

# International Trade Seminar

October 7<sup>th</sup> and 8<sup>th</sup>, 2024

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Sponsored by: ECLAC

# Topics and Schedule

- **DAY 1, 2024:**
  - **15 Minutes: *Brief Introduction***  
Introduction of participants, speakers, and sponsors.
  - **20 Minutes: *New Tools for Learning***  
An introduction to new online tools to help learn economics and computer skills.
  - **50 Minutes: *Trade Tools for Export Promotion***  
An interactive lecture that presents trade impact results, using different types of economic models [ gravity, partial equilibrium, general equilibrium]. Different theories of trade are also presented to refresh participants.
  - **35 Minutes: *Discussion – Export Promotion versus Economic Growth***  
An economic discussion about the relationship between exports, imports, economic growth, and economic welfare. Using CGE tools to understand basic concepts.

# Advancements: How to Learn

New tools can make learning easier:

- NotebookLM by Google. (<https://notebooklm.google.com> )
- You upload different materials that you want to learn about, and Google creates a podcast for you to listen to a summary, using easy to understand language.
  - [ Demo: Results from my FTA Analysis – Belize/Mexico ]
  - [ Exercise: take a theme or specific topic that you wanted to know more about, and create a new “notebook” to learn about it.
- Other AI Tools: ChatGPT ([chat.openai.com](https://chat.openai.com)) , Claude Sonnet ([claude.ai](https://claude.ai)), and Meta’s “Llama” (<https://www.meta.ai/>) .
- Demo of: Meta/Image Generation, research, etc..

# New Learning / Life Examples

## Examples of Topics:

- Money and Banking – how to earn highest yield and get lowest fees
  - Yield comparisons worldwide:
    - Highest Yield at a bank – is in Turkey. DenizBank has a 3-month product, where the deposit yield is: 50.1% APR. I have deposited into a 1-month deposit, having a yield of: 48.5%. The yield is in Turkish Lira.
  - Fee comparisons worldwide: Highest Fees: [ Italy, Colombia ], Lowest Fees [ USA ]
  - Non-Bank: using crypto for financial freedom ( Metamask Wallet & Card )
- You upload different materials that you want to learn about, and Google creates a podcast for you to listen to a summary, using easy to understand language.
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# Export Potential & Gravity Models

- While these models are not a “crystal ball” – they do provide a useful narrative, when it comes to the usual question by politicians: “how can we increase exports?”.
- Gravity Models – the ITC and “Export Potential” ( create a chart for a specific country )
- Idea of Value-added and Product Complexity: Harvard Growth Lab and the “Atlas of Economic Complexity”

# Why develop a methodology for export potential

**The Methodology** provides guidance to countries on a generic methodology that **illustrates ways to identify potential market opportunities arising from a FTA.**

The methodology proposes ways to take into account wider sourcing opportunities for intermediate inputs into the production of a product.

Thus, the Handbook can be used to **identify:**

- (1) the direct export opportunity arising from the trade agreement, and**
- (2) the wider value chain implications from the expansion of the product.**

# Conceiving the Export Potential Methodology

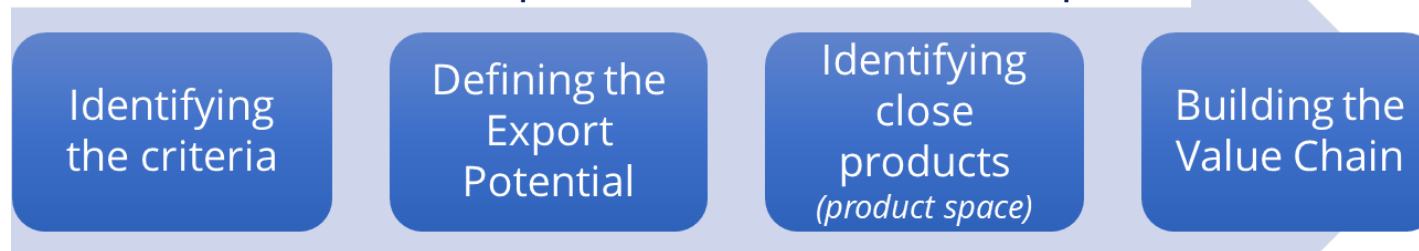
## Steps:

**First.** Selection criteria to choose a high-priority product based on value addition, export potential and wider value chains implications.

**Second.** Definition of the Export Potential, assessing the export advantage of a country on its export markets and estimating the potential value of exports.

**Third.** Identification of closely related products based on comparative advantage and demand pull factors.

**Fourth.** Determining how to build the intra-regional value chains, based on the inter-connectedness of products, ROO, and competitiveness



# International Trade: Export Potential using **ITC Trade Maps**



# **Extensive Growth Potential**

# Product Space

The objective of this analysis is to **identify potential new goods** to export to markets by using a product space map.

For a country to have revealed comparative advantage in an export good it must have the right endowments and capabilities to produce that good and export it successfully. If two goods require the same productive factors, this should show up in a higher probability of a country having comparative advantage in both.

Goods will only be measured as highly proximate if they indeed strongly tend to be exported together (globally).

Formally, the inverse measure of distance between goods  $i$  and  $j$  in year  $t$ , which we will call proximity, equals

$$\varphi_{i,j,t} = \min\{P(x_{i,t} | x_{j,t}), P(x_{j,t} | x_{i,t})\}$$

Where the conditional probability is calculated using all countries in year  $t$ .

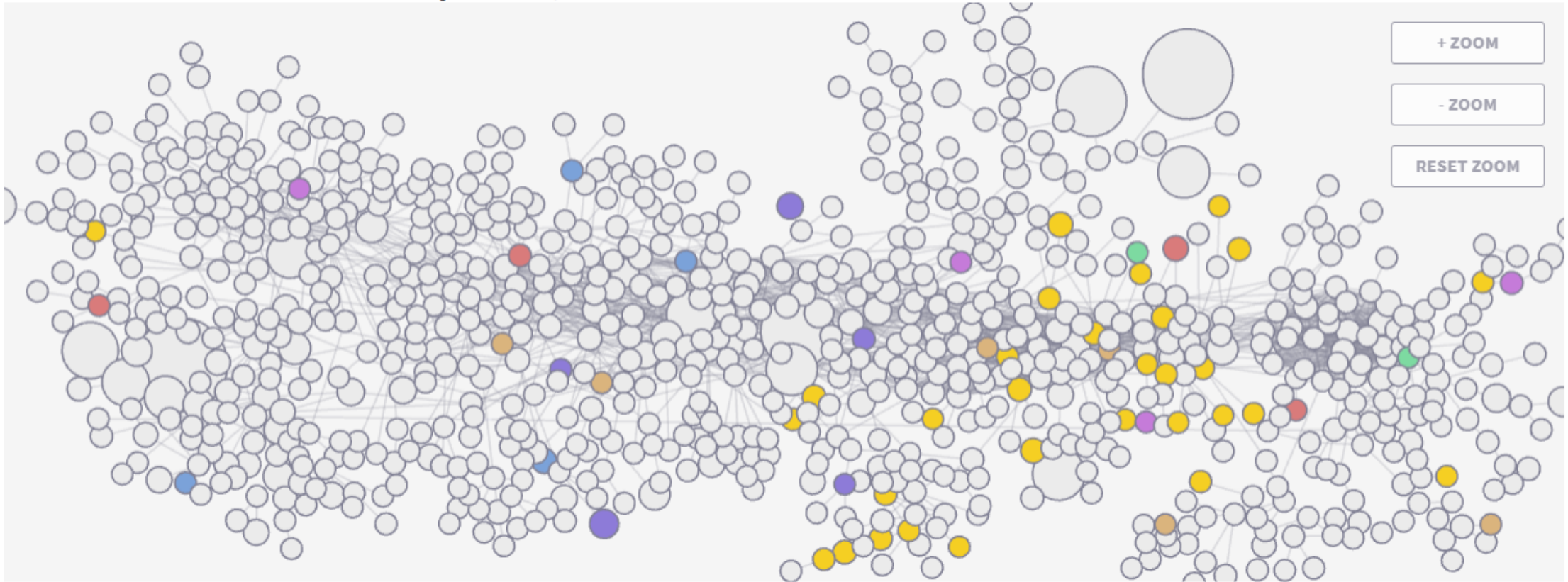
# Product Space

For example, from knitted men's shirts come an array of products which, based on what different countries exports, relate to this product. In this case, men's shirts are closely related to women's non-knitted and knitted shirts and other apparel, non-knitted garments, and other knitted men's garments.



# Belize's Product Space, 2021

Total/Shown: \$994M 



SEARCH IN  
VISUALIZATION   
Source: CID Growth Lab

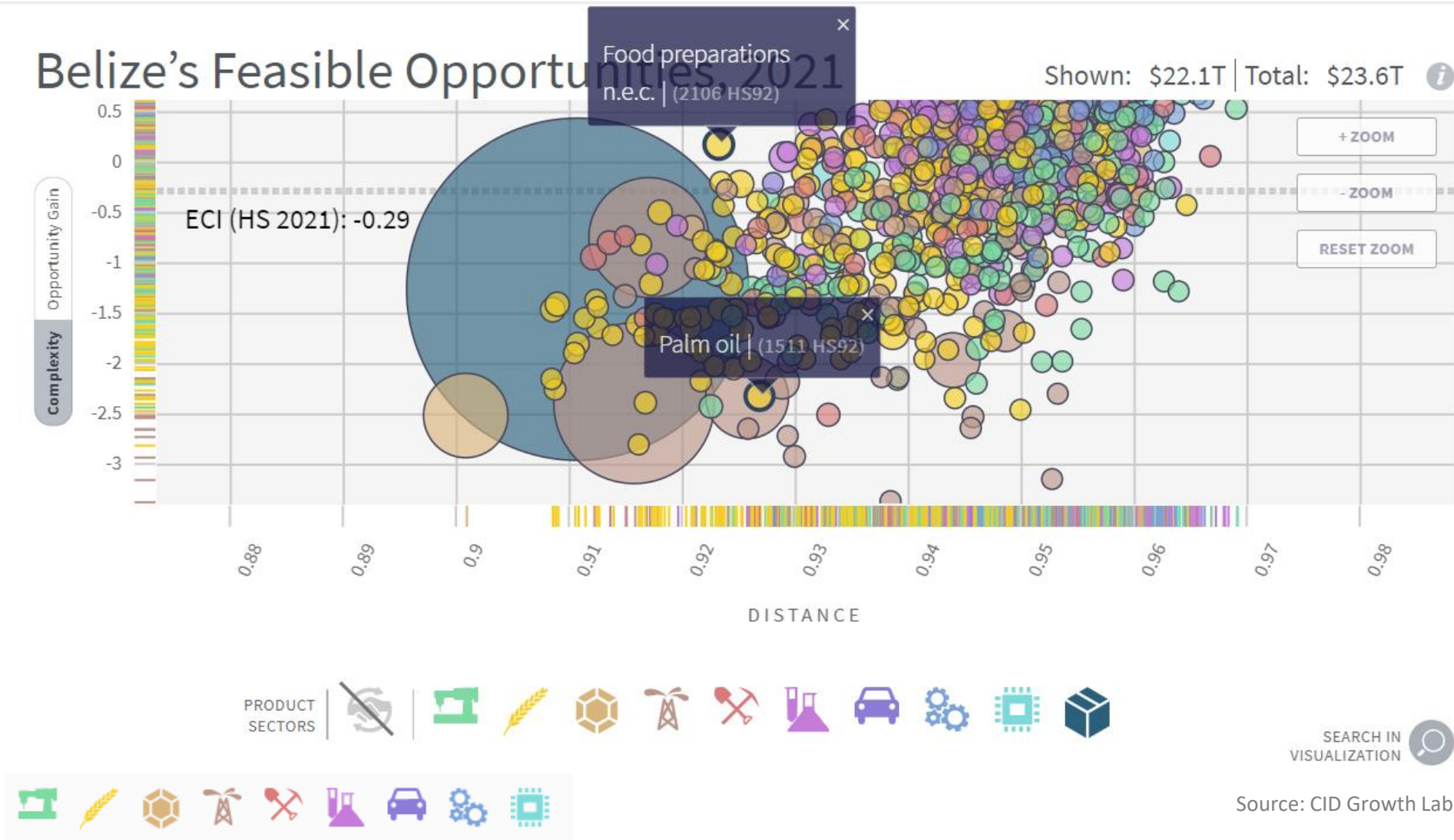
# Product Space Legend

- Animal/Animal products;
- Vegetable products;
- Foodstuffs;
- Mineral products;
- Chemicals and allied industries;
- Plastics/Rubbers;
- Raw hides, skins, leather and furs;
- Textiles and furniture;
- Footwear/Headgear;
- Wood and wood products;
- Stone/Glass;
- Metals;
- Machinery/Electrical;
- Transportation;
- Miscellaneous.



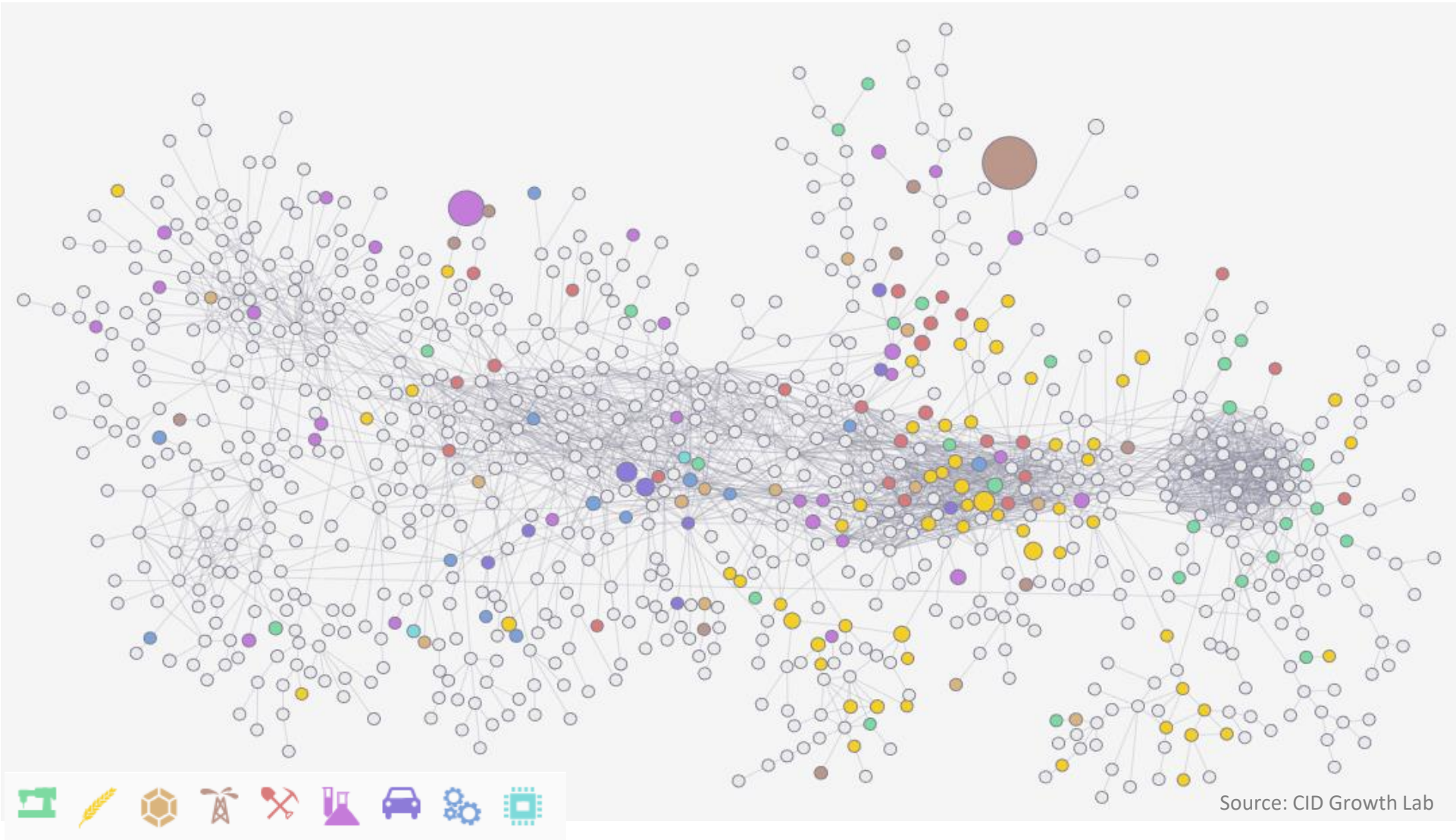
"The Atlas of Economic Complexity," Center for International Development at Harvard University  
<http://www.atlas.cid.harvard.edu>

# Feasible Opportunities: Complexity

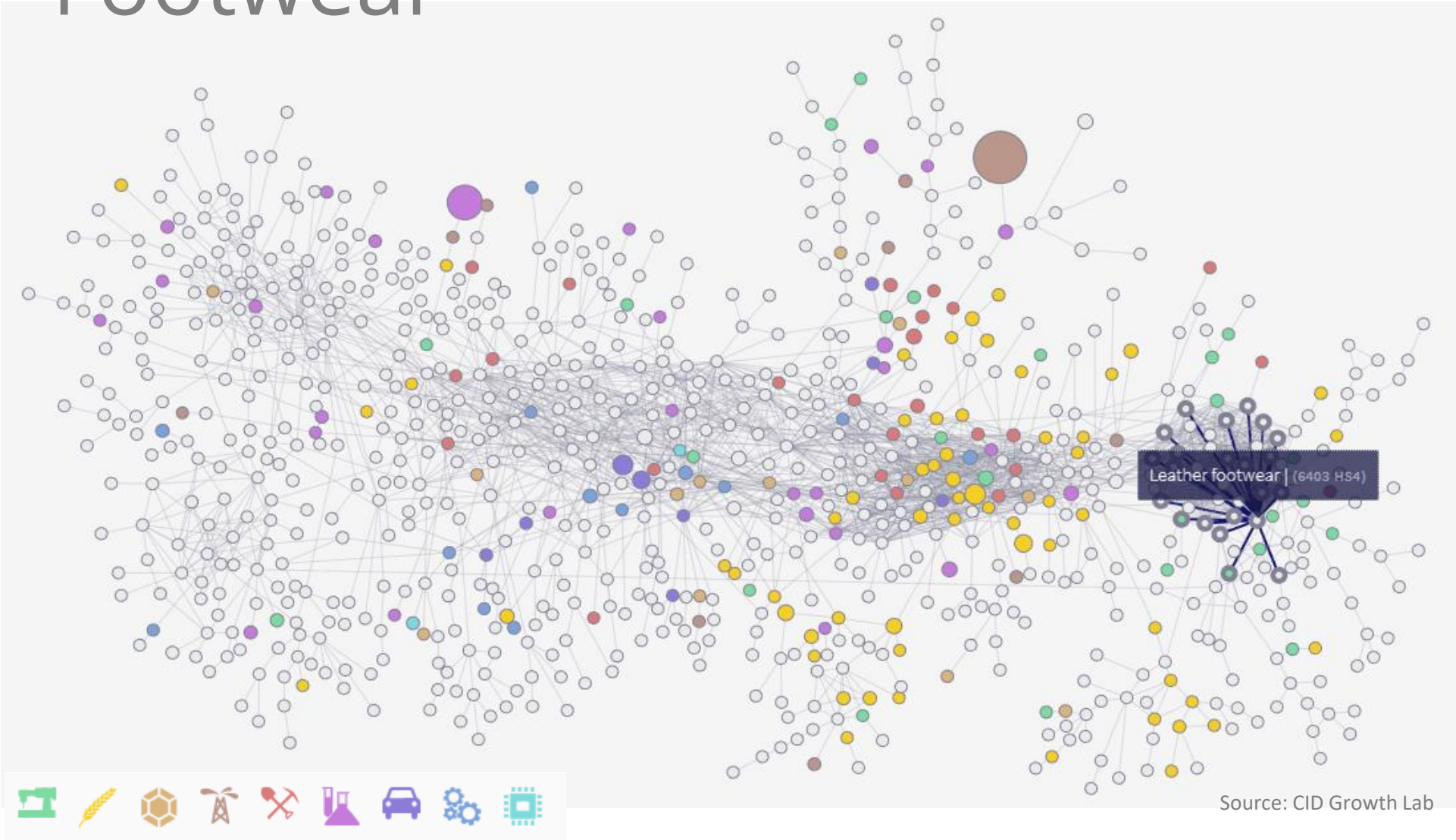




# Product Space of Belarus

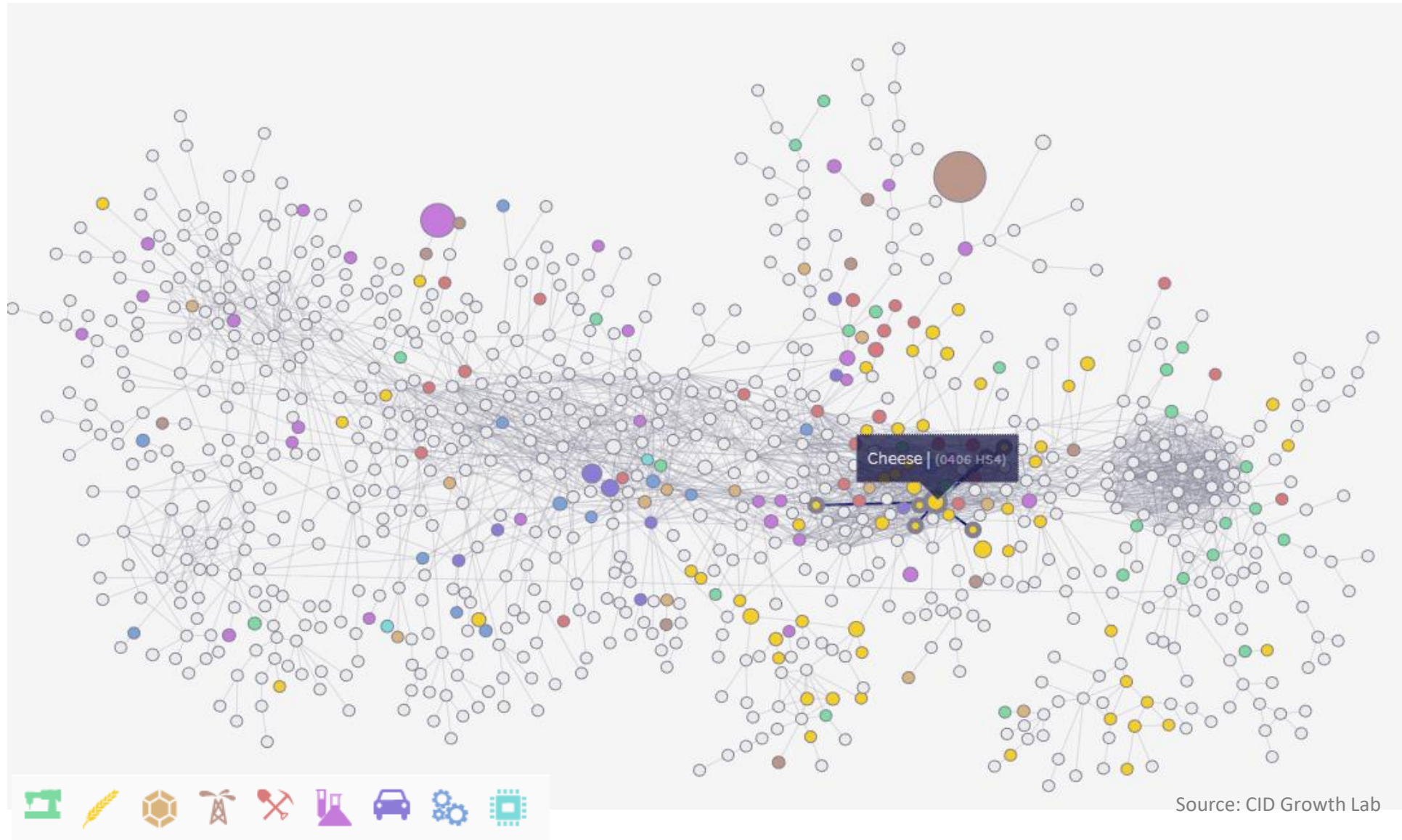


# Product Space of Belarus: Footwear





# Product Space of Belarus: Cheese



# Product Space of Belarus:



Cheese and curd

Code	0240 SITC4
Year	2016
Gross Export	\$653M
Revealed Comparative Advantage (RCA)	19.8
Distance	0.698
Product Complexity Index (PCI)	-0.0984

## Primary Connections

- SITC 0223: Milk and cream fresh, not concentrated or sweetened
- SITC 0224: Milk and cream, preserved, concentrated or sweetened
- SITC 0230: Butter
- SITC 0488: Malt extract; cereals preparations with less 50% of cocoa
- SITC 0730: Chocolate and other preparations containing cocoa, nes

## Secondary Connections

- SITC 0011: Animals of the bovine species (including buffaloes), live
- SITC 0015: Equine species, live
- SITC 0142: Sausages and the like, of meat, meat offal or animal blood
- SITC 0149: Other prepared or preserved meat or meat offal
- SITC 0484: Bakery products

Source: CID Growth Lab

# Product Space– Distance

- A product's distance (from 0 to 1) looks to capture the extent of a location's existing capabilities to make the product as measured by how closely related a product is to its current exports. **A 'nearby' product of a shorter distance requires related capabilities to those that are existing, with greater likelihood of success.**
- Every two products have a notion of distance between them, where products that require **similar know-how and capabilities are 'closer' together** (i.e. shorter distance, closer to 0), while two products that require completely different capabilities are 'farther' apart (i.e. longer distance, closer to 1).
- Every two products have a globally defined *proximity* between them as measured by **the probability of co-export, that if a country exports product A, what is the probability they also export product B**. The product proximities are fixed globally and measured using 128 countries' export data over 50 years. The *distance* of a product is then the sum of the proximities connecting that product to all the products that the location is not currently exporting.