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Spatial (in)accuracy of CB

Esteban Bopp, Johnny Douvinet, Matthieu Péroche, N. Carles

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Q4 Spatial (in)accuracy of CB

CB : (in)exactitud espacial



Esteban Bopp,
Assistant Professor in Geography
University of Lille



Johnny Douvinet,
Professor in Geography
Avignon University



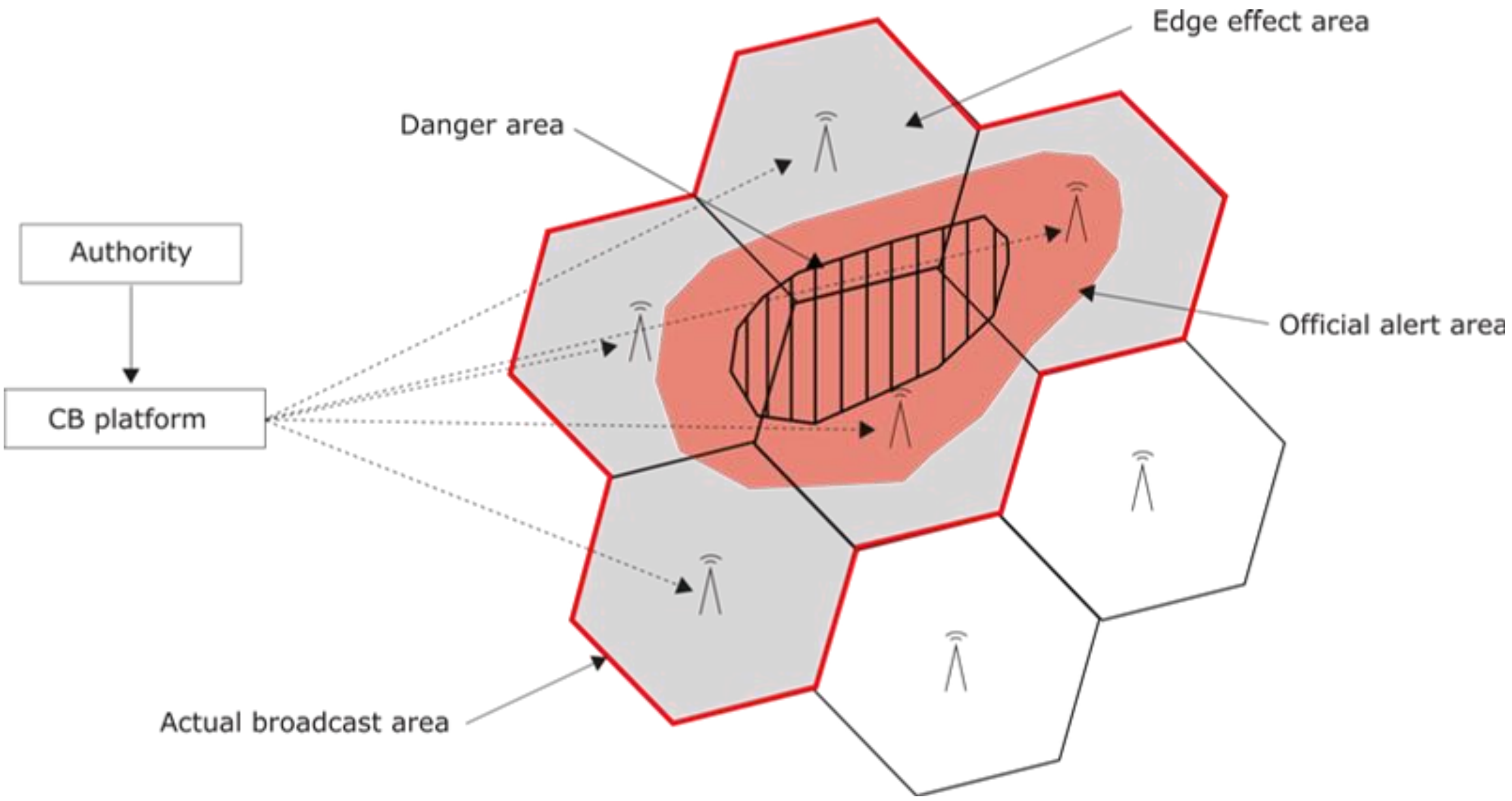
Matthieu Péroche,
Assistant Professor in Geography
Montpellier University



Noé Carles,
PhD Student in Geography
Avignon University

Research question

Pregunta de investigación



What is the spatial extent of the edge effect in an urban context?

Study background

Antecedentes del estudio

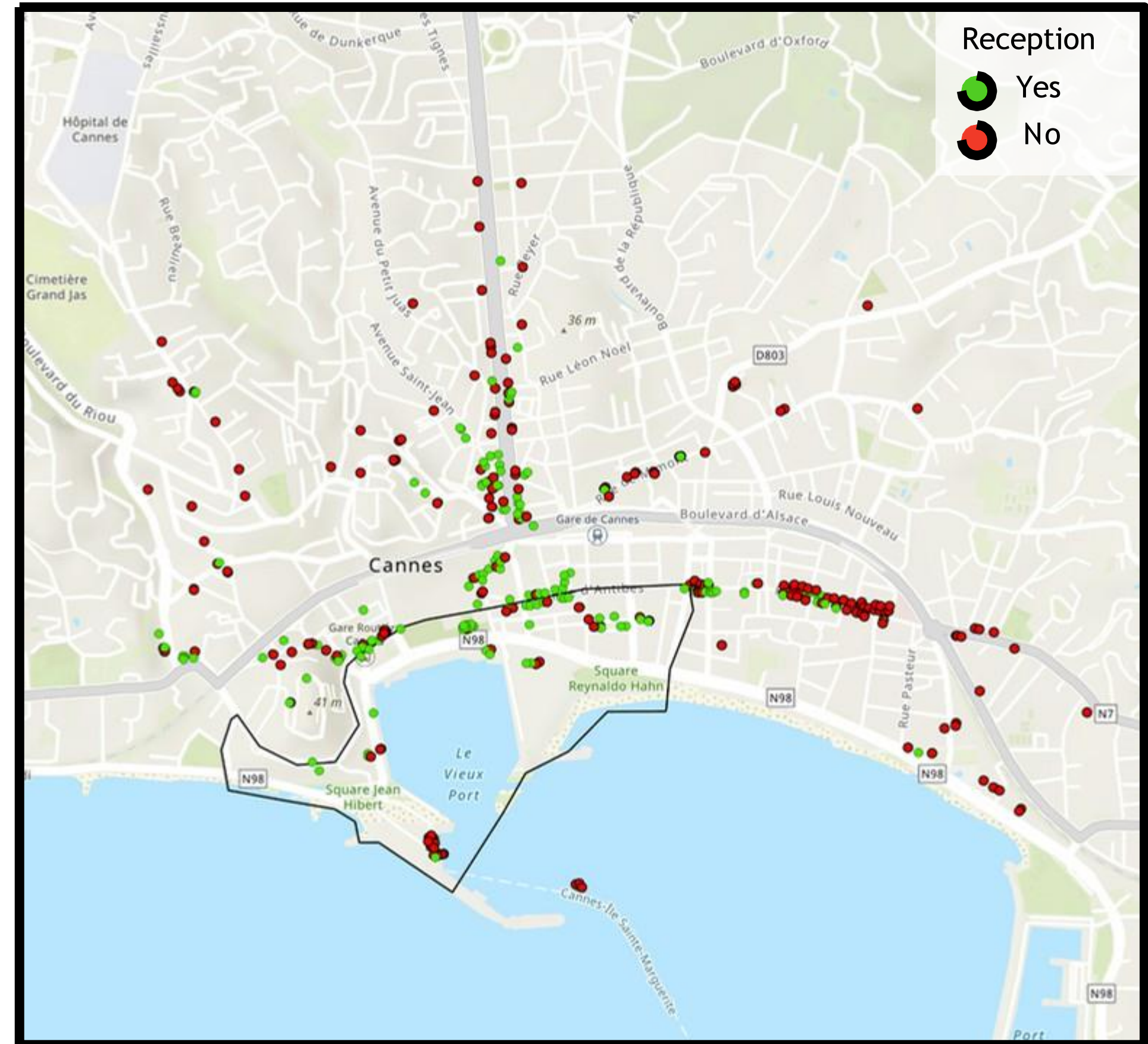
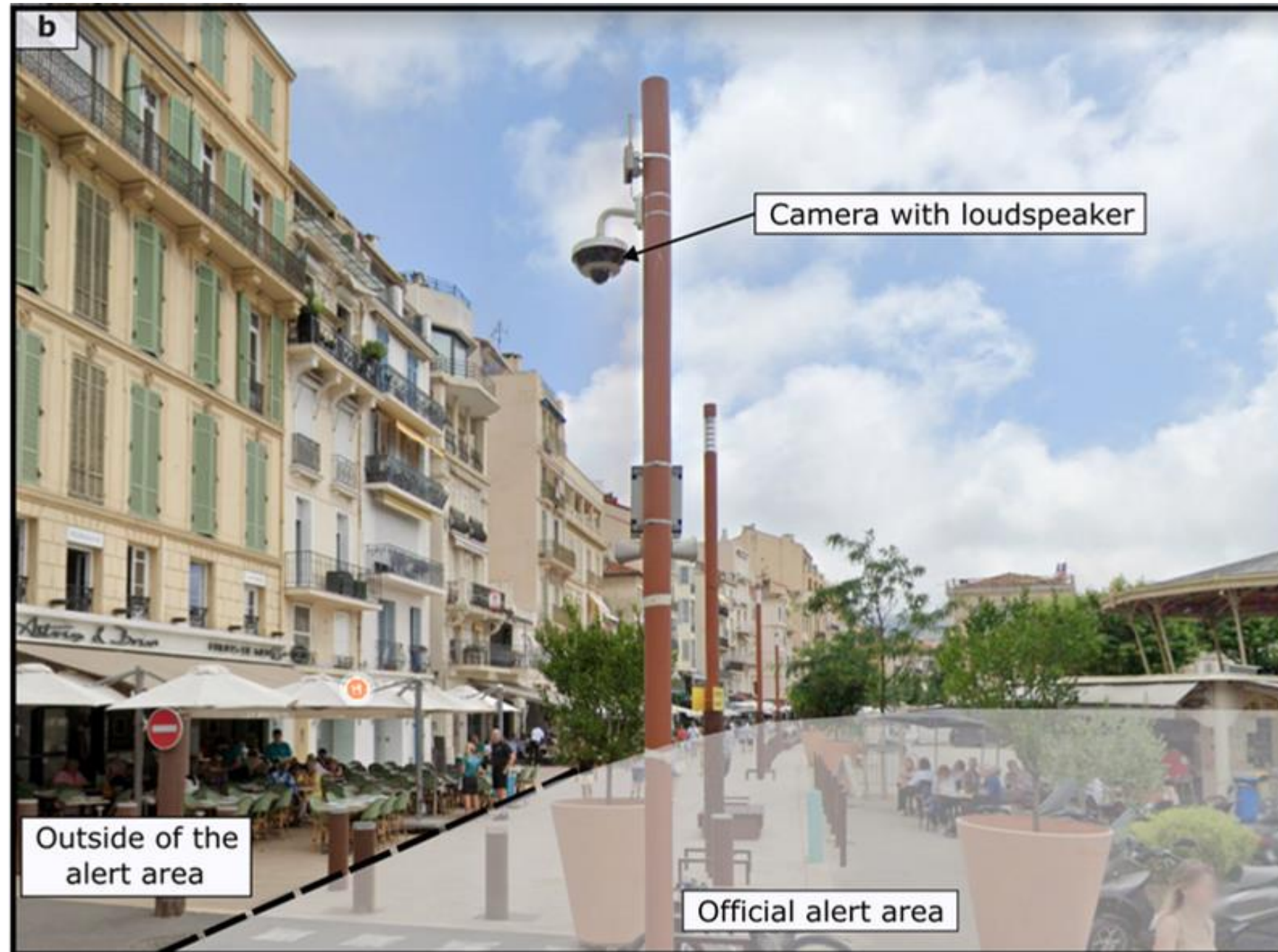


- Cannes, 75,000 inhab.
- April 2023 : tsunami alert exercise using Cell Broadcast
- Nearly 3,000 people estimated to be inside the official alert area

Data collection

Recolección de datos

Geolocation-based flash survey (n=375)



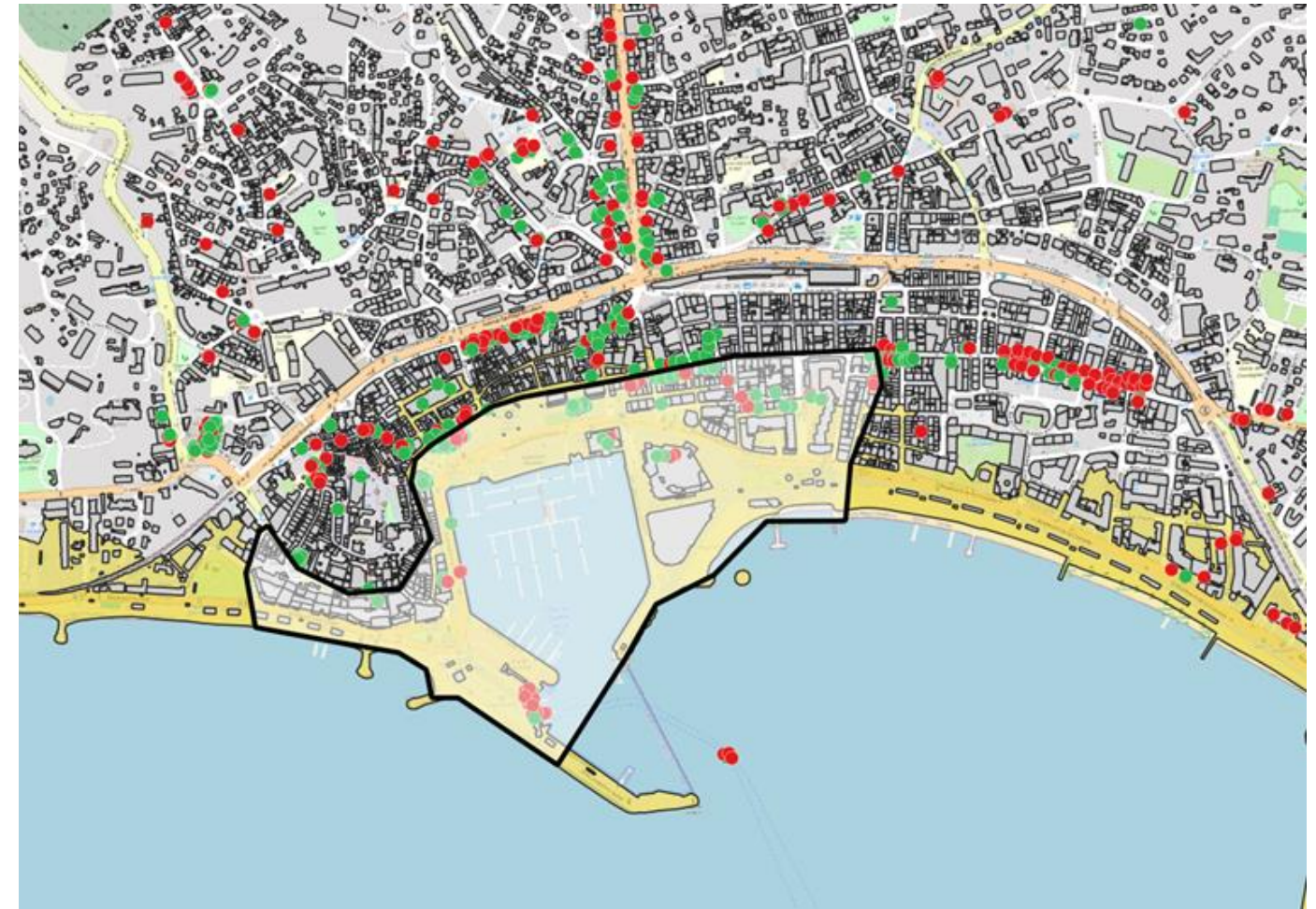
Data analysis

Análisis de los datos

1. Statistics of the reception depending on the phone operator O



2. Logistic regression of the reception (1;0) depending on linear distance D to the OAA



3. Modelling the probability of being in the broadcast area knowing O and D

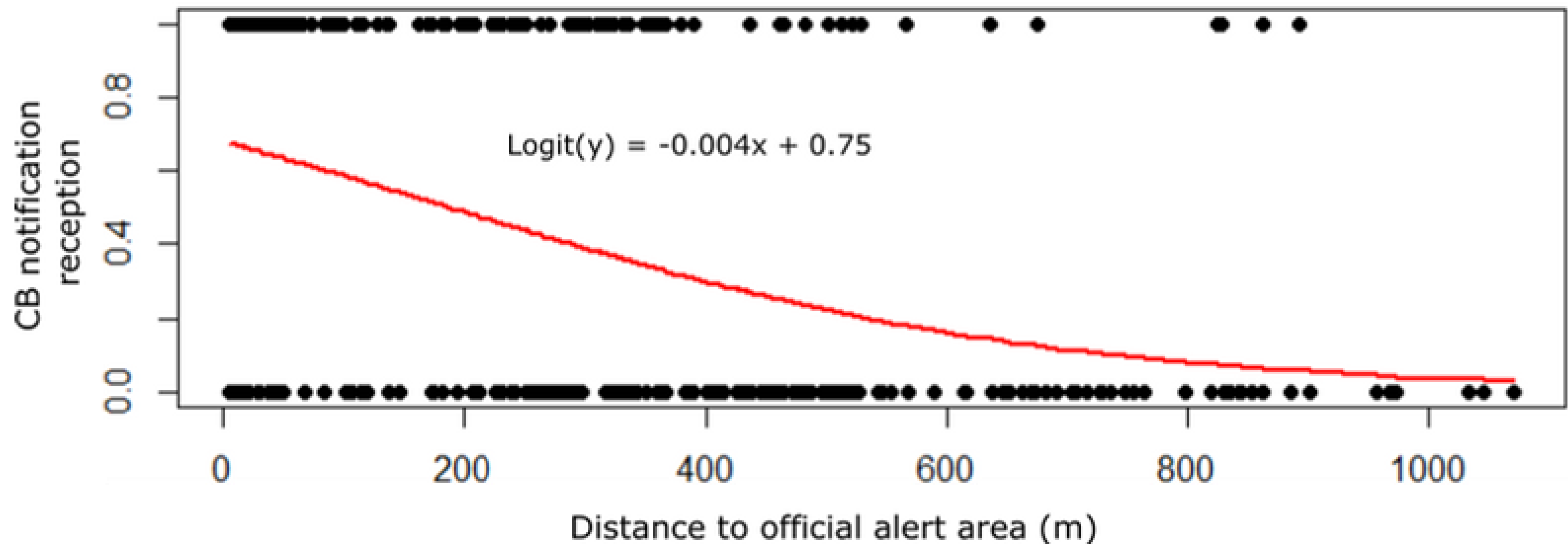
Main results (1/3)

Principales resultados (1/3)

Significal differences measured between operators

Reception	Bouygues T.®	Free®	Orange®	SFR®	Moy.	Chi² result
N=93	20	19	26	28	/	x²=28.4 ddl=3 p<0.001***
Yes	80.0%	10.5%	42.3%	75.7%	58.2%	
No	20.0%	89.5%	57.7%	24.3%	41.8%	

Small diminution of the probability of being alerted with distance to OAA

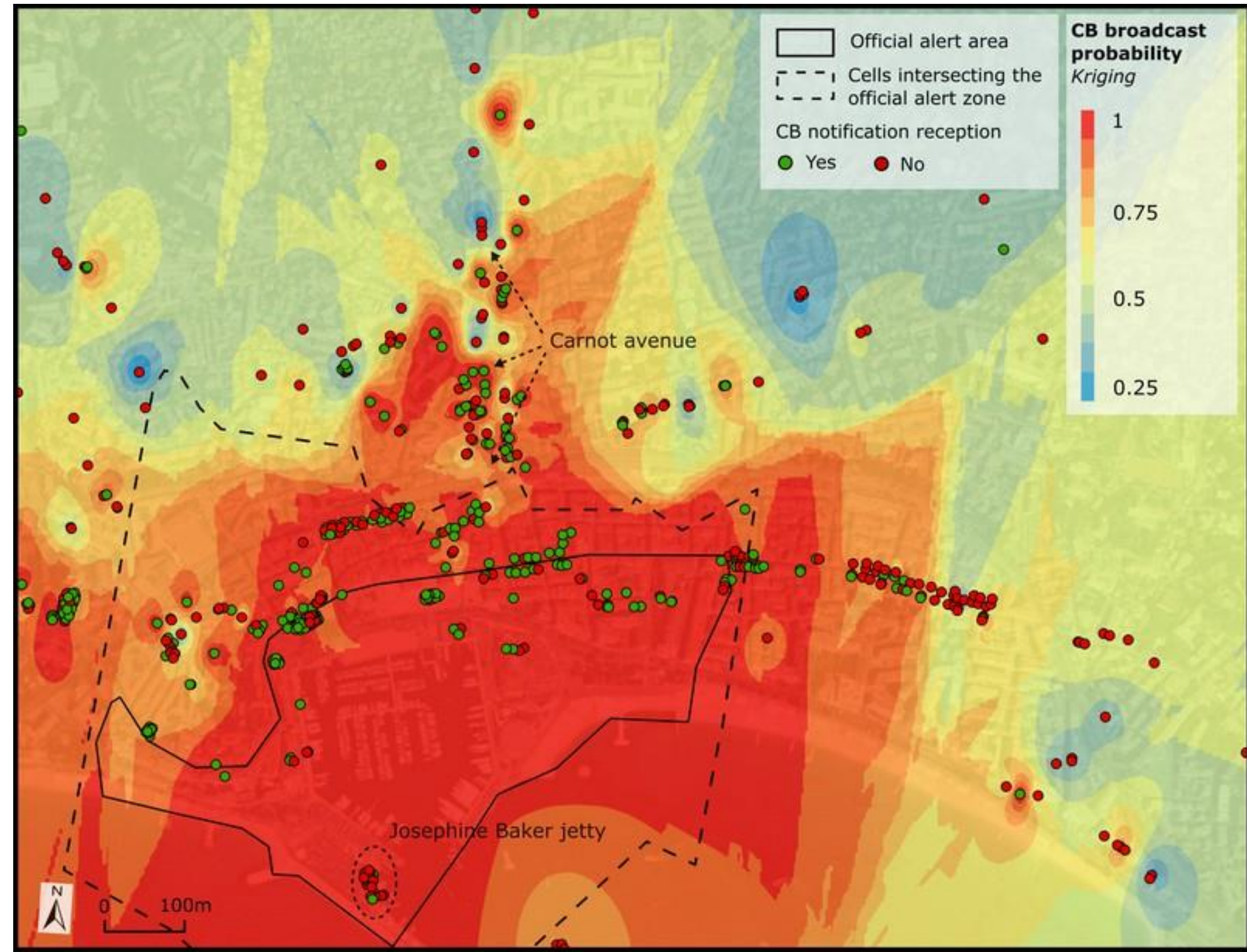


Farthest reception: 892 m.

Main results (2/3)

Principales resultados (2/3)

Large and irregular edge effect



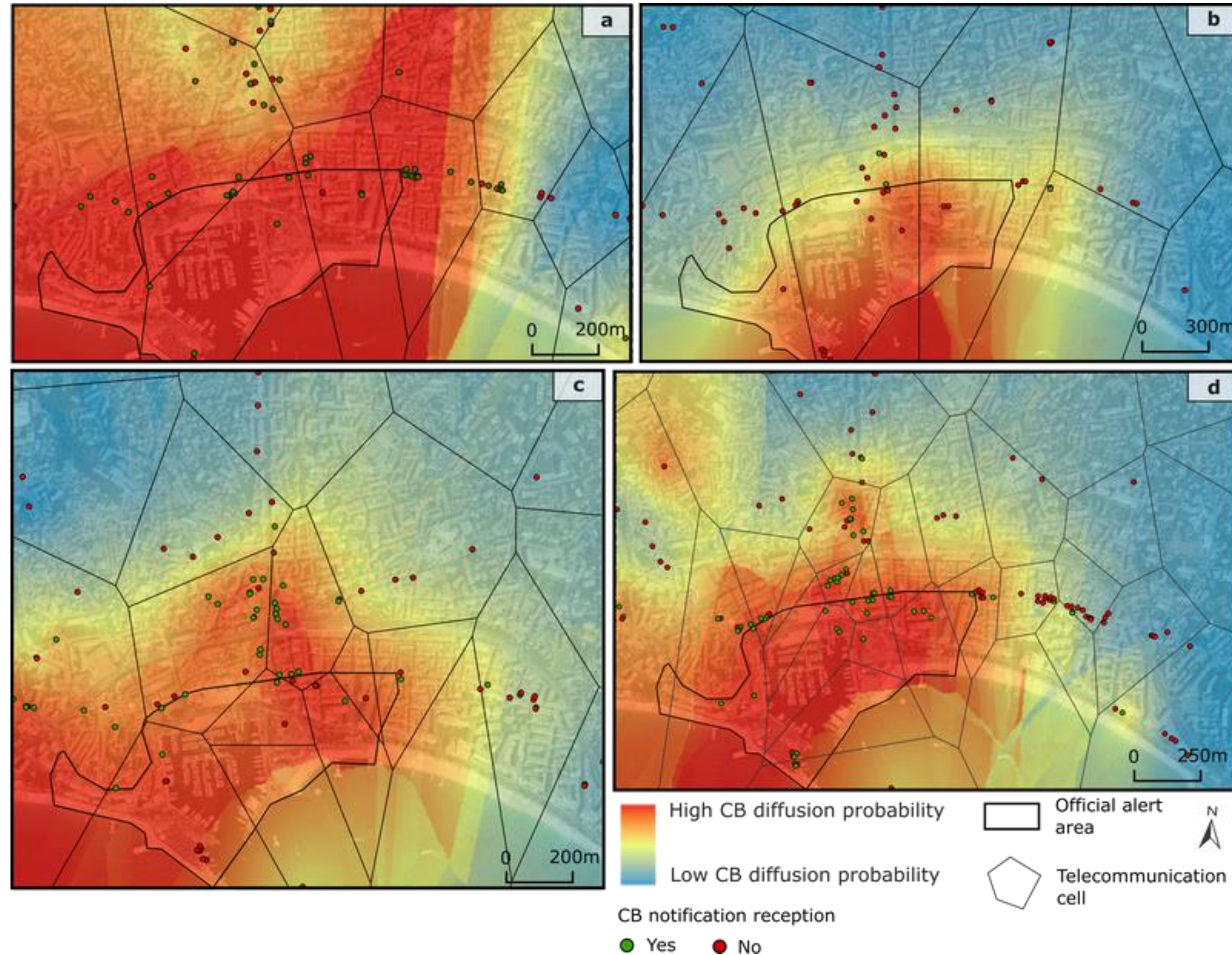
Main results (3/3)

Principales resultados (3/3)

Large and irregular edge effect

+

Specific broadcast zone for each operator



Conclusions and answers to Q34

Conclusiones y repuestas



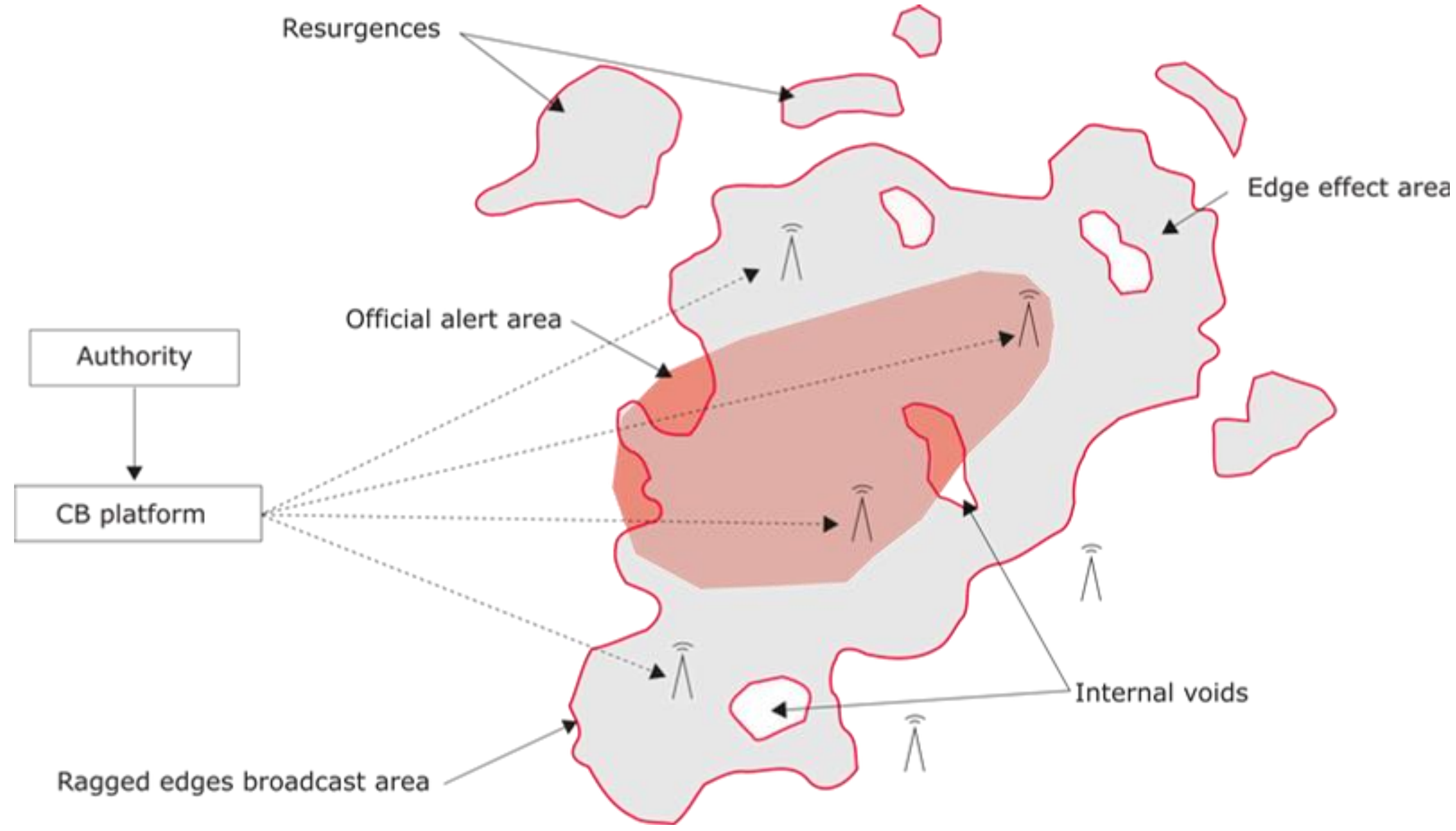
Large and irregular edge effect

+

Specific broadcast zone for each operator

=

The actual broadcast area is difficult to predict





Convention de collaboration signée entre la Direction de la Transformation Numérique (DTNUM) et Avignon Université (2023)

Conclusion and discussion

Conclusión y discusión



Esteban Bopp,
Assistant Professor in Geography
University of Lille



Johnny Douvinet,
Professor in Geography
Avignon University

What makes an efficient emergency alert?

¿Cómo se elabora un aviso de emergencia eficiente ?

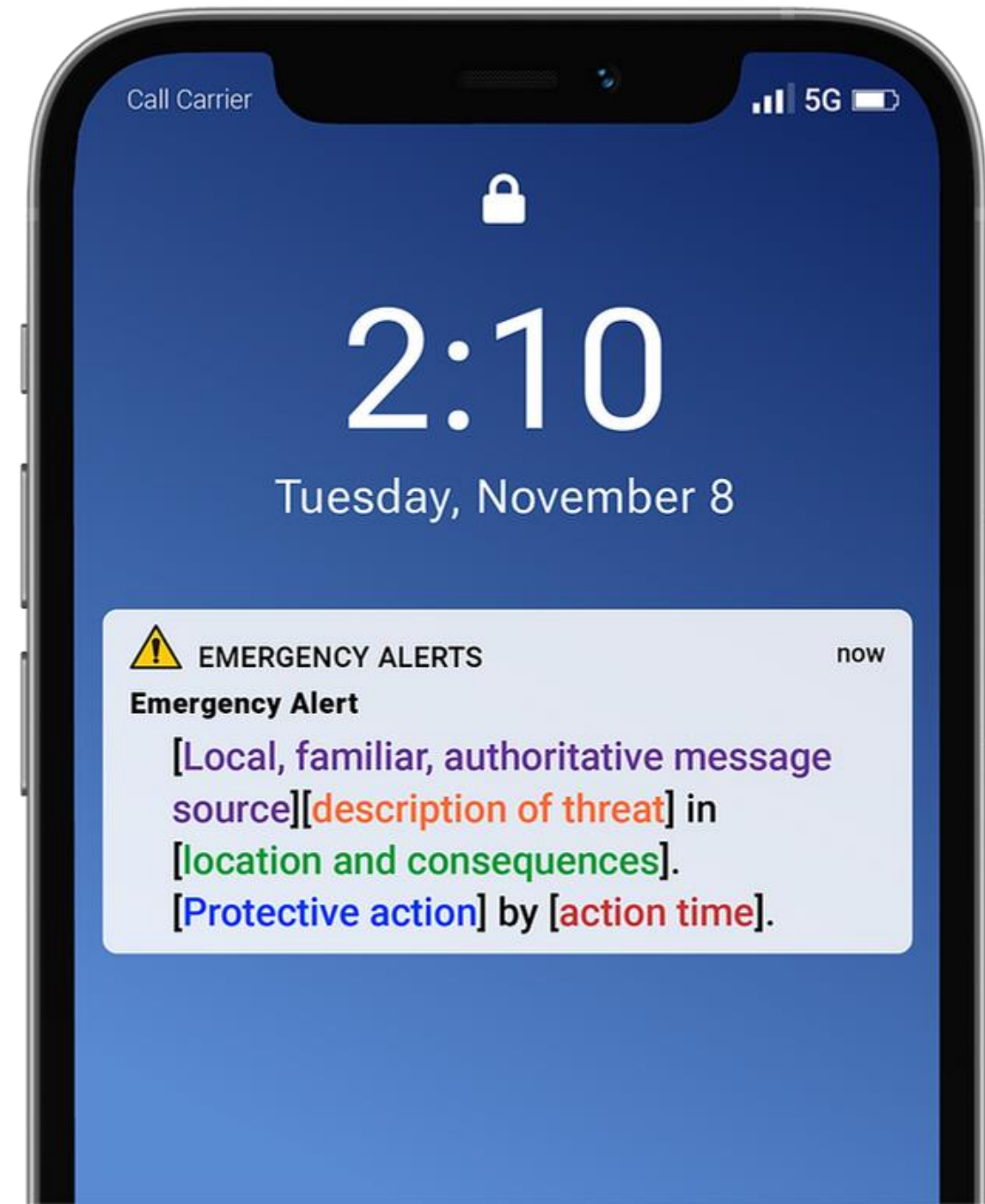


➔ Message style

- Create short, simply worded message
- Be clear with any action that should be taken to remove any guesswork
- Writing for your audience: when being understated is the norm (“do not use FR-Alert as a super tweet!”)
- The importance of templates for active shooter messages and shortened protective actions and short applications



The WEA 360 characters structure (Sutton, 2023)



What makes an efficient emergency alert?

¿Cómo se elabora un aviso de emergencia eficiente ?

➔ Training, practice, and drills

- Accustom the end-users and the population
- Increase the public awareness
- Measure the spatial accuracy of CB

CB alert in progress: no panic nor disturbances (Douvinet et al., 2024)!



What makes an efficient emergency alert?

¿Cómo se elabora un aviso de emergencia eficiente ?



Both of them complement and improve each other!