

“Cha-Cha-Cha-Ching?”

Using consumer transaction data to understand the dynamics of cities during mega events

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C.03. Applied Geography: Applied Smart Data Research, International Geographical Congress 2024



ABOUT ME

Retailing & consumer behaviour

- High street characterisation, performance and transformation
- Consumer and 'smart' dataset insights
- Sustainable retailing & development



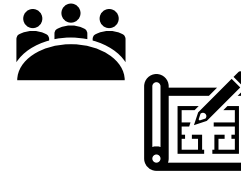
Spatial inequality

- Composite indicators of spatial inequality
- Accessibility and reliability of transport services
- Access to amenities and '15-minute' cities



Data-driven, place-based policymaking

- Digital planning tools and technologies (e.g. city dashboards)
- Improving distribution of regional investment:
 - Transport infrastructure
 - Pedestrian infrastructure
 - Bus network franchising & redesign



TODAY'S TALK

RUNNING ORDER

- 1** RESEARCH BACKGROUND & AIMS
- 2** DATA – MASTERCARD 'GEO INSIGHTS'
- 3** FINDINGS (NON-GEOGRAPHICAL)
- 4** FINDINGS (GEOGRAPHICAL)
- 5** REFLECTIONS

BACKGROUND



‘Mega’ events often bring major economic and socio-cultural uplift to cities...

“Taylor Swift’s Eras Tour will boost UK spending by almost £1bn this year” (BBC News)

“If Taylor Swift were an economy, she’d be bigger than 50 countries” (QuestionPro)



Economic Impact of Eurovision Song Contest in Liverpool, AMION

- Research Method: surveys, interviews, on-site observations and secondary data (ticketing, economic indicators)
- Total spend = £75.6m, net additional visitor spend = £54.8m
- Main sectors to benefit were food & drink (35%) and accommodation (31%)

THE BENEFITS (AND DISBENEFITS) OF MEGA EVENTS ARE NOT EVENLY DISTRIBUTED (GEOGRAPHICALLY) AMONGST THE HOST REGION (AMION, 2023)

BACKGROUND

Research Aim:

Conduct an exploratory analysis to examine whether the economic benefits of Eurovision 2023 were distributed evenly across Liverpool City Region.






Economic Impact of Eurovision Song Contest in Liverpool, AMION

- Research Method: surveys, interviews, on-site observations and secondary data (ticketing, economic indicators)
- Total spend = £75.6m, net additional visitor spend = £42.3m
- Main sectors to benefit were food & drink (35%) and accommodation (31%)

THE BENEFITS (AND DISBENEFITS) OF MEGA EVENTS ARE NOT EVENLY DISTRIBUTED (GEOGRAPHICALLY) AMONGST THE HOST REGION (AMION, 2023)

DATA – MASTERCARD ‘GEO INSIGHTS’

Geo Insights is a **flexible data feed** with anonymized, aggregated and indexed Mastercard purchase data for any geographic areas

-  Spend data aggregated to small geographic areas – up to 150x150m blocks or admin areas
-  Indexed metrics enable spend activity comparison across geographic areas and time periods
-  Metrics available for multiple industries and segments – to serve analytics needs and use cases



‘Geo Insights’ Data

- **Spatial scale: Liverpool City Region**
- **Temporal scale: Daily, April & May 2023**
- **Denominator: Liverpool City Region**

Caveats

- **Mastercard customers only**
- **Indexes, not raw transactional data**

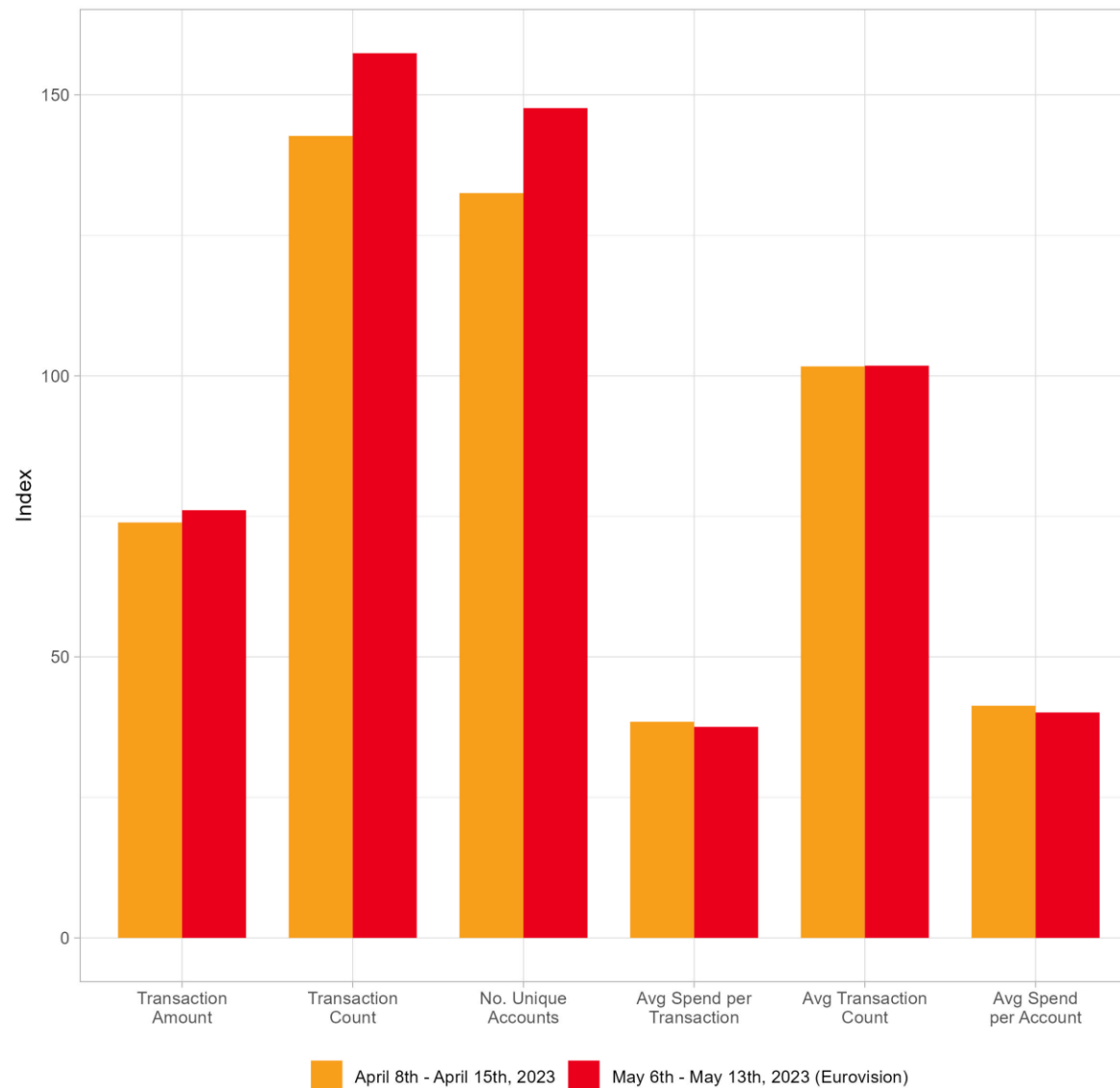
No	Yes
How much additional income was generated by hotels during Eurovision 2023?	How did spending change in the hotel and accommodation sector during Eurovision 2023?
Did business X see additional spending during Eurovision 2023?	Did quad X (which contains business X) see additional spending during Eurovision 2023?

FINDINGS

What is the regional picture?

General spending appears to have increased during Eurovision week

However, individual level spending might not have changed drastically (e.g. average spend per card)



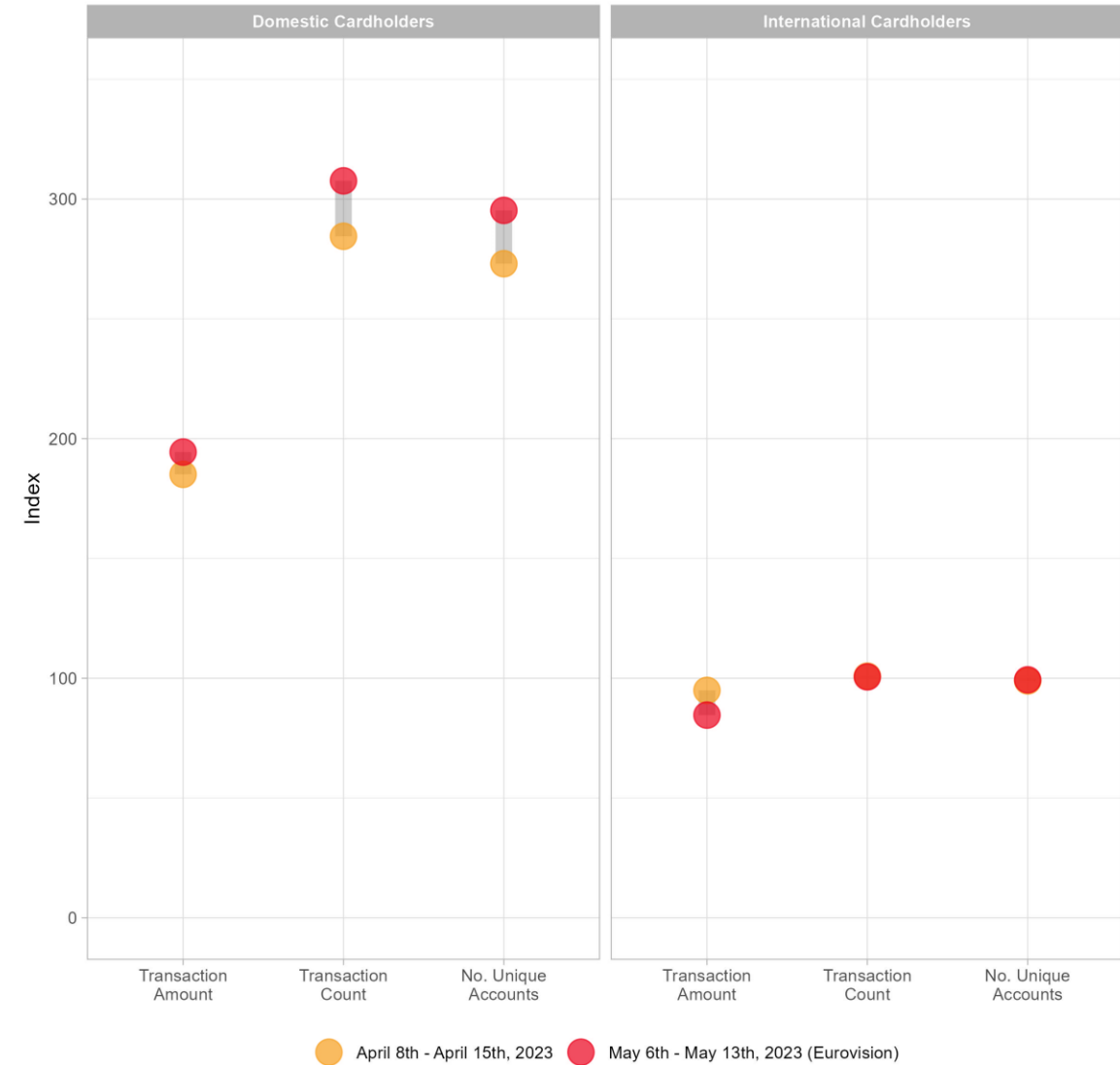
Data: Mastercard Geoinsights April & May 2023

FINDINGS

Who are these additional visitors?

Geo Insights seems to point to an increase in domestic (UK-based) tourism during Eurovision 2023, as opposed to international visitors

This IS surprising!*



Data: Mastercard Geoinights April & May 2023

* Our approach cannot control for users of other payment services (VISA, AMEX), or use of local cash currency

FINDINGS

Which businesses have benefitted?

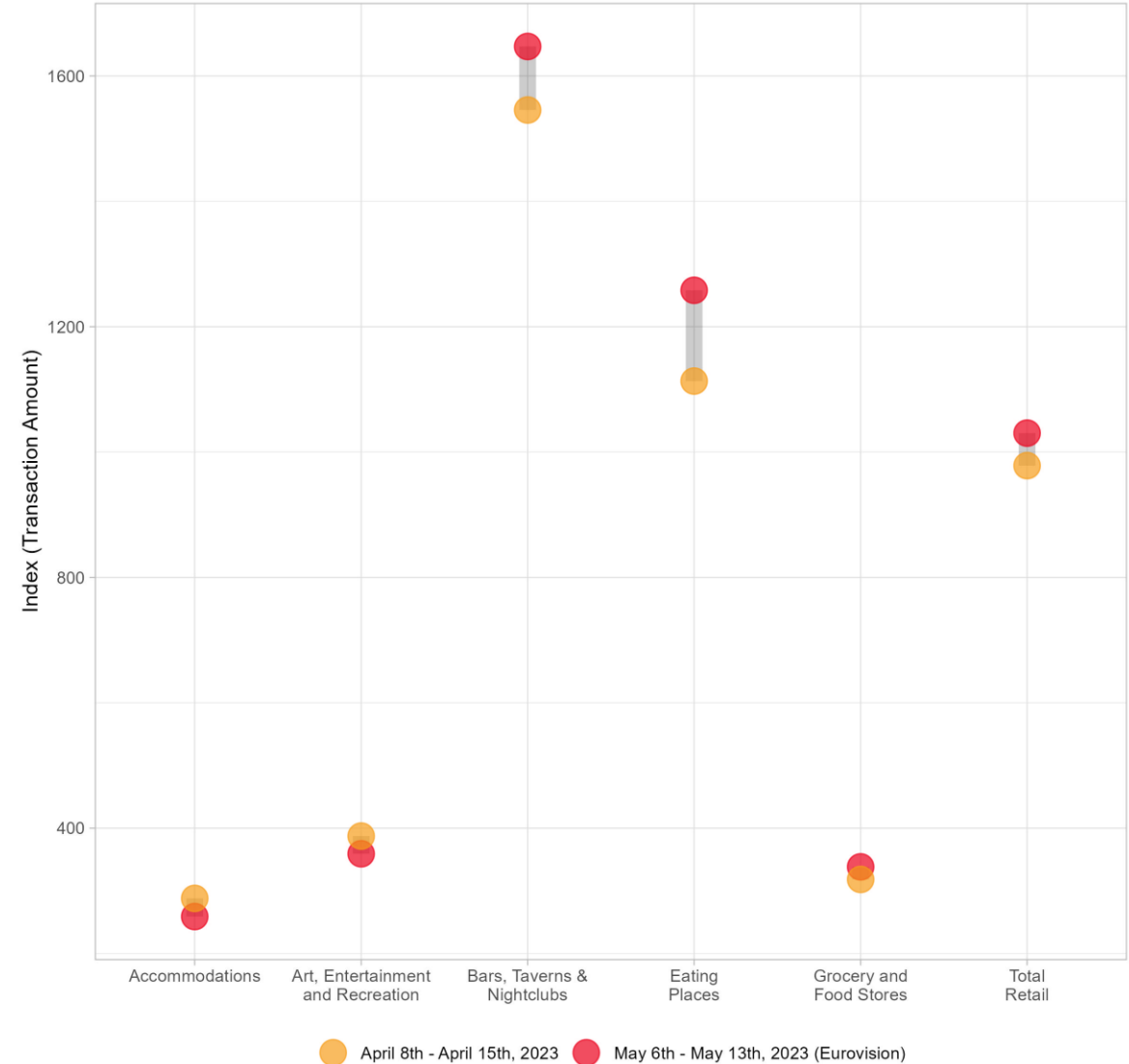
We calculated average spending in the two weeks, between six of the most interesting Geo Insights categories...

Increasing spend in bars, clubs & restaurants

Eurovision appears to generate greater benefits for leisure & night-time economy businesses, than traditional retail businesses.

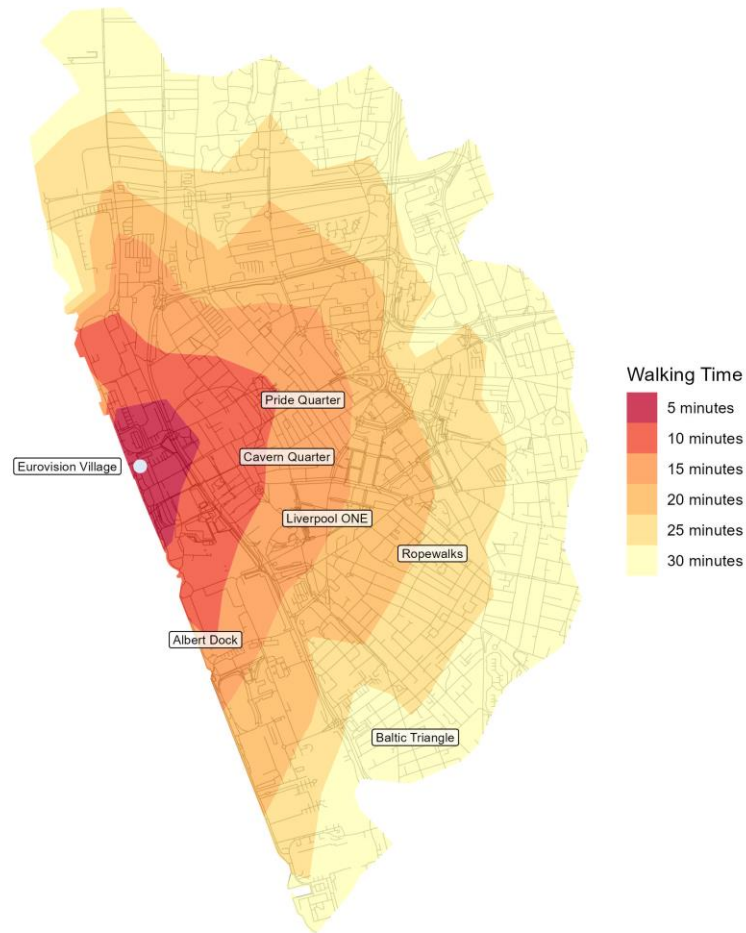
The future of live music?

Arts, Entertainment and Recreation venues actually suffered as a result of Eurovision 2023...



Data: Mastercard Geosights April & May 2023

FINDINGS



Walk-Time Isochrones

Used to help us approximate how spending patterns changed with distance from the 'core' of Eurovision activities – Eurovision Village.

FINDINGS

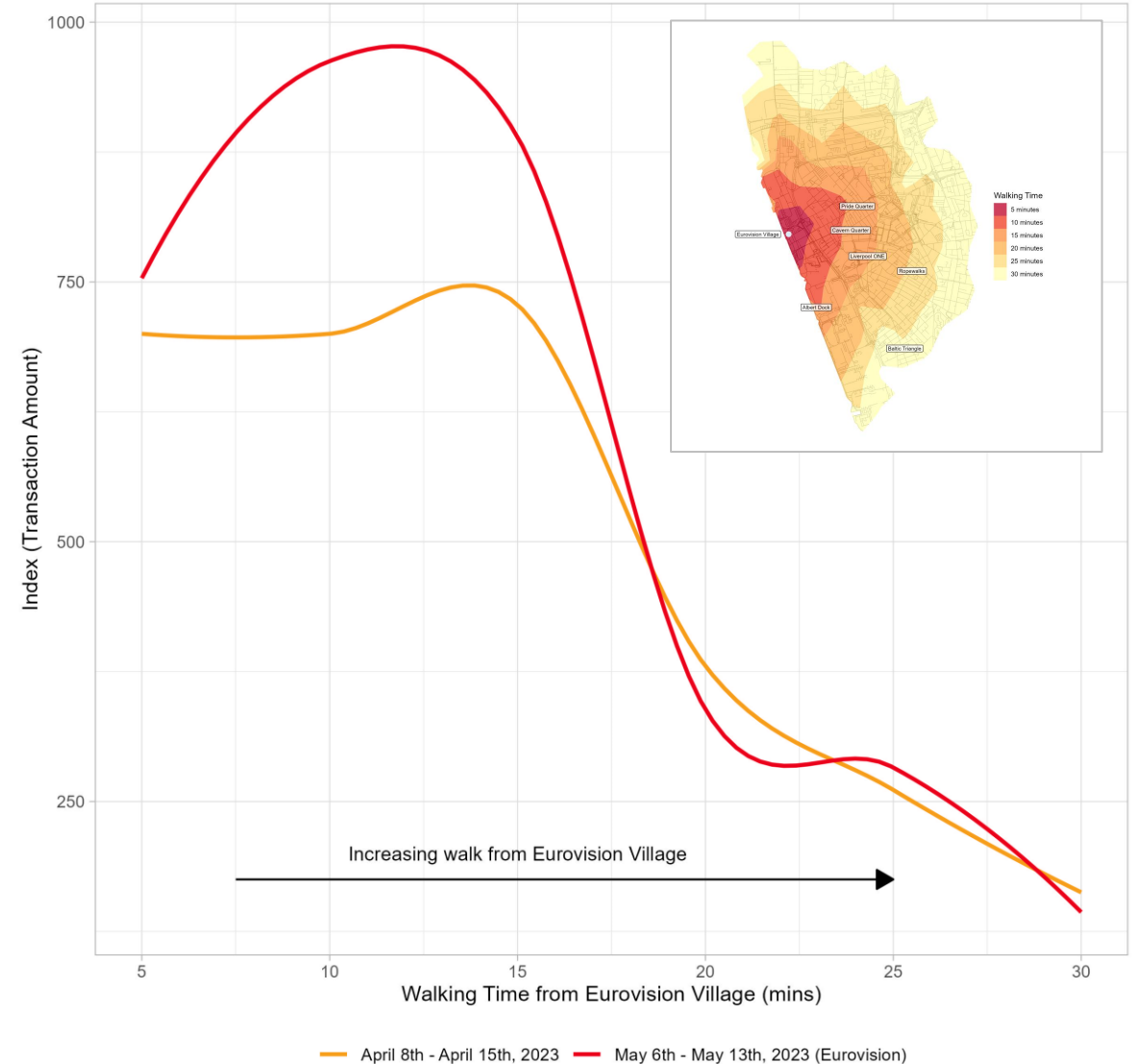
Geo Insights reveals the general distribution of spending in Liverpool City Centre:

- Concentration of spend around 10 – 15 mins walk
- Decreasing spend with distance from city centre

Geography Matters!

Eurovision 2023 displays a slightly different distribution of spend in Liverpool:

- 'Hump' of spending in the city centre (+ 25%)
- Redistribution to Pier Head
- Benefits seen in Baltic fringe events (EuroClub 2023)



Data: Mastercard Geoinights April & May 2023

REFLECTIONS

THE BENEFITS (AND DISBENEFITS) OF MEGA EVENTS ARE NOT EVENLY DISTRIBUTED (GEOGRAPHICALLY) AMONGST THE HOST REGION (AMION, 2023)

Solution?

Strategic Planning to 'Balance the Benefits'



REFLECTIONS



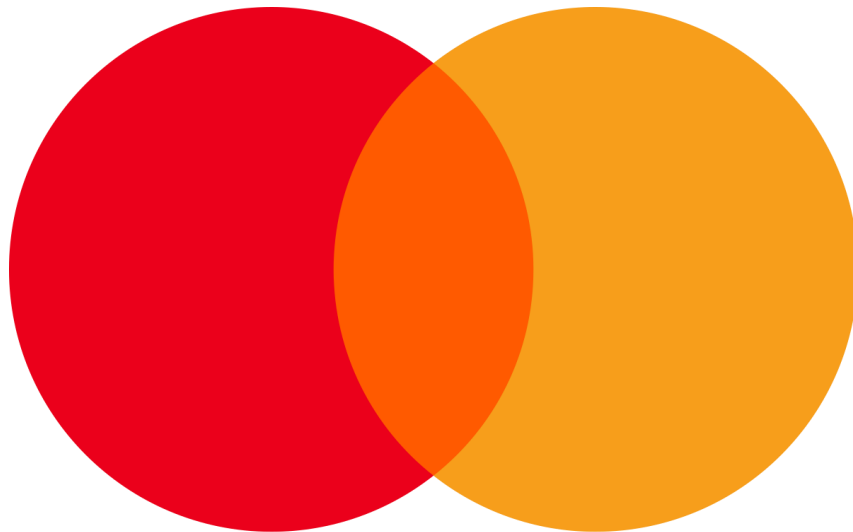
The Power of Smart Data

- Accurate, nuanced insights
- Informed decision making
- Limitless (geographic) potential

The Future of Smart Data (Longley, Cheshire & Singleton, 2024)

- Uncertainty & Representation (over/under)
- Linkage & Sensitivity
- Access, Infrastructure & Disclosure Control
- Purpose & Community

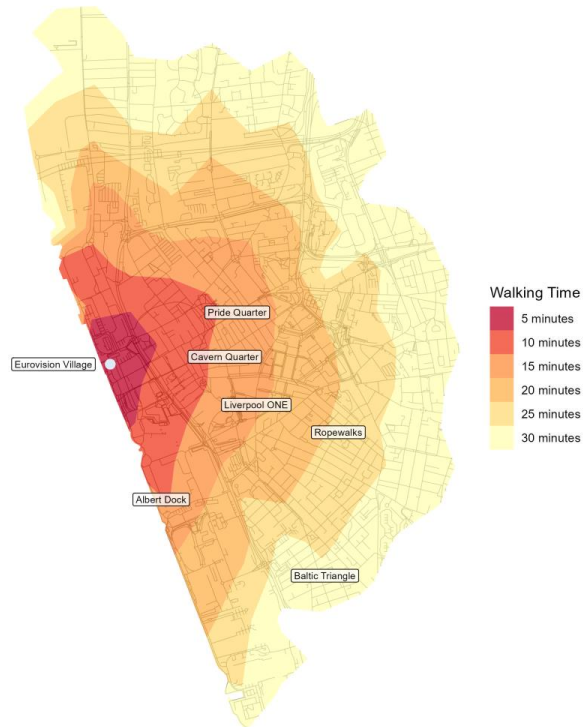
ACKNOWLEDGEMENTS



mastercard

We would like to extend our thanks to **Mastercard** for providing access to the 'Geo Insights' dataset, and for working with us to frame a series of interesting research questions around the topic.

HESELTINE POLICY BRIEF



SCAN FOR DOWNLOAD

<https://www.liverpool.ac.uk/heseltine-institute/policybriefs>

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