THE PLEASANT, SAFE ROUTE
Towards safer cycling for elderly

In past years the fatal and serious bicycle accidents have increased. The most significant has been of single-vehicle accidents by elderly on e-bikes. Contributing factors are:
- E-bikes popular: more kilometers made
- A double-aging population: the share of elderly people in the population is increasing and elderly are growing older

Problem statement

How can the ANWB contribute to the prevention of accidents involving elderly individuals, aged 60+, on e-bikes in the Netherlands?

Research

Qualitative target group research was conducted into accident contexts, usage patterns, needs, and behaviors , including a survey (n=57) and semi-structured interviews (n=12).

Concept proposal

The proposal is for the ANWB to offer a route planner and navigation system for bicyclists that facilitates riding pleasant, safe routes. This includes:
- A to B routes, often functional
- Node routes (Dutch: Knooppunten routes), recreational

On the Eropuit app and Onderweg app, through:
- **Navigating system with the option of the pleasant, safe route**
- **Clear information sharing regarding bicycle safety when planning routes**

Route determination

The pleasant, safe route will be based on an algorithm that takes the following types of data into account:
Road characteristics, accident risk, intensity (static & dynamic) and input from the user on risk-points and scenic routes.
Trend: Traffic data are currently widely collected (for a great part open-source) to guide traffic safety policy making.
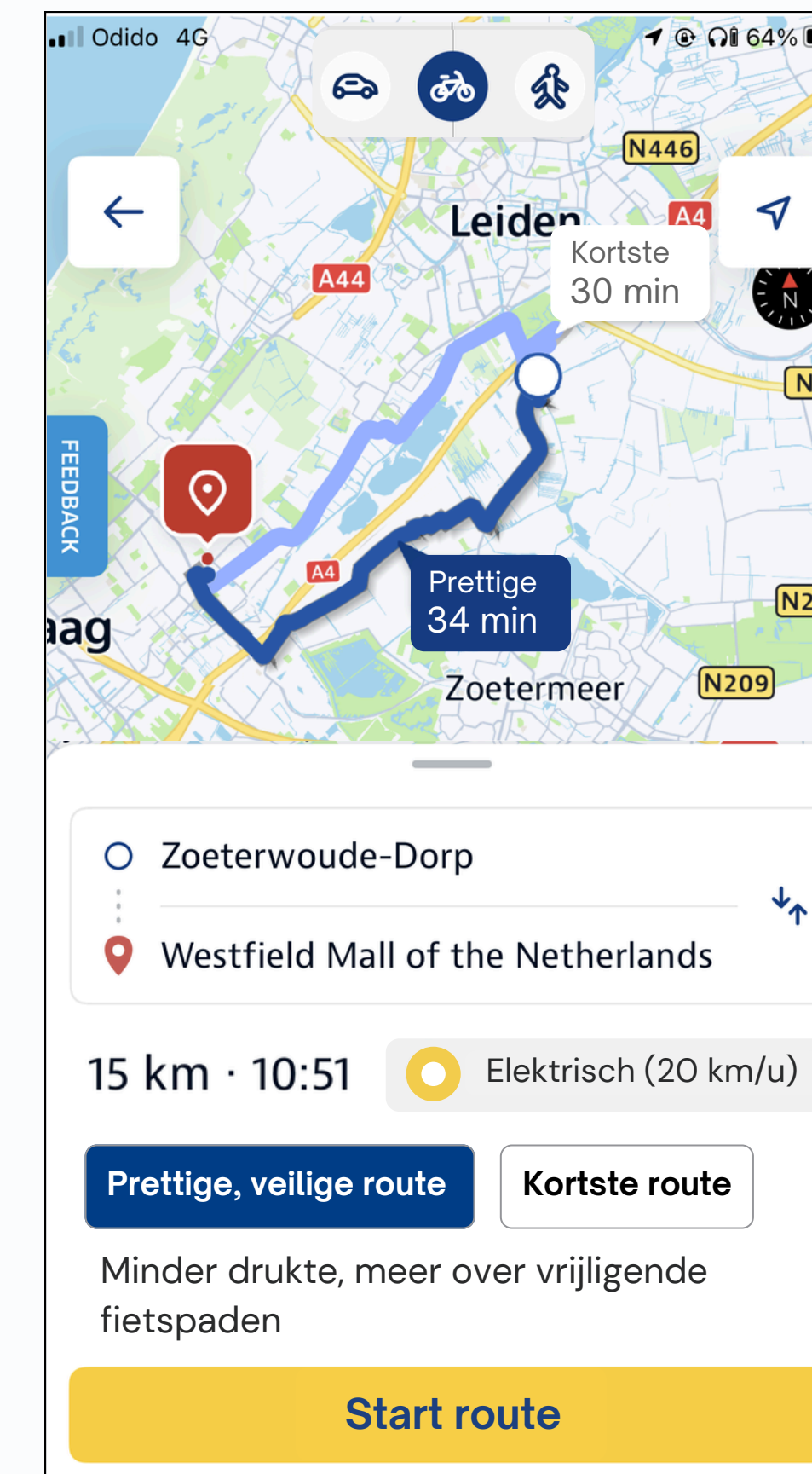**Opportunity:** Using this data directly for a service for citizens.

Core value

The proposal is based on the following key insights from the target group research:
- Startle reactions seem to be the most common cause of accidents for elderly cyclists, both on regular and e-bikes.
- Elderly feel a need for calm and pleasurable rides, especially avoiding roads where they get little space.
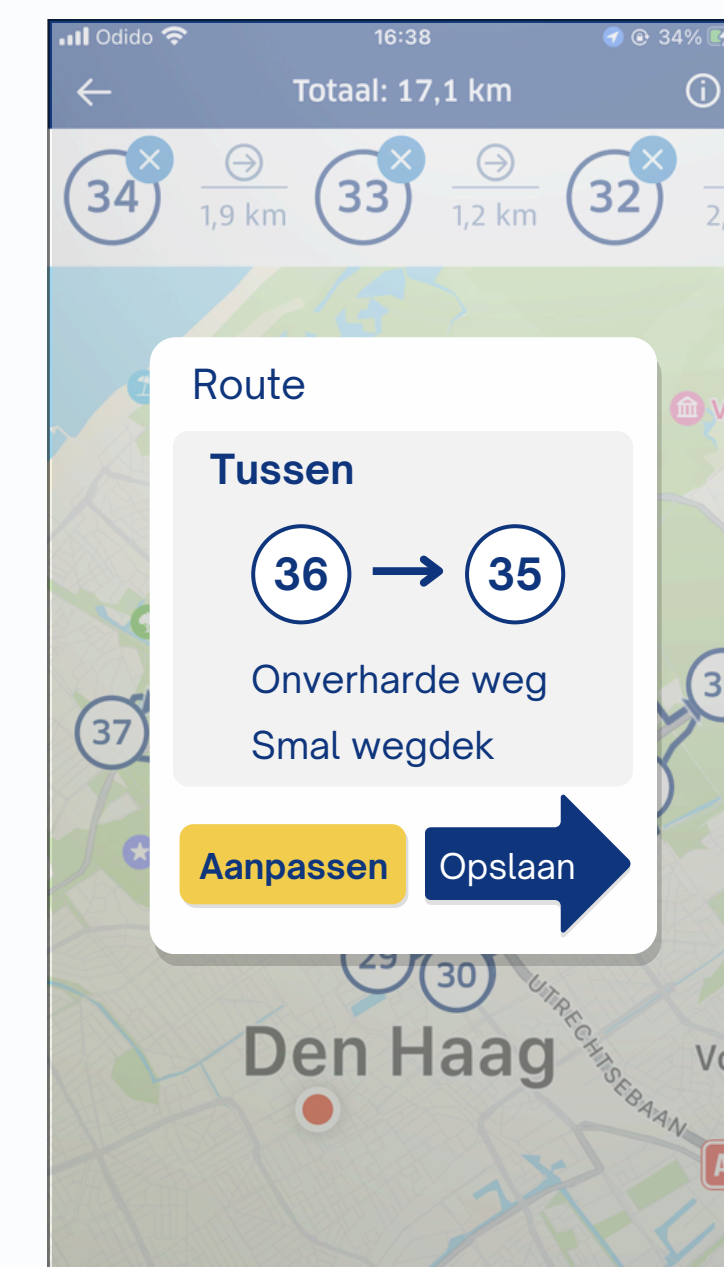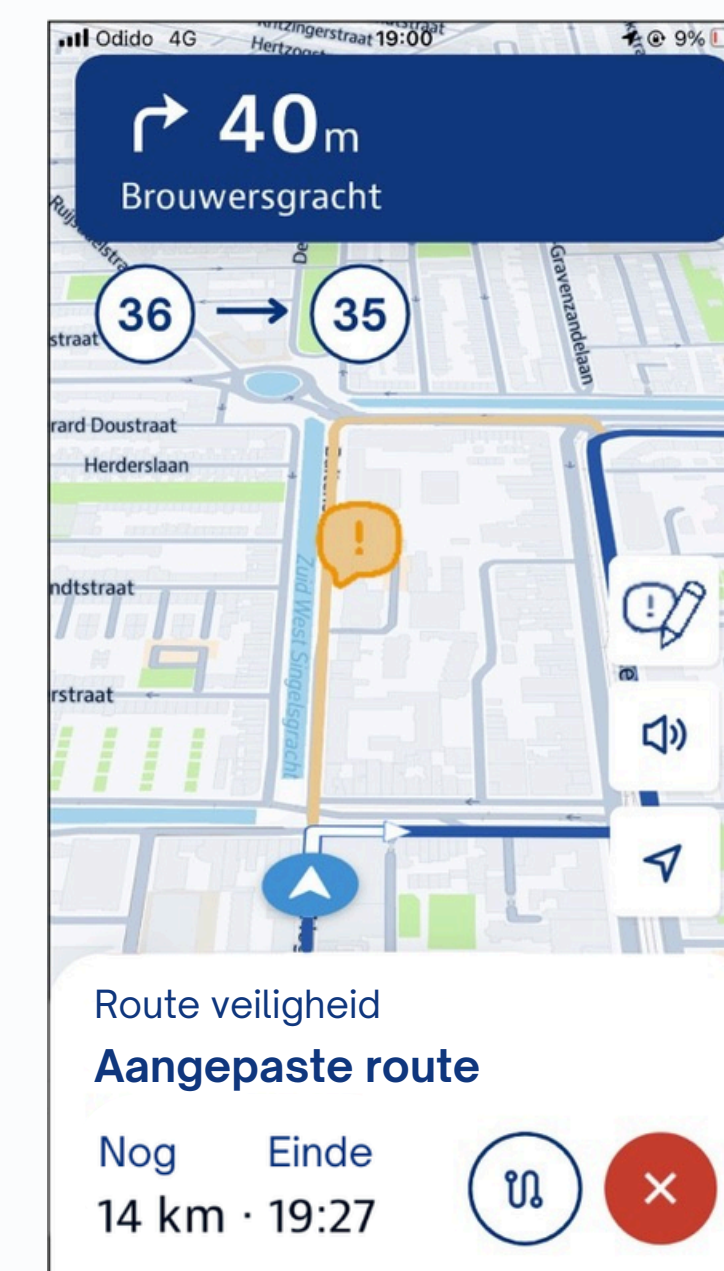
The safe route navigation focusses on minimizing the circumstance factors of startle reactions.

Examples of functionalities
Left: A to B
Right: Node route

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