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No borders when driving agricultural economy! An analysis of cross-border grain flows in Lorraine

Louise de La Haye Saint Hilaire

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Louise de La Haye Saint Hilaire. No borders when driving agricultural economy! An analysis of cross-border grain flows in Lorraine. Disruptive borderlands. Unpacking the innovative potential of transbordering practices, imaginaries and policies., Luxembourg Institute of Socio-Economic Research, Sep 2024, Belval (Luxembourg), France. hal-04702996

HAL Id: hal-04702996

<https://hal.inrae.fr/hal-04702996v1>

Submitted on 19 Sep 2024

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No borders when driving agricultural economy!

An analysis of cross-border grain flows in Lorraine

Disruptive borderlands. Unpacking the innovative potential of transbordering practices, imaginaries and policies

4-6 Sep 2024 Esch-sur-Alzette (Luxembourg)



Introduction

- Agricultural geography, borders and grain sector
- TRANSAAT research-project
- Methodology

1. An intermediary zone producing cereals

- An agricultural and agro-industrial area
- A cereal front feeding cross-border flows

2. A double cross-border sales strategy

- Major outlets with cross-border companies
- A strategy structured around the port of Metz and the Moselle canal

3. A production basin at the center of modernization and agro-industrial concentration

- Increased dependency due to the closure of mills in Lorraine
- Threats to the cross-border logic

Discussion/conclusion

Cross-border situation: an obstacle to the agri-food transition ?



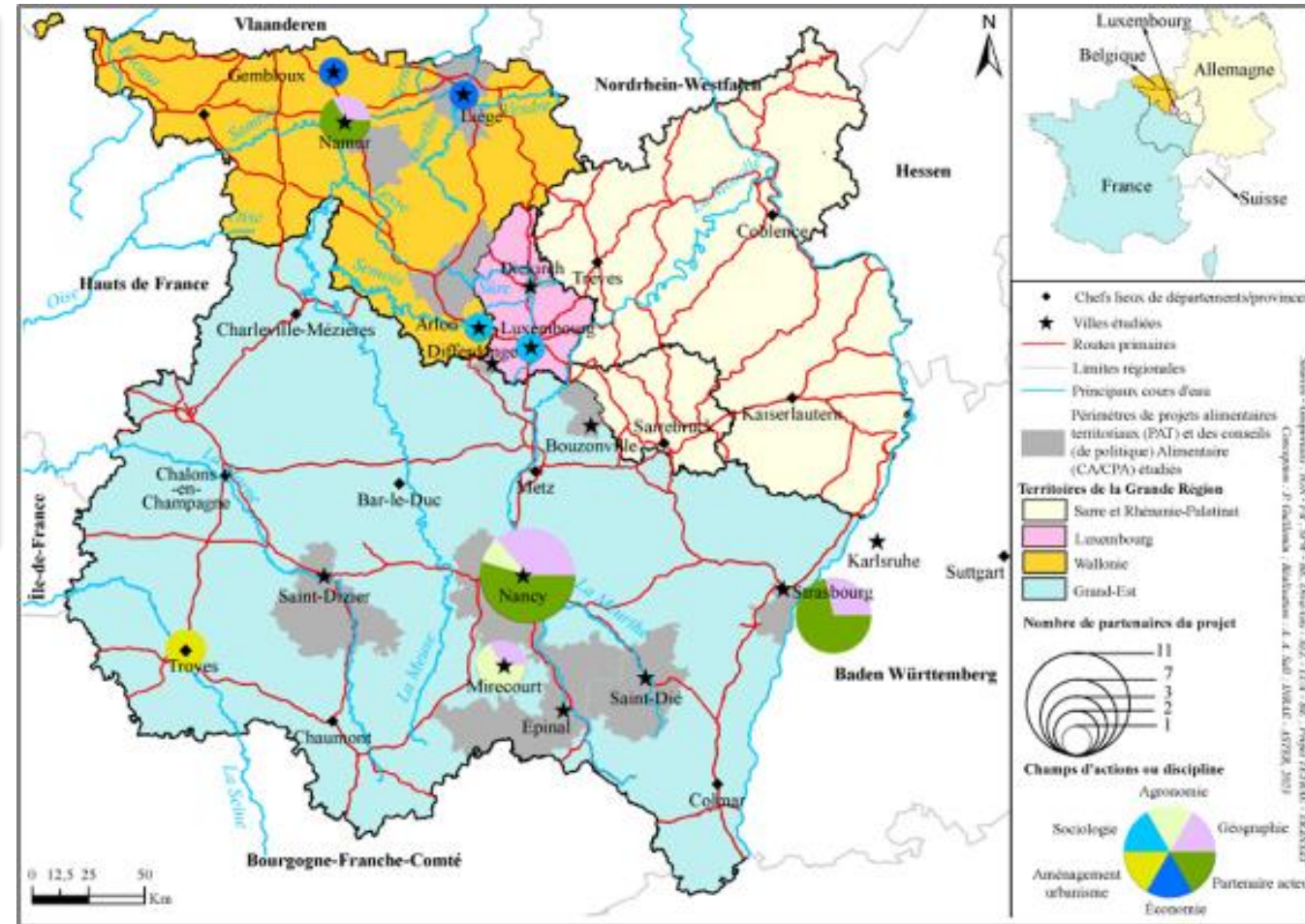
Agricultural geography, borders and grain sector

- The **grain market**, especially the wheat market, is fully integrated in the globalization of agricultural trade (Denieulle, 2023), and **France is the world's fourth-largest exporter of grains** (Beauvais et al., 2022)
- In agricultural geography, transborder situation is seen as a driver of spatial organisation: it allows **agro-industrial cross border strategies** (Lescureux et Margetic ; 1998, Rouget, 2008)
- Agricultural production systems are also dependent on demand from other countries
- Few studies, **intersects border studies with agri-food issues**, from a regional perspective
- Despite the cross-border nature of Lorraine – Haute-Marne, the agriculture of the region **has been little studied in cross-border terms**
- In particular, the **structure of the grain basin** has not been analyzed



TRANSAAT research-project

- In this context, TRANSAAT research-project **jointly examines agri-food and cross-border issues** at the scale of the Great Region
- Based on the hypothesis of **cross-border cooperation as an operational lever for the territorial anchoring of agri-food systems**, TRANSAAT is structured in three components.
- The second component is dedicated to the analysis of agri-food flows at different scales, to help **characterize the organization of the supply chains** and provide insights for adapting public policies to strategies that often **go beyond local action perimeters**

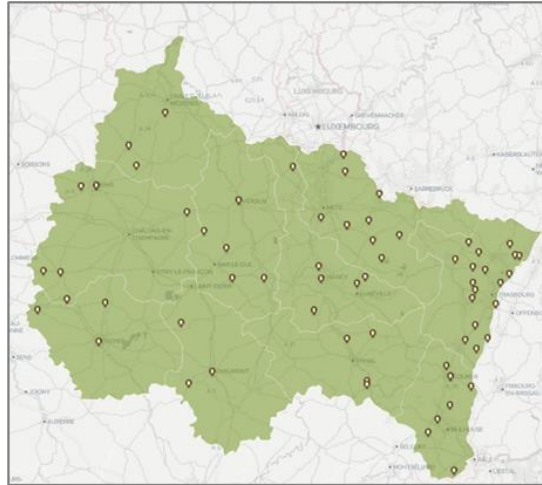


Transition en Territoires de l'Agriculture,
l'Alimentation et l'Environnement

Identification of grain collectors

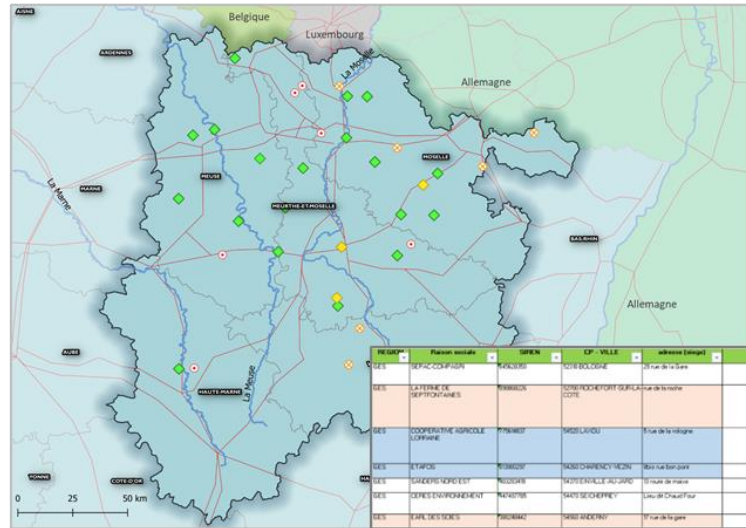
①

FranceAgriMer database:
certification of grain collectors



②

Data extraction and verification



④

Interview grid, recording and thematic transcription

- **Ten interviews** : cooperative, trading company, farms with certification
- **Topics**: presentation of the company, supply (volume, crops, basin, label), marketing (volumes, customers), logistics

⑤

Press, activity reports



Flow analysis

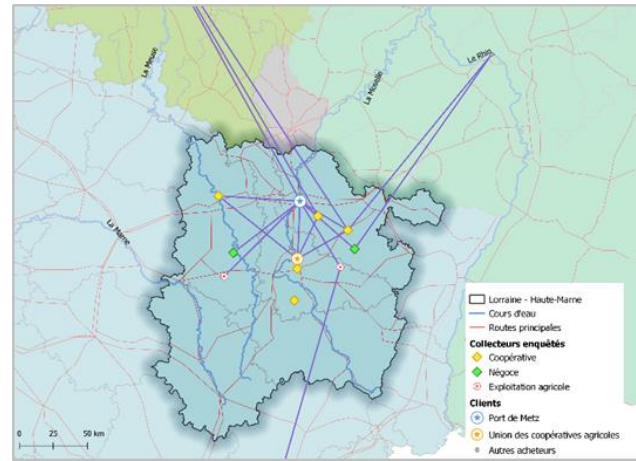
⑥

Quantifying and characterizing flows

	A	B	C	D	E	F	G
1	collecteur	y1	x1	client	y2	x2	activité
2	CAL	48.695843	6.134844	MOULINS AUI	48.66987699	5.893593739	Fabrication a
3	CAL	48.695843	6.134844	ACHETEURS N	49.14039074	6.188927811	Négoce
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⑦

Flow mapping

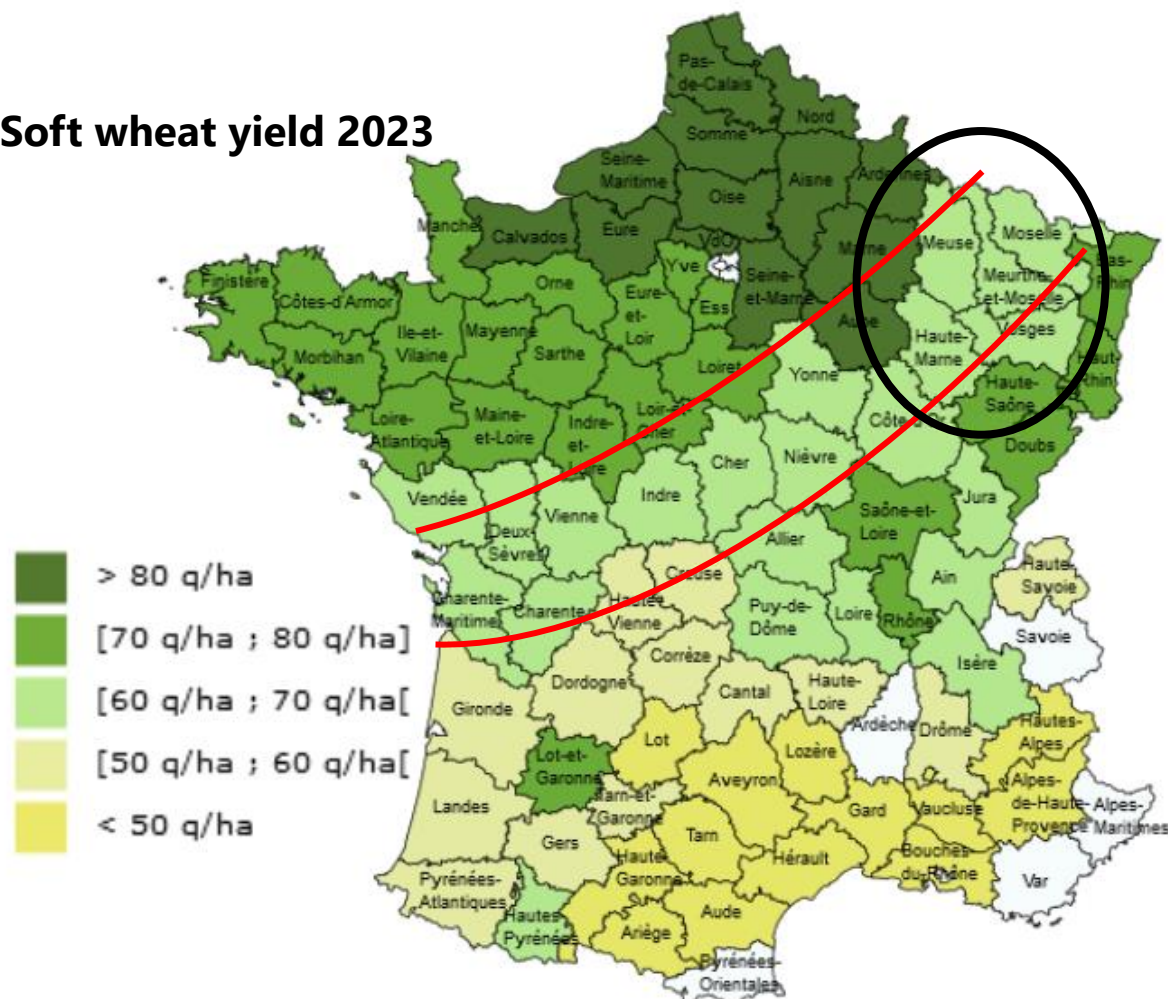


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Analysis of sales strategies

An agricultural and agro-industrial area

Soft wheat yield 2023

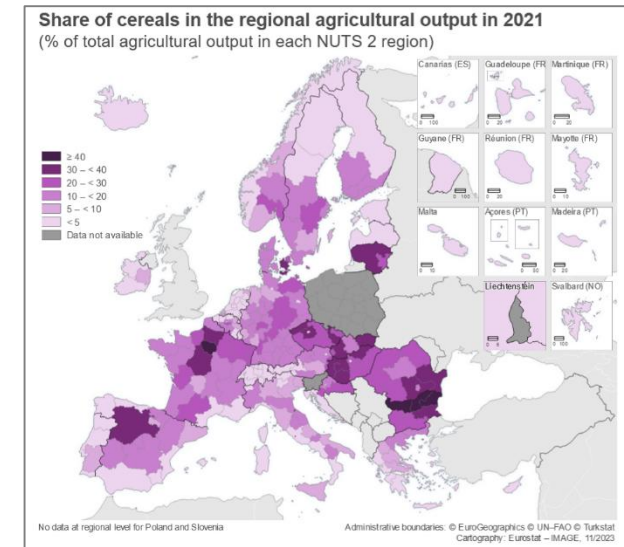
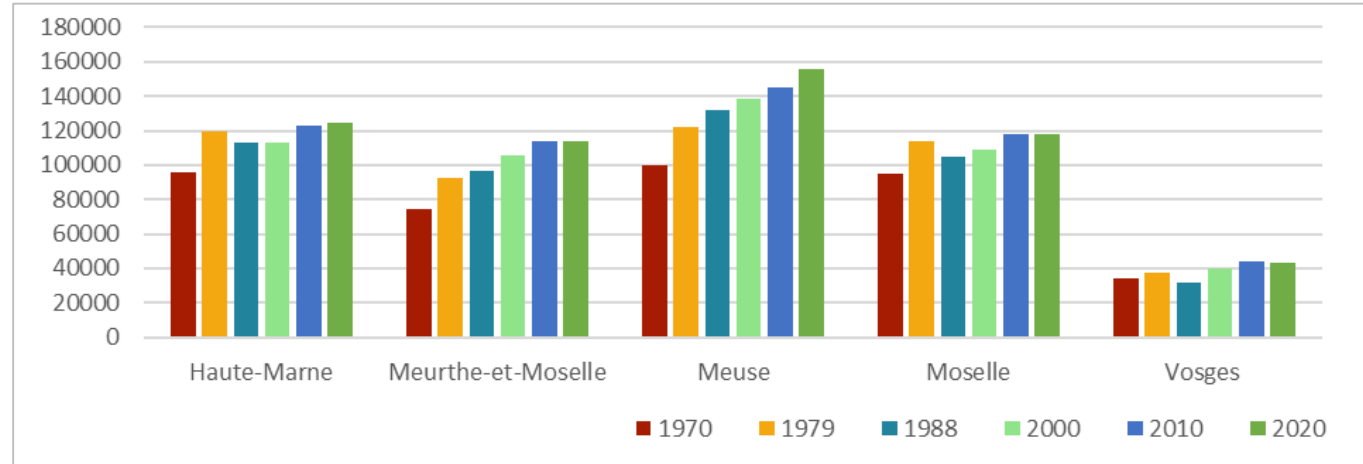
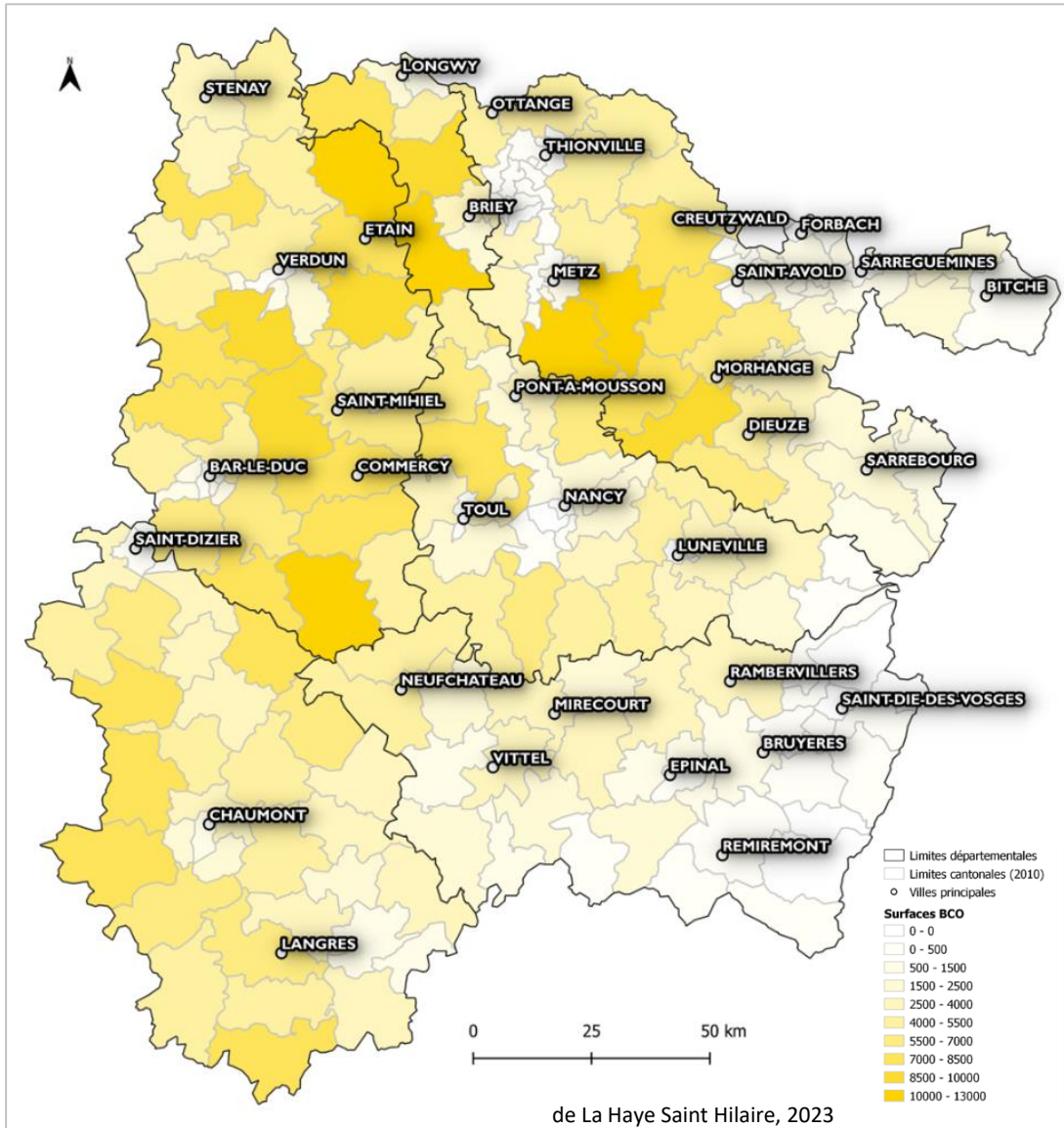


- **Restrictive soil criteria**
- **Lower yields than other agricultural zones**
- larger farms and lower incomes per hectare
- **Shorter and simpler crop rotation**
- High dependence on CAP aid
- Weak presence of agro-industrial operators

A partir de : Pierre, 2004 ; Chaire « Agricultures en zones intermédiaires », Institut Agro Dijon, 2017

An intermediary zone producing cereals

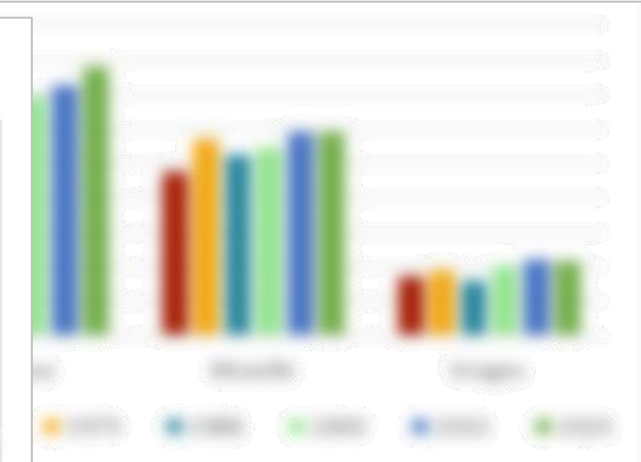
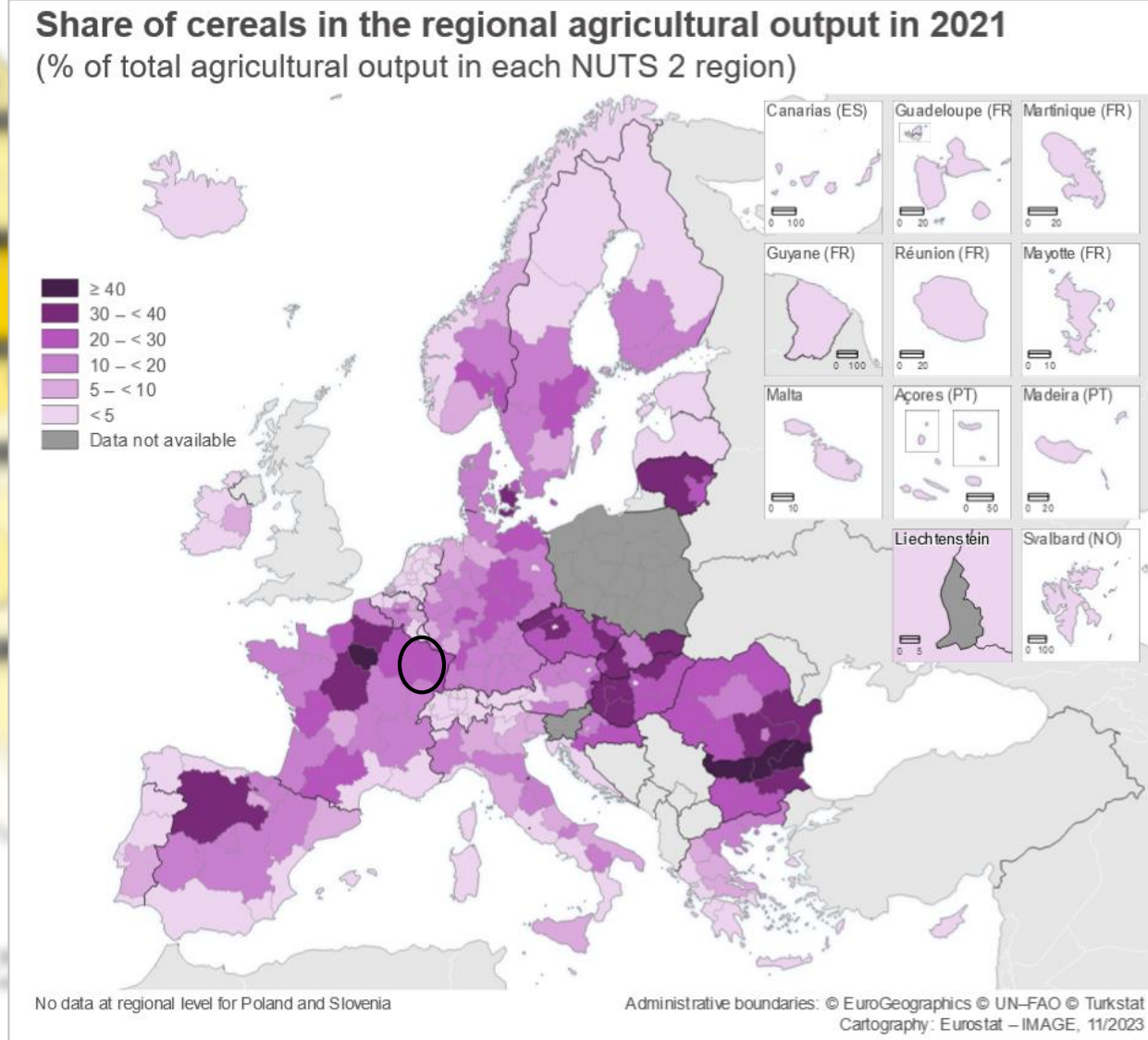
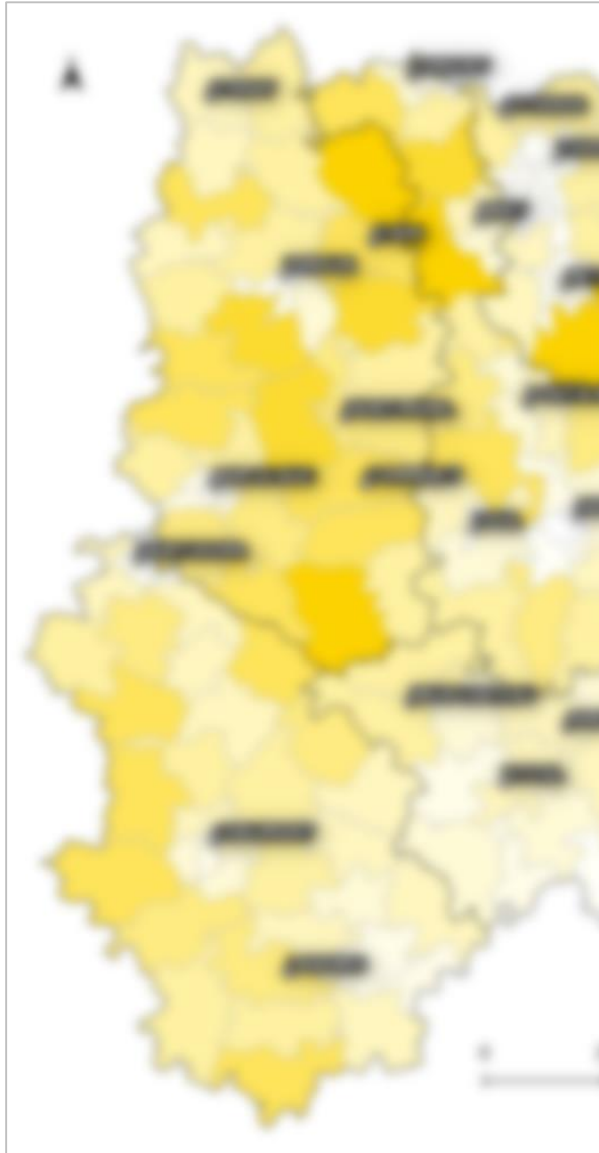
A cereal front feeding cross-border flows



<https://ec.europa.eu/eurostat/fr/web/products-eurostat-news/w/ddn-20231130-1>

An intermediary zone producing cereals

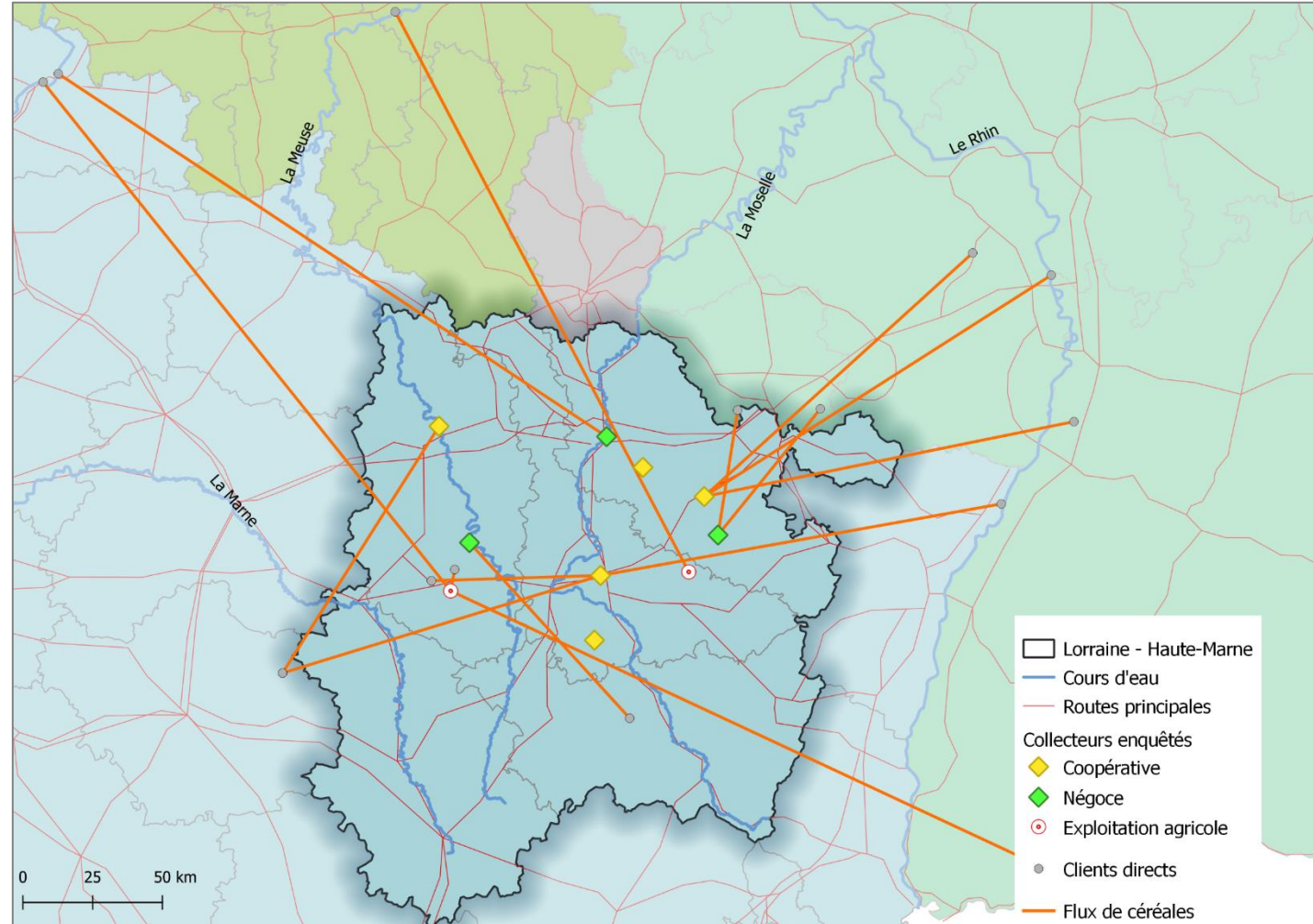
A cereal front feeding cross-border flows



A double cross-border sales strategy

Major outlets with cross-border companies

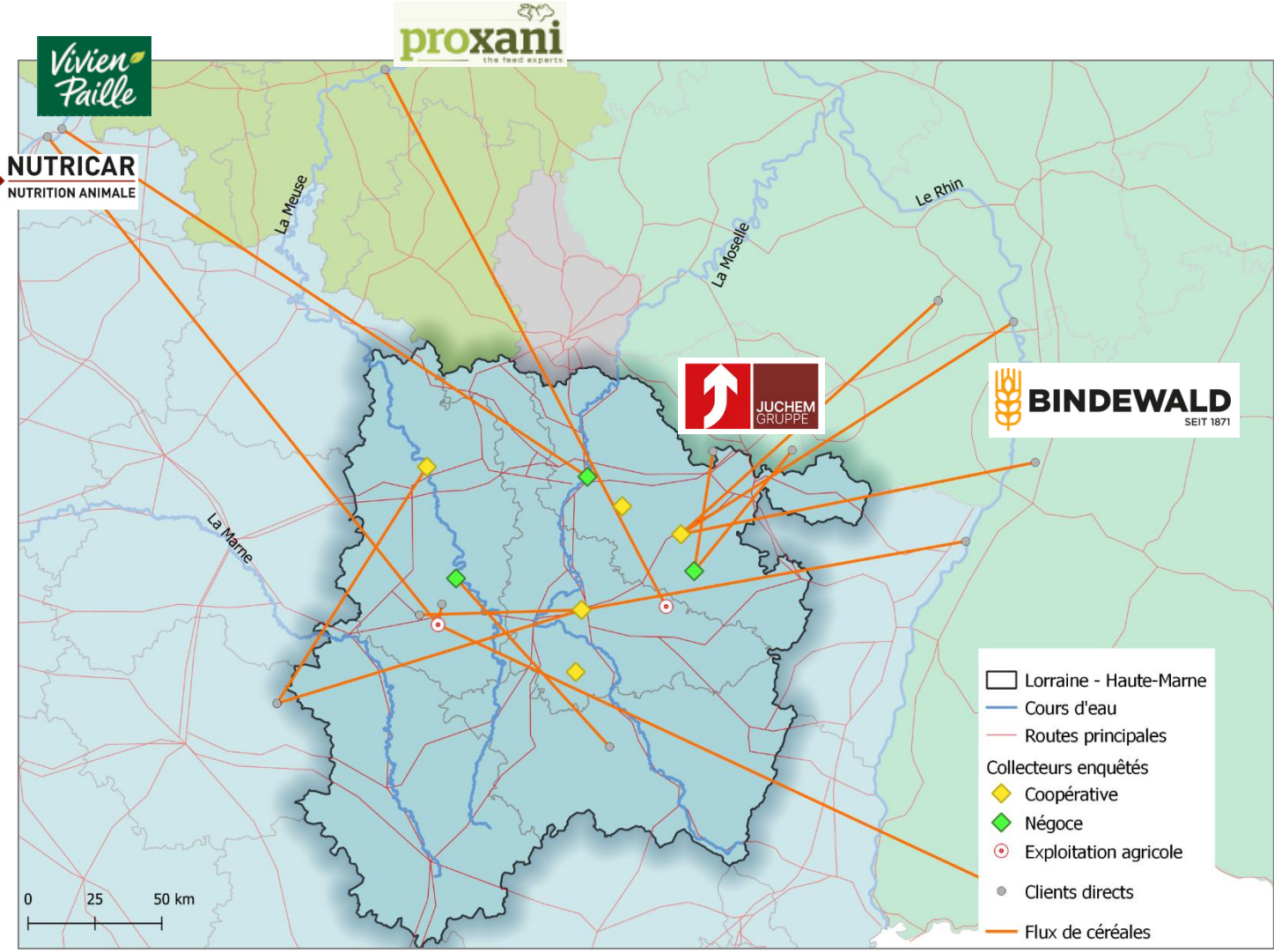
- Grain collectors have direct buyers in border countries : Germany, Belgium, Switzerland



A double cross-border sales strategy

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- Grain collectors have direct buyers in border countries : Germany, Belgium, Switzerland
- These buyers are grain-processing industry: flour milling, industrial bakery; animal feed factory; food factory (lentils)



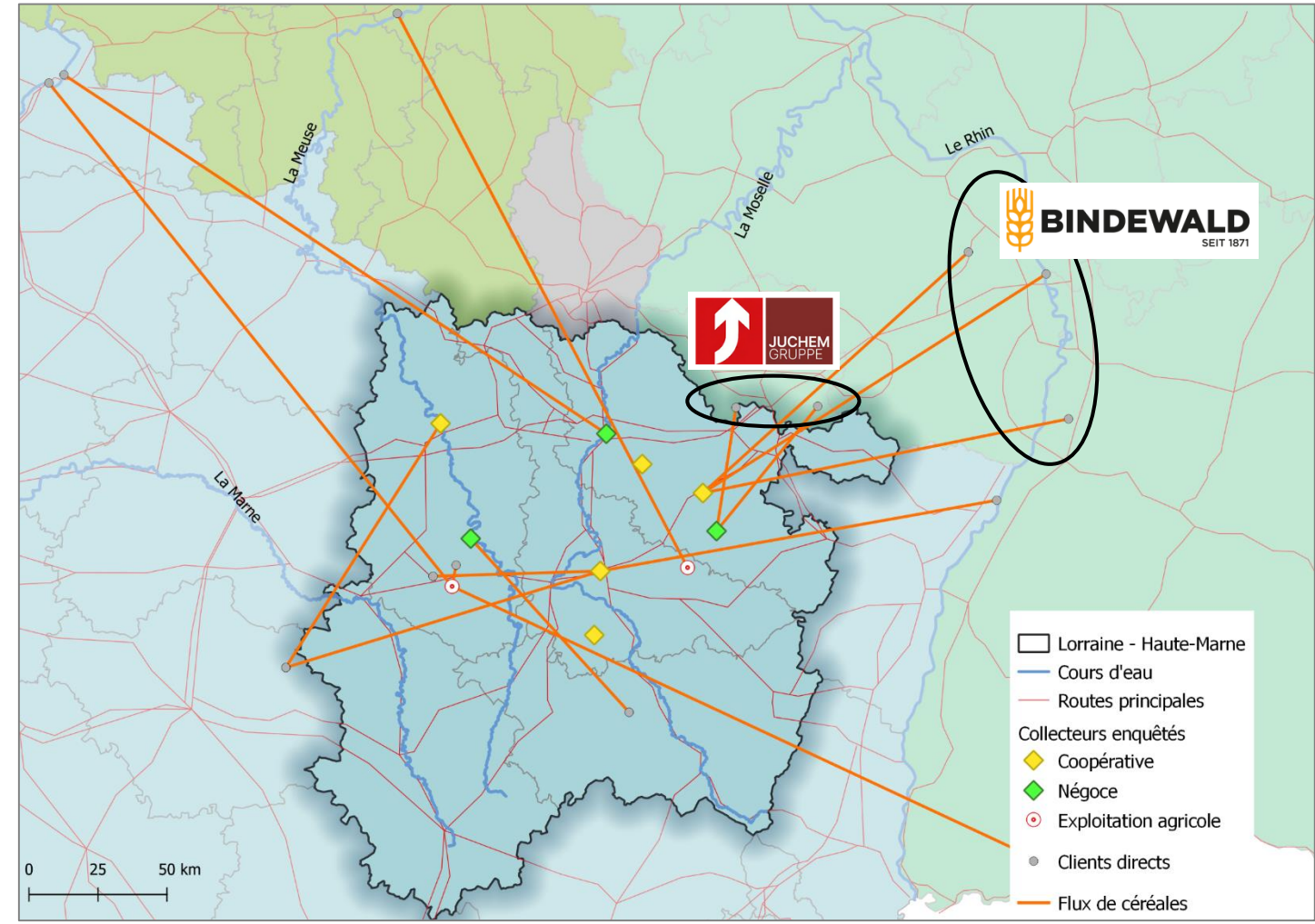
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- In the Moselle department, two grain collectors interviewed have their main buyers in Germany

*"Our only outlet today is **the Bindewald group in Germany**"*
GPB, 26/02/2024

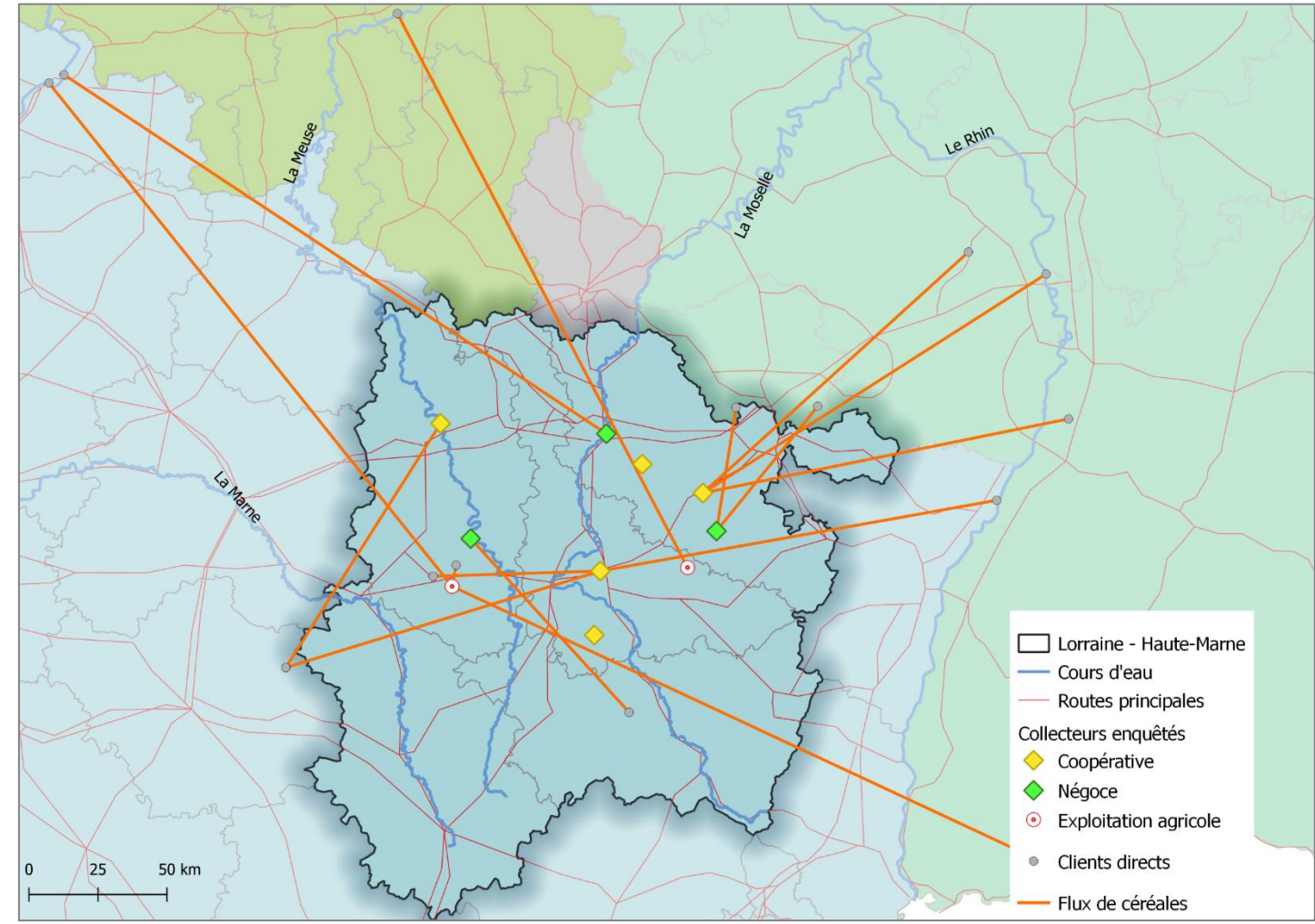
*"So the **Juchem Group's** main mill produces flour for the food industry, which we began distributing to supermarkets in the 1970s, and **which has become a new market**"*
Nouvelle ELCA, 26/02/2024



A double cross-border sales strategy

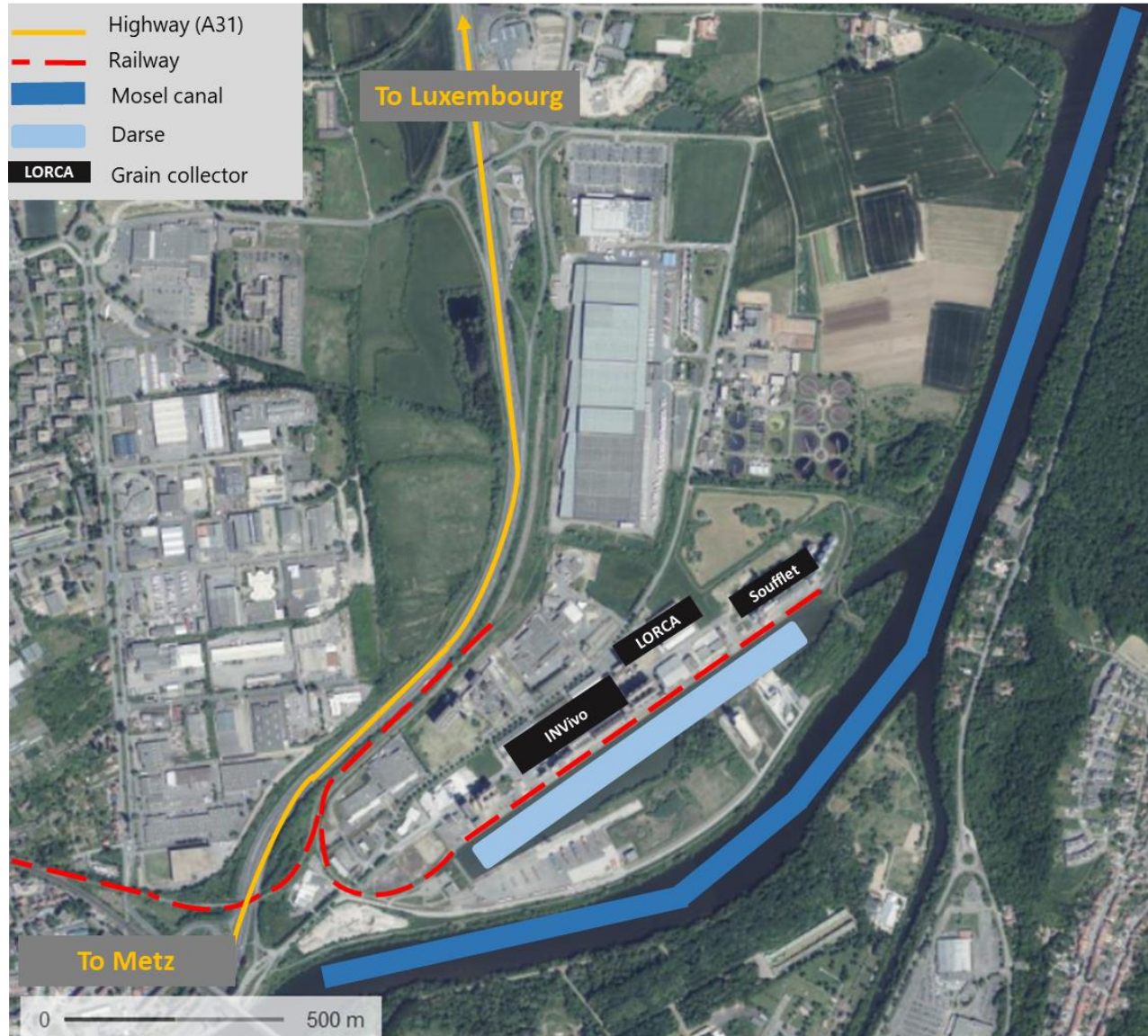
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- These buyers are grain-processing industry: flour milling, industrial bakery; animal feed factory; food factory (lentils)
- In the Moselle department, two grain collectors interviewed have their main buyers in Germany
- Germany is a central outlet for Lorraine's agricultural sectors (de La Haye Saint Hilaire, 2023)



A double cross-border sales strategy

A strategy structured around the port of Metz and the Moselle canal



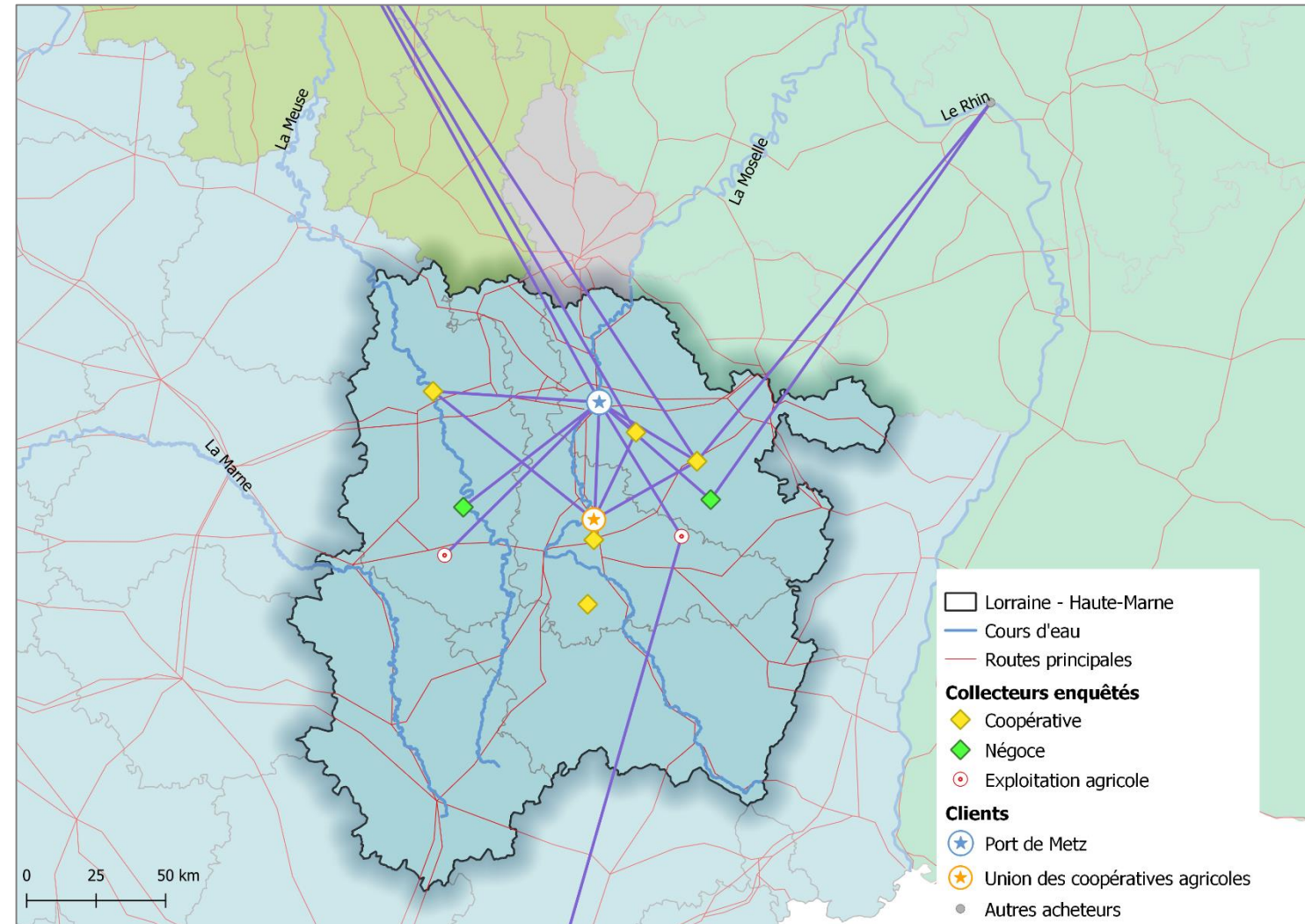
- France's leading river port for grain: 1,6 million tonnes of grain in 2022
- InVivo (cooperative union) and LORCA (Moselle cooperative)
- Serves North Community's port (Rotterdam, Antwerp) and countries (Belgium, Deutschland, Netherlands)

*"the Moselle canal and access to the Rhine are part of the national strategic plans for ports, and the **port of Metz is a strategic port for grain marketing.**"*
CAL, 18/01/2021

*"it's linked to our historical organization, which is **based exclusively on the Moselle river**"*
EMC2, 20/04/2021

A double cross-border sales strategy

A strategy structured around the port of Metz and the Moselle canal

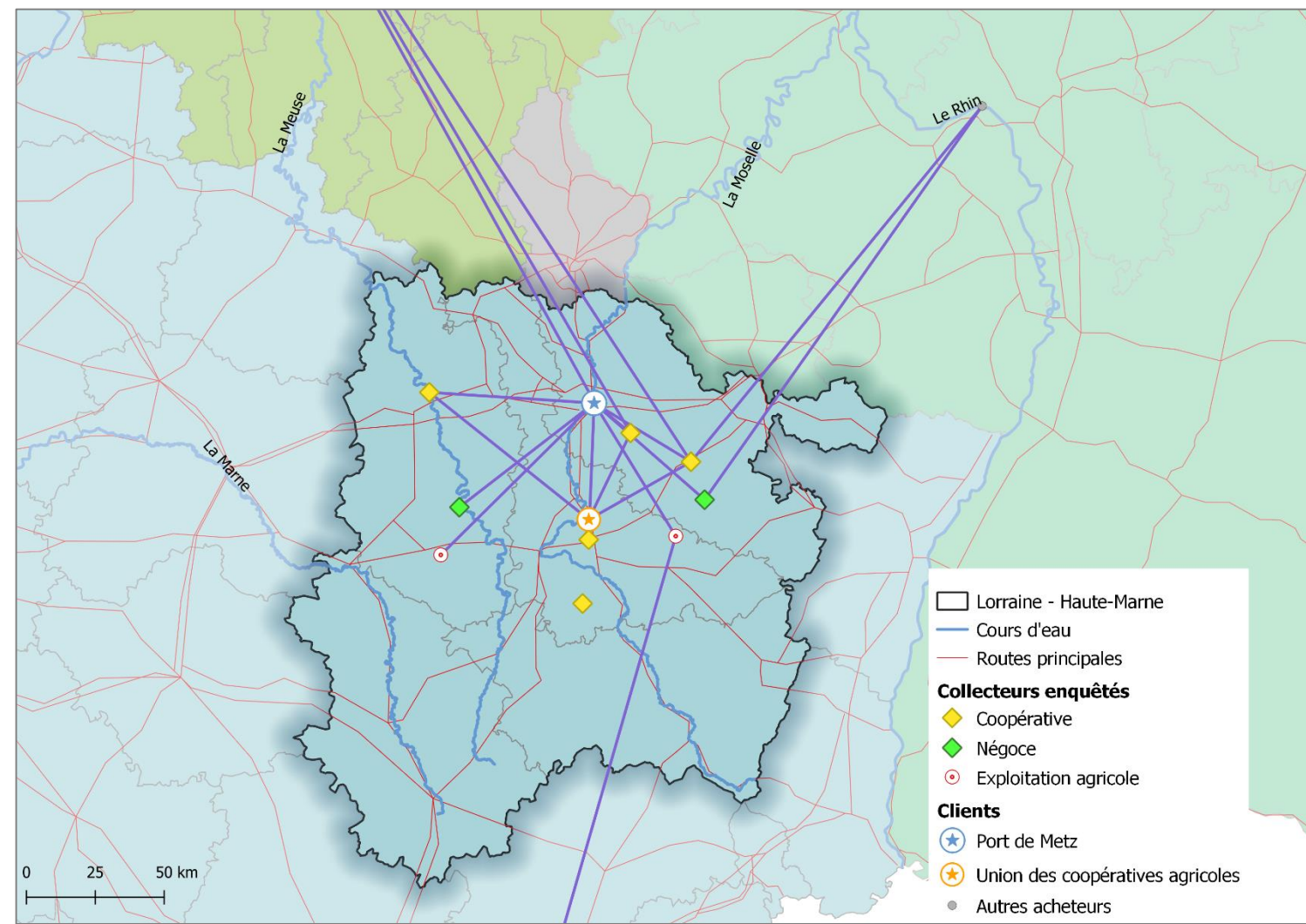


*"So we take all the cereals up there, putting 3,000 tonnes on a barge, which is **the most economical way of getting to the Belgian, Dutch and German fabs.**"*
EMC2, 20/04/2021

*"Historically, we have **the northern part of the European Union, which is the local market, neighboring countries, etc.**"*
CAL, 18/01/2021

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UNION des COOPERATIVES AGRICOLES
Silos de Frouard - Belleville - Delattre
N° d'agrément 11756



Accueil Silo Frouard Silo Belleville Silo Delattre Flux Sociétaires Société



Silos de Frouard, Belleville et Delattre

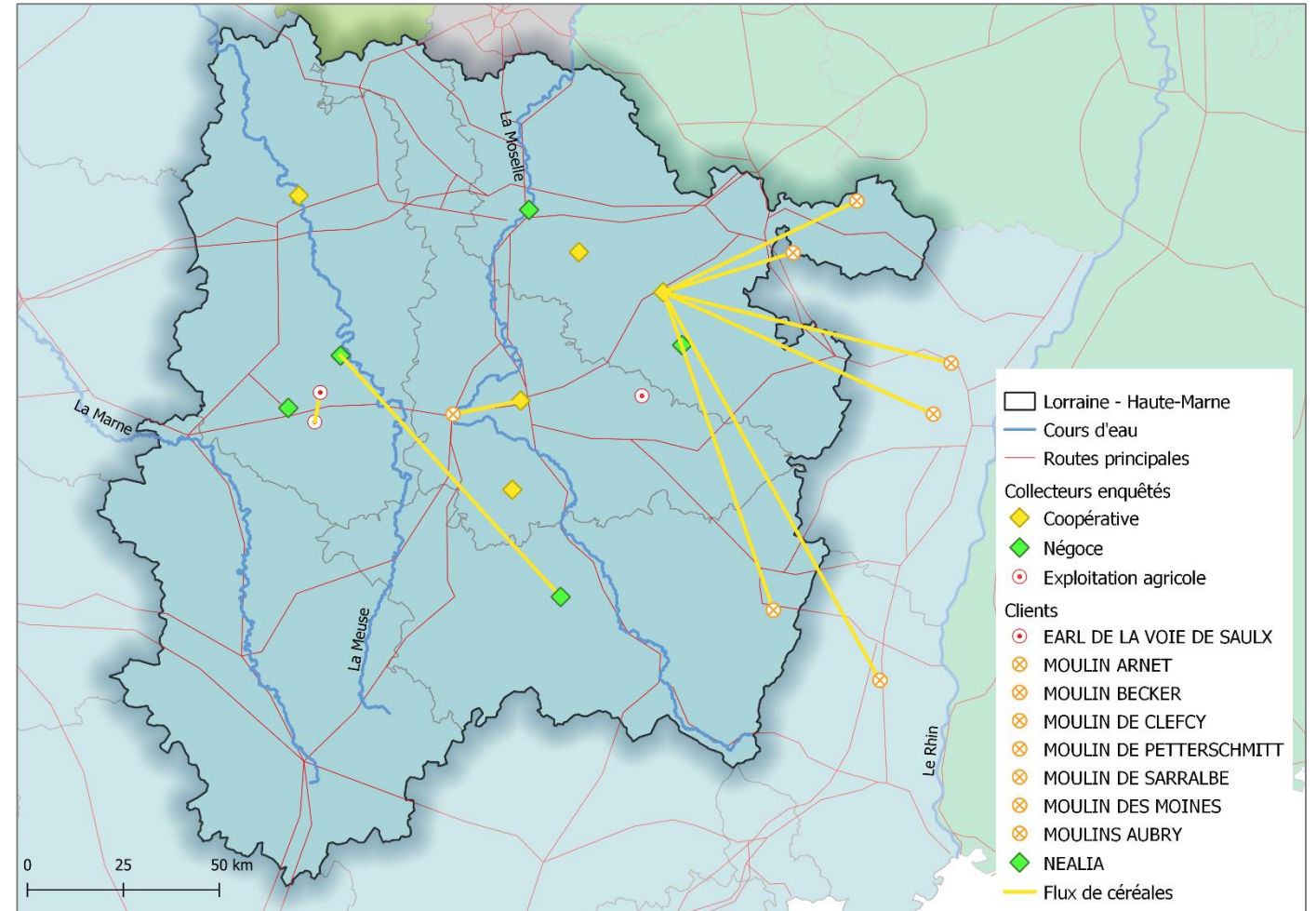
Un ensemble performant d'un stockage de 330 000 T permettant l'individualisation et la traçabilité des lots.

A production basin at the center of modernization and agro-industrial concentration

Increased dependency due to the closure of mills in Lorraine

"If we supply Clefcy it's still limited, even if we do Sarralbe **it's going to represent 15%** of our outlet if we do 7-8000 tons because it collects a little, we do Clefcy we do **2-3 small mills**, it's not pejorative but it's going to be 200, 300, 400 tons"
GPB, 26/02/2024

"The Aubry mills are one of our big customers, well important local customers, we have a few like that but **they account for 10 to 12% of CAL's cereal sales**"
CAL, 18/01/2021



A production basin at the center of modernization and agro-industrial concentration

Increased dependency due to the closure of mills in Lorraine

ENTREPRISE

Grands Moulins de Strasbourg, chronique d'une disparition annoncée

Publié le 14/03/2023

*Big Mills of Strasbourg, chronicle of a predicted disappearance

Accueil > Economie

Nancy *The factory « Grands Moulins de Paris » will close definitively before the summer

L'usine des Grands Moulins fermera définitivement avant cet été

C'est acté : le groupe de meunerie Grands Moulins de Paris, a confirmé la fermeture du site nancéien. Présente sur les rives de Meurthe depuis plus de 100 ans, l'usine de farine et de levain compte encore une trentaine de salariés. La question du devenir de ce lieu emblématique est déjà posée.

Stéphanie CHEFFER - 01 févr. 2022 à 05:00 | mis à jour le 24 févr. 2022 à 15:00 - Temps de lecture : 3 min

*one of Lorraine's last mills about to close on March 31

Saint-Maurice-sous-les-Côtes: l'un des derniers moulins de Lorraine fermera le 31 mars



Dans la Meuse à Saint-Maurice-sous-les-Côtes, le Moulin va fermer. © Jean-Christophe Panek, F3 Lorraine

"In its day, Strasbourg handled 200,000 tons of crushing [...] all the silos [in] southern Meurthe-et-Moselle, the outlet was Strasbourg. [...] Today, we no longer have any milling contacts in Lorraine Alsace."

GPB, 26/02/2024

"there was a great dynamic and added value. But today there are no more mills, the milling industry is completely dead"

Stophytra, 15/04/2024

Threats to the cross-border logic

- Climate change have an impact on the flow of grain: droughts on the Rhine leads to **periods of low water**, preventing the traffic of barges
- The Lorraine production basin also **competes with more productive areas** such as Black Sea countries, especially Ukraine and Russia

Les bateaux touchent le fond, le port fluvial de Metz fonctionne au ralenti à cause de la sécheresse

*Boats hit the bottom, port of Metz idles due to drought

<https://www.francebleu.fr/infos/economie-social/les-bateaux-touchent-le-fond-le-port-de-metz-fonctionne-au-ralenti-a-cause-de-la-secheresse-1660567482>

*"The **market is also looking elsewhere**. The countries of Eastern Europe, Russia, Ukraine, the whole Black Sea basin, we didn't talk about them too much 10-15 years ago. **They produce quality wheat**, milling wheat. We used to talk about the Black Sea only for feed wheat."*

Stophytra, 15/04/2024

Cross-border situation: an obstacle to the agri-food transition ?

*"In Lorraine, as we don't have any industrial facilities, **we're more concerned with the bulk of the market** [...], because here it goes to malting plants or livestock feed manufacturers. In the East, well around Metz, **we don't have too many specifications** of this type. [...] It's not open to everyone, because **you have to be close to a mill, close to a collector** who enters the chain, and that puts farmers who don't have access to these markets on the side of the road"*

Soufflet, 21/01/2021

*"**We don't have any specific specifications for cereals.** In the past, we tried to develop these specifications, but we often come back to the buyer's request. And we're in areas where **buyer demand doesn't require these specifications**"*

EMC2, 21/01/2021



Disruptive borderlands. Unpacking the innovative potential of transbordering practices, imaginaries and policies

4-6 Sep 2024 Esch-sur-Alzette (Luxembourg)

Thank you for listening!

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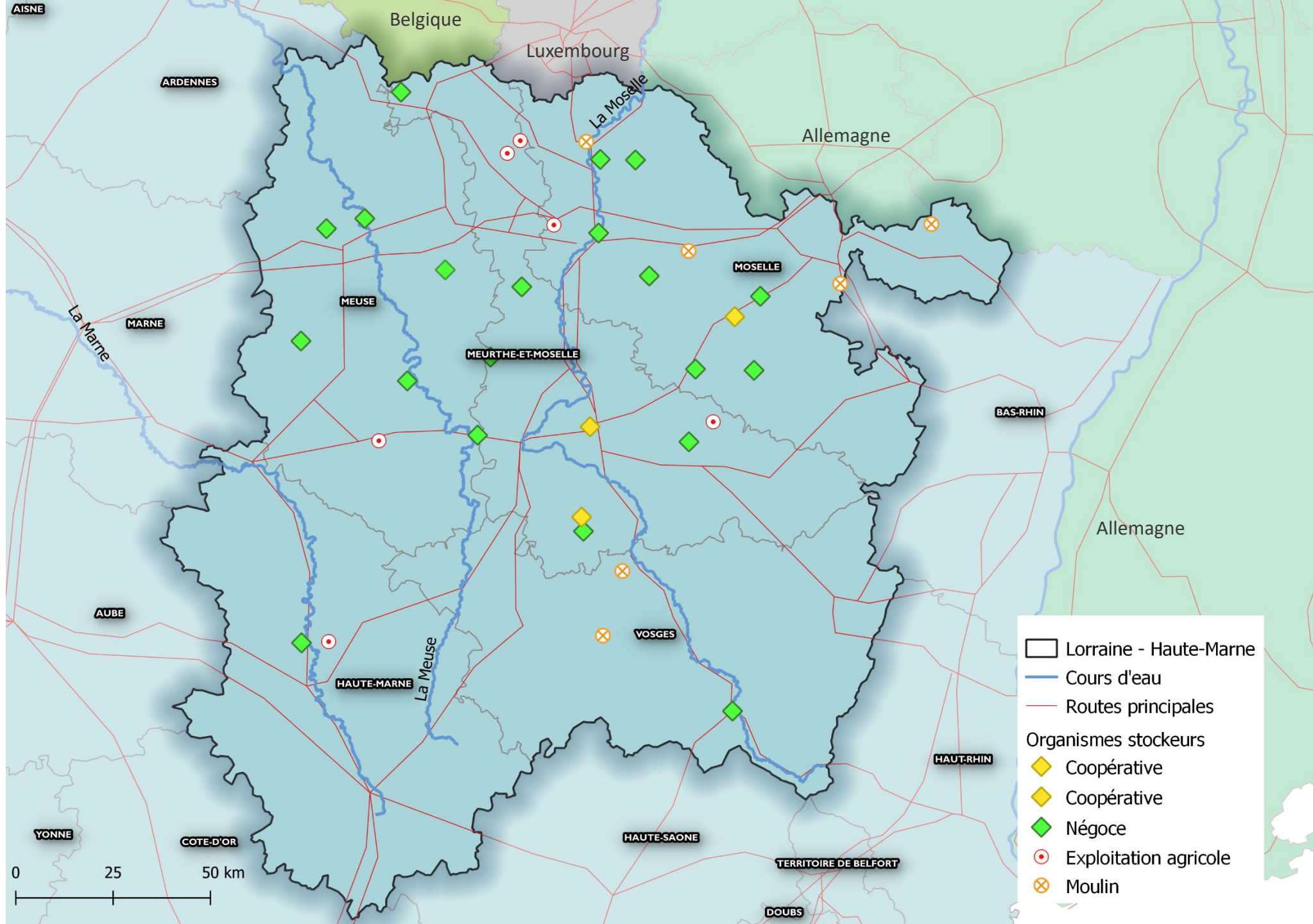
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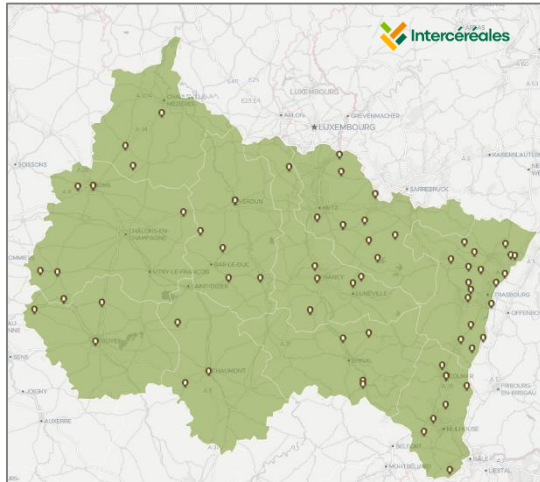
Beauvais F., Cantat O., Le Gouée P., Madeline P., Brunel-Muguet S., Boulonne L., Gaillard H., Jolivet C., Bataille M.-P., Medjkane M., 2022, « Changement climatique et culture du blé tendre d'hiver en France aux horizons 2070 et 2100 : étude phénoclimatique et géographique à partir des données issues du modèle ALADIN-Climat », *Cybergeo: European Journal of Geography*.

de La Haye Saint Hilaire L., 2023, *Dynamiques agricoles et agro-industrielles en zone intermédiaire de polyculture-élevage. Une géographie des filières pour penser la transformation des systèmes agri-alimentaires*, thèse de doctorat - Géographie, Université Paris-Saclay.

de La Haye Saint Hilaire L., Guillemin P., 2023, « Un demi-siècle d'agriculture en Grand-Est. Approche diachronique des recensements agricoles 1970-2020 à l'échelle départementale », Séminaire TRANSAGRI - Approches diachroniques des géographies de l'agriculture française, Nancy - Université de Lorraine, 16 janvier 2023.



Methodology



REGIOP	Raison sociale	SIREN	CP - VILLE	adresse (lieux)	y	x	type de structure
GES	SEFAC COKPAGH	6523050	57100 BOLLONGE	23 rue de la Gare	48,210492	5,1005640	entreprise privée
GES	LA TERRE DE SEPTFONTAINES	6888226	57100 ROCHEFORT SUR LA COTE	rue de la roche	48,220196	5,20254	exploitation agricole avec capacité de stockage ?
GES	COOPERATIVE AGRICOLE LORRAINE	7786487	56500 LANOU	5 rue de la volaigne	48,89964	5,18484	coopérative
GES	ETAFOS	6189029	54300 CHARPENCY-MEIN	80e rue bon pont	49,48143	5,510	entreprise privée
GES	SANDERS NORD EST	4020349	54700 ENVILLE-AU-JARD	11 route de moire	48,85910	6,478795	entreprise privée
GES	DEFES ENVIRONNEMENT	4248785	54700 SEICHEFFEY	Univ du Chaudi Four	48,80591	5,786404	entreprise privée
GES	EAPL DES BOIES	2582842	54600 ANDEFRY	17 rue de la gare	49,3337946	5,887076	exploitation agricole avec capacité de stockage ?

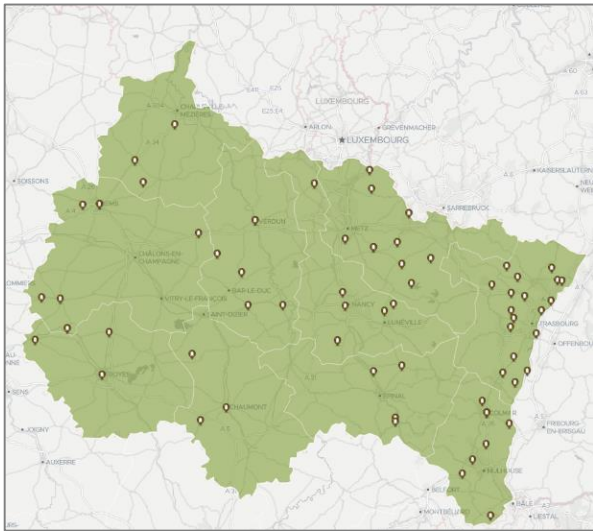
Bdd OS + Cartes collecteurs enquêtés + thématiques de la grille d'entretien

«cross-border mapping of agri-food complexes for agricultural production seems essential » (Lescureux et Margetic, 1998)

Identification des organismes stockeurs

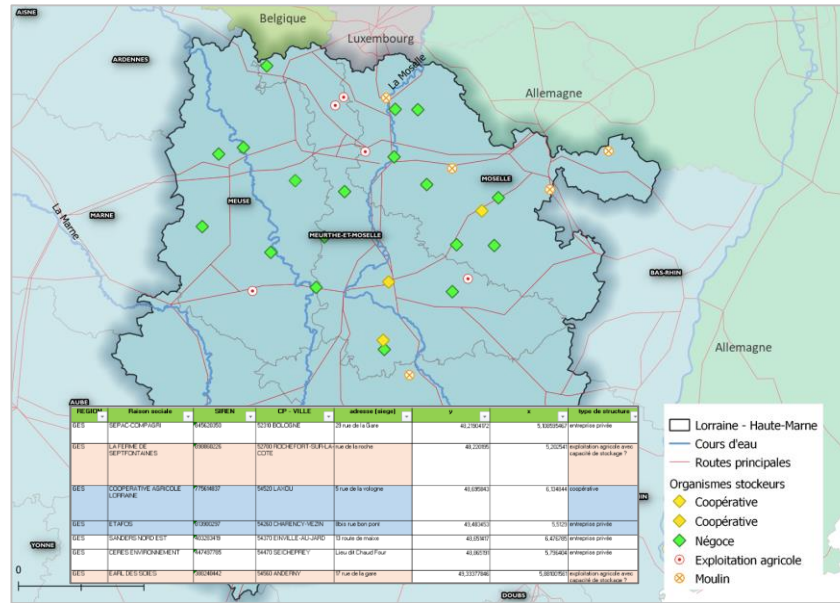
①

Base de données FranceAgriMer :
agrément organisme stockeur



②

Extraction et vérification des données



④

Elaboration de la grille d'entretiens,
enregistrement et retranscription
thématique

Thèmes :
Présentation structure (établissements/groupes)
Approvisionnement : volume, cultures, bassin, label
Commercialisation : volumes, clients, logistique

⑤

Presse, rapports d'activité
des organismes



Analyse des flux et des stratégies

⑥

Quantification et
caractérisation des flux

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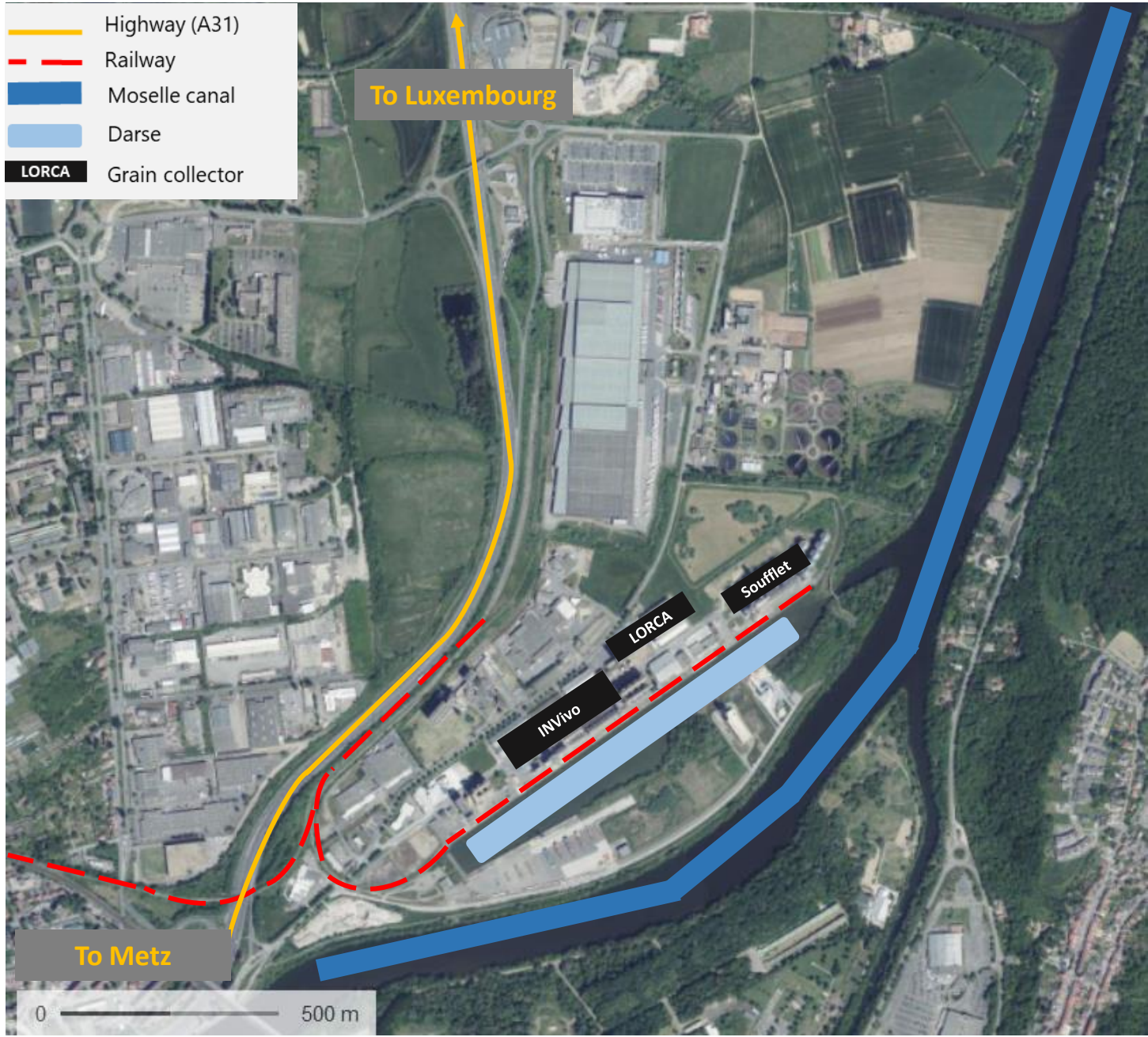
Cartographie des flux

⑧

Analyse des différentes stratégies de
commercialisation

“The border hardly exists at all, it's political and fiscal.” (FNA)

- Highway (A31)
- Railway
- Moselle canal
- Darse
- LORCA
- Grain collector



- Highway (A31)
- Railway
- Moselle canal
- Darse
- LORCA
- Grain collector

Une double stratégie transfrontalière de commercialisation

« Par contre tout ce qui est la zone Est c'est des silos qui ont un débouché de proximité sur Strasbourg, et en fait Lunéville va principalement sur Strasbourg. Mais on est multimodal, c'est-à-dire qu'il n'y a pas un filon qui prend que du camion, que du fluvial et que du rail. » ; « Donc en fait on a des sites loin de la Moselle mais qui sont proches des clients historiques. » ; « Les moulins Aubry qui font partie de nos gros clients, enfin clients importants dans la proximité, on en a quelques-uns comme ça mais ça pèse 10 à 12 % de la vente des céréales de la CAL. » CAL

« Quand l'export tire pas on n'a très peu de marchés, et ça pour les années à venir, pour moi c'est très préoccupant. » GPB

<https://www.republicain-lorrain.fr/edition-de-metz-ville/2018/07/27/dans-les-cales-des-peniches-du-port>

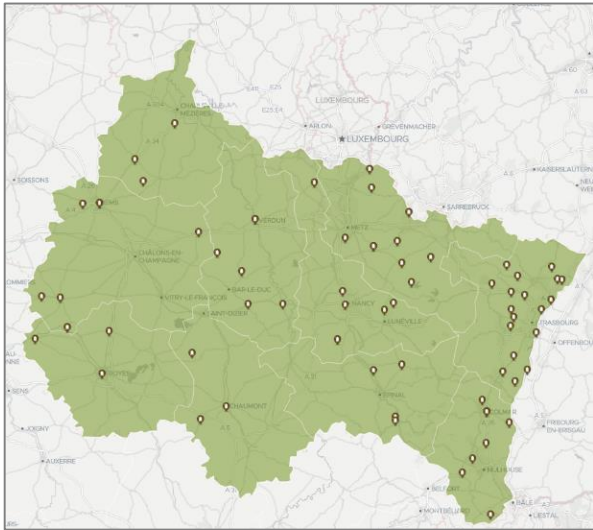
<https://www.ami-hebdo.com/le-port-de-metz-en-souffrance/>

<https://www.emc-magazine.com/2023/07/connaissez-vous-le-premier-port-fluvial-cerealier-d-europe.html>

Identification of grain collectors

①

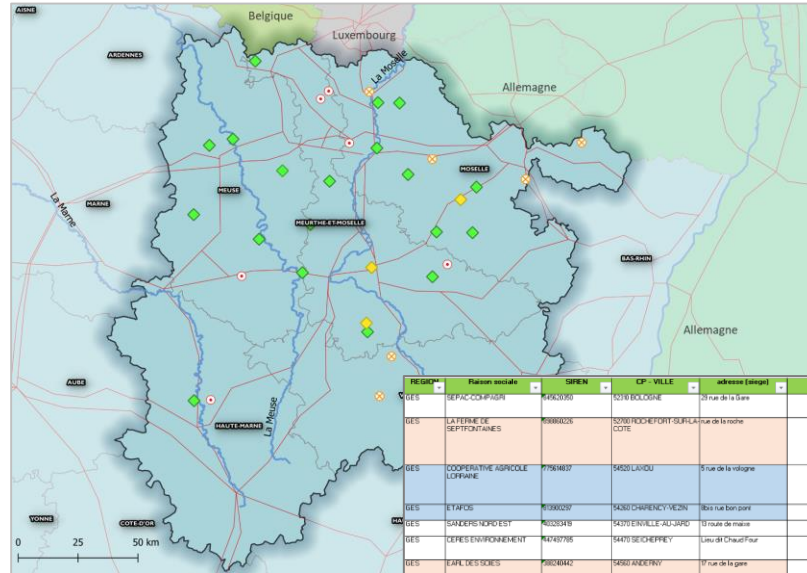
FranceAgriMer database: certification of grain collectors



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Press, activity reports



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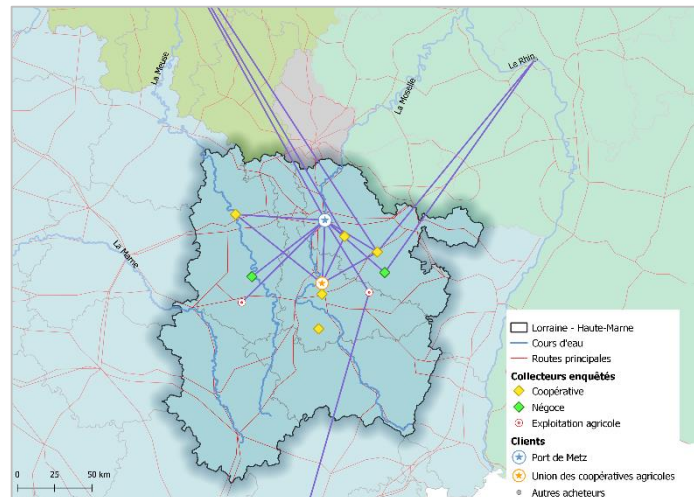
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Quantifying and characterizing flows

	A	B	C	D	E	F	G
1	collecteur	y1	x1	client	y2	x2	activité
2	CAL	48.695843	6.134844	MOULINS AU	48.66987699	5.893593739	Fabrication a
3	CAL	48.695843	6.134844	ACHETEURS N	49.14039074	6.188927811	Négoce
4	CAL	48.695843	6.134844	ROQUETTE FF	48.85874466	8.103579703	Fabrication ir
5	CAL	48.695843	6.134844	NEALIA	48.69757492	5.311567987	Fabrication a
6	CAL	48.695843	6.134844	NUTRIXO	48.41217408	4.578184120	Fabrication a
7	CAL	48.695843	6.134844	MALTEURODP	49.14006288	6.184453116	Fabrication a
8	CAL	48.695843	6.134844	KALIZFA	48.81950001	4.60733759	Fabrication a

⑦

Flow mapping



⑧

Analysis of sales strategies