

SPECULATIONS ABOUT A CROSS-EUROPEAN RESEARCH PROJECT ON EIGHTEENTH-CENTURY INTERNATIONAL TRADE AND NAVIGATION

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**2025 Workshop on 18th century
Nordic economic statistics**

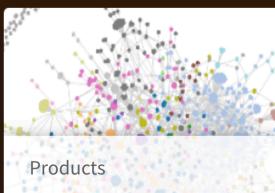
Trade statistics provide a unique opportunity to learn about early modern economies during the long eighteenth century.

I have been working on them for nearly thirty years, now, and nearly twenty with Loïc Charles. I started with French statistics, and I am still working on them.

Explore Trade



Here, you can visualize the evolutions of particular branches of French trade through time.



Here, you can visualize lexicographic networks of commodities traded by France.

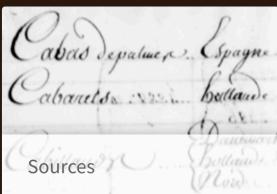


Here, you can visualize geographical networks of French international trade.

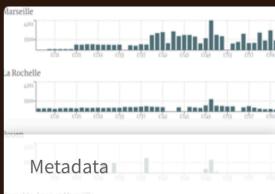
Product [source]	Value	Year	Source
Acacia	74 lt.	1750	BM Saint-Bruno Fonds Gouraud
Acanthus	87.50 lt.	1750	BM Rozen, Fonds Montréal, 15
Acanthus	124 lt.	1759	BM Rozen, Fonds Montréal, 15
Agaric	3,519 lt.	1771	IHS 122E
Agaric	1,300 lt.	1780	ANF AII 248
Agaric	845 lt.	1758	BM Rozen, Fonds Montréal, 15
Agaric	1,000 lt.	1758	BM Rozen, Fonds Montréal, 15
Agaric	32 lt.	1750	BM Rozen, Fonds Montréal, 15
Trade flows			
Agave	1750 lt.	1750	BM Rozen, Fonds Montréal, 15
Agave	180 lt.	1750	BM Rozen, Fonds Montréal, 15
Agave	180 lt.	1750	BM Rozen, Fonds Montréal, 15
Agave	180 lt.	1750	BM Rozen, Fonds Montréal, 15

Trade flows

Data



Provides information on the sources and the methods used to create the TOFLIT18 database.



Provides visual tools to explore the coverage of the database (years, products, partners, locations...).



Provides tools to access and understand the product and partner classifications used in the TOFLIT18 database.

I am sorry a large part of this talk will be about self promotion. I hope this can be excused as my works are the ones I know best.

Let me start with Toflit18. I am not going to advertise again the Toflit18 datascape, though I do encourage you to go and play with it.

EIGHTEENTH-CENTURY
INTERNATIONAL TRADE STATISTICS
SOURCES AND METHODS

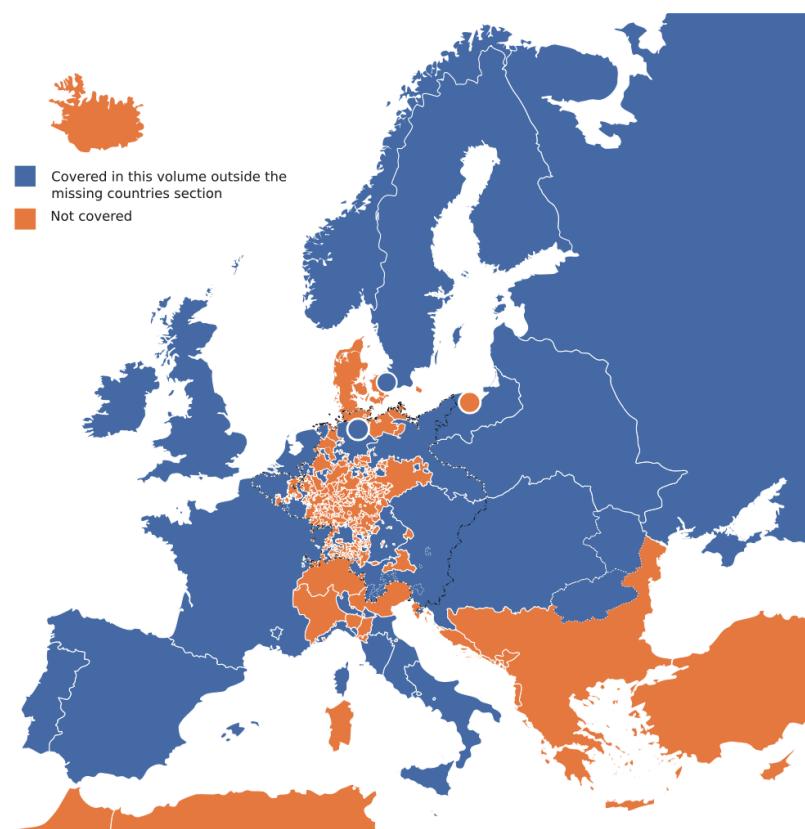
edited by Loïc Charles and Guillaume Daudin

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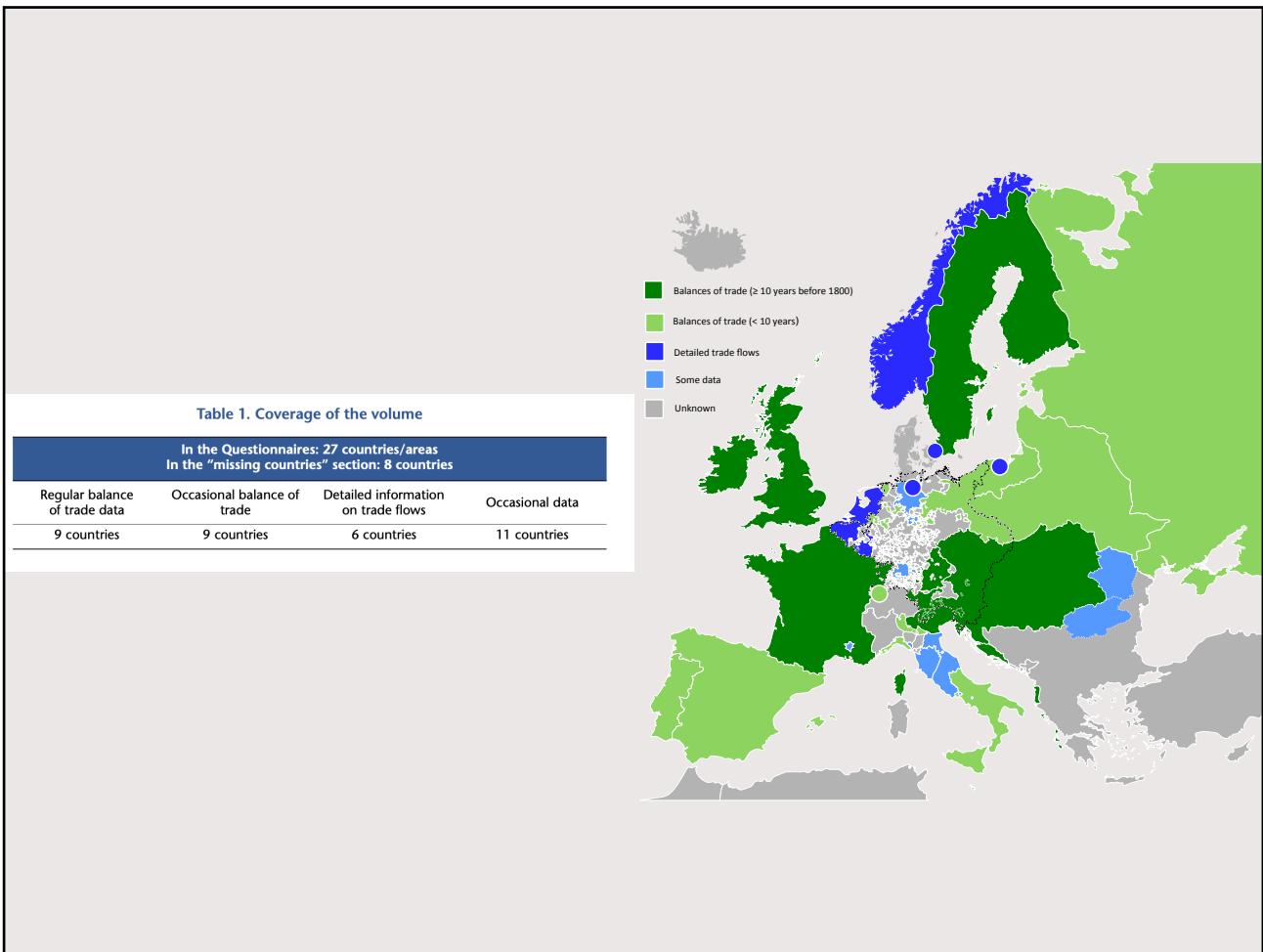
Early on with Loïc, we thought it would be a good idea to do a comparative european project. We put together an international working group that met in 2011 in Lille, and four years after published this special issue.

Many of you contributed to you, for which I thank you. Twenty-three questionnaires about trade statistics were filled.

Figure 1. Coverage of the volume (excluding countries discussed in the “missing countries” section)



The 23 questionnaires



The existing sources

The Toflit18 funding came the same year and I had to focus on other issues.

And nothing much happened on multi-national trade source usage in the last ten year.

- 1) Is it worth it?**
- 2) What will IT do for us?**
- 3) What are the priority projects?**

In the first part, I will discuss why nothing has been achieved and why we should still pursue it.

In the second part, I want to report on our work with IT ; what is useful, what is less so.

In the last part, I will define what I believe to be the priority projects

IT IS WORTH IT?

- 1) Trade flows are very important pieces of information on the economy.
 - This period, whatever the misgivings about the role of trade in the industrial revolution, is characterized by a strong globalization movement
 - Extra-european goods played a role in providing additional sources for calories and raw materials to Europe. In Europe, Scandinavia and the Baltic played also that role for Western Europe.

Trade goods were important for the Industrious Revolution and, more generally the change in material civilization

Contact with new goods, increased market sizes, changing relative prices, regional specialization were important causes and manifestations of economic change.

Because such data measure flows rather than stocks, and they allow analyzing short- and medium-term variations of the economy, it is a “dynamic” complement to the more “static” vision offered by, for example, probate inventories.

Table 2. Summary of the questionnaires

Country/geographical area	Period covered	Geographical scale	By partner?	By region?	Values?	Quantities?	Motivation?	Remarks	Page
Austrian Netherlands	1759-1791	Region	No	Yes	No	Yes	Policy making		p. 225
Bavaria	1765-1799	State	No	No	Yes	No	?	No breakdown by product	p. 186
China				Most useable data come from consular reports					
Denmark				Except for the Sound Toll registers, there does not seem to be much data					
Dantzig	1651-1815 (with lapses)	Port	No	No	No	Yes	?		p. 393
United Kingdom	1697-1899	State	Yes	No	Yes	Yes	Policy making		p. 379
France	1714-1821 (-)	State	Yes	Yes (-)	Yes	Yes (-)	Policy making		p. 237
Genoa	16th century-1797	Port	No	No	Yes	Yes	Revenue management		p. 249
Habsburg	1720-1789 (regions) 1790-1918 (aggregate)	State and region	No	Yes	Yes	Yes	Policy making	Local up to 1776. State from 1776	p. 253
Hamburg	1728-1811	Port	No	No	No	Yes	Revenue management	Data do not cover all goods or partners	p. 265 + p. 180
Hannover				Not much data exist					
Ireland	1698-1829	Region	Yes	Yes	Yes	Yes	Policy making		p. 269
Japan			Some data in Dutch sources. The only Japanese 18 th century sources are for internal trade						p. 391
Spanish America	1790-1830			Only partial information (mainly on exports)					
Livorno	1680-1845			Mostly navigation statistics (only imports)					
Milan	1762, 1766, 1767, 1769, 1778, 1790	State	Yes (-)	No	Yes (-)	Yes (-)	Customs duties reform	Balances published unofficially by state employees	p. 289
Naples	16th century-1809. BoT for 1771 and 1772	State	No	Yes	No	Yes	Revenue management	Published by private initiative	p. 275
Norway	1731-1828 (with lapses)	Port	Yes	Yes	Yes	Yes	Revenue management		p. 301

2) Considering the multiple issues of fraud, low administrative capacity, lack of standardization, different rules, different motivations, we should not expect to ever get a complete view of the bilateral trade by products in Europe

- This has not really happened even now : mirror flows are still a big issue in current statistics
- Working with different sources is very difficult. Shipping sources have a big role to play, but they are interested in fundamentally different things.
- Event trade statistics collected for different reasons are not all comparable

Études de cas

Le programme PORTIC a développé trois études de cas, sous forme d'articles en ligne accompagnés de visualisations interactives. La base documentaire de ces études de cas croise les données de la navigation, issues de la base des données Navigocorpus, avec celles de la Balance du Commerce, issues du programme TOFLIT18.

La première étude de cas (2021) porte sur l'étendue de la direction de la Ferme de La Rochelle, correspondant à trois amirautes (La Rochelle, Marennes, Sables d'Olonne) et étudie le caractère multiscalaire de la navigation et du commerce de cette région. Elle a remporté le prix « AFHE Prizes in Digital Humanities », catégorie « Science Outreach » en 2022.

La deuxième étude de cas (2022) porte sur le port franc de Dunkerque.

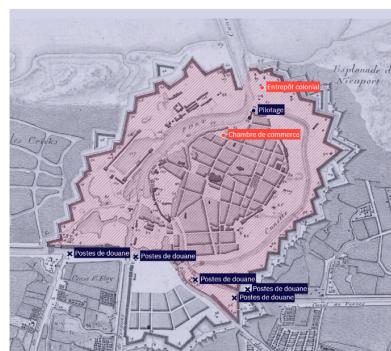
La troisième étude de cas porte sur Marseille (2023). Elle a donné lieu à la réalisation d'un [documentaire](#) pour contextualiser un moment fort de sa production.

Cliquer sur l'image pour accéder à la publication

[Commerce multi-échelles autour du port de La Rochelle au XVIIIe siècle](#)



[Commerce, contrebande et ports francs : le cas de Dunkerque au XVIIIe siècle](#)



[Prospérité et résilience du port de Marseille au XVIIIe siècle](#)

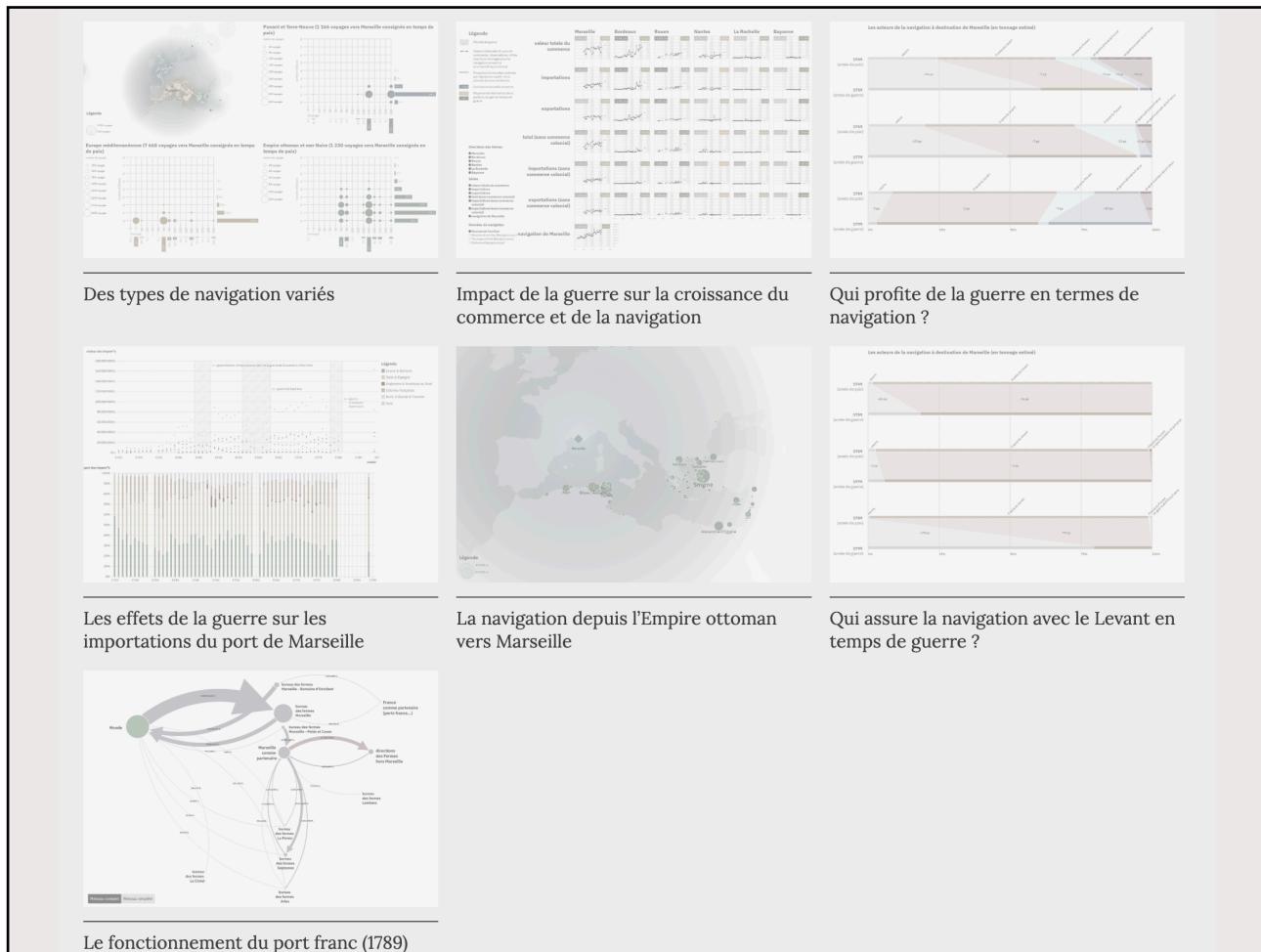


3) Working with different sources can be very fruitful. Some more self-publicity for the PORTIC project headed by Silvia Marzagalli in which I participated. A big thing was to confront shipping and trade sources to enlighten new issues

- The local geography of the La Rochelle region
- The assessment of fraud and smuggling in Dunkerque
- Understanding the resilience of Marseille after the Napoleonic Wars

WHAT CAN I.T. DO FOR US?

- 1) I have tried all sorts of AI with trade data (Transkribus, Arkindex, Lectorep) and none of them work. The error rate is very high.
 - Even LLM are not that useful to correct retranscription
 - Maybe I forgot a tool, but I doubt it. The challenges are too high : complex page structures, different hands, no context.



2) Still IT is very useful for access, interoperability, conservation (I hope Werner still has a project on that !), vizualisation

- None of this is very sexy. Well, I guess visualization is sexy, which is why I have put up some of them, taken from Portic, but for different reasons than AI.

3) My experience with I.T. is that it is very difficult to find I.T. people actually interested with social science methods and what we do. I was lucky to find the Médialab at SciencesPo that has been created by Bruno Latour.

WHAT ARE THE PRIORITY PROJECTS?

Brussels 1913

186 products in five categories:

livestock

food and beverages

raw materials simply manufactured
materials,

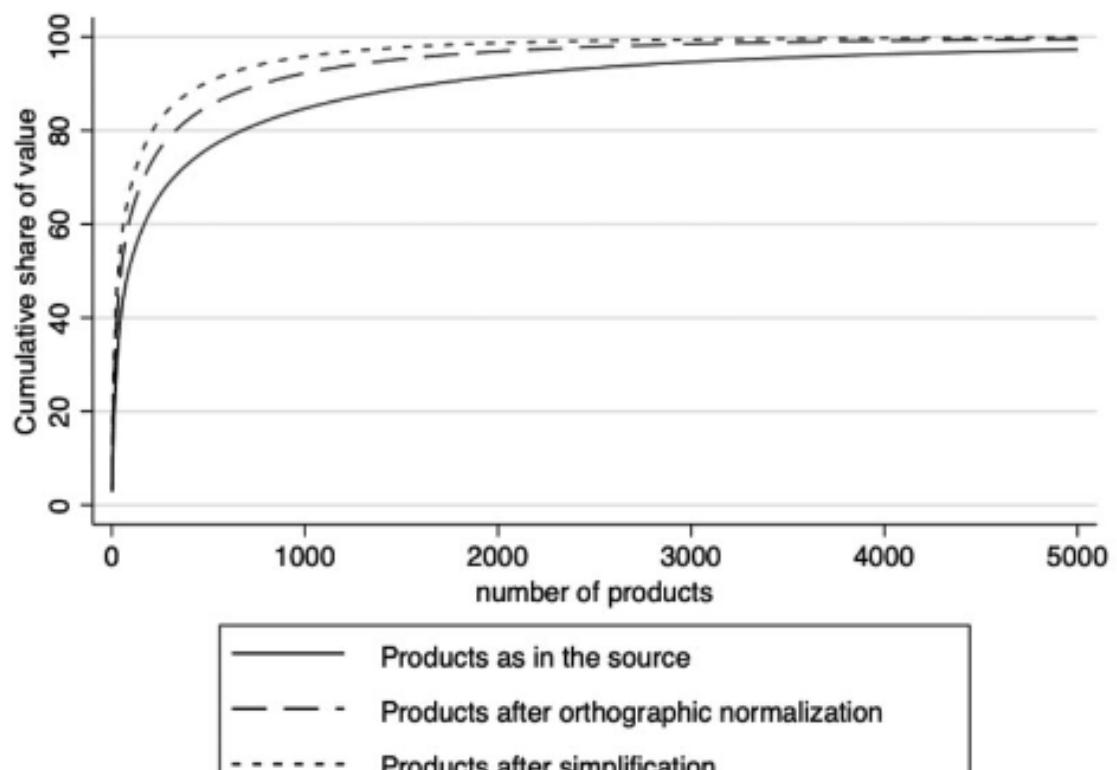
manufactured products

gold and silver.

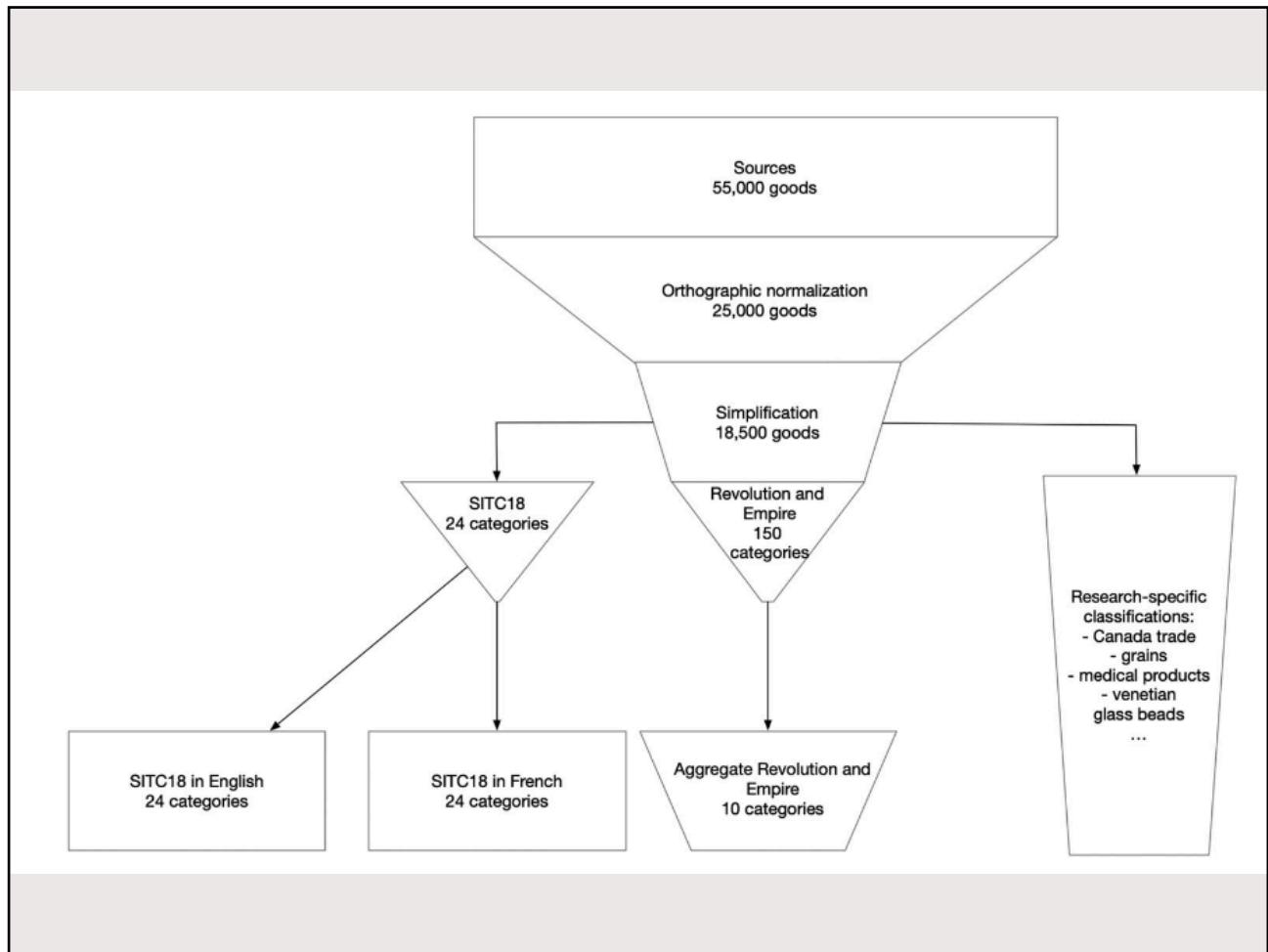
1) In the nineteenth century, a lot of work was devoted to nomenclatures and classifications

- In 1853 an International Statistical Congress, held in Brussels, debated the necessity of unifying customs schedules.
 - In 1889 the International Trade and Industry Congress, held in Paris, adopted a resolution to employ uniform nomenclature.
 - In 1906 the second International Congress of Chambers of Commerce and Commercial and Industrial Associations, held in Milan, issued a Recommendation calling for common classification in customs tariffs.

We should also note that for names of goods, units of physical measures (a bit difficult) and monetary measures (more difficult)



2) The French data are quite a beast. 64k goodse. Orthographic normalization cuts that down to 30k. Simplification reduces it to 21.5k. The reward is quite large as you reach 95% of trade flows at c. 2k goods rather than 5k.



3) Product-level data are only useful if you can classify them to fit with your research questions.

Obviously, no one is going to classify 60k goods. Even 21.5k is too large. So it is important to do some sub-categories (between 150 and 10 goods).

They could be used "as is". But it is more interesting to use them to delimit the list of goods you want to actually study and finely classify.

CONCLUSION

Trade statistics provide a unique opportunity to learn about early modern economies during the long eighteenth century. Ten years after the publication of a special issue of the *Revue de l'OFCE* gathering twenty-three questionnaires about their availability in Europe, and inspired by the experience of the TOFLIT18 and PORTIC projects, this paper speculates on the way forward. It develops three ideas. First, even if we should not expect to be able to construct a unidimensional indicator as useful as the GDP reconstructed by the Maddison project, there is much to be gained by exploiting the wealth of available sources. Second, IT will not help much in transcribing the existing sources but is central to diffusion and long-term storage. Lastly, like nineteenth-century statisticians, one of the most useful tasks forward is to create the tools that will allow us to interconnect the different datasets of goods names, physical measures, and monetary measures.