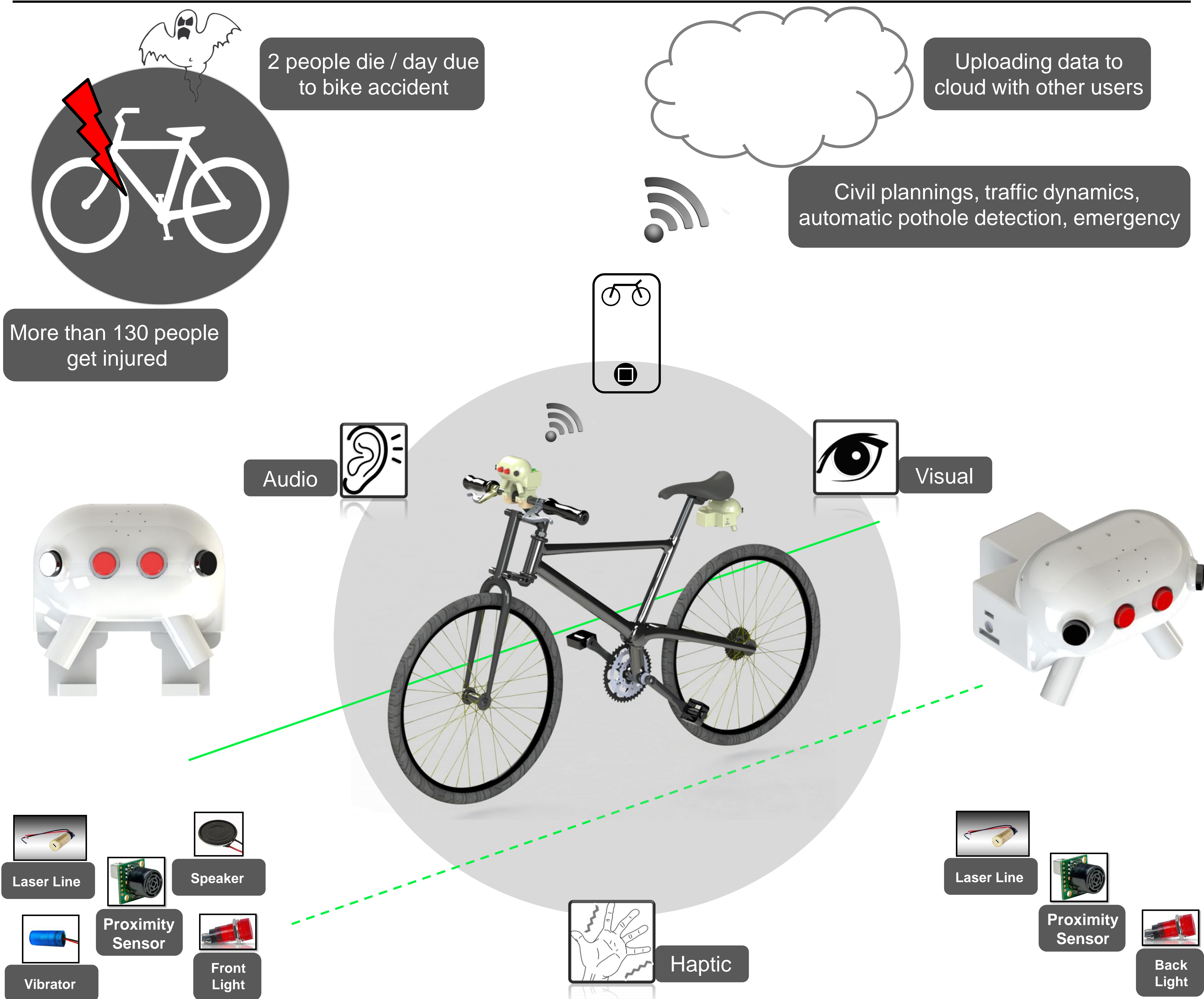


Interactive Cyclist Accident Prevention System (iCAPS)

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ABSTRACT

- The number of bicycle trips has more than doubled in the past decade.
- Cycling increases life expectancy by 3-14 months.
- US economy would save \$7.3 billion / year if people used bicycles for short trips.
- But yet, the rate of bike accident / injuries are significant.
- Smart bike monitors the surrounding area of the bike and creates a safety zone around the cyclist.

METHODS

- The system is composed of a front and back console in communication with a smartphone application.
- Each console is equipped with two proximity sensors.
- Smart Bike delivers haptic-audio-visual feedback to the cyclist.
- The loud speakers alert the cyclist / driver in danger.
- The laser lines create a virtual bike lane.
- The vibrators provides strong haptic feedback.
- Provides automated signaling based on the final destination, set into the smartphone GPS.
- Cyclist interaction data are transmitted to the cloud, via smartphone interface.

NEXT STEPS

- The system has received outstanding recognition [1-2].
- Two patents have been filed by school.
- We are seeking for the potential investors to start up the *Smart Bike* venture.

REFERENCES

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