CLAIMS:

1. A method for estimating an environment surrounding a wireless communication system, the environment including at least one inflector that inflects transmitted signals, the method comprising:

receiving an input signal transmitted from a transmitter to a receiver via a wireless communication channel;

receiving system state information pertaining to at least one of the receiver, the transmitter and the inflector;

estimating at least one property of the inflector based on the received input signal and the system state information,

wherein at least one of the transmitter and the receiver is mobile.

2. A method as claimed in claim 1 wherein said estimating estimates at least one of:

a position of the at least one inflector;

a velocity of the at least one inflector;

an acceleration of the at least one inflector;

a heading of the at least one inflector;

a speed of the at least one inflector; and

an elevation of the at least one inflector.

3. A method as claimed in claim 1 or claim 2 further comprising;

issuing an alert dependent on the estimated property of the inflector.

4. A method as claimed in claim 3 wherein the alert is indicative of a potential collision.

5. A method as claimed in any one of claims 1 to 3 further comprising:

comparing the estimated at least one property of the at least one inflector with mapped information descriptive of the environment; and

- a road-side system; and
- a safety system.

50. An apparatus for estimating an environment surrounding a wireless communication system, the environment including at least one inflector that inflects transmitted signals, the apparatus comprising:

a first input for receiving an input signal transmitted from a transmitter to a receiver via a wireless communication channel;

a second input for receiving system state information pertaining to at least one of the receiver, the transmitter and the inflector;

an environment estimator for estimating at least one property of the inflector based on the received input signal and the system state information,

wherein at least one of the transmitter and the receiver is mobile.

51. A system for estimating an environment surrounding a wireless communication system, the environment including at least one inflector that inflects transmitted signals, the system comprising:

at least one transmitter;

a receiver that receives an input signal transmitted from the transmitter via a wireless communication channel;

at least one source of system state information pertaining to at least one of the receiver, the at least one transmitter and the at least one inflector;

an environment estimator in data communication with the receiver and the at least one source of system state information for estimating at least one property of the inflector based on the received input signal and the system state information,

wherein at least one of the transmitter and the receiver is mobile.

52. A system as claimed in claim 51 wherein at least one of the transmitter, receiver and inflector moves.

53. A system as claimed in claim 51 or 52 wherein said at least one transmitter and receiver are collocated.

54. A computer program product comprising machine readable program code recorded on a machine-readable recording medium, for controlling the operation of a data processing apparatus on which the program code executes to perform a method for estimating an environment surrounding a wireless communication system, the environment including at least one inflector that inflects transmitted signals, the method comprising:

receiving an input signal transmitted from a transmitter to a receiver via a wireless communication channel;

receiving system state information pertaining to at least one of the receiver, the transmitter and the inflector;

estimating at least one property of the inflector based on the received input signal and the system state information,

wherein at least one of the transmitter and the receiver is mobile.