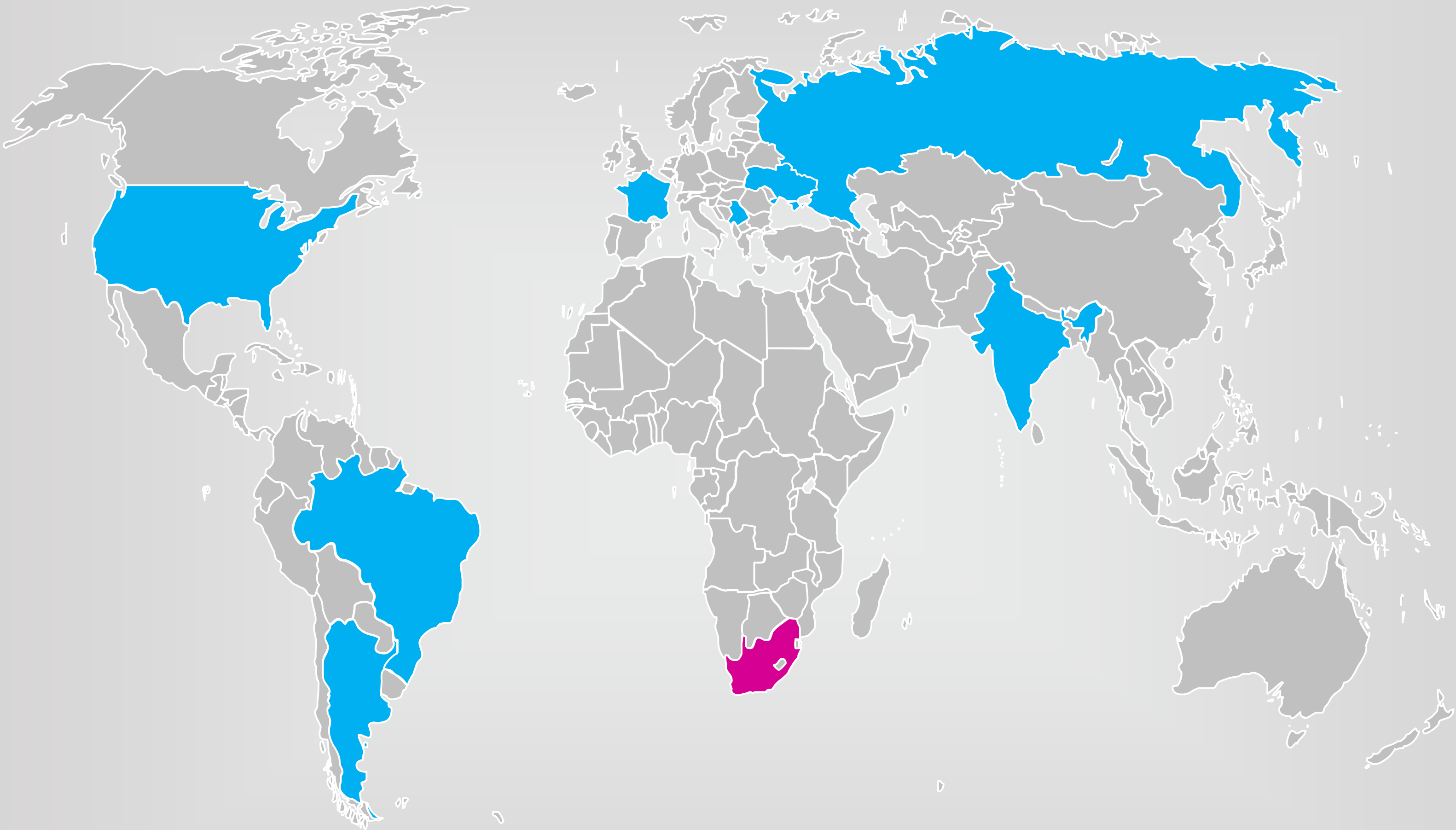


Filter 1.4 Market Access
What/Where are the highest tariffs? Trade Agreements? GM bans?



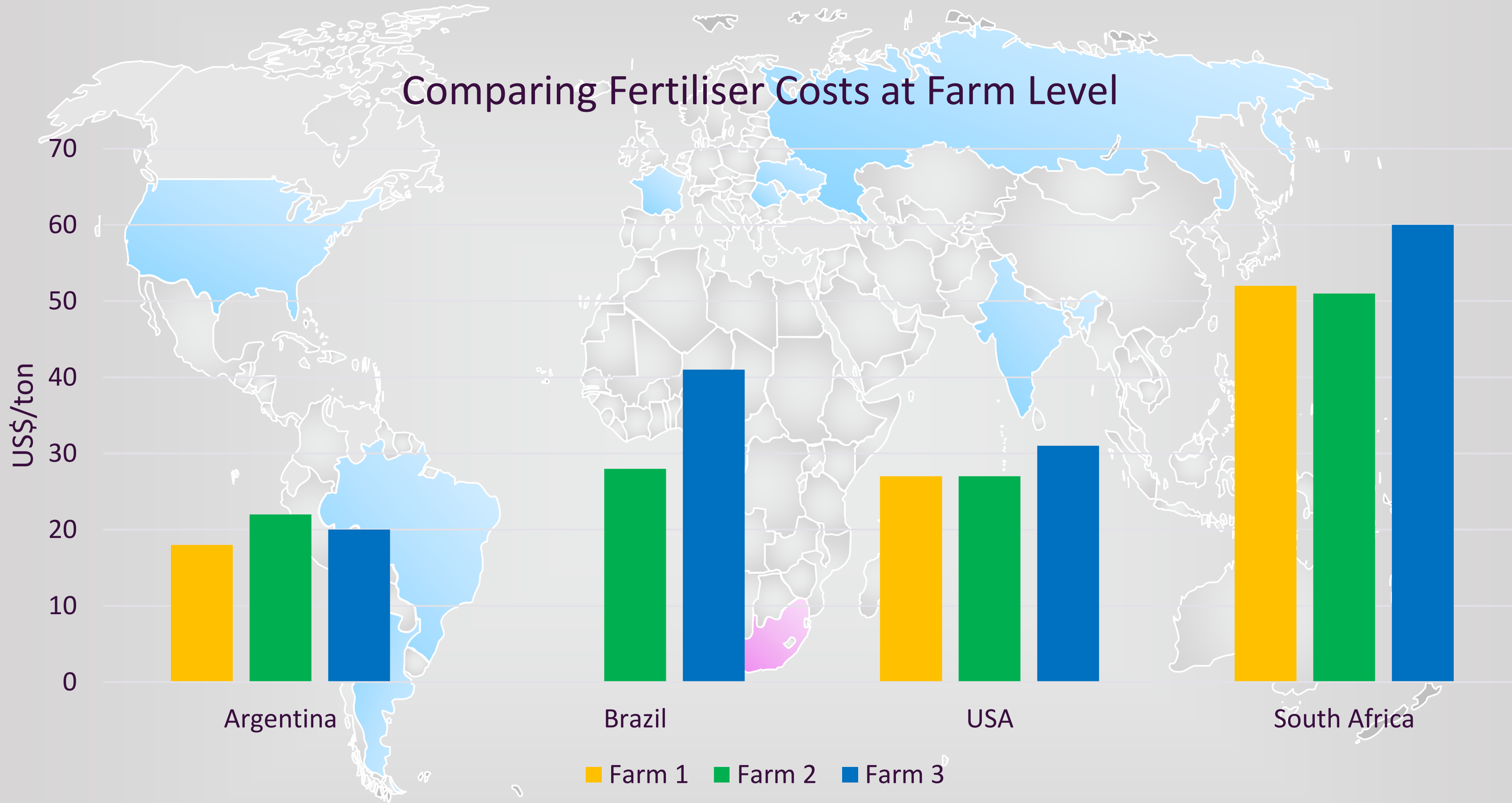
Broad GM restrictions in most parts of Africa, Europe and Asia

Filter 1.5 market competitiveness
Who/Where is the competition?



Competition in all markets from the largest maize exports – especially Brazil and Argentina

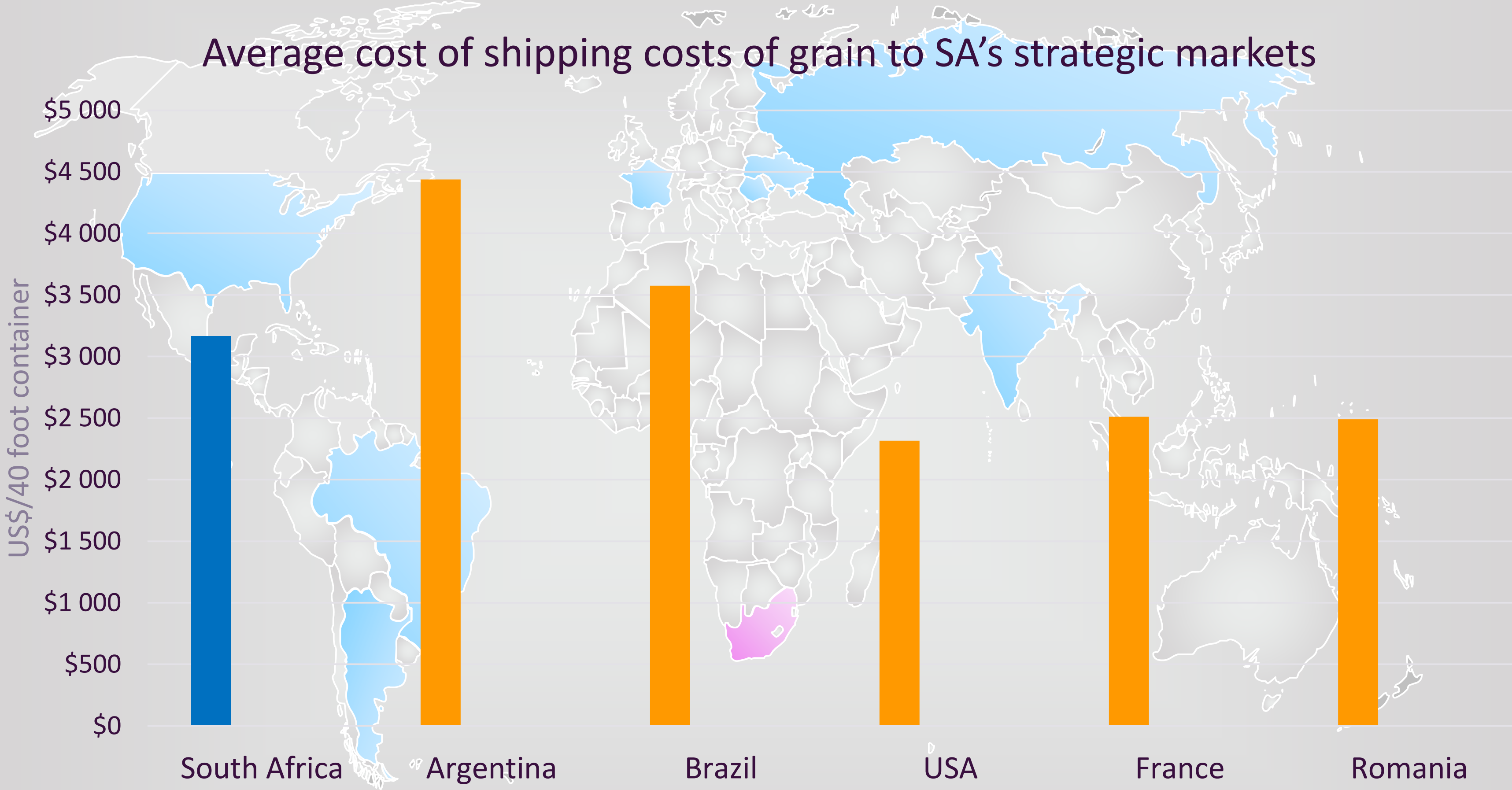
Filter 1.5 market competitiveness
SA's farm level global competitiveness



Source: Agribenchmark (2014); BFAP (2014)

SA's fertiliser costs exceptionally high compared to other major global exporters

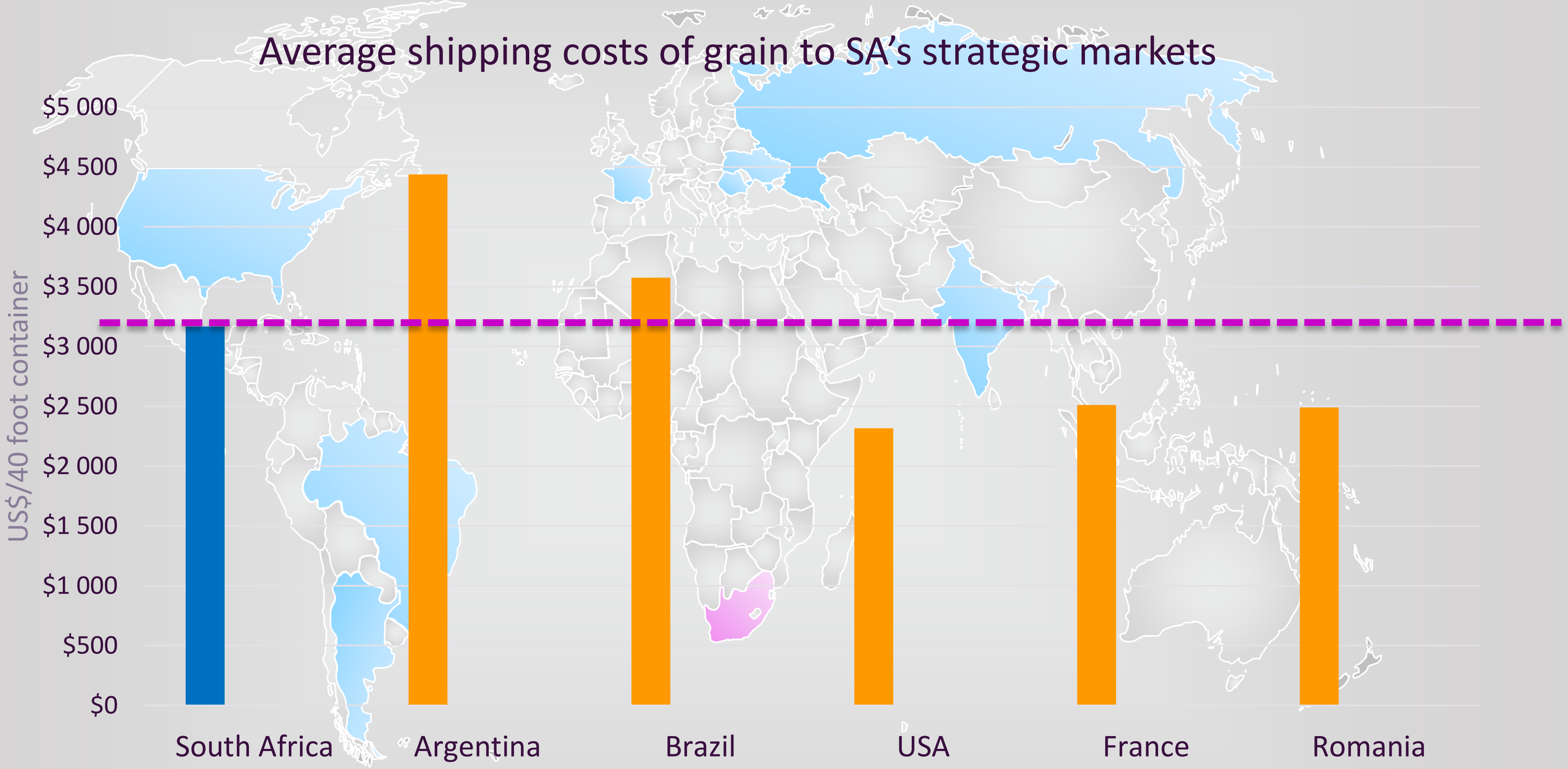
Filter 1.5 market competitiveness
SA's supply chain logistics competitiveness



Source: World Freight Rates (2014)

SA's logistic costs fairly higher than US and EU, but lower than those of Argentina and Brazil

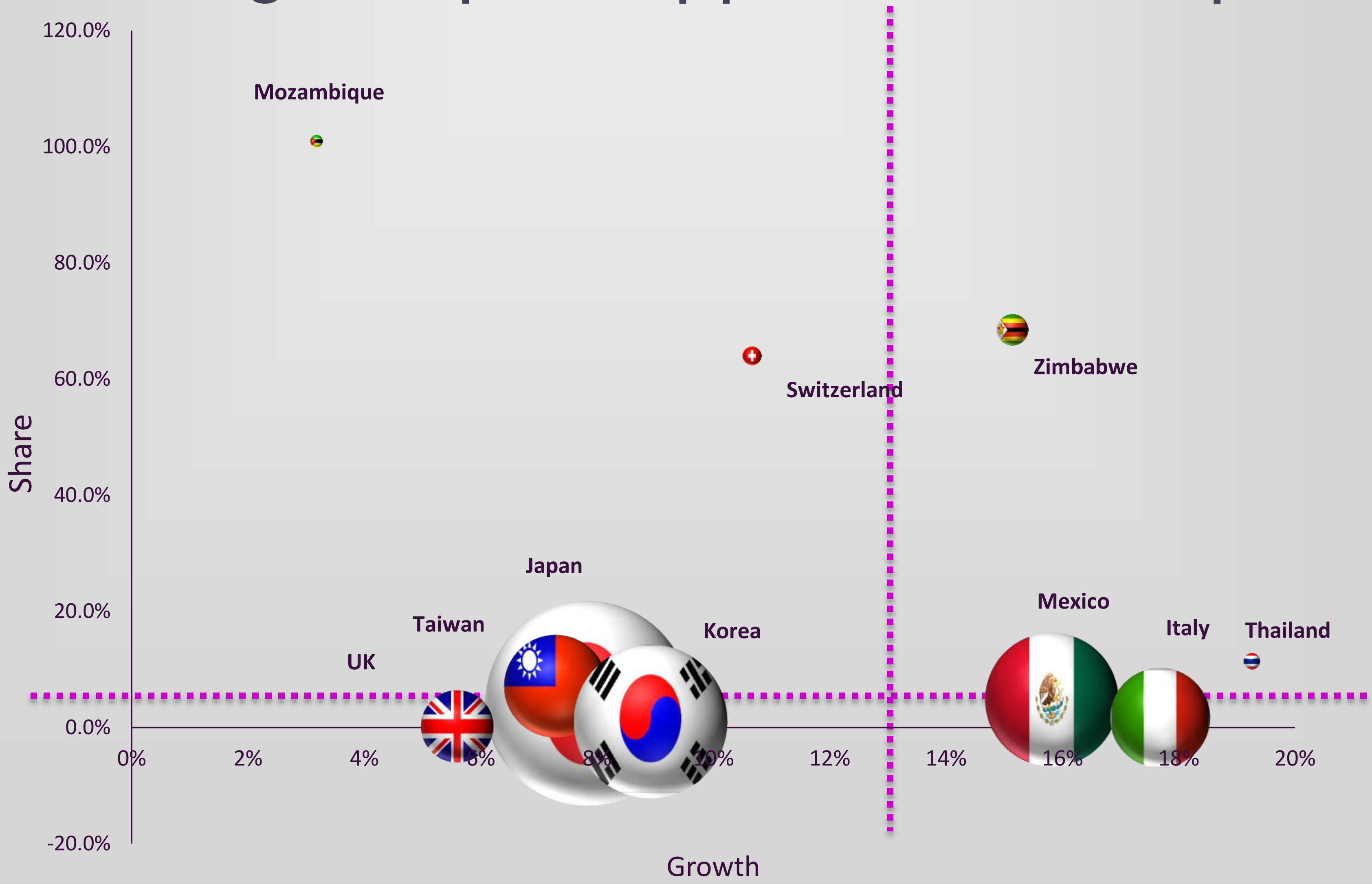
Filter 1.5 market competitiveness
SA's supply chain logistics competitiveness



Source: World Freight Rates (2014)

SA's logistic costs fairly higher than US and EU, but lower than those of Argentina and Brazil

Strategic Export Opportunities Map



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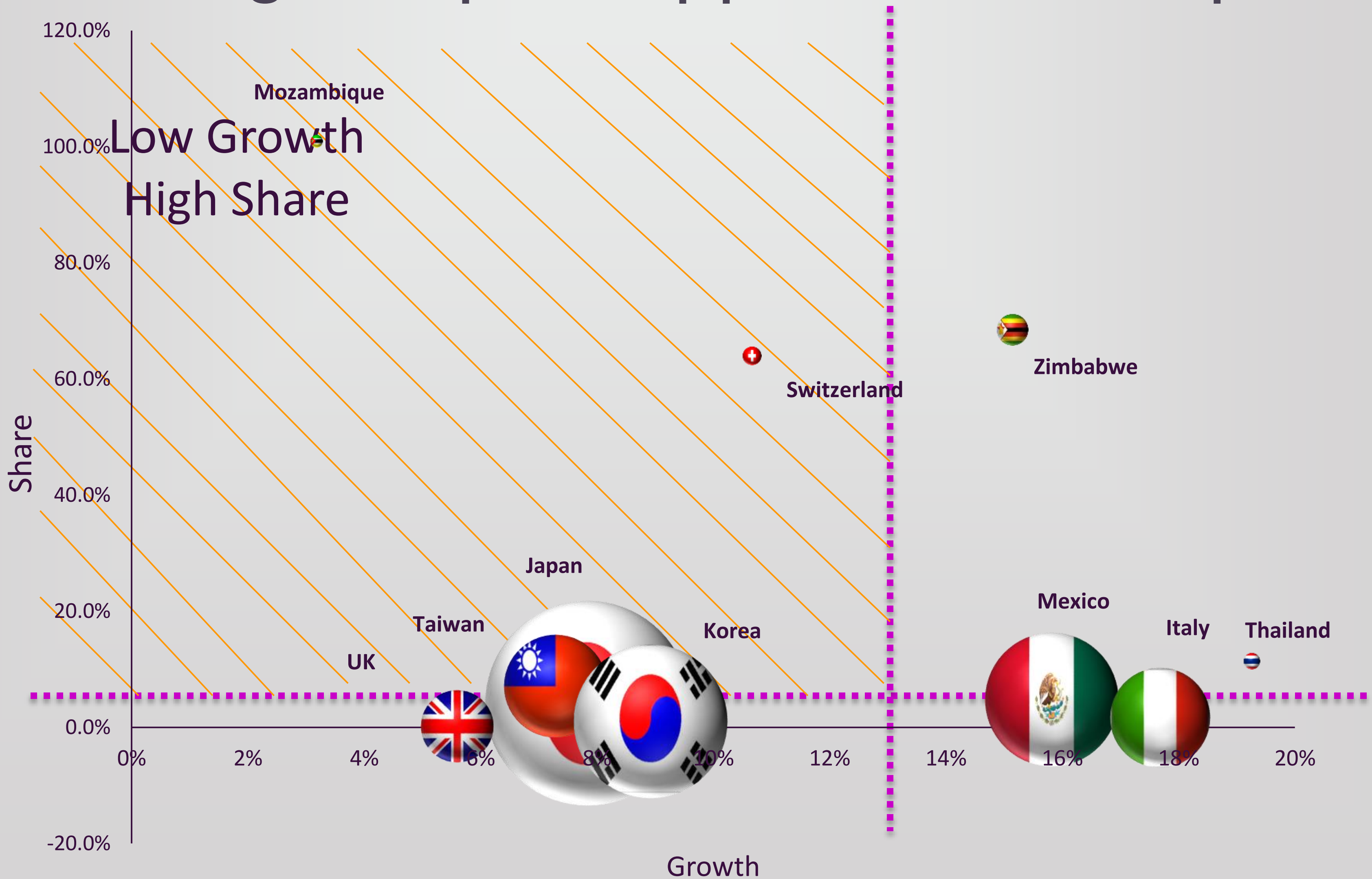

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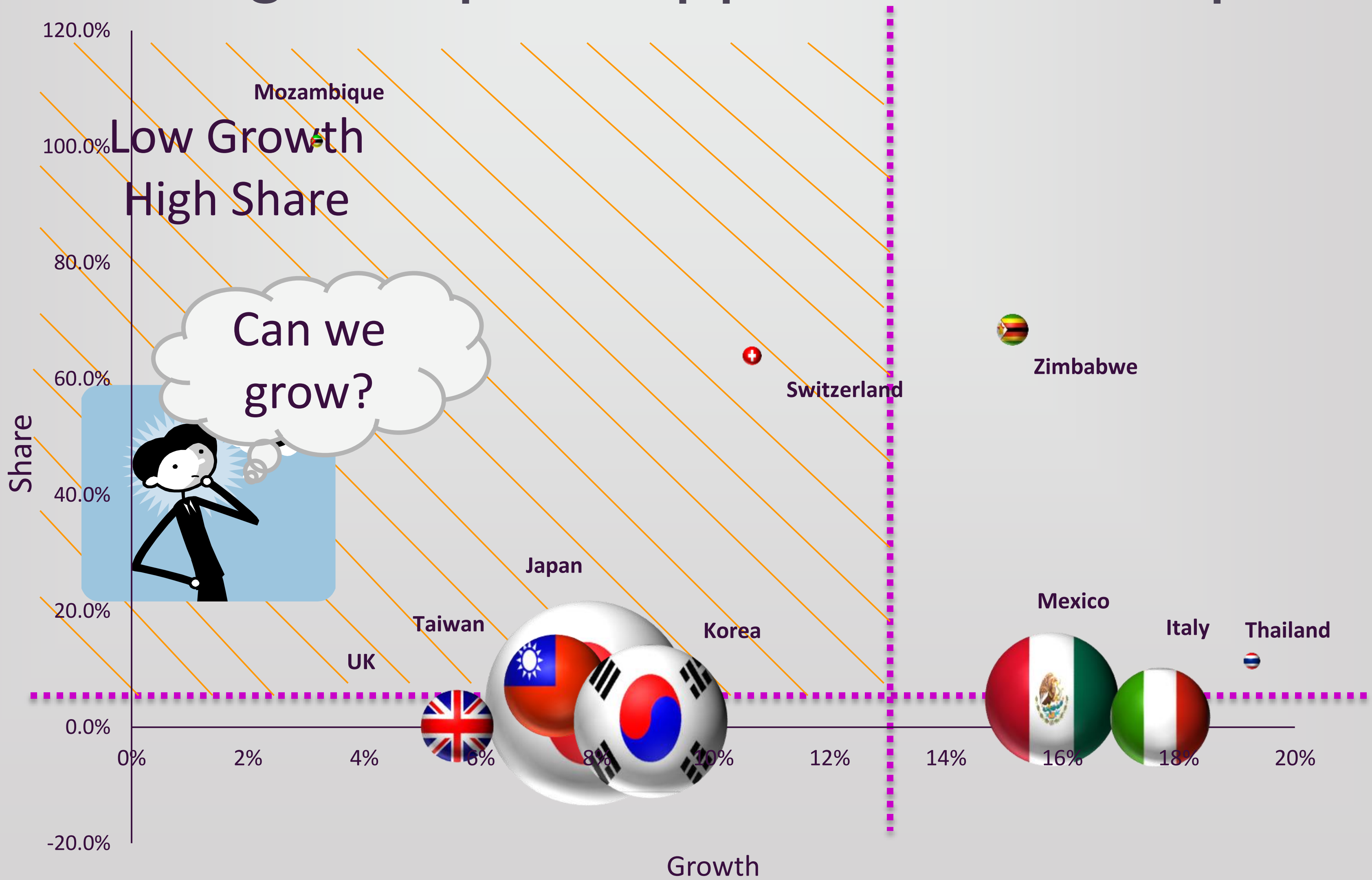

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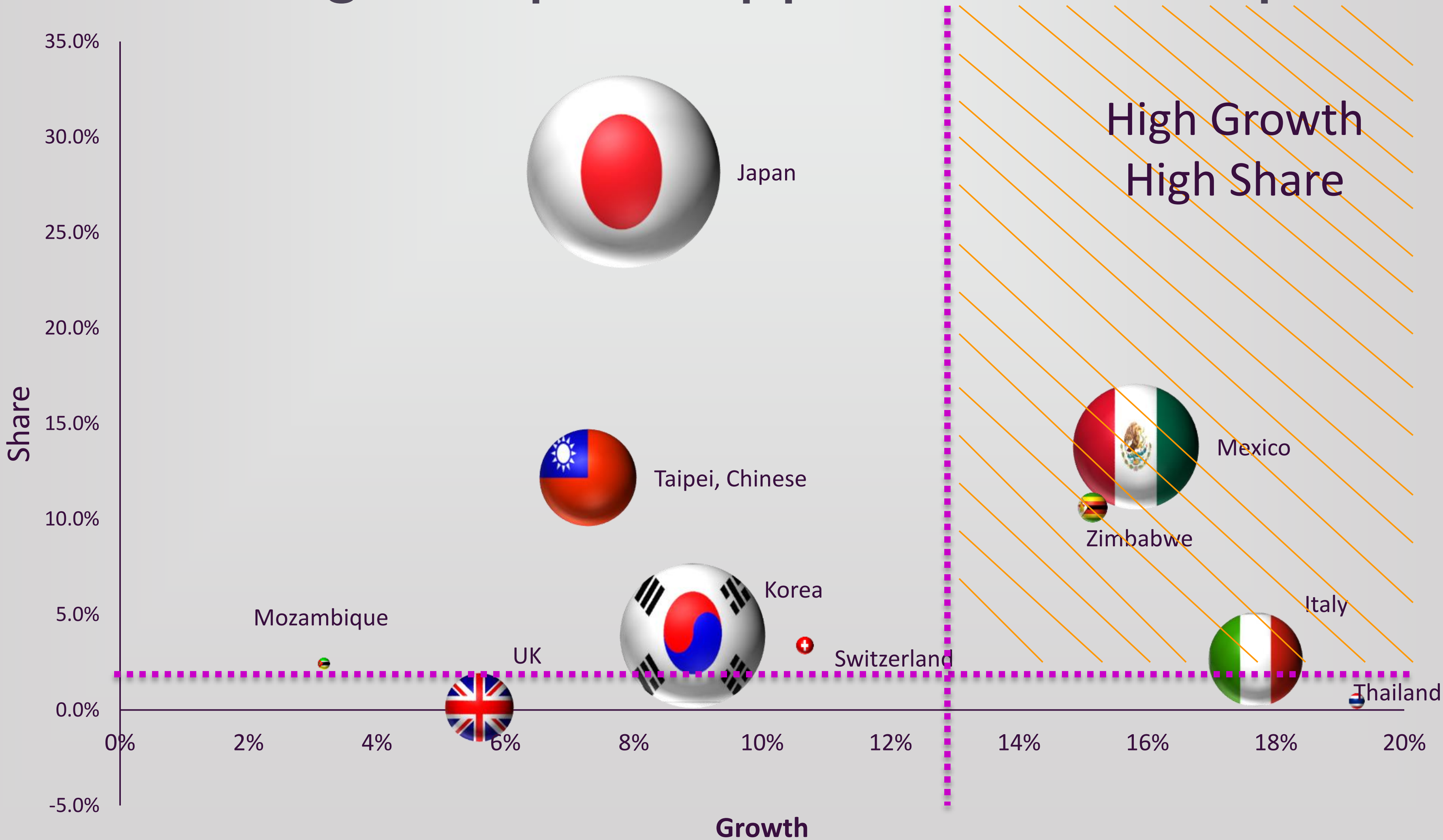

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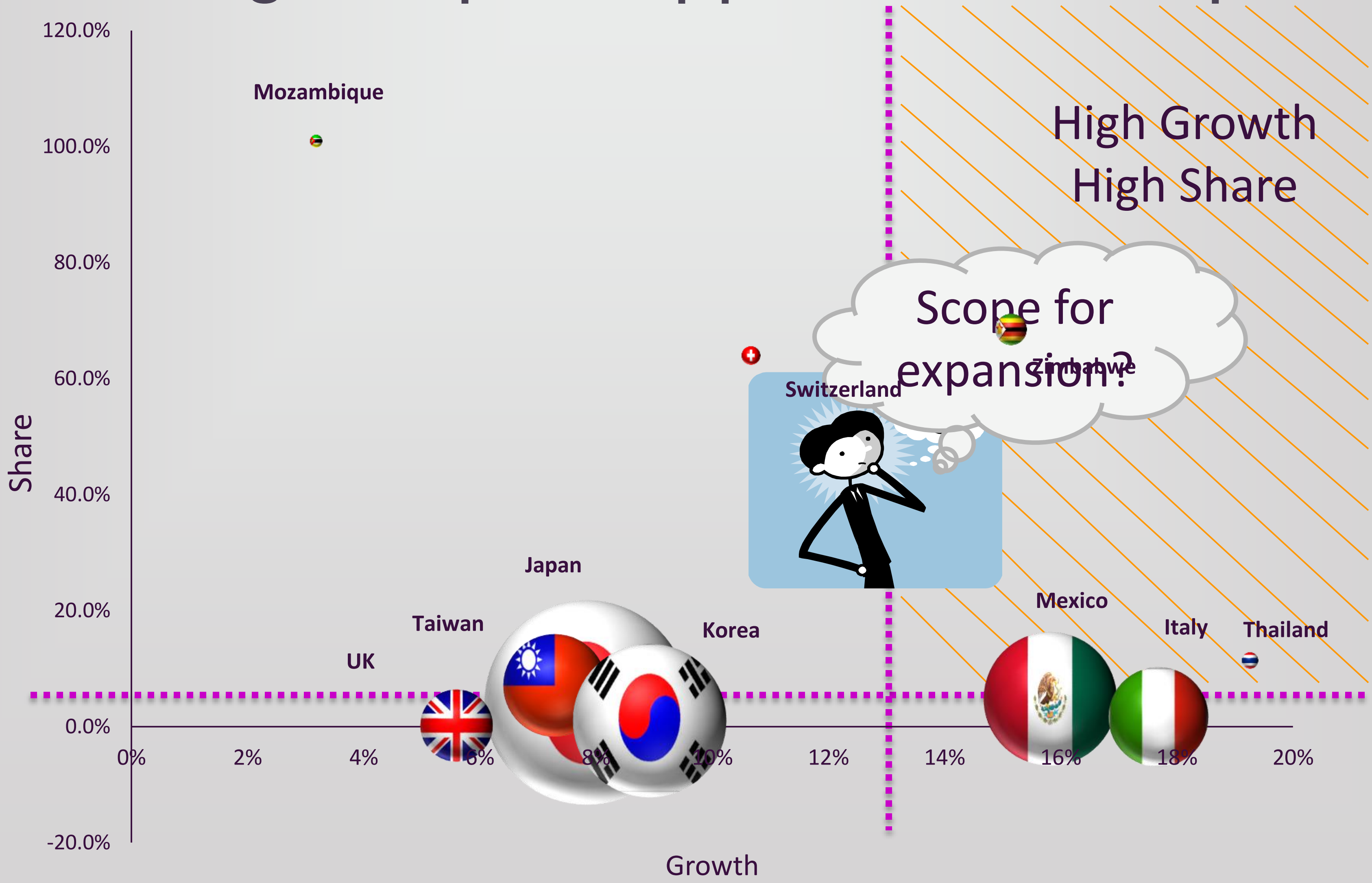

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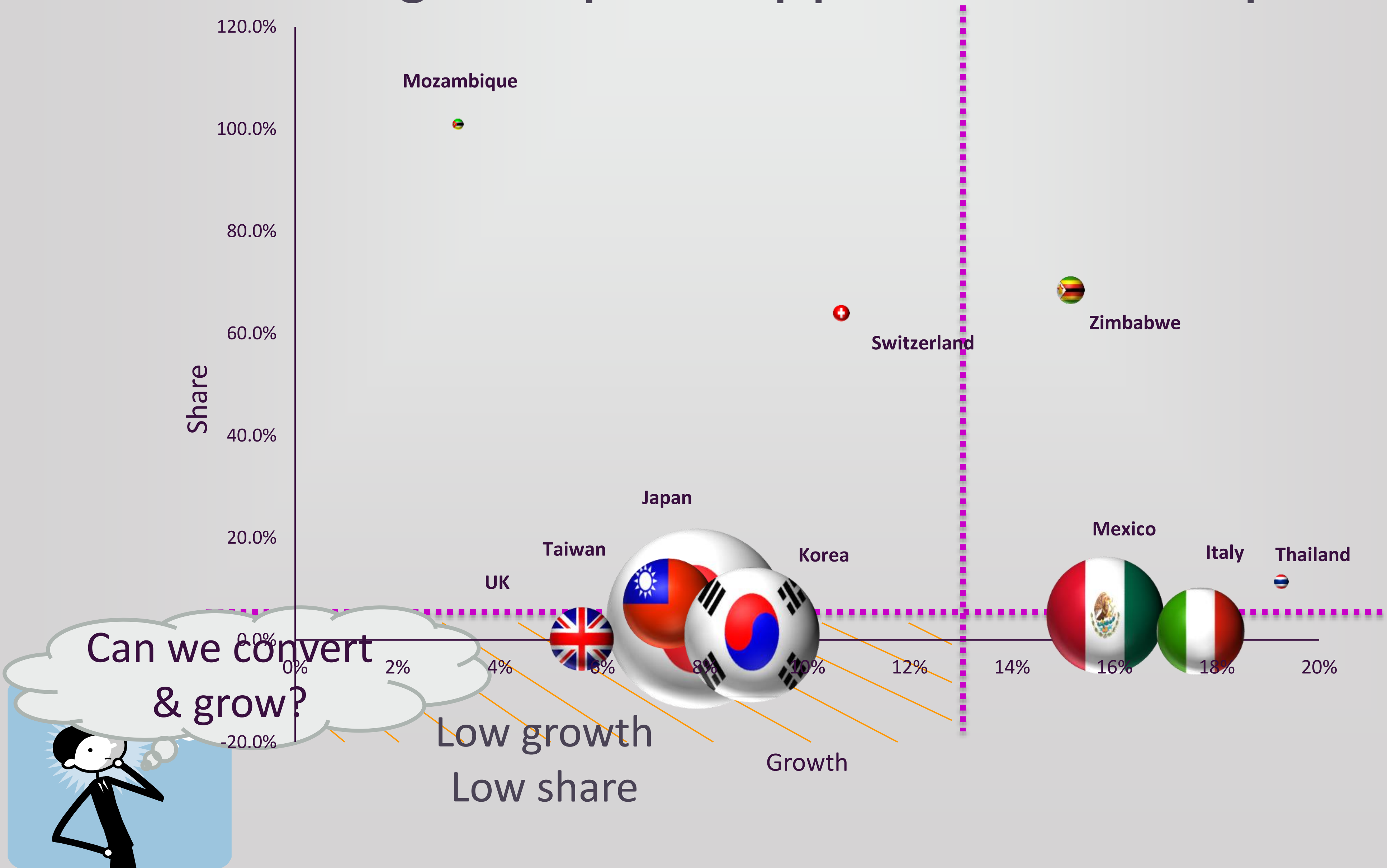
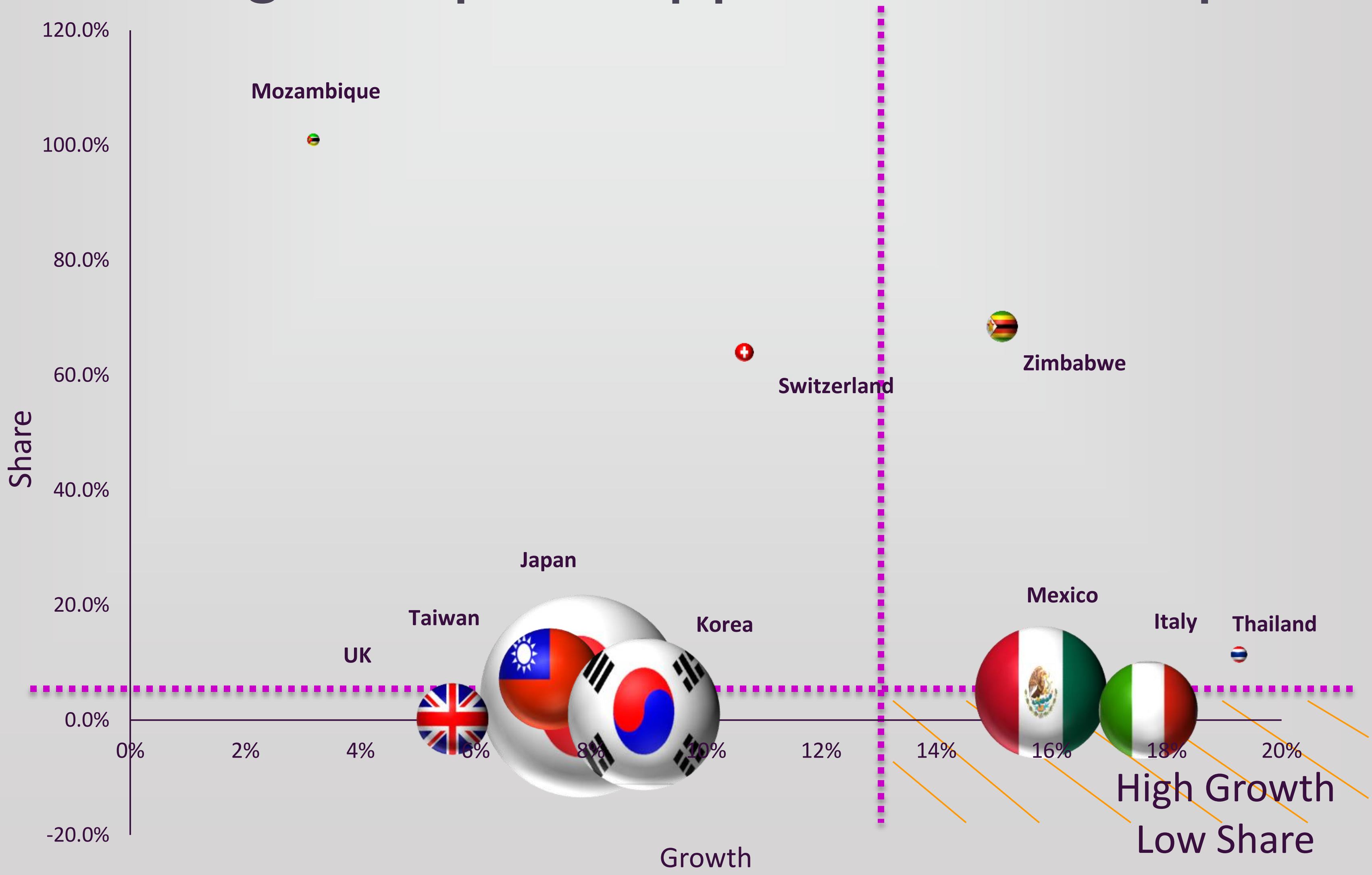


Strategic Export Opportunities Map



Summary and Conclusions

So what now?

A focus on strategic markets requires different questions

Offensive Strategy

Can I "expand" my market presence and grow?

Can I "explore" & "acquire" this market?

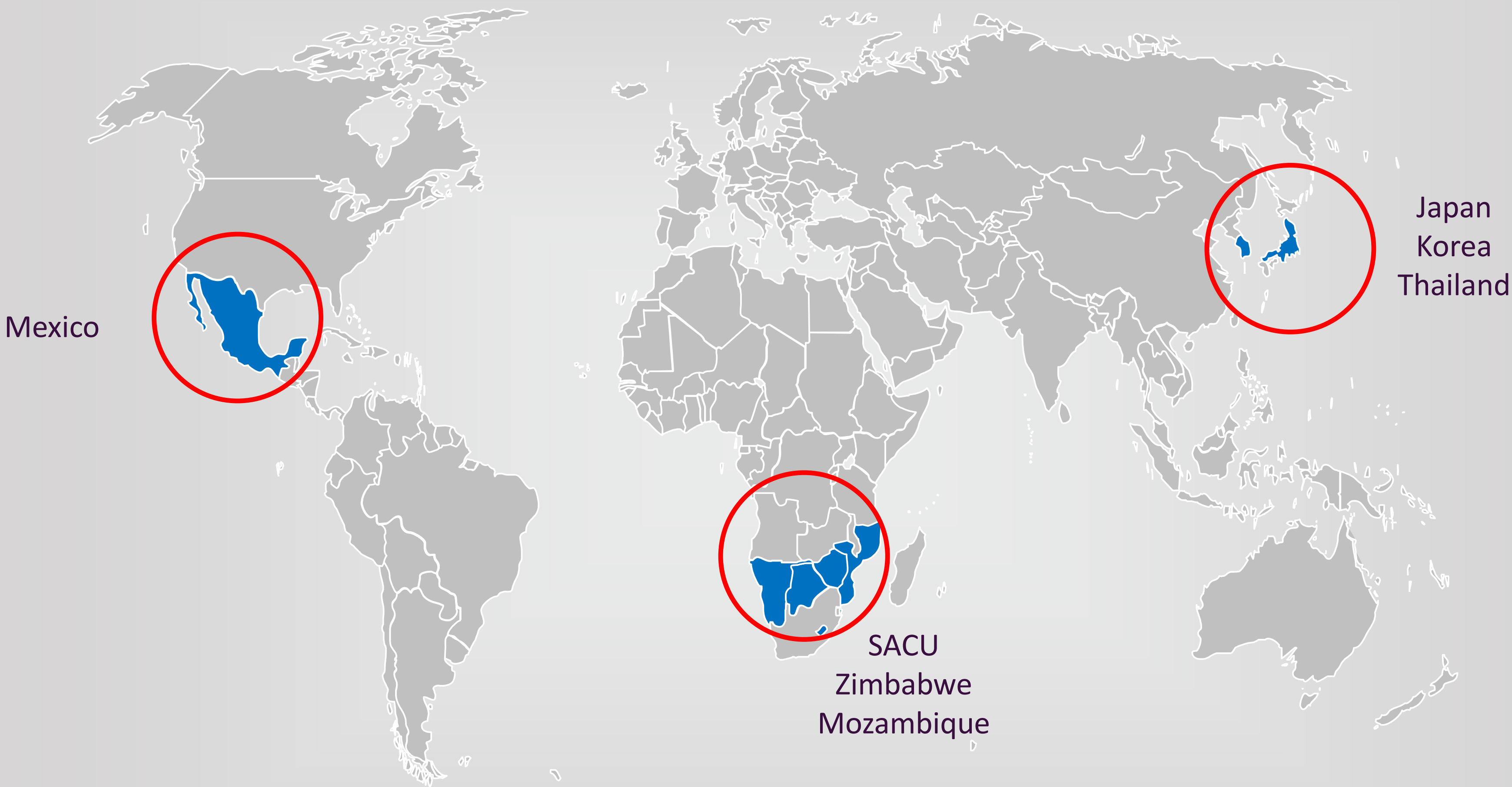
Defensive Strategy

Do I need to retain market presence?

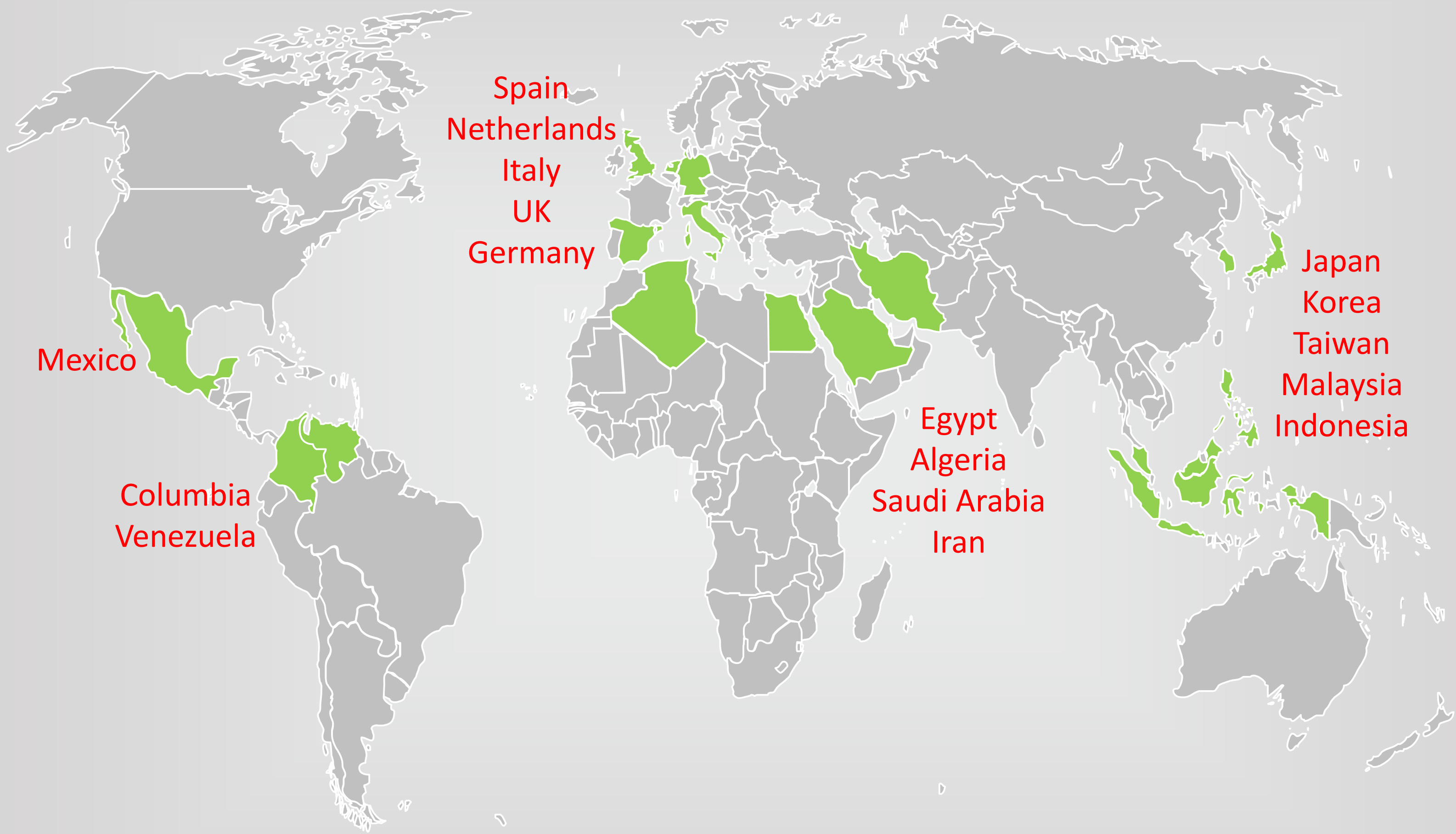
How can I optimise my market presence in this country – have we filled our export potential?

Can we out-compete our competition and sustain exports?

Defensive Strategy – “Sustain and Maintain”



Offensive Strategy – "acquire, convert and grow"



Conclusion

Sustainable growth

- Markets that are showing signs of growth in the long term

Higher trade gains

- building the base for markets with more incentives for growth

A Maize Sector Export Strategy

Consistency in exports and market development

- Through high competitiveness, sustained surpluses, and secure supply

Diversification

- focusing on emerging markets, while preserving the traditional ones

END

THANK YOU

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