

CLAIMS

1. A method for assisting with an implantation, along a railway track, of a plurality of access points of a radio-communication infrastructure, so that the radio-communication infrastructure has an optimum coverage for a radio-communication device loaded on board a vehicle intended to run on the railway track, wherein the method first consists of providing:

first and second emitting wagons, each emitting wagon being able to run along the railway track and including an emitting means, identical to an emitting means which equips the access points to be implanted along the railway track and controlled so as to emit a characteristic signal; and

a receiving wagon, able to run along the railway track and including at least one receiving means, said or each receiving means being identical to a receiving means which equips the radio-communication device loaded on board the vehicle intended to run on the railway track and being able to measure a quantity relating to the characteristic signal received, and wherein the method then consists, for the implantation along the railway track of a current access point of the plurality of access points relative to an implantation point of a preceding access point of the plurality of access points, a plurality of steps consisting of:

a) placing the first emitting wagon in a point of the railway track corresponding to the implantation point of the preceding access point;

b) while the emitting means of the first emitting wagon emits a first characteristic signal, moving the receiving wagon in a first direction, away from the first emitting wagon;

c) as soon as the quantity relating to the first characteristic signal is less than a reference value, immobilizing the receiving wagon;

d) while the emitting means of the second emitting wagon emits a second characteristic signal, moving the second emitting wagon in the first direction, away from the receiving wagon;

e) as soon as the quantity relating to the second characteristic signal is less than the reference value, immobilizing the second emitting wagon; and

f) storing in memory the current position of the second emitting wagon as an implantation point of the current access point.

2. The method according to claim 1, wherein,

the receiving means being a front receiving means, identical to the receiving means of the radio-communication device loaded at the front of the vehicle intended to run on the railway track,

the receiving wagon further includes a rear receiving means, identical to the receiving means of a radio-communication device loaded at the rear of the vehicle intended to run on the railway track, and wherein the plurality of steps further consist of:

applying the steps a) to e) by using the front receiving means of the receiving wagon, so that the current position of the second wagon is stored as a provisional implantation point of the current access point;

and then, by using the rear receiving means of the receiving wagon:

g) moving the receiving wagon in the first direction, away from the first emitting wagon;

h) as soon as the quantity relating to the first characteristic signal is less than the reference value, immobilizing the receiving wagon;

i) checking whether the quantity relating to the second characteristic signal is greater than the reference value; and, if not,

j) moving the second emitting wagon in the opposite direction, towards the receiving wagon; and,

k) as soon as the quantity relating to the second characteristic signal is greater than the reference value, immobilizing the second emitting wagon;

l) storing in memory the current position of the second emitting wagon as the implantation point of the current access;

and, if yes, storing in memory the provisional implantation point as the implantation point of the current access point.

3. The method according to claim 1, wherein the plurality of steps is iterated so as to gradually cover the railway track by considering the implantation point of the current access point determined at the end of a given iteration of the plurality of steps, the implementation point of the preceding access point being the start of a following iteration of the plurality of steps.

4. The method according to claim 1, wherein the quantity relating to the signal emitted by the emitting wagon and received by the receiving wagon is the power of the signal.

5. The method according to claim 1, wherein the characteristic signal is a beacon signal preferably including an identifier of the emitting wagon.
6. A system for applying a method according to any of claims 1 to 5.