Claims:

1. A method of predicting a capacity of a public-transport vehicle for passengers to board at a stop and for at least one of (i) displaying information representative of this capacity on at least one stationary display device at the stop and (ii)enabling data representative of this capacity to be transmitted to at least one remote computer device,

the method comprising two automatic processes, a prediction process and a data procurement process;

the prediction process comprises:

- predicting the capacity of the public-transport vehicle for passengers to board at the stop by measuring a filling level of the public-transport vehicle before the stop when the public-transport vehicle is approaching the stop and combining the measured filling level with a stored indication of a number of passengers expected to alight from the public-transport vehicle at the stop, wherein the stored indication of the number of passengers expected to alight from the public-transport vehicle at the stop being the result of at least one previous execution of the data procurement process,
- at least one of (i) displaying the information representative of the predicted capacity of the public-transport vehicle for passengers to board at the stop on the at least one stationary display device at the stop and (ii) enabling data representative of this capacity to be transmitted to the at least one remote computer device;

the data procurement process comprises:

- determining, when the vehicle is at the stop the number of passengers that have alighted from the public-transport vehicle at the stop;
- updating the stored indication of the number of passengers expected to alight from the public-transport vehicle at the stop to be used in the future,

wherein at least one of (i) the prediction process and (ii) the data procurement process are adapted to take at least one of (i) weather conditions, traffic relevant events, and public holidays into account by using at least one capacity-expectation-modifying parameter.

2. The method of claim 1, wherein the public-transport vehicle has a passenger space, and measuring the filling level of the public-transport vehicle comprises scanning the passenger space with at least one measuring device sensitive to the presence of passengers

3. The method of claim 1 or 2, wherein the capacity of the public-transport vehicle for passengers to board at the stop is determined by at least one of (i) measuring a minimum filling level at the stop and subtracting the minimum-filling-level from a maximum capacity of the public-transport vehicle and (ii) by subtracting an expected minimum filling level obtained from stored measured minimum-filling levels from the maximum capacity of the public-transport vehicle.

4. The method of claim 1 or 2, wherein the capacity of the public-transport vehicle for passengers to board is determined by subtracting the number of passenger expected to alight from the measured filling level.

5. The method of any one of claims 1 to 4, wherein the prediction process is adapted to take the respective capacities of a given number of previous public-transport vehicles for passengers to board at the stop into account.

6. The method of any one of claims 1 to 5, wherein the public-transport vehicle is subdivided into a plurality of sections, and the filling level of the public-transport vehicle comprises filling levels for the sections of the public-transport vehicle.

7. The method of any one of claims 1 to 6, wherein the public-transport vehicle has a luggage space, and measuring the filling level of the public-transport vehicle comprises scanning the luggage space with at least one measuring device sensitive to the presence of luggage, wherein the prediction process and the data procurement process are carried out for predicting and displaying an amount of luggage that can be stored in the luggage space.

8. The method of claim 7, wherein the filling level is measured by a background-subtraction method in which a result of a scan of the public-transport vehicle with at least one of (i) passengers and (ii) with luggage before the stop is corrected by a result of a scan without at least one of (i) passengers and (ii) luggage.

9. The method of claim 8, wherein at least one of (i) the passenger space and (ii) luggage space of the public-transport vehicle is defined by at least one of (i) physical markers in the public-transport vehicle that are detectable by the at least one measuring device during the scan of the public-transport vehicle without at least one of (i) passengers and (ii) luggage and (ii) by post-editing the scan of the public-transport vehicle without at least one of (i) passengers and (ii) without luggage.

10. The method of any one of claims 6 to 9, wherein a plurality of measuring devices is equipped with at least one infrared emitter to create at least one of (i) infrared point clouds and (ii) structured infrared patterns and the measuring devices are also equipped with at least one infrared detector to receive at least one of (i) infrared point clouds and (ii) structured infrared patterns, the at least one of (i) infrared point clouds and (ii) structured infrared patterns being used to create 3D depth maps of at least one of (i) various sections of the public-transport vehicle's passenger space and (ii) luggage space, which are stitched together to a 3D depth map of the public transport vehicle.

11 A computerized system for predicting a capacity of a public-transport vehicle for passengers to board at a stop and for at least one of (i) displaying information representative of this capacity on at least one stationary display device at the stop and (ii) enabling data representative of the capacity of the public-transport vehicle for passengers to board at the stop to be transmitted to at least one remote computer device,

the system comprising at least one processor and at least one memory, the at least one memory comprising executable instructions that when executed by the processor cause the at least one processor to perform two automatic processes, a prediction process and a data procurement process;

the prediction process comprising:

- predicting the capacity of the public-transport vehicle for passengers to board at the stop by measuring a filling level of the public-transport vehicle before the stop when the public-transport vehicle is approaching the stop and combining the measured filling level with a stored indication of a number of passengers expected to alight from the public-transport vehicle at the stop, wherein the stored indication of the number of passengers expected to alight from the public-transport vehicle at the stop being the result of at least one previous execution of the data procurement process,
- at least one of (i) displaying the information representative of the predicted capacity of the public-transport vehicle for passengers to board at the stop on the at least one stationary display device at the stop and (ii) enabling data representative of this capacity to be transmitted to the at least one remote computer device;

the data procurement process comprising:

- determining, when the vehicle is at the stop, the number of passengers that have alighted from the public-transport vehicle at the stop;
- updating the stored indication of the number of passengers expected to alight from the public-transport vehicle at the stop to be used in the future,

wherein at least one of (i) the prediction process and (ii) the data procurement process are adapted to take at least one of (i) weather conditions, traffic relevant events, and public holidays into account by using at least one capacity-expectation-modifying parameter.

12. The computerized system of claim 11, which is arranged to carry out the method according to any one of claims 1 to 10.

13. A method of predicting a capacity of a public-transport vehicle for passengers to board at a stop and for at least one of (i) displaying information representative of this capacity on at least one stationary display device at the stop and (ii) enabling data representative of this capacity to be transmitted to at least one remote computer device, the public-transport vehicle comprising at least one passenger space with at least one measuring device sensitive to the presence of passengers,

the method comprising two automatic processes, a prediction process and a data procurement process;

the prediction process comprises:

- predicting the capacity of the public-transport vehicle for passengers to board at the stop by using a stored indication of the capacity of the public-transport vehicle for passengers to board at the stop, wherein the stored indication of the capacity of the public-transport vehicle for passengers to board at the stop being the result of at least one previous execution of the data procurement process,
- at least one of (i) displaying the information representative of the predicted capacity of the public-transport vehicle for passengers to board at the stop on the at least one stationary display device at the stop and (ii) enabling data representative of this capacity to be transmitted to the at least one remote computer device;

the data procurement process comprises:

- determining the capacity of the public-transport vehicle for passengers to board at the stop by an activity comprising measuring a filling level of the public-transport vehicle before the stop by scanning the at least one passenger space with the at least one measuring device before the stop and combining the filling level with an indication of a number of alighting passengers;
- updating the stored indication of the capacity of the public-transport vehicle for passengers to board at the stop to be used in the future,

wherein at least one of (i) the prediction process and (ii) the data procurement process are adapted to take at least one of (i) weather conditions, traffic relevant events, and public holidays into account by using at least one capacity-expectation-modifying parameter.

14. The method of claim 13, wherein the capacity of the public-transport vehicle for passengers to board is determined by subtracting the number of alighting passengers from the measured filling level.

15. The method of claim 13 or 14, wherein at least one of (i) the prediction process and (ii) the data procurement process are adapted to take at least one of weather conditions, traffic relevant events, and public holidays into account by using at least one capacity-expectation-modifying parameter.

16. The method of any one of claims 13 to 15, wherein the prediction process is adapted

to take the respective capacities of a given number of previous public-transport vehicles for passengers to board at the stop into account.

17. The method of any one of claims 13 to 16, wherein the public-transport vehicle is subdivided into a plurality of sections, and the filling level of the public-transport vehicle comprises filling levels for the sections of the public-transport vehicle.

18. The method of any one of claims 13 to 17, wherein the public-transport vehicle has a luggage space, and measuring the filling level of the public-transport vehicle comprises scanning the luggage space with at least one measuring device sensitive to the presence of luggage, wherein the prediction process and the data procurement process are carried out for predicting and displaying an amount of luggage that can be stored in the luggage space.

19. The method of any one of claims 13 to 18, wherein the filling level is measured by a background-subtraction method in which a result of a scan of the public-transport vehicle with at least one of (i) passengers and (ii) with luggage before the stop is corrected by a result of a scan without at least one of (i) passengers and (ii) luggage.

20. The method of claim 19, wherein at least one of (i) the passenger space and (ii) luggage space of the public-transport vehicle is defined by at least one of (i) physical markers in the public-transport vehicle that are detectable by the at least one measuring device during the scan of the public-transport vehicle without at least one of (i) passengers and (ii) luggage and (ii) by post-editing the scan of the public-transport vehicle without at least one of (i) passengers and (ii) luggage.

21. The method of any one of claims 18 to 20, wherein a plurality of measuring devices is equipped with at least one infrared emitter to create at least one of (i) infrared point clouds and (ii) structured infrared patterns and the measuring devices are also equipped with at least one infrared detector to receive at least one of (i) infrared point clouds and (ii) structured infrared patterns, the infrared point clouds and/or structured infrared patterns being used to create 3D depth maps of various sections of the public-transport vehicle's passenger space and/or luggage

space, which are stitched together to a 3D depth map of the public transport vehicle.

22. A computerized system for predicting a capacity of a public-transport vehicle for passengers to board at a stop and for at least one of (i) displaying information representative of this capacity on at least one stationary display device at the stop and (ii) enabling data representative of the capacity of the public-transport vehicle for passengers to board at the stop to be transmitted to at least one remote computer device, the public-transport vehicle comprising a passenger space with at least one measuring device sensitive to the presence of passengers,

the system comprising at least one processor and at least one memory, the at least one memory comprising executable instructions that when executed by the at least one processor cause the processor to perform two automatic processes, a prediction process and a data procurement process;

the prediction process comprising:

- predicting the capacity of the public-transport vehicle for passengers to board at the stop by using a stored indication of the capacity of the public-transport vehicle for passengers to board at the stop, wherein the stored indication of the capacity of the public-transport vehicle for passengers to board at the stop being the result of at least one previous execution of the data procurement process,
- at least one of (i) displaying the information representative of the predicted capacity of the public-transport vehicle for passengers to board at the stop on the at least one stationary display device at the stop and (ii) enabling data representative of this capacity to be transmitted to the at least one remote computer device;

the data procurement process comprising:

- determining the capacity of the public-transport vehicle for passengers to board at the stop by an activity comprising measuring a filling level of the public-transport vehicle before the stop by scanning the at least one passenger space with the at least one

measuring device before the stop and combining the filling level with an indication of a number of alighting passengers;

- updating the stored indication of the capacity of the public-transport vehicle for passengers to board at the stop to be used in the future,

wherein at least one of (i) the prediction process and (ii) the data procurement process are adapted to take at least one of (i) weather conditions, traffic relevant events, and public holidays into account by using at least one capacity-expectation-modifying parameter.

23. The computerized system of claim 22, which is arranged to carry out the method according to any one of claims 14 to 21.