



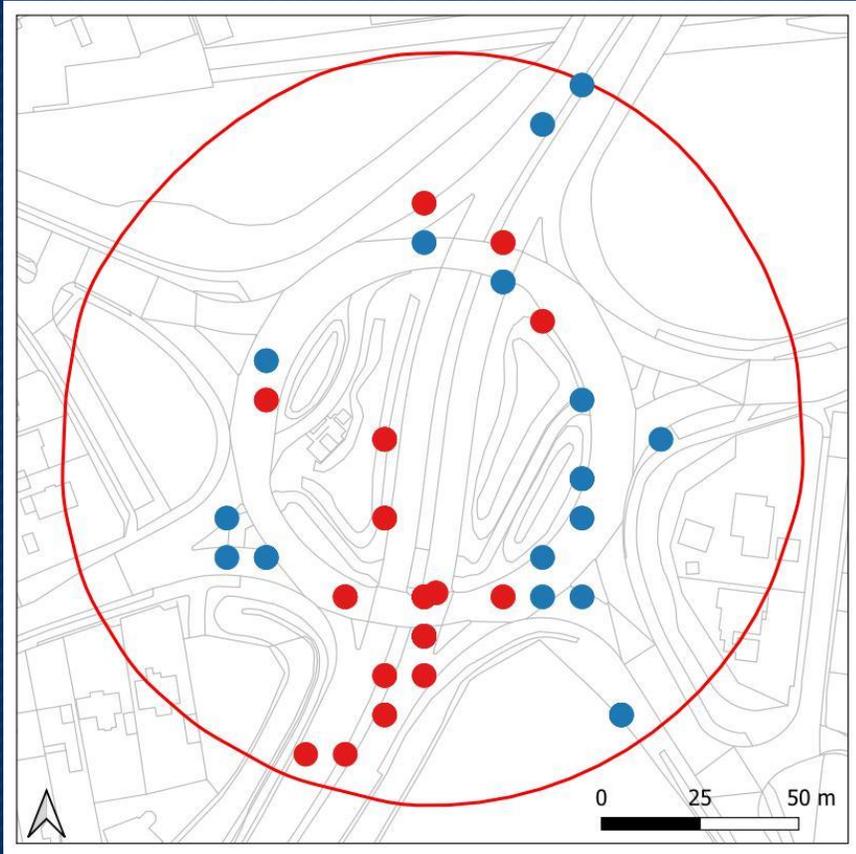
Visualising STATS19 collisions

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Building the visual

Simple mapping



- A pretty good start
- Collisions are clearly marked and you can tell what happened before and after construction

But

- I can't tell if there are any overlapping points (there are)
- The point doesn't tell me anything about what sort of collision it is.

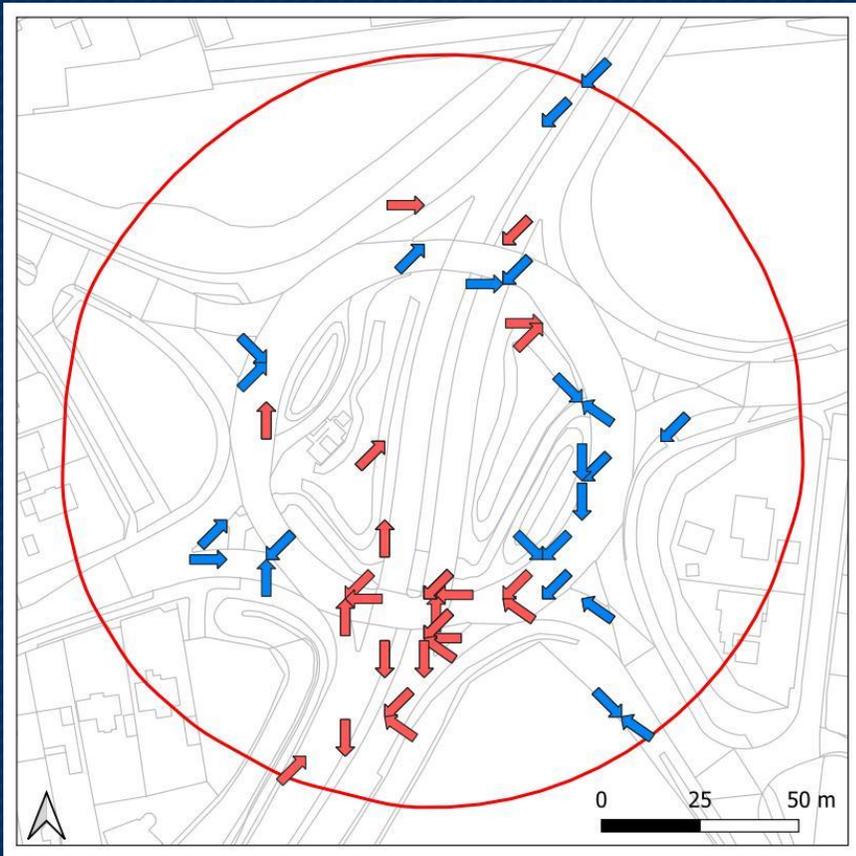
Blue - Before construction

Red - After construction

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Building the visual

Points to arrows



- Uses Vehicle-level data
- Convert to arrows, representing direction of travel
- We have a bit more information about what's happened at each collision now

But

- Still issues with overlapping points

Blue - Before construction

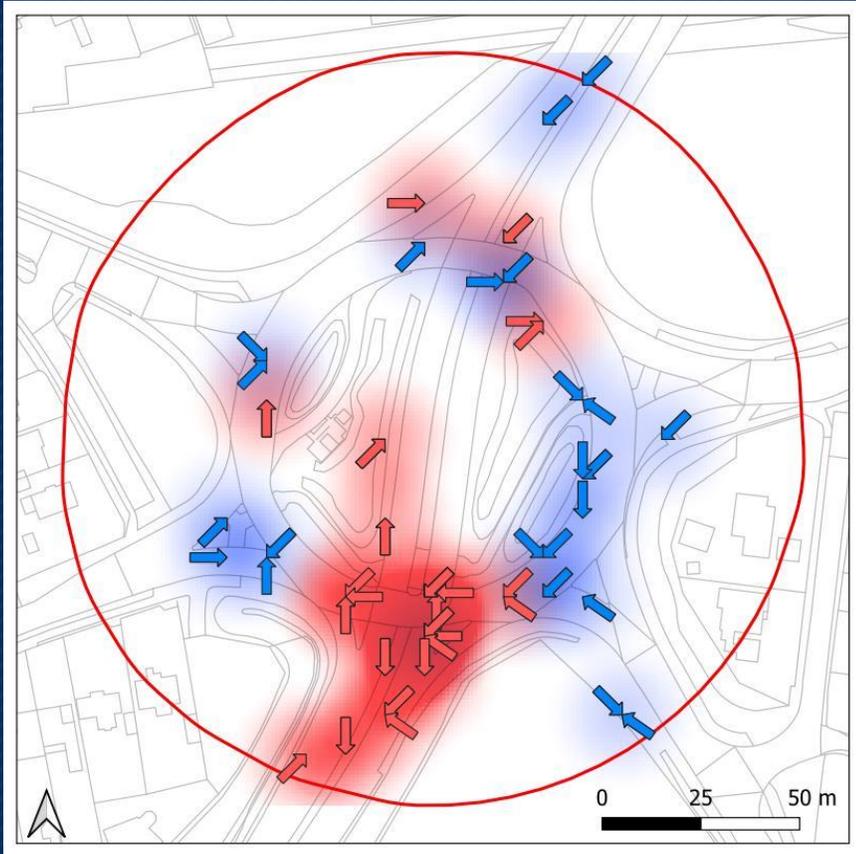
Red - After construction

Each arrow is a vehicle. The direction represents the direction the vehicle was going to.

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Building the visual

Adding cluster information



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- Added two Kernel Density Estimation surfaces
- Shaded with transparency
- Now we can see what is happening in the individual collisions and the underlying density of overlapping points.

But

- Rear-end collisions still show as a single arrow
- I haven't tweaked symbols for parked/stationary vehicles

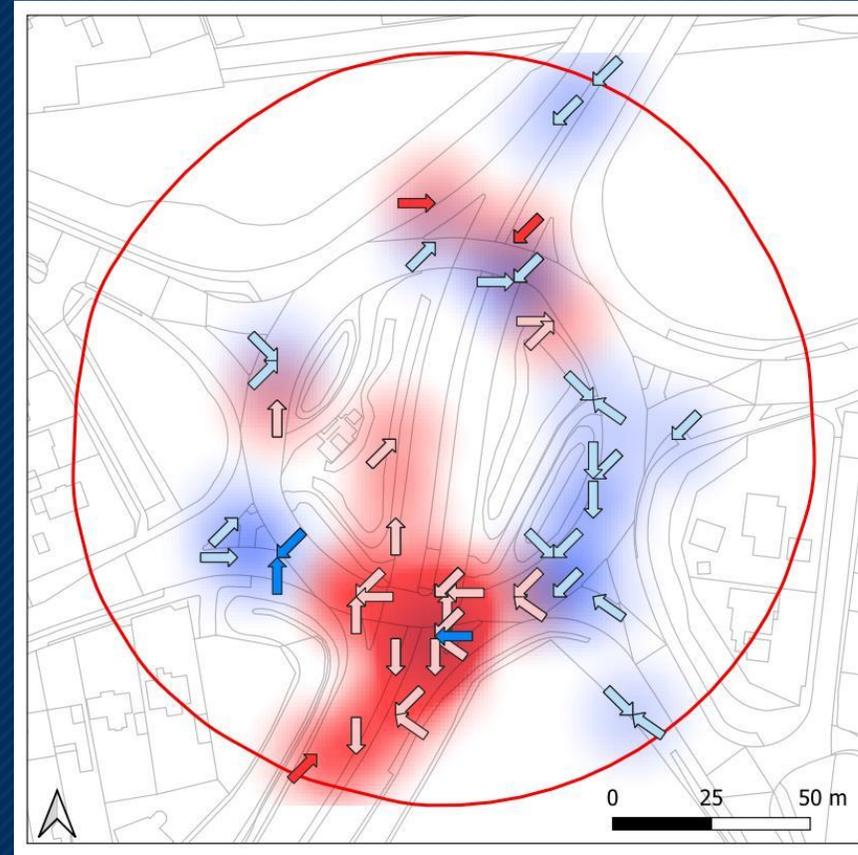
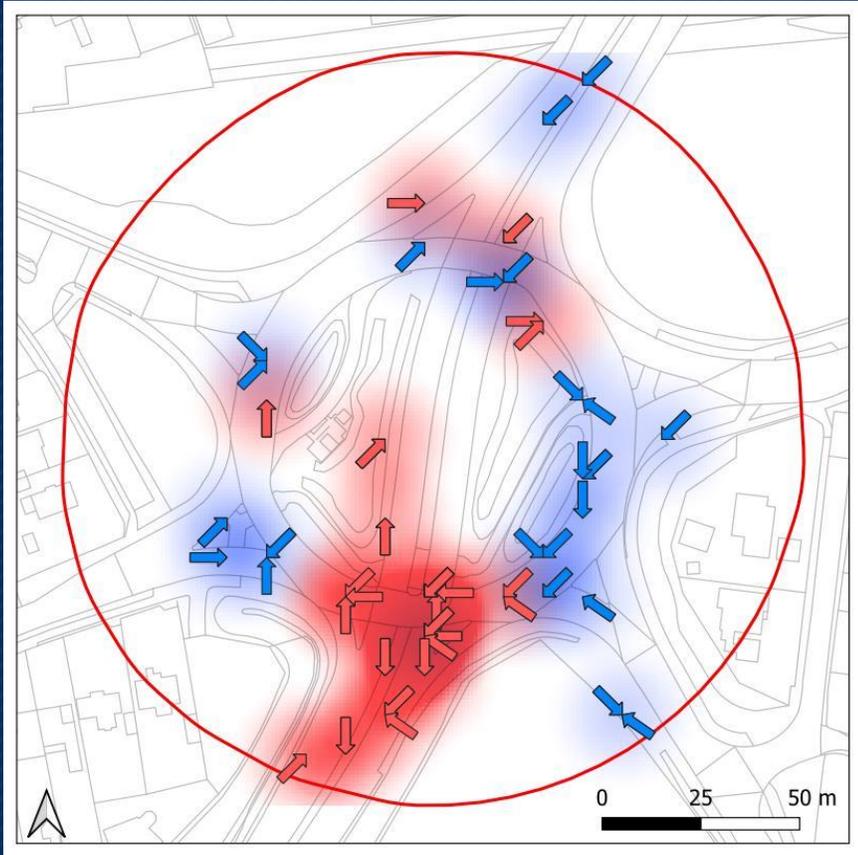
Blue - Before construction

Red - After construction

Each arrow is a vehicle. The direction represents the direction the vehicle was going to.

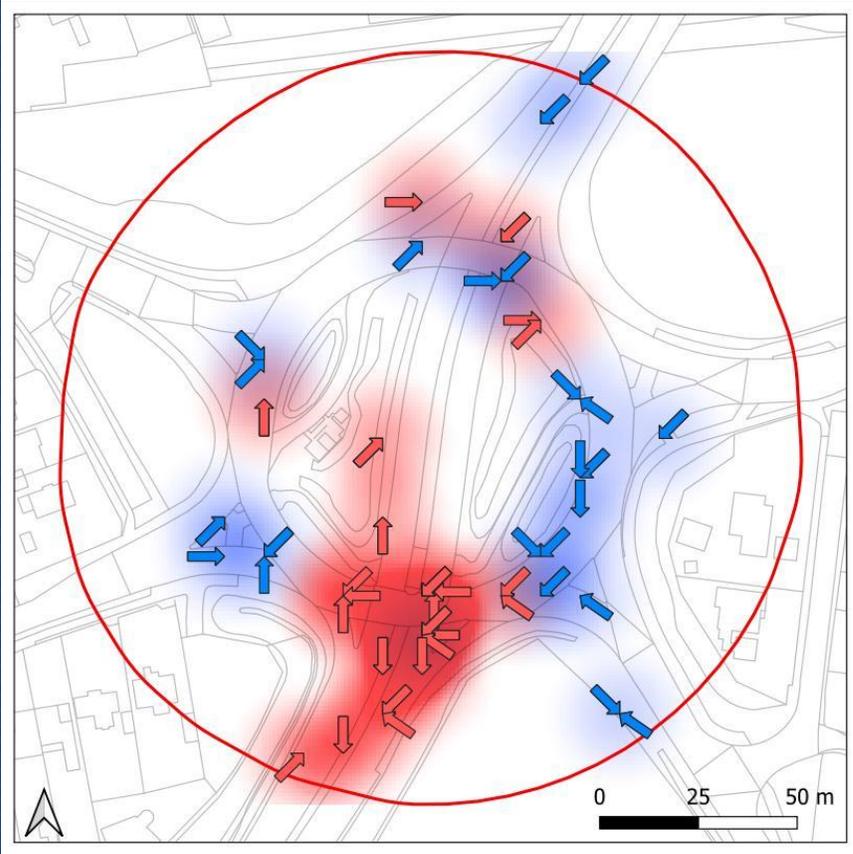
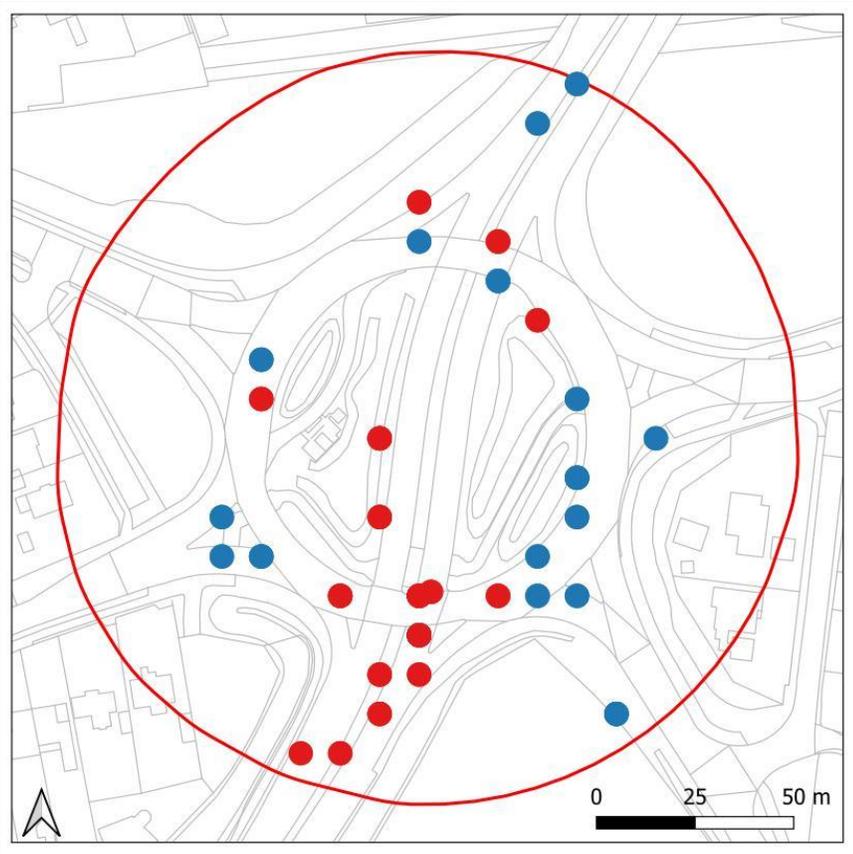
Building the visual

Representing severity?



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A comparison



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Visualisation on a web application

Collisions at Hamburger Roundabouts

Notes Filter Chart

Notes on interpretation

- Click on one of the thumbnails at the bottom of the screen to zoom into a location
- Each arrow represents a vehicle involved in a collision. The arrow represents the direction the vehicle was travelling to.
- Blue arrows occurred before the hamburger upgrade
- Red arrows occurred after the hamburger upgrade
- Click on an arrow to get information on the collision. Where there are multiple vehicles in the same location, you can click through the records.
- Blank fields in the Contributory Factors and Key Accident description fields indicate that there is no information for that collision.
- You can also filter by 'Before' and 'After' roundabout upgrade, and by Collision type
- Collision type has been determined by STATS19 vehicle points of impact.
- All parameters are from STATS19 apart from the Key Accident Description,

Accident Index: 2012552D25195

Zoom to

Date: 20 Jun 2012
Before or After upgrade: After
Vehicles involved: 2
Vehicle details: Vehicle 1 : Car , Driver age: 45 , Changing lane to right, travelling South west to East
Collision type: T-Bone

Key Accident Report data exists: No
Contributory factor data exists: Yes

Manoeuvres:

- Vehicle 2: Going ahead other
- Vehicle 1: Changing lane to right

AccidentIndex: 2012552D25195

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- A31 Canford Bottom
- A40 Elmbridge Court
- M6 Tabley Interchange
- A5036 Liverpool
- A63 Roger Millard Way, ...
- A6 Chowms Mill
- A557 Rock Savage
- A30 Black Dam
- A41 Banbury Road
- A335 Copthorne
- A4540 Bordesley Circus
- A423 Heyford