



Research project 2017 - 2021

Surfood **FOODSCAPES**

Sustainable Urban Food Systems

The impact of urban foodscapes
on peoples' food styles:
insight from the Greater Montpellier area

AESOP – Sustainable Food Planning Spring
Webinar Series

15 April 2021



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<https://www.foodscapes.fr/>

Why focus on foodscapes?

- **Global issues:**

- The living environment (e.g. built, social, and food) may affect health and well-being (HLPE 2017, Goenka et al. 2016)
- Rising concerns about social and spatial inequalities in public health and food access
- Living in 'food deserts', i.e. in areas where physical access to grocery stores and supermarkets is limited, could be a health issue (Beaulac et al. 2009, Walker et al, 2010)
- Growing literature on food environments, foodscapes, food deserts - mirages – swamps - oases ...

- **In France:**

- Very few studies, foodscapes show both « fast food » and « slow (local) food » trends
- Their impacts on food styles are unknown, results vary (Casey et al. 2012, Chaix et al. 2012, Drewnowski et al. 2014, Pinho et al. 2019)

The FOODSCAPES project

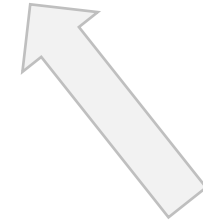
Impacts of urban foodscapes on foodstyles



- Food outlets, restaurants
- Farming areas: urban farms and community gardens
- Food messages (TV, media, advertisements)



Individual factors
(socio-
démographics)



Shopping
Cooking
Eating,
etc.

- Food practices
- Nutrition
- Representations

Obesity, overweight

Literature focuses on:
Fruits & vegetables
fast foods & fats, ...

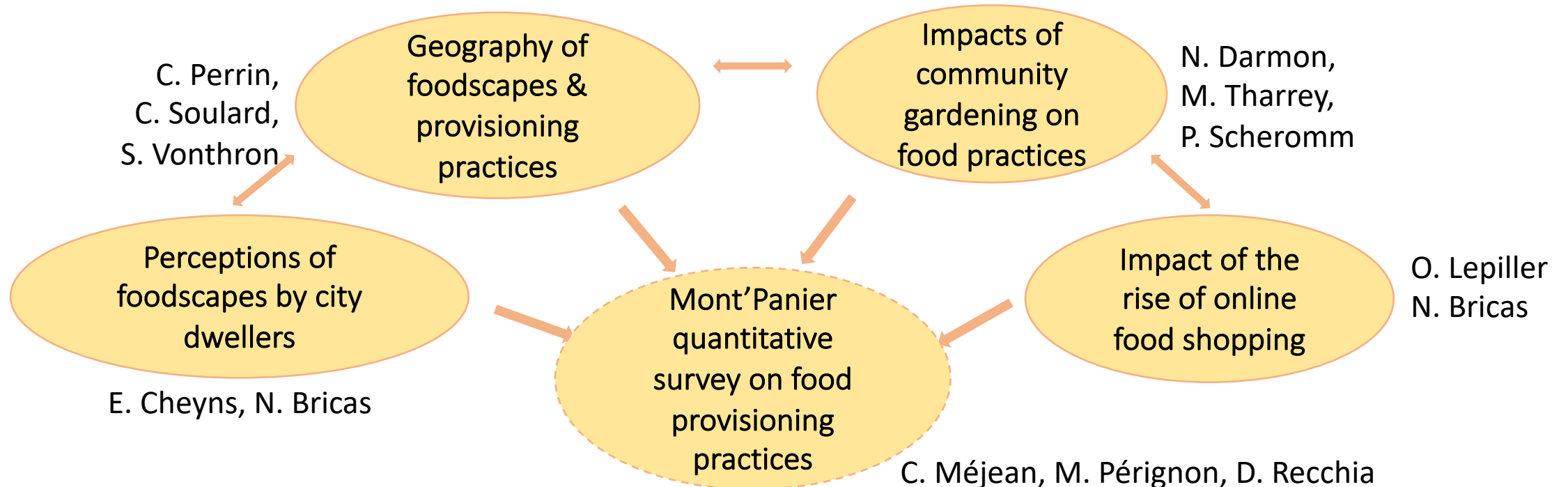
(Sacks et al. 2019)

The FOODSCAPES project

- **Objectives :**

- Understand the **impacts of foodscapes on peoples' food styles** in the Montpellier city-region
- Provide local authorities **operational levers for improving food accessibility and sustainability**

- **Interdisciplinary team:** geography, GIS, marketing, nutrition, public health, sociology



Foodscape: a scoping review

Vonthron, Perrin et Soulard, 2020 *Plos One*



Cummins et al. 2002, Clary et al. 2017, Lake et al. 2010, Maguire et al. 2017, Lebel et al. 2012

Physical access to food outlets
City or neighborhood scales
Public health issue - maps

Spatial approaches – GIS, stats, impacts on diets

Mikkelsen 2011, Torslev et al. 2017, Lindberg et al. 2018, Sobal et Wansink 2007

Consumption behaviors
Food education issue
In-door micro-scales, individual

Behavioral approaches – consumer perceptions in food outlets or canteens

Foodscape

Social & cultural approaches of food procurement practices

Access is multidimensional
Structural inequalities – food justice issues
People, neighborhood, city scales

Miewald et McCann 2014, Hammelman 2018, Kwik 2008, Coackley 2010

Systemic approaches of food systems

Institutional, economic, cultural & political landscape
Contest the global corporate food regime
Promote local ethical AFN – sustainability issue

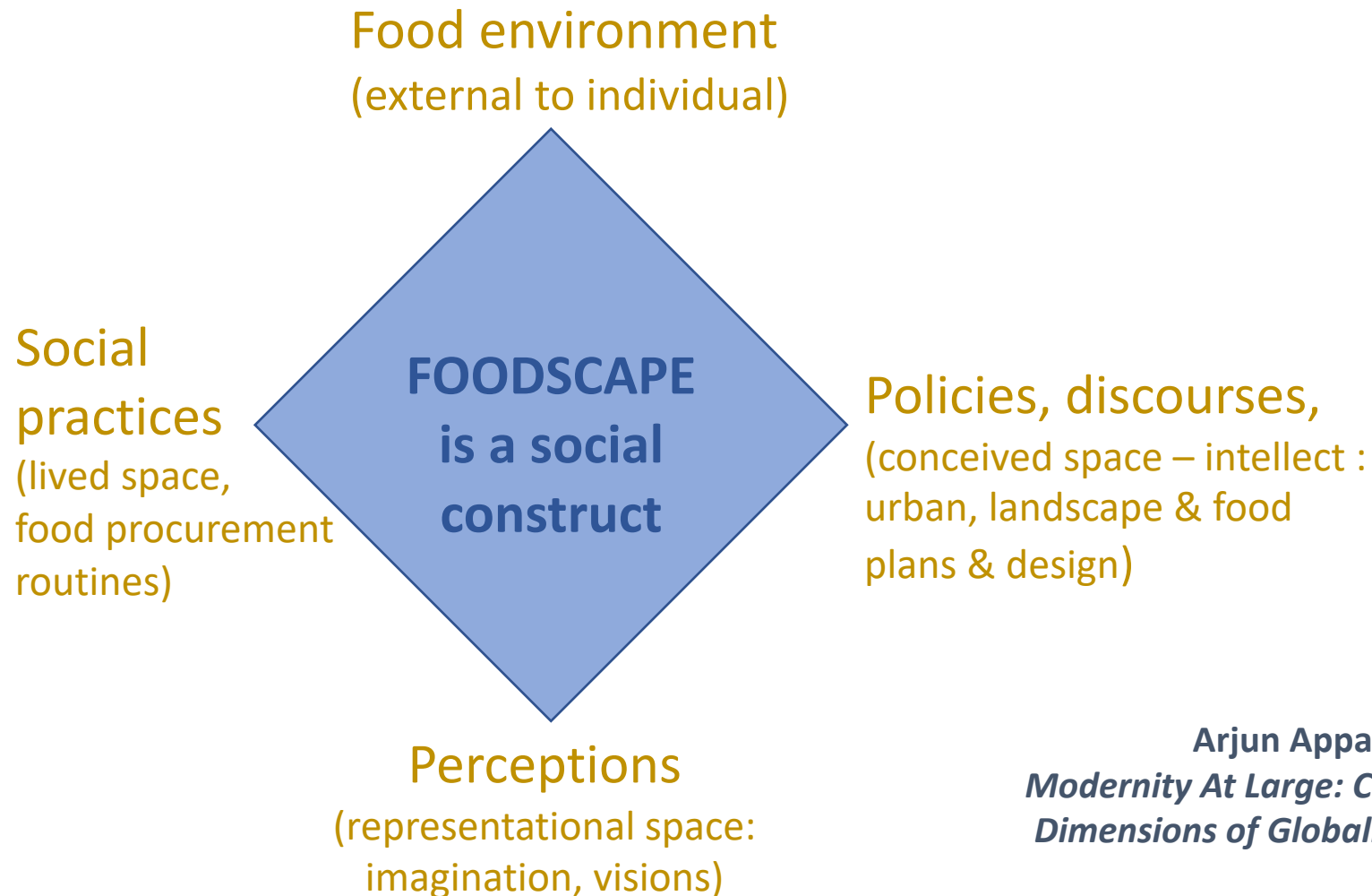
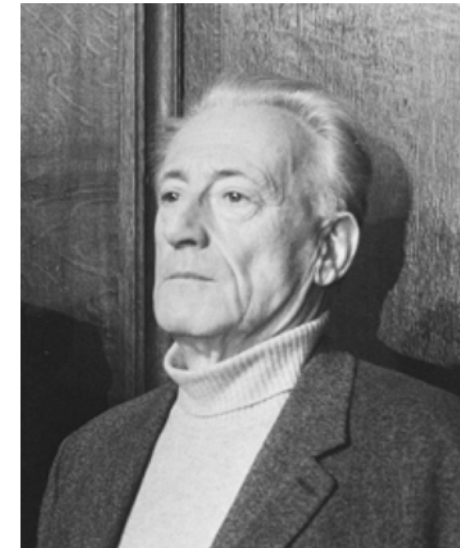
Goodman et al. 2010, Morgan et al. 2010, Fraser 2017, Sonnino 2013, Carolan 2017

4 dimensions to understand the foodscape

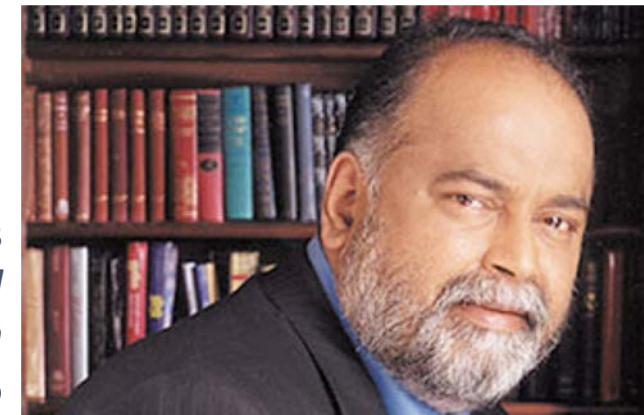
Vonthron, Perrin et Soulard, 2020 *Plos One*

inspired by

Henri Lefebvre's *Production of space* 1976



Arjun Appadurai's
*Modernity At Large: Cultural
Dimensions of Globalization*
1996



Mapping the foodscapes of Montpellier

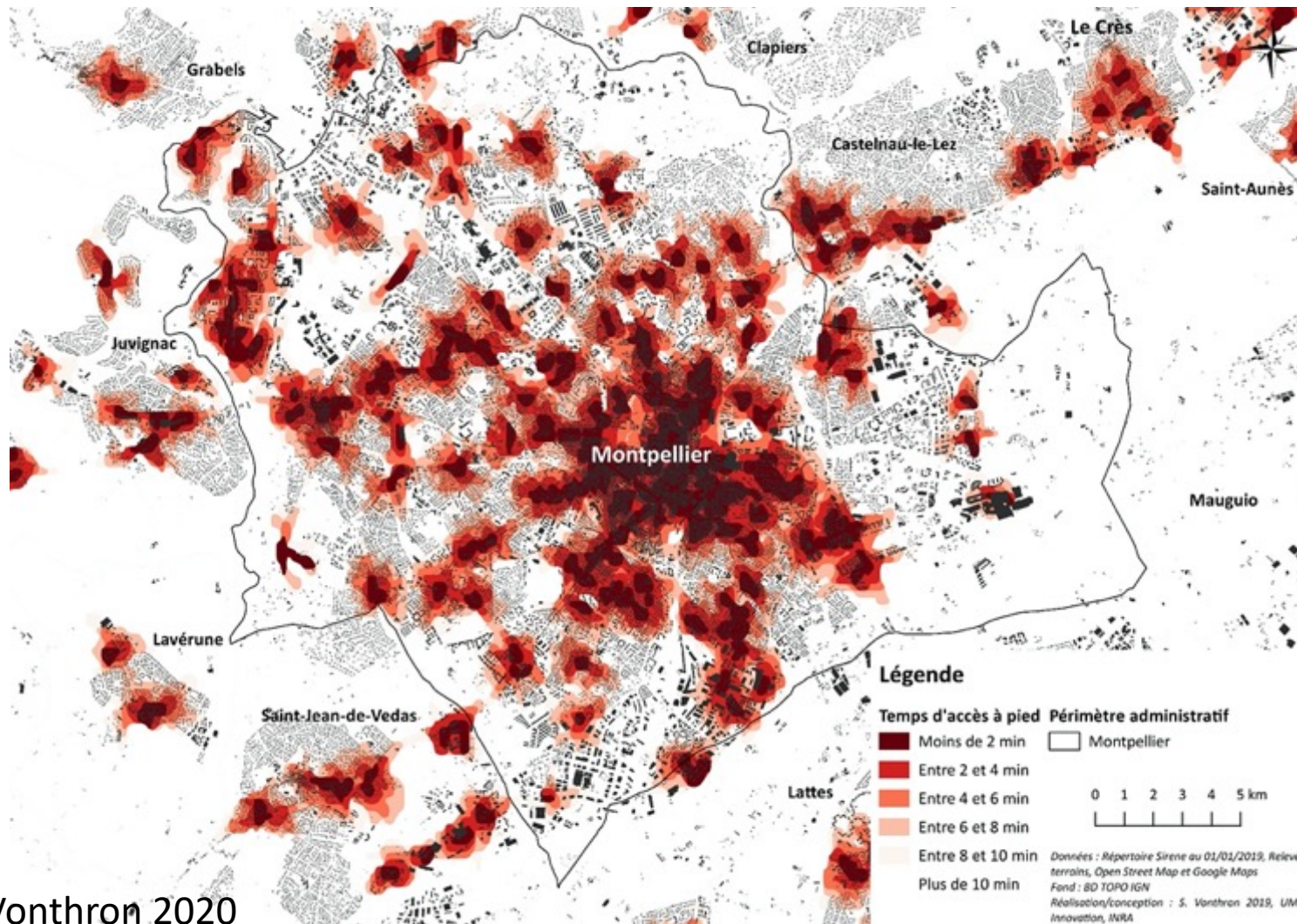
Pedestrian access to fruits and vegetables



sirene.fr



OpenStreetMap
France



- **Commercial food outlets**

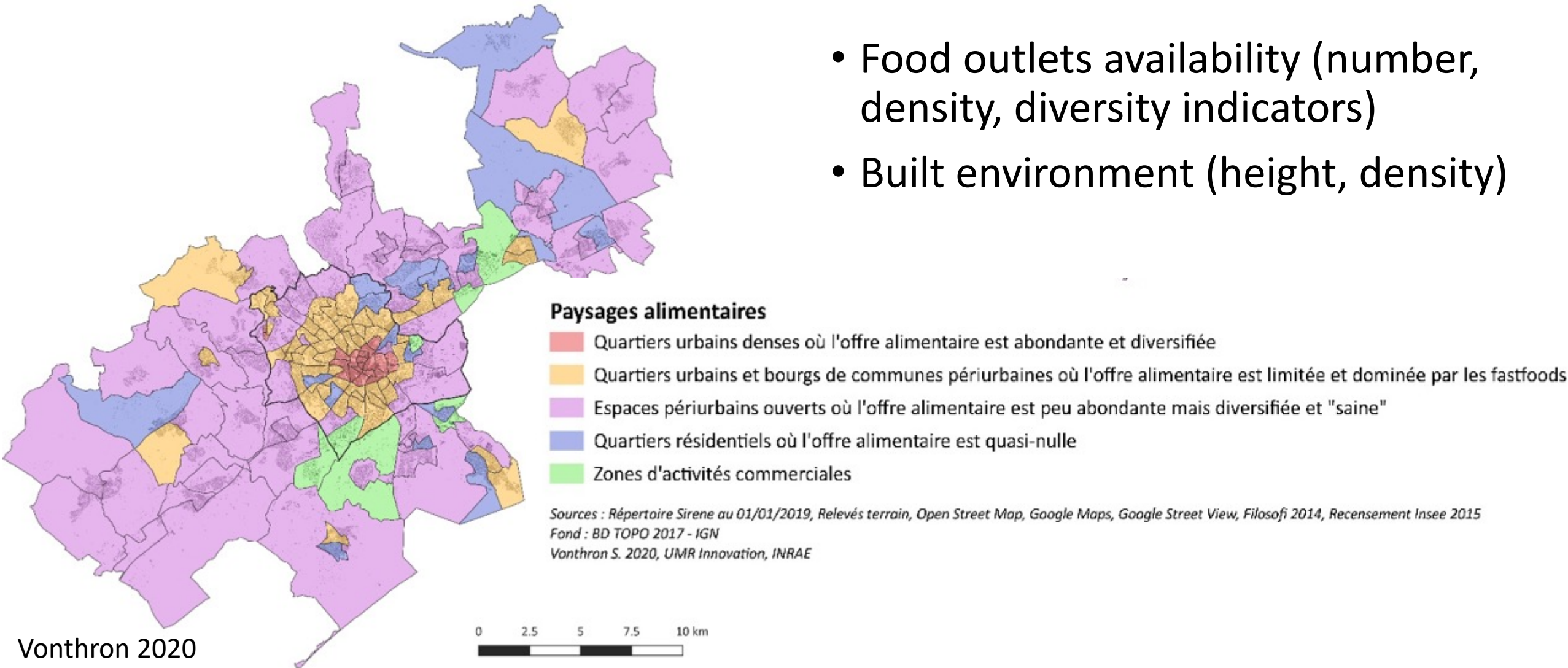
- Types of outlets, restaurants
- Access by means of transportation
- Identify potential food deserts/food swamps

- **A metropolitan observatory of food outlets ?**

Mapping the foodscapes of Montpellier

Diverse types of foodcapes

- Food outlets availability (number, density, diversity indicators)
- Built environment (height, density)



Trace foodscapes' transformations

Mai 2008



Octobre 2008



Novembre 2010



Juillet 2012



Juin 2016



Juillet 2019



evolution of a commercial storefront in 10 years



A new small periurban shopping center...



has replaced the old bakery and grocery store

- Fast turn over of food outlets
- Growth and diversity of online purchases, which are linked to other supply methods (e.g. CSA and supermarkets)
- Levers of action in the hands of local authorities (public spaces, commercial spaces, food markets/halls, transportation policies)

Perception of foodscapes by city dwellers

E. Cheyns

- Methods: in-depth interviews, visual auto-ethnography (native image making, photo elicitation), drawings, commented walks
 - food procurement practices, routes and routines are related to other social practices
 - Shopping is not just about "buying". It is also about the atmosphere of a place



- People speak of efficiency, but also of ease, flânerie, exploration
- Proximity or price are not the only criteria to choose food stores: also information, familiarity with the place, opportunity to meet people
- Sensitive dimensions of foodscape: noise, smells, cleanliness, etc.

Buying food and eating out-of-home, i.e. navigating the foodscape, are **ways of living in the city, of feeling integrated into it: ambiances, sensitive materialities of the place and social life dimensions to be taken into account in planning**

Can community gardens promote more sustainable lifestyles?

- Novice gardeners mentioned several difficulties in getting involved in their community garden, which they visited irregularly. This could explain why ...
- **No change in lifestyles after 1 year using a community garden**



credits: Antonio Malusà

- **Promote long-term integration and active participation of city dwellers in community gardens: location close to their homes, regular activities), = essential to enhancing lifestyle sustainability.**

[To know more: Tharrey M., Darmon N, 2021](#)

Survey on food provisioning practices

Quantitative survey & qualitative interview 2018-2019



1



Web questionnaire
(738 households)

2



Food purchase log & receipts (426 households)

3

Interviews

- **Reported practices:**

- Activity space (home + 2 places)
- Food outlets regularly used
- Perceptions of foodscape

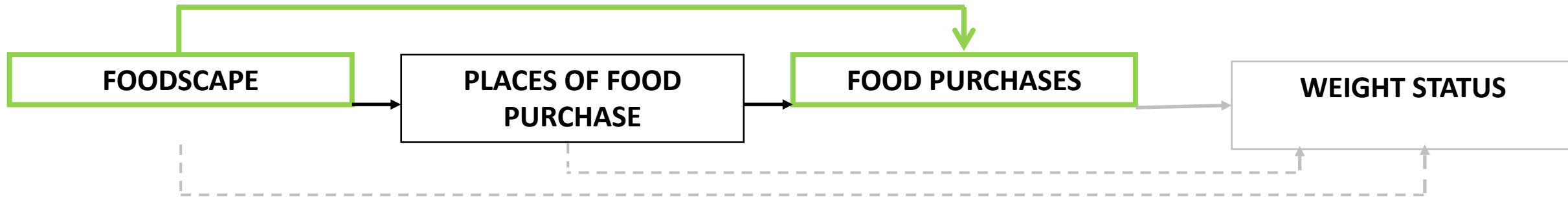
- **Actual food purchases** (1 month)

- Location of food outlets used
- Mean of transportation
- Food items
- Expenses

- **Food procurement strategies**

- Logics of practice (how & why)
- Perceptions of foodscape

Assess the impact of foodscapes on food purchases



GIS & geographical indicators

Number ; Presence ;
Absolute / relative density
Of various types of food outlets

Vonthron 2021



Use / non-use)
Frequency of use
Share of expenses
For various types of food outlets



Sustainability of purchases :

- **Nutritional quality**
- Cost
- Environmental impact

Tharrey et al. 2018

Perignon et al. 2021

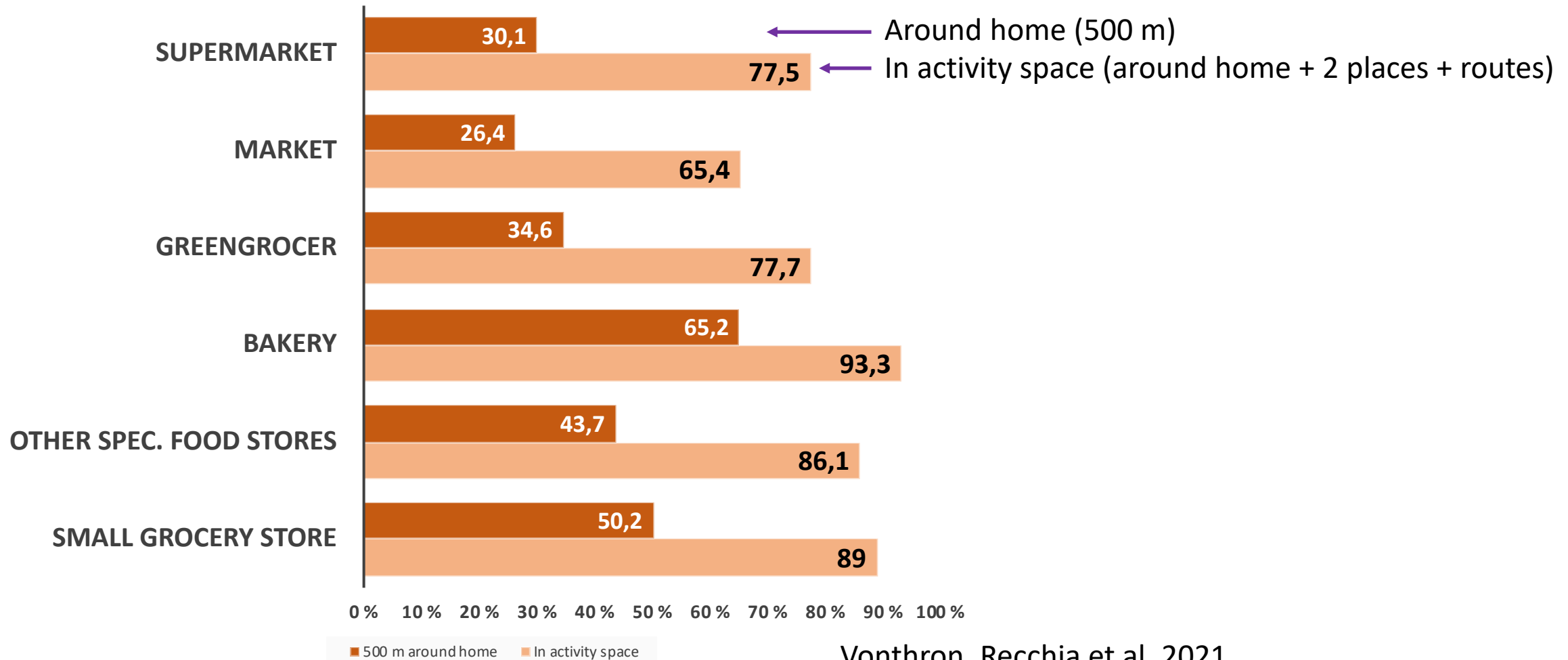
Evaluation of the nutritional quality of households' food purchases: revision and validation of the Healthy Purchase Index (r-HPI)



Body Mass Index
Obesity (yes/no)
Overweight (yes/no)

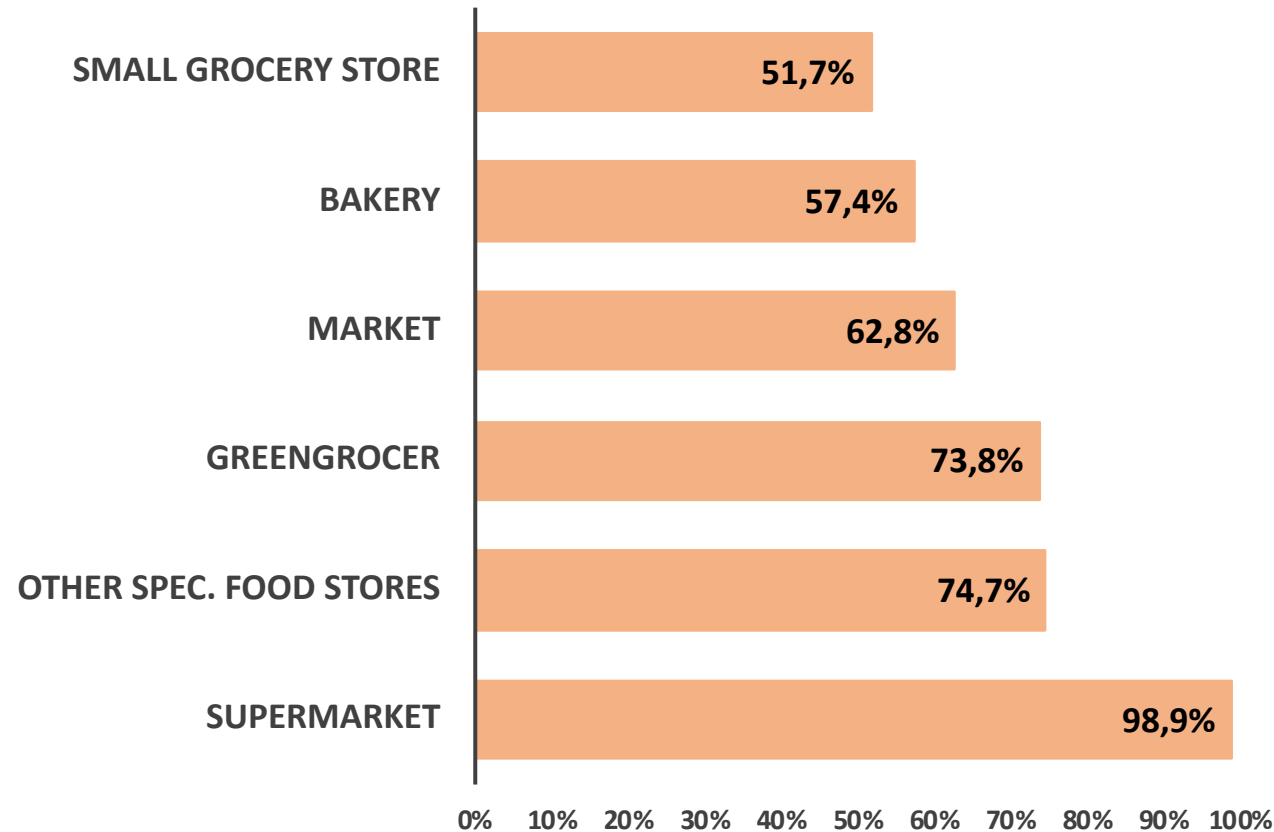
Foodscape exposure of 462 households

Presence of food outlets

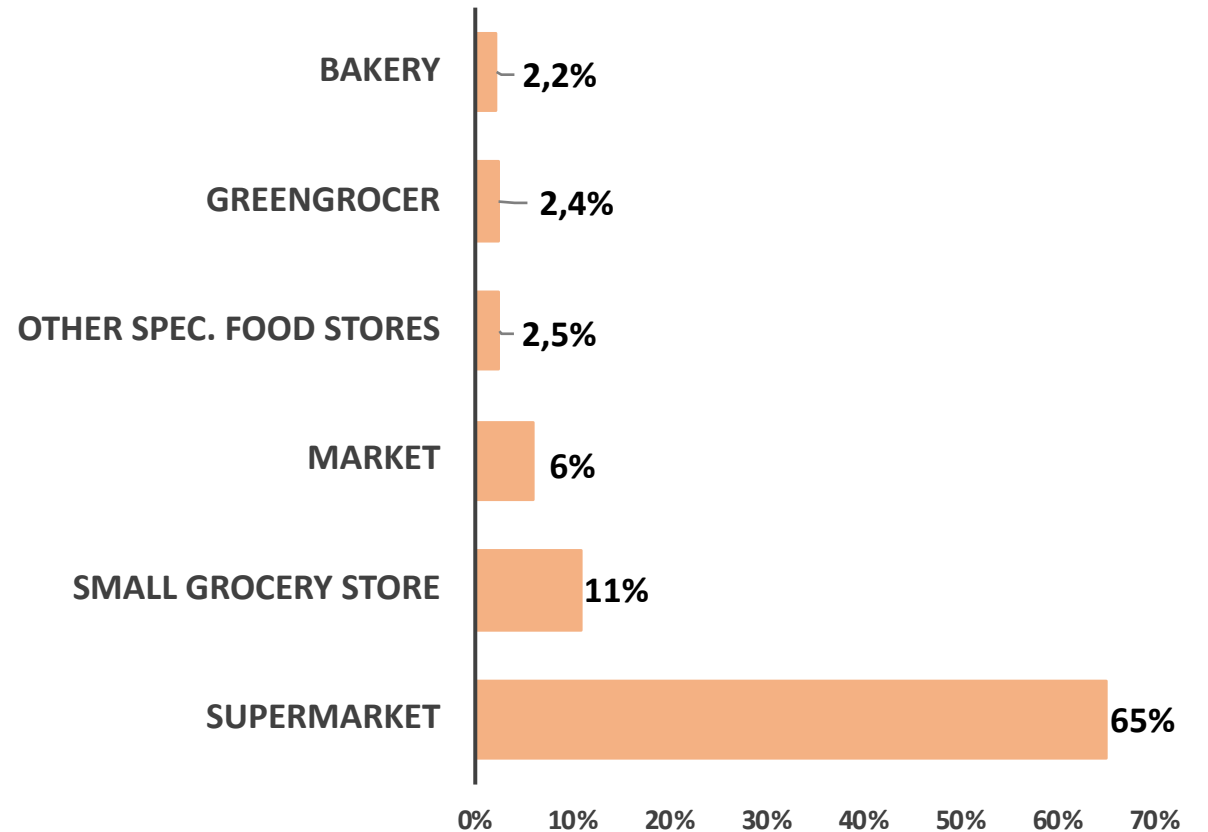


Where do people buy food?

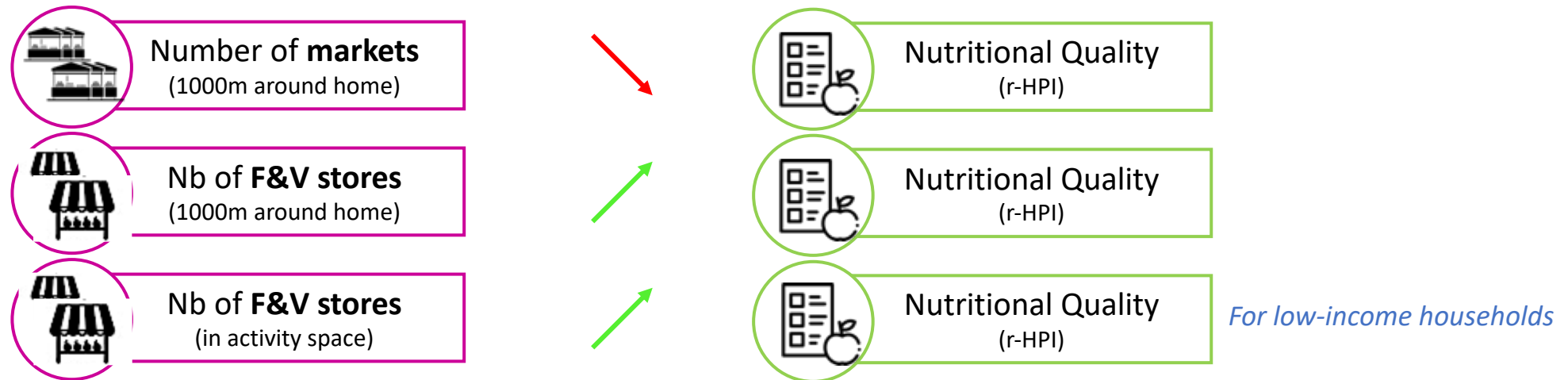
Where did households go to buy food in one month?



Share of expenses



First results: impacts of foodscape exposure on nutritional quality of food purchases



To know more: watch [the presentation given by D. Recchia on 26 March 2021](#)

Daisy Recchia, Marlène Perignon, Pascaline Rollet, Simon Vonthron, Coline Perrin,
Marion Tharrey, Nicole Darmon, Thierry Feuillet, Caroline Méjean

Conclusion

- **Very stimulating interdisciplinary field of research between geography** (GIS, food, retail, health, urban geographies), **public health-nutrition, sociology and urban food planning**
- More time required to produce robust quantitative results
- **First recommendations for urban planning:**
 - Create an **observatory of food outlets to map foodscapes** and adapt commercial policy to neighborhood foodscape profiles
 - Consider not only proximity to food outlets, but also price, quality, place atmosphere: **sensitive, social, cultural and pleasure dimensions of foodscapes**
 - Neighborhood meetings and/or urban walks to define the desired food landscape
 - Particularly in neighborhoods with few food stores, or before urban transformation projects
 - Support a **more active participation of city dwellers in community gardens**



Research project 2017-2020

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To be continued!

To know more: <https://www.foodscapes.fr/en>

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