



Food hub as an efficient alternative to sustainably feed the cities

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Plan

Context and Background

Methodology

Results

Discussion and Conclusion

Context



With the increasing population in cities: world's population live in urban areas (WUPR,2011)

67% (2015) → 86% (2050)

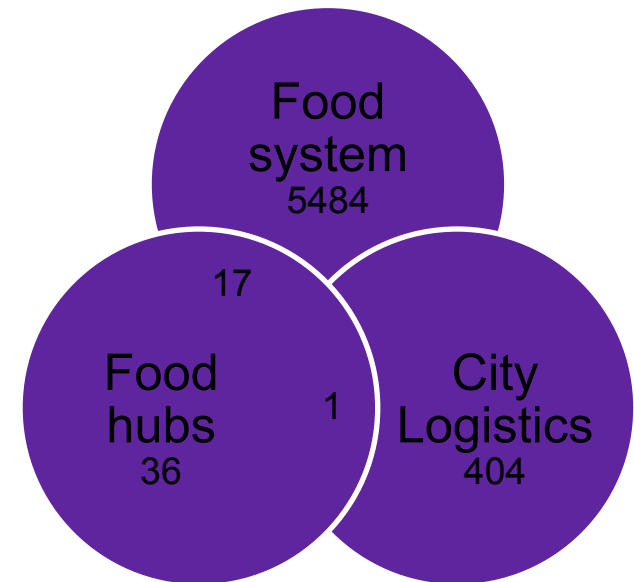
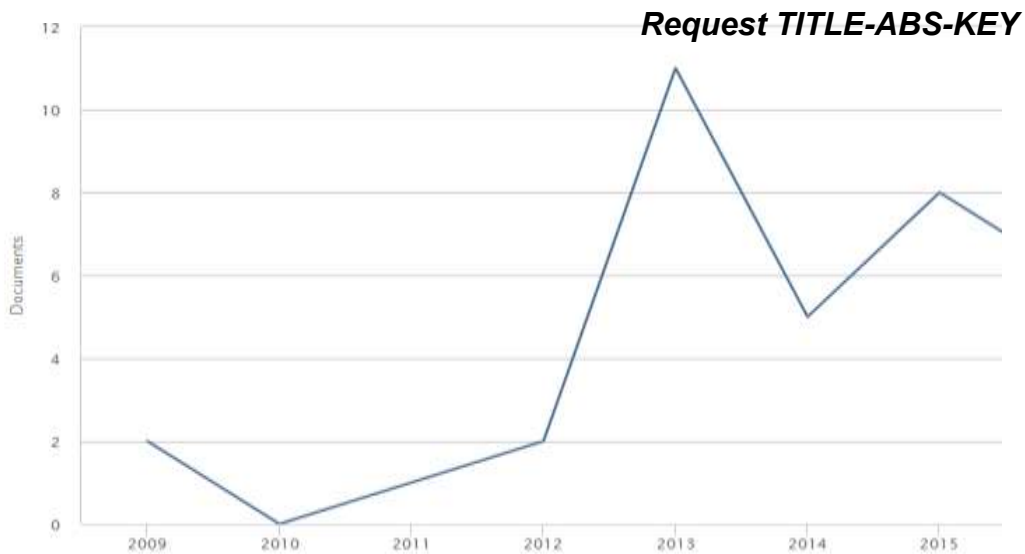


Challenge to feed the cities in a sustainable way



Question – Which urban food logistics solution could be an efficient alternative to sustainably feed the cities?

Background



Source : Scopus (2016)

Methodology

■ Analysis of literature review :

- Collection of relevant secondary data : the revision of scientific and academic books and articles, news reviews and public reports.

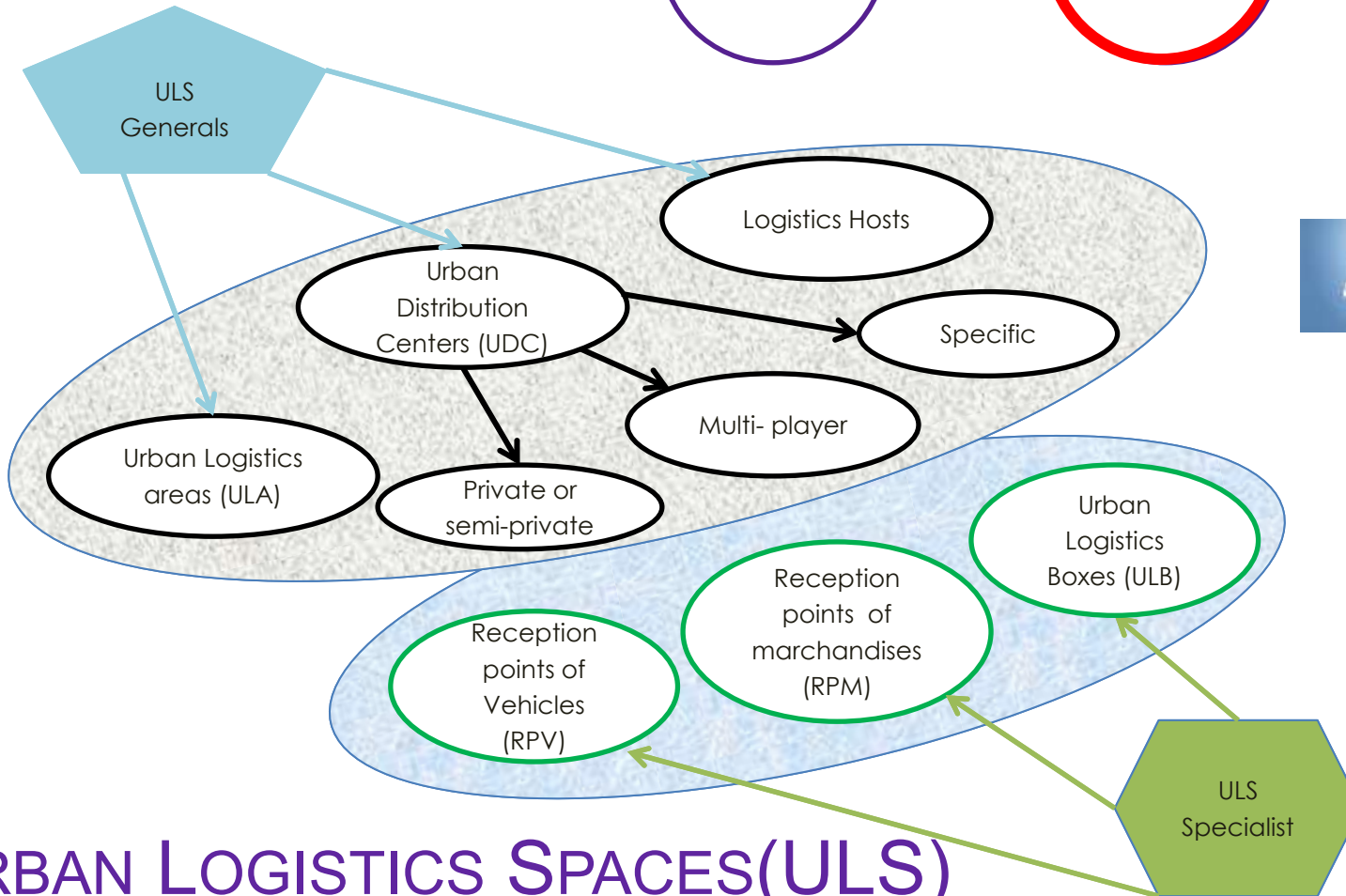
■ Theoretical framework

- Food hub definition
- Elements

■ Case study

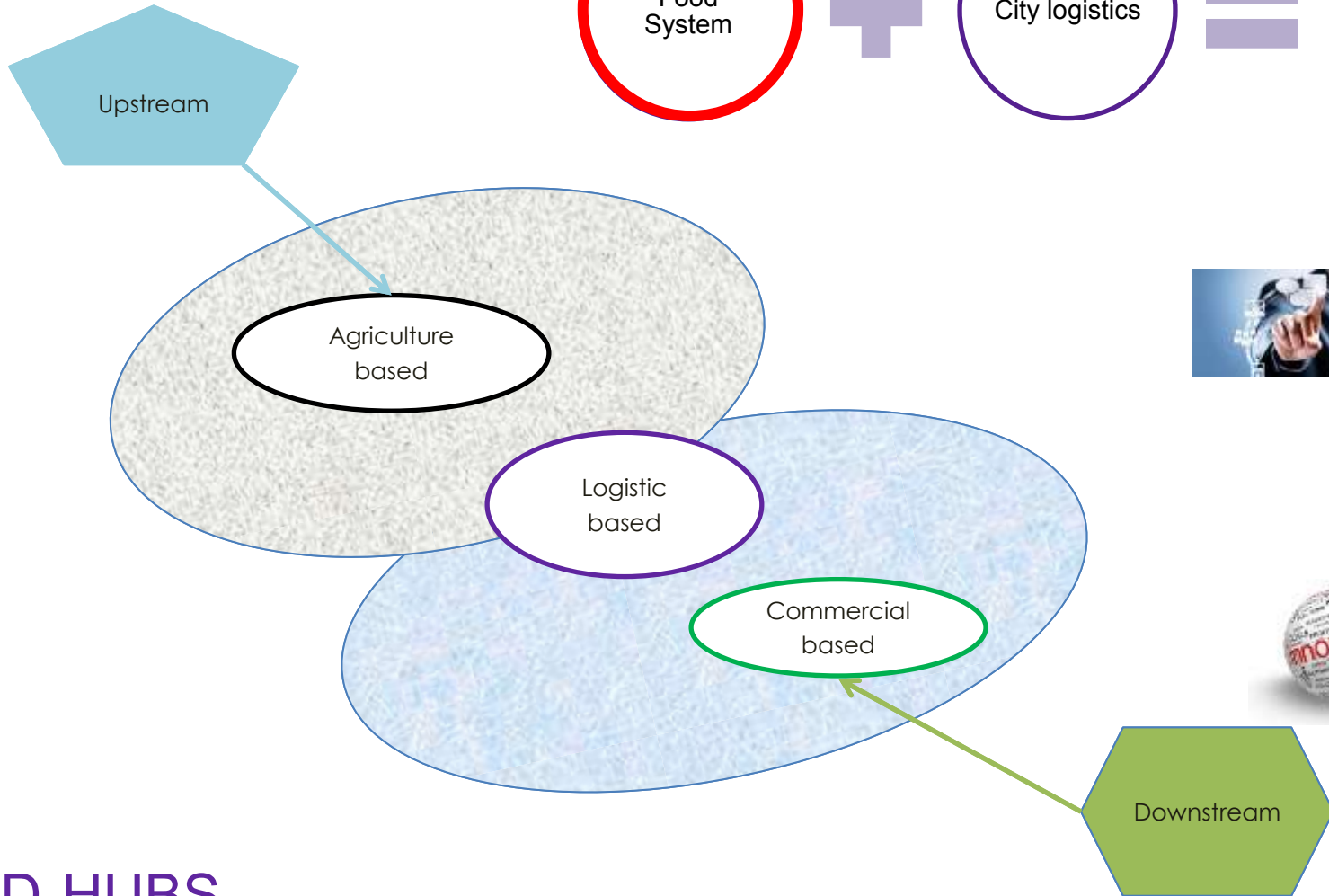
- Bogota, Colombia

Literature review



URBAN LOGISTICS SPACES(ULS)

Literature review

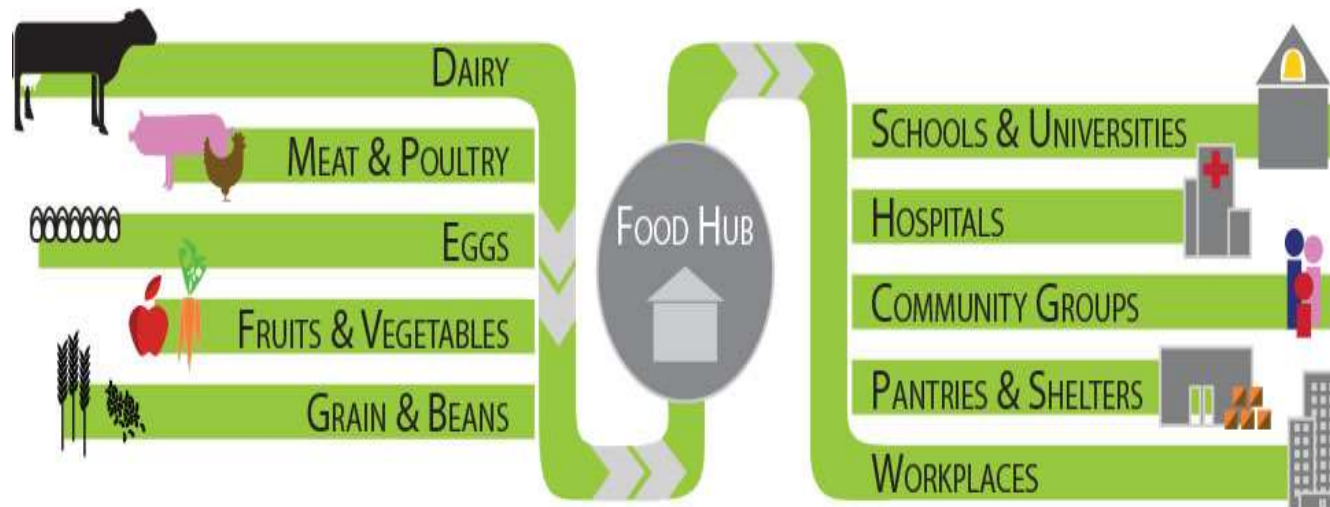


FOOD HUBS

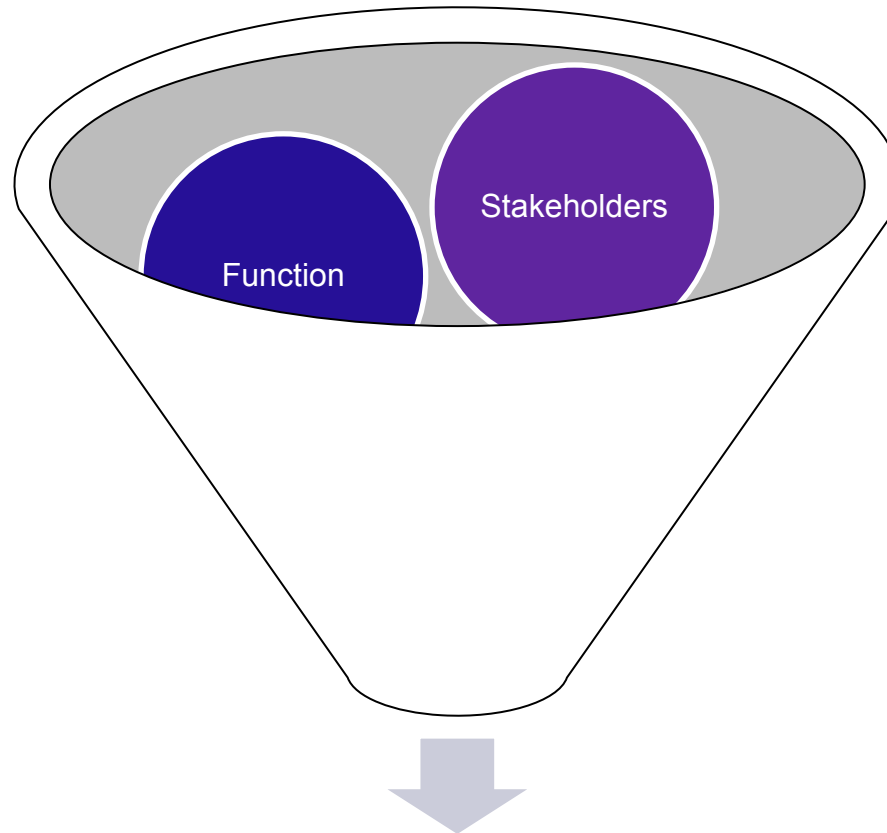
Theoretical framework

Food hub

- Food hub as a collaborative system between producer, distributor and trader eliminating middlemen (who does not add value to the final product) in order to shorten the food supply chain
- Its main objective is to strengthen the supply of agro-industrial products
- With the aim of improving urban food supply chain



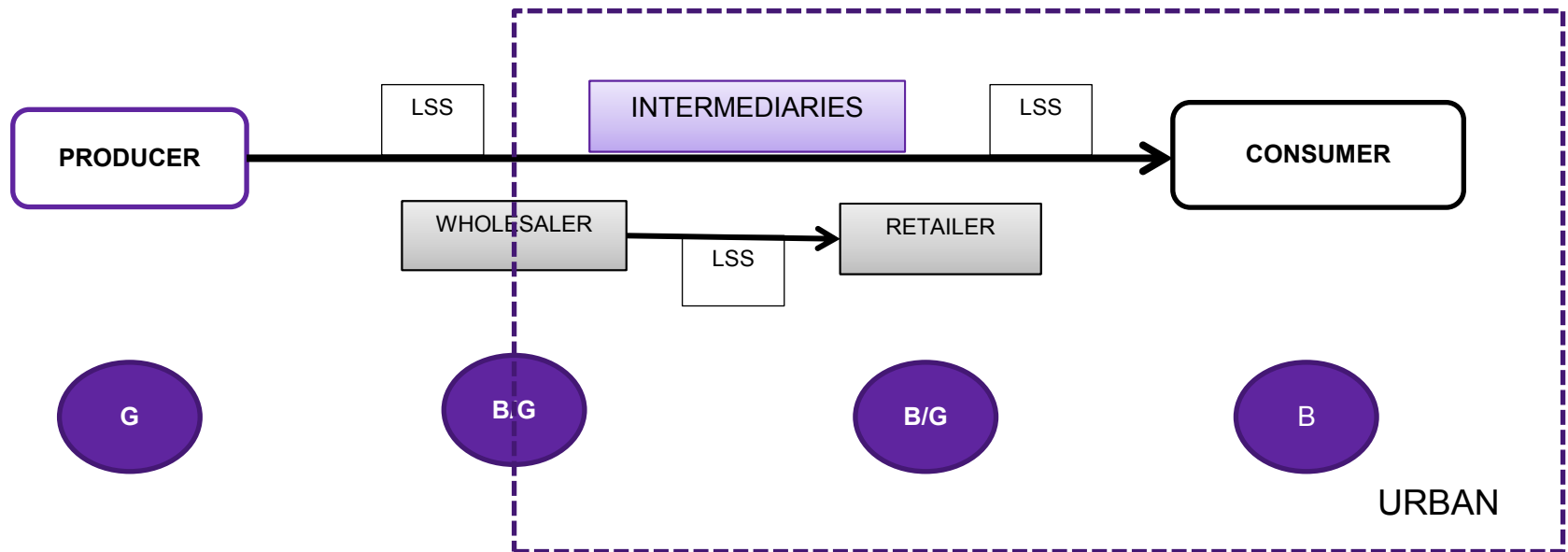
Theoretical framework



Food hub elements

Theoretical framework

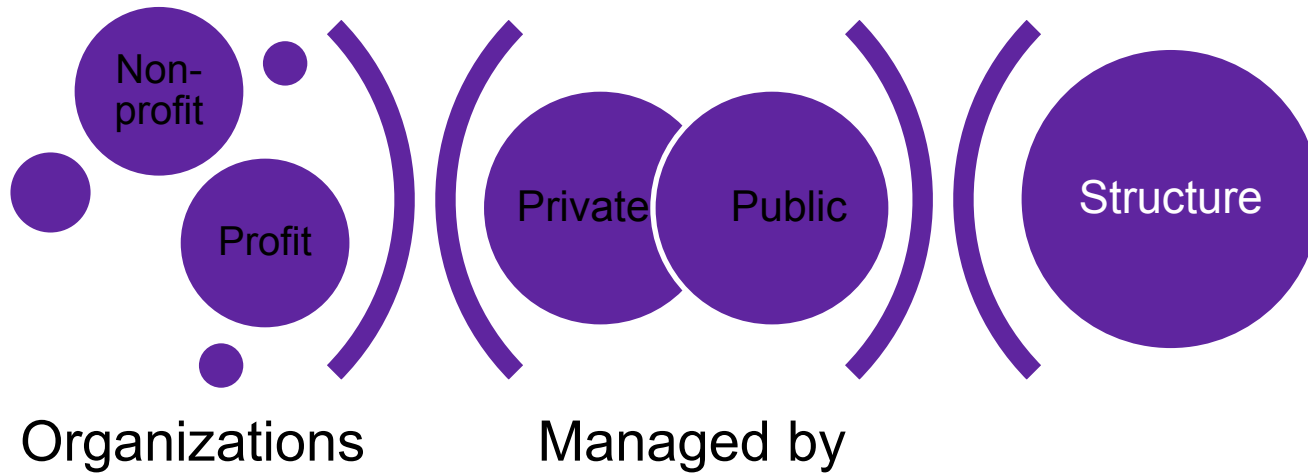
Stakeholders



Load Generator (G)
 Load Beneficiary (B)
 Logistics Services Supplier (LSS)

Theoretical framework

Steering



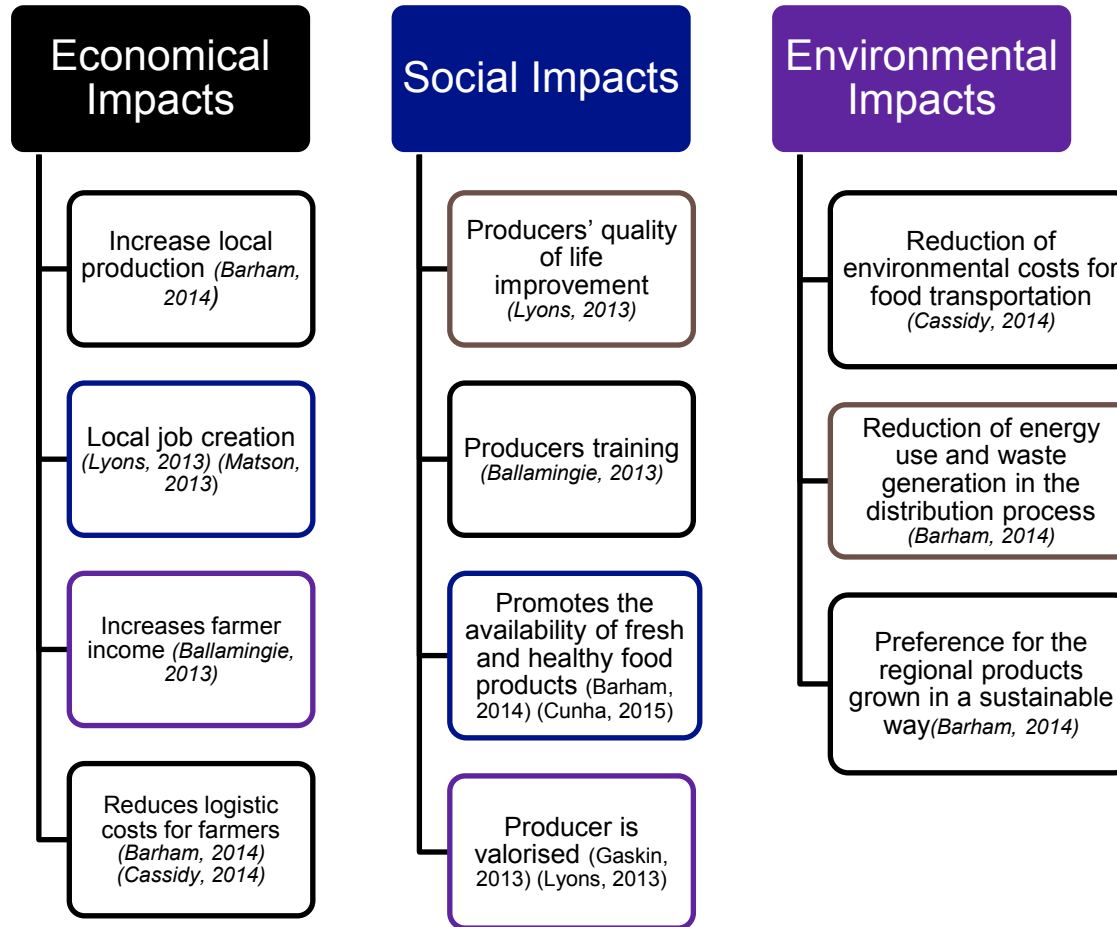
Theoretical framework

Functions

Comercial	Logistic
<ul style="list-style-type: none"> • Markets of local producers who provide sales services . • Retail or diversified: Activities such as wholesalers, retailers, and training, among others. • Processing of convenience : Activities that add value to the product (washing, peeling, and cutting food). 	<ul style="list-style-type: none"> • First mile Consolidation : Works directly with producers to collect and store different products from various communities to centralized locations. • Last mile Distribution: They distribute products to end customers . • Processing conservation: The foods are processed with relatively complex storage conditions for product preservation including canning, pickling, and preserving in cold rooms, among others.
Transversal	
<ul style="list-style-type: none"> • Physical Services: physical aggregation, classification, packaging, sale and delivery of products. Infrastructure area: 5,000-10,000 square feet • Intangible Services: They are specialists in coordinating, payment, marketing and product promotion. Infrastructure area: 1,000-4,000 square feet. 	

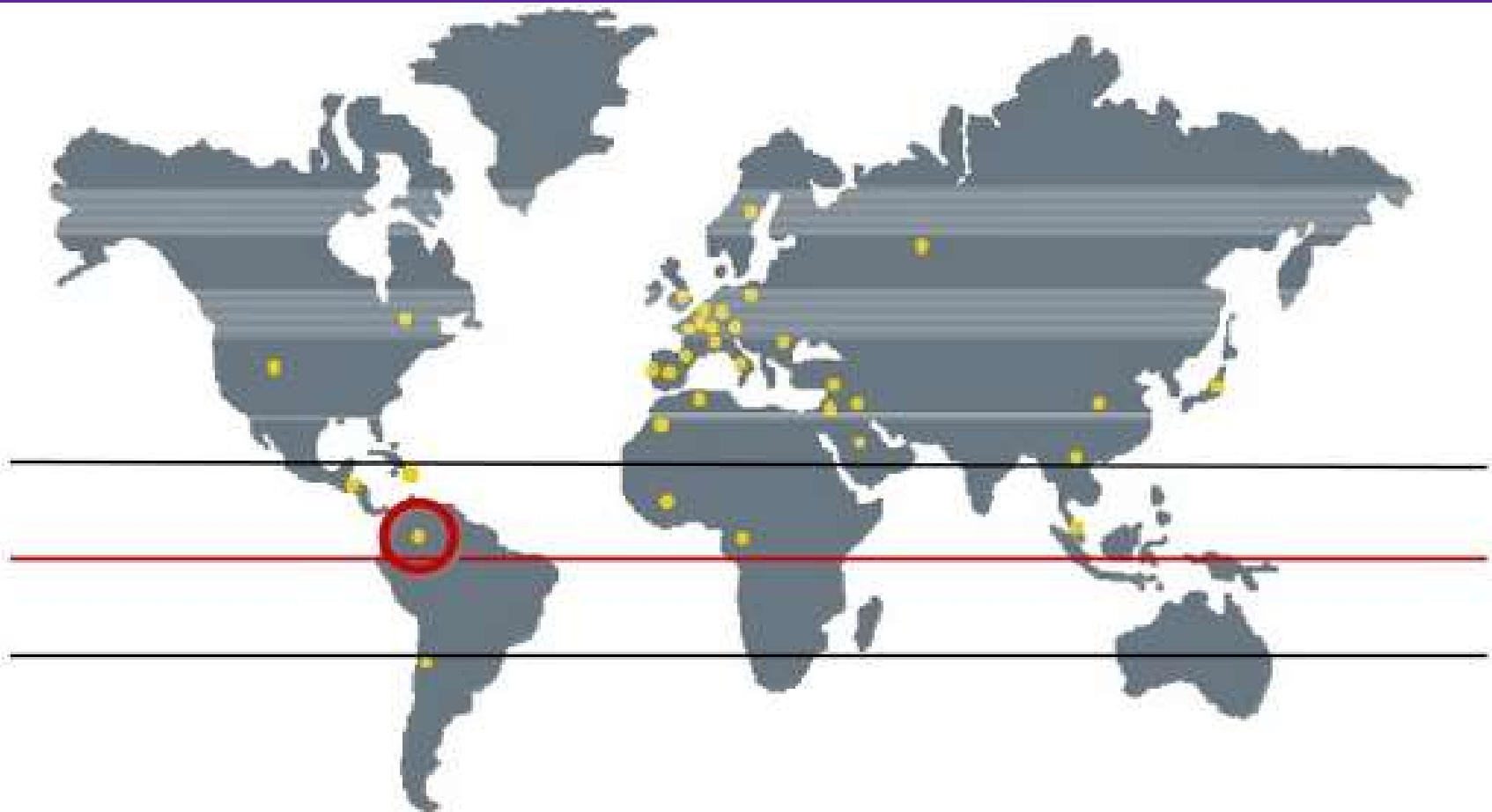
Theoretical framework

Feed the cities..........but in a sustainable way



Case study

Corabastos → Bogota, Colombia

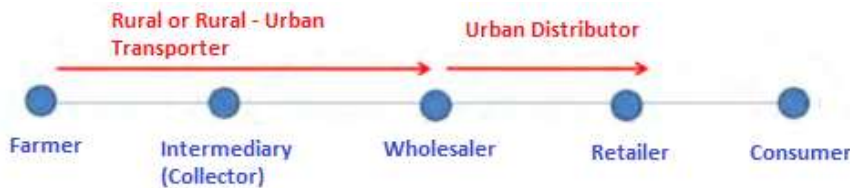


Case study

Corabastos → Bogota, Colombia

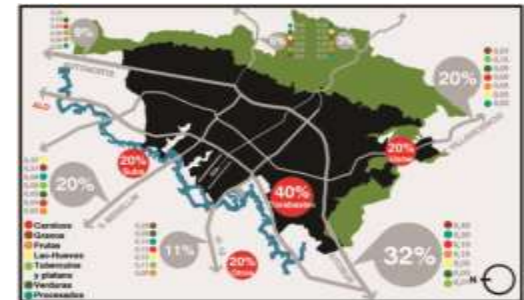


- Population : 9.2 millions
- 8 accessible ways
- 24/24hours and 7/7days logistics activities
- 200,000 tons of goods per day (IDB,2014)
- 2,000 daily routes associated with goods transportation



Case study

Corabastos → Bogota, Colombia



Approvisionnement de nourriture pour la ville de Bogota.

- Every day:
 - 250,000 people
 - 12,500 vehicles
 - 6,500 wholesalers and retailers
 - 500 products
 - 12,400 tons
 - 40% of Colombian market

Warehouse type	Number of warehouses	Area (m ²)	Storage capacity
1	6	400	51 -100 tons
2	26	225	Until 50 tons

Case study

Urban Logistics Spaces (ULS)

Urban Distribution Centers (UDC) – Semi-private - Specific

City Logistic solutions



Food hub

Impacts

ECO

- Product differentiation strategies
- Development of local enterprises

ENV

- Generates 100 tons/year of organic wastes

SOC

- Employment generation
- Availability of fresh and healthy local food products.

Stakeholder	Steering	Fonctions
<ul style="list-style-type: none"> • Led by the wholesale • Hybrid model 	<ul style="list-style-type: none"> • Food Hubs in private hands • Led by the public sector 	<ul style="list-style-type: none"> • All commercial • Logistic: <ul style="list-style-type: none"> • Last mile Distribution • Processing conservation

Conclusion

- **Regarding the Food hub concept**, there is not an unified vision
- **We present** a characteristics for Urban logistics based on food hubs
- **Case study** : Illustrate the framework

Limits

- *This is a exploratory study*
- *It is necessary to analyze other case studies in different realities*

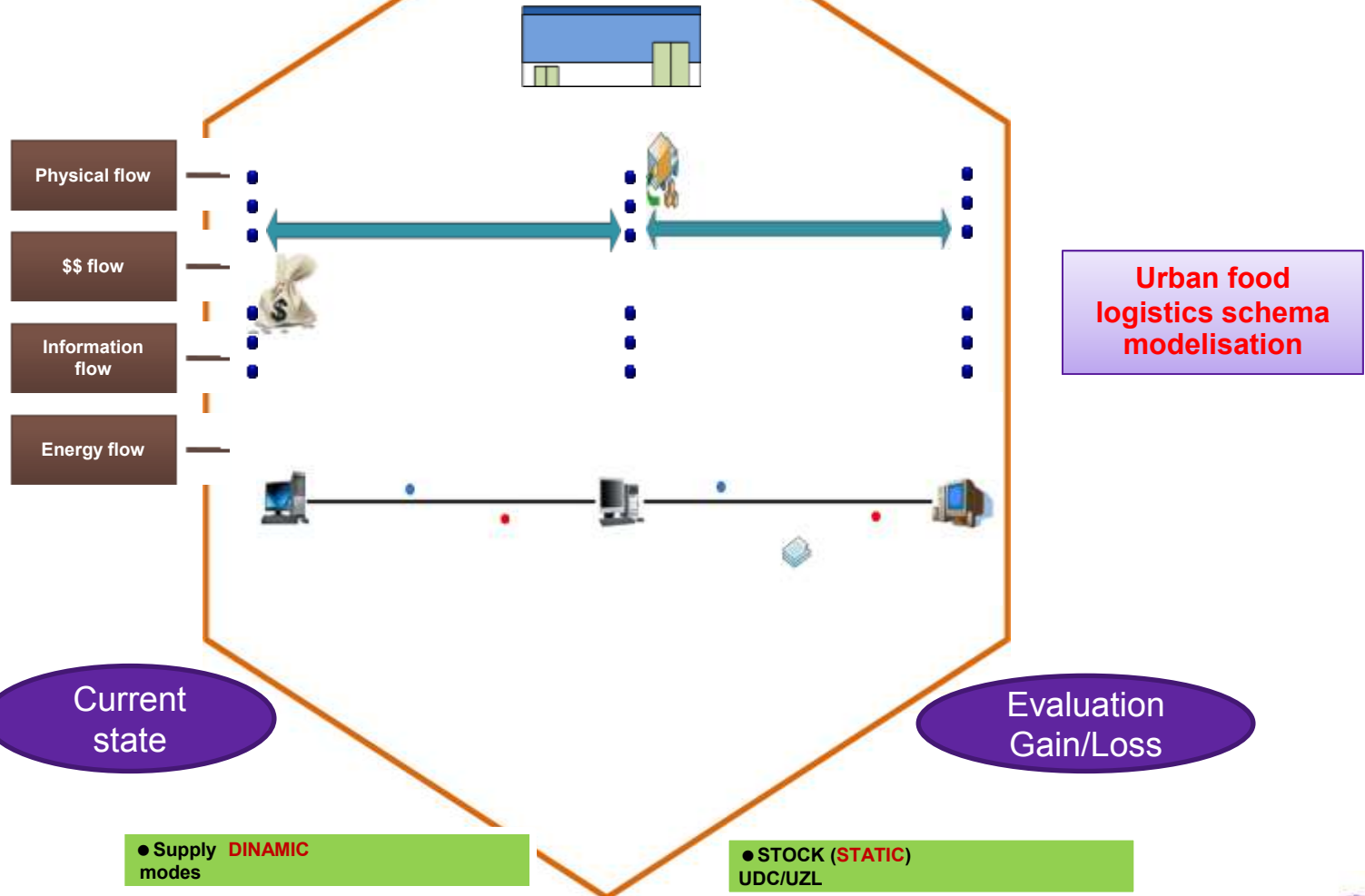
City Logistic

Perspectives

Producer

Food Hub

Consumer





Thank you

Any question?

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Case study

Corabastos → Bogota, Colombia



Product relevance	Rate of daily sales	Tons sold daily	Products
1	33%	2158	Vegetables: Welsh onion, onion bulb, peas, corn and carrots.
2	26%	1700	Potatoes
3	25 %	1635	Fruit
4	6%	327	Bananas
5	8%	523	Grains and processed
6	2%	131	Eggs , meat and dairy