

## Health spatial accessibility index (SCALE) in metropolitan France

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### Introduction

Access to care is a major public health issue. Many studies have highlighted that the social component of the accessibility was determinant in patient care. The influence of the geographical component is more debated in the literature because of its great variability between countries and the difficulty of obtaining aggregate measurement tools.

SCALE index has been computed at a geographical scale greater than municipality to have a fine representation of the territory. Moreover, it provides an overall measure of access to care including various health professionals.

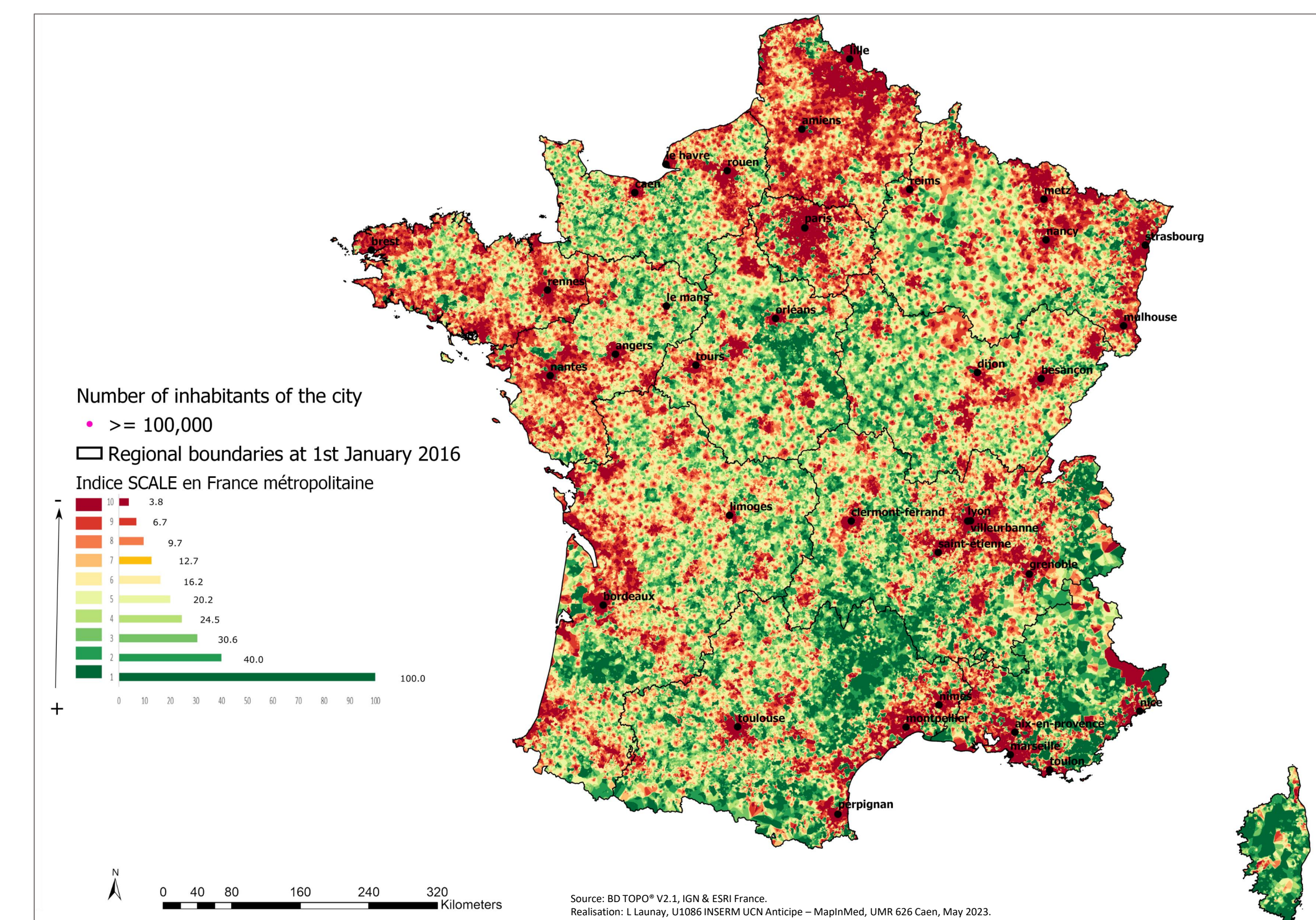
### Materials & Methods

#### Materials

- \* Population was located at centroid of residential areas (n≈2,8 M) obtained by aggregating the residential built environment (BD TOPO V2.1, ESRI France & IGN).
- \* The equipment included (n≈260,000) were: general practitioners, physiotherapists, nurses, pharmacists, dentists, medical obstetricians and gynaecologists, maternity wards, paediatric specialists, ophthalmologists, short-stay care services and accident and emergency departments (Permanent Facilities Database of 2013, INSEE).

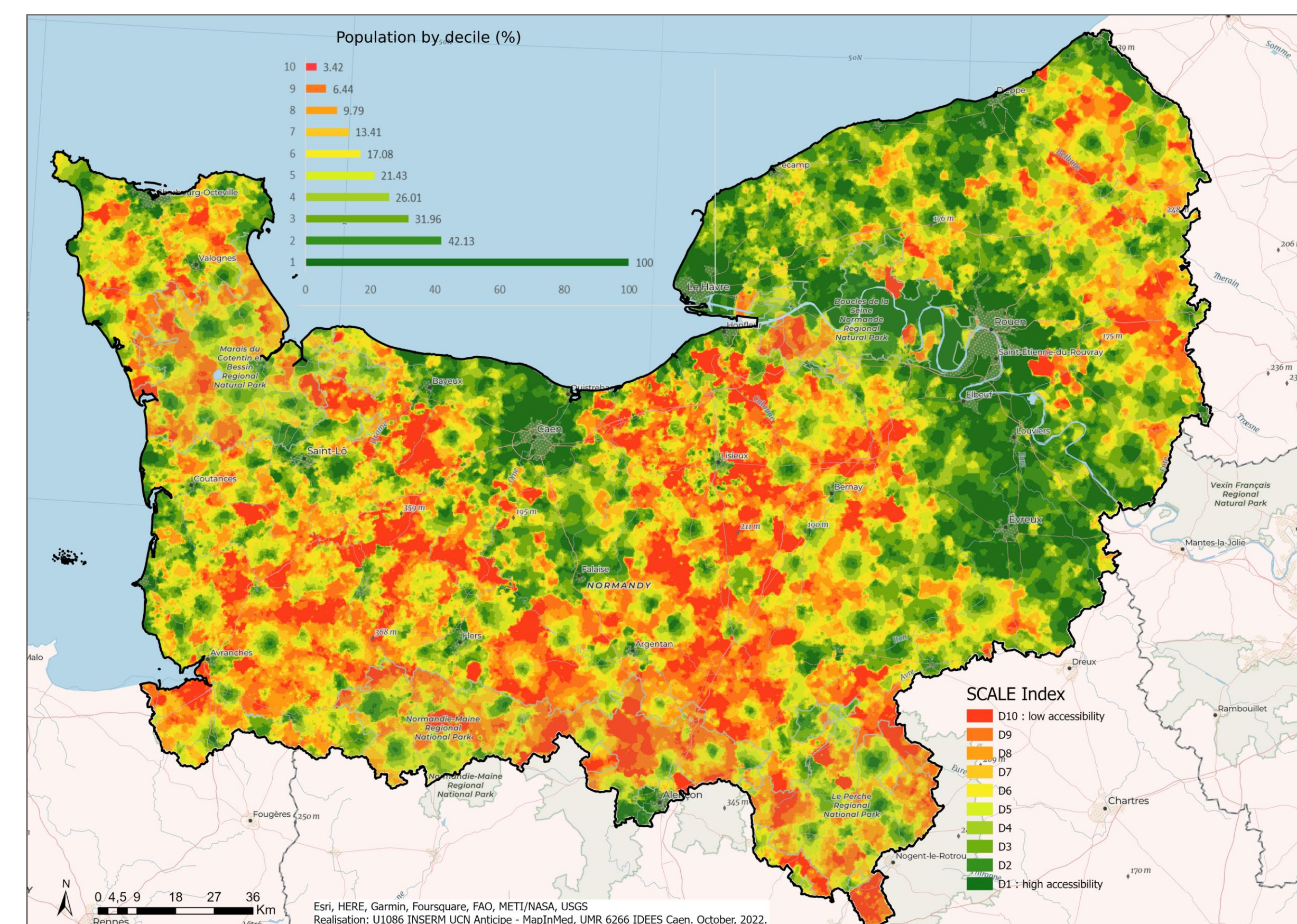
### Results

The mapping and the description of the index are available for metropolitan France (map 1) and for each region :

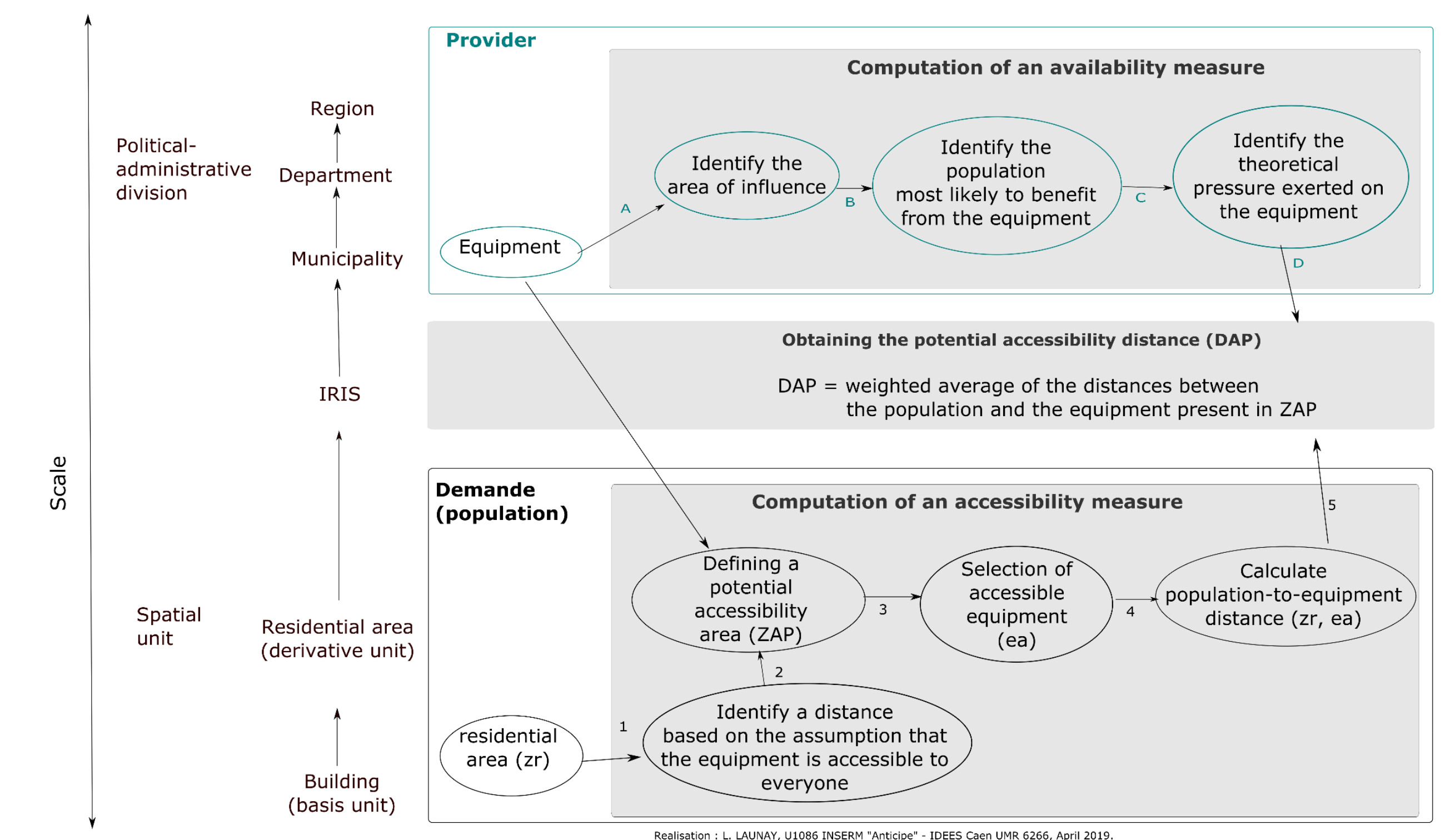


Map 1: Accessibility to health care in Metropolitan France

9.7 % of french population have a low accessibility to health care services (the last 3 decile), 9.8% for population living in Normandy (Map 2).



Map 2: Accessibility to health care in Normandy



### Methods

Accessibility combines the proximity of the equipment and its availability, both were taken into account (Figure). SCALE= the mean weighted distance (by road) to facilities accessible to the population. The weight was defined as the pressure applied on it.

### Conclusion/Discussion

The SCALE index highlights the over- or under-endowed territories in metropolitan France, but also for each region, to help implement more effective public policy in terms of health planning and to study the influence of accessibility to care on different health indicators (incidence, screening, survival, management of different diseases, etc.). In addition to the social deprivation indices, the SCALE index allows cancer registries to assess in detail the influence of socio-territorial inequalities in health for the whole of France.

### Acknowledgements

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