Claims

1. Method for monitoring a package for storage and/or transport of at least one item, wherein data about properties of the item and/or about influences on the item are measured,
characterized in,
that at least two sensors are equipped in a way enabling them for measuring the data, wherein a transmission unit receives the data of the at least two sensors and wherein the transmission unit executes a decision about a selection of data transmitted to a receiving unit.

2. The method according to claim 1,
characterized in,
that the transmission unit relates the data from the sensors independently.

3.The method according to claim 1 or claim 2,
characterized in,
that the transmission unit is a RFID transponder.

4.The method according to any of the claims 1-3,
characterized in,
that the transmission unit operates according to a mobile communication standard.

5. The method according any of the claims 1-4,
characterized in,
that a logical node of a logistics system decides about a selection of data which is transmitted from the transmission unit to the receiving unit.

6. The method according to any of the previous claims,
characterized in,
that at least one of the sensors is equipped in a way, that it is capable of detecting an influence of parameters which require a change of the transmission of data.

7. The method according to claim 6,
characterized in,
that a control unit sends information to the transponder about a desired selection of a data.

8. The method according to any of the previous claims,
characterized in,
that a user is enabled to make the selection of the types of data to be transmitted.

9. The method according to claim 8,
characterized in,
that the user is enabled to perform this selection at a webpage.

10. A sentinel indicator system, comprising:
- a transponder including an integrated circuit coupled with an antenna;
- at least two sentinel sensors capable of monitoring at least one physical property of an item
- a memory module containing data representing one or more predefined temperature-dependent shelf-life trends;
- a determining module for receiving time- and temperature dependent measurement data from the sentinel sensor and determining a current status by applying the measurement data to the trend data from the memory module;
- a communications interface transmission unit permitting a reading unit to retrieve current status data corresponding to the status determined by the determining module; and
- a power management module,.

wherein the transmission unit comprises alert and sensor status data and program instructions for relaying communications between the transmission unit and the sensor.

11. The system of claim 10, further comprising one or more additional sentinel sensors also communicatively coupled with said transponder permitting the same or a different reader, or both, to retrieve item data measured by the one or more additional sensors.

12. The system of claim 10 or 11, wherein the memory comprises a transponder portion for controlling the transponder, and a dedicated sensor portion comprising the sensor data.

13. The system of claim 12 wherein the transponder portion comprises alert and sensor status data, and program instructions for relaying communications between the reader and the sensor.

14. The system of any of the claims 10 to 13, wherein the monitoring module compares the status data to one or more predetermined trends, and provides an alert when at least one impact data has reached a critical value.

15. The system of any of the claims 10 to 14, further comprising one or more additional item integrity sensors also communicatively coupled with said transponder permitting the same or a different reader, or both, to retrieve item data measured by the one or more additional sensors.

16. The system of any of the claims 10 to 15, wherein the memory module comprises a transponder portion for controlling the transponder, and a dedicated sensor portion comprising the sensor data.

17. The system of any of the claims 10 to 16, wherein the transponder portion comprises alert and sensor status data, and program instructions for relaying communications between the reader and the sensor.

18. The system of any of the claims 10 to 17, wherein the power management module periodically activates the monitoring component from a sleep or other low power state to gather the sensor measurements.

19. Logistics system for a transport of a package (10) with at least one item (20) from a starting point to a receiving point,
characterized in,
that it contains a logical node, which is capable of sending controlling information to at least two sensors of a sentinel indicating system and that it furthermore contains at least one reading unit for receiving data from the sentinel sensors.

20. Logistics system according to claim 19,
characterized in,
that the controlling information is transmitted by a transponder.

21. Logistics system according to claim 19 or 20,
characterized in,
that the controlling information is transmitted according to a telecommunication standard.

CLAIMS

1. Method for monitoring a package (10) for storage and/or transport of at least one item (20), wherein data about properties of the item (20) and/or about influences on the item (20) are measured,
wherein at least two sensors (S, 30) are equipped in a way enabling them for measuring the data, wherein a transmission unit (T) receives the data of the at least two sensors (S, 30) and wherein the transmission unit (T) executes a decision taken by a logical node of a logistics system for transport of at least said package (10) about a selection of data transmitted to a receiving unit (61), wherein a control unit sends information to the transmission unit (T) about a desired selection of data and wherein a user is enabled to make the selection of the types of data to be transmitted.

2. The method according to claim 1,
characterized in,
that the transmission unit (T) relates the data from the sensors (S, 30) independently.

3. The method according to claim 1 or claim 2,
characterized in,
that the transmission unit (T) is a RFID transponder (21).

4. The method according to any of the claims 1-3,
characterized in,
that the transmission unit (T) operates according to a mobile communication standard.

5. The method according to any of the previous claims,
characterized in,
that at least one of the sensors (S, 30) is equipped in a way, that it is capable of detecting an influence of parameters which require a change of the

transmission of data.

6. The method according to any of the previous claims,
characterized in,
that the user is enabled to perform this selection of the types of data at a webpage.

7. A sentinel indicator system for monitoring a package (10) for storage and/or transport of at least one item (20), comprising:
- a transponder (21) including an integrated circuit coupled with an antenna;
- at least two sentinel sensors (S, 30) capable of monitoring at least one physical property of the item (20);
- a memory module containing data representing one or more predefined temperature-dependent shelf-life trends;
- a determining module (50) for receiving time- and temperature-dependent measurement data from the sentinel sensors (S, 30) and determining a current status by applying the measurement data to the trend data from the memory module;
- a communication interface to the transmission unit (T) permitting a reading unit to retrieve current status data corresponding to the status determined by the determining module (50);
- a logical node for taking a decision about a selection of data which is transmitted from the transmission unit (T) to a receiving unit (61); and
- a power management module,

wherein the transmission unit (T) comprises alert and sensor status data for a selection desired and made by a user and program instructions for relaying communications between the transmission unit (T) and the sensor (S, 30).

8. The system of claim 7, further comprising one or more additional sentinel sensors (30) also communicatively coupled with said transponder (21) permitting the same or a different reader, or both, to retrieve item data

measured by the one or more additional sensors (30).

9. The system of claim 7 or 8, wherein the memory comprises a transponder portion for controlling the transponder (21), and a dedicated sensor portion comprising the sensor data.

10. The system of claim 9, wherein the transponder portion comprises alert and sensor status data, and program instructions for relaying communications between the reader and the sensor (S, 30).

11. The system of any of the claims 7 to 10, wherein the monitoring module compares the status data to one ore more predetermined trends, and provides an alert when at least one impact data has reached a critical value.

12. The system of any of the claims 7 to 11, further comprising one or more additional item integrity sensors also communicatively coupled with said transponder (21) permitting the same or a different reader, or both, to retrieve item data measured by the one or more additional sensors.

13. The system of any of the claims 7 to 12, wherein the memory module comprises a transponder portion for controlling the transponder (21), and a dedicated sensor portion comprising the sensor data.

14. The system of any of the claims 7 to 13, wherein the transponder portion comprises alert and sensor status data, and program instructions for relaying communications between the reader and the sensor (S, 30).

15. The system of any of the claims 7 to 14, wherein the power management module periodically activates the monitoring component from a sleep or other low power state to gather the sensor measurements.

16. System comprising:
a sentinel indicator system according to any of claims 7 to 15; and
a logical node, which is capable of sending controlling information to at least two sensors (S, 30) of the sentinel indicator system and that it furthermore contains at least one reading unit for receiving data from the sentinel sensors (S, 30).

17. System according to claim 16,
characterized in,
that the controlling information is transmitted by a transponder (21).

18. System according to claim 16 or 17,
characterized in,
that the controlling information is transmitted according to a telecommunication standard.