Internal distribution code:
(A) [-] Publication in OJ
(B) [-] To Chairmen and Members
(C) [-] To Chairmen
(D) [X] No distribution

Datasheet for the decision
of 3 June 2020

Case Number:	T 2133/14 - 3.5.06
Application Number:	09250414.1
Publication Number:	2093666
IPC:	G06F9/445, A61N1/372
Language of the proceedings:	EN

Title of invention:
Implant revision recognition by exchanging the revision data during transmission

Applicant:
Codman Neuro Sciences Sàrl

Headword:
Implant revision/CODMAN

Relevant legal provisions:
EPC Art. 83, 84, 56

Keyword:
Claims - clarity (yes)
Sufficiency of disclosure - (yes)
Inventive step (no)

Decisions cited:

Catchword:
An invention is not insufficiently
disclosed in the sense of Article 83 EPC just because a lack
of support in the sense of Article 84 EPC of a broad claim
cannot be resolved by consulting the description.

Case Number: **T 2133/14 - 3.5.06**

D E C I S I O N
of Technical Board of Appeal 3.5.06
of 3 June 2020

Appellant:	Codman Neuro Sciences Sàrl
(Applicant)	rue Girardet 29
	2400 Le Locle (CH)
Representative:	Tunstall, Christopher Stephen
	Carpmaels & Ransford LLP
	One Southampton Row
	London WC1B 5HA (GB)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 11 June 2014 refusing European patent application No. 09250414.1 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman	M. Müller
Members:	A. Teale
	B. Müller

Summary of Facts and Submissions

I.   The appeal lies against the decision, dispatched with
        reasons dated 11 June 2014, refusing European patent
        application No. 09 250 414.1 for non-compliance with
        Articles 83 and 84 EPC. In the decision, a number of
        documents were mentioned, in particular

        D2: WO 01/47597 A,

        but were not relied upon in its reasons.

II.   A notice of appeal was filed on 21 August 2014, the
        appeal fee being paid on the same day. A statement of
        grounds of appeal was received on 21 October 2014. The
        appellant requests that the decision under appeal be
        set aside and a patent be granted on the basis of the
        requests subject to the refusal, namely claims 1-17
        according to a main or an auxiliary request, in
        combination with drawing sheets 1/2-2/2 and description
        pages 1 and 4-12 as originally filed, and description
        pages 2, 3 and 13 as filed on 27 August 2010.

III.   Claim 1 of the main request reads as follows:

        "Method for establishing communication among a first
        electronic device (110) having a first memory device
        (130) for storing multiple versions of application
        software for operation of the first electronic device
        and a second electronic device (105) having a second
        memory device (120) for storing a single current
        version of the application software for operation of
        the second electronic device, comprising the steps of:
            generating (200) an interrogation signal at the
        first electronic device;

transmitting (205) the generated interrogation
signal from the first electronic device to the second
electronic device with which it is in communication;
    generating (210) at the second electronic device a
response signal including identification information
associated with the second electronic device;
    transmitting (215) the generated response signal
from the second electronic device back to the first
electronic device with which it is in communication;
    extracting (220) the identification information from
the response signal received by the first electronic
device, the identification information including both
of a unique identification number associated with the
second electronic device and a current version of
application software currently being utilized by the
second electronic device; and
    based on the extracted identification information
associated with the second electronic device,
correlating (225) thereto a version of the application
software from among the multiple versions of
application software associated with the first
electronic device that is compatible with the
recognized version of the application software
currently being utilized by the second electronic
device,
    wherein the correlating step utilizes a look-up-
table."

Claim 1 of the auxiliary request differs from claim 1
of the main request in specifying that the first and
second electronics devices are a control device and an
implantable medical device, respectively.

IV.   With a summons to oral proceedings, the board informed
the appellant of its preliminary opinion that the
claimed invention was neither unclear nor insufficient-

ly disclosed, Articles 83 and 84 EPC 1973, but lacked an inventive step over D2, Article 56 EPC 1973.

V.   In response to the summons, the appellant did not file amendments or arguments, but informed the board in a letter dated 26 May 2020 that the applicant would not be represented at the scheduled oral proceedings.

VI.   The oral proceedings were then cancelled.

Reasons for the Decision

The invention

1.   The application is concerned with ensuring the compatibility of application software running on two communicating electronic devices, preferably an implantable medical device such as a cardiac pacemaker and an associated control device (see paragraphs 1 and 15).

1.1   More specifically, it is observed that the application software running on the implantable device (the "second" device in claim 1 of the main request) may be updated during its lifetime and stated that, for proper operation, the control device (the "first" device) will need to run a "compatible version of application software" (see paragraph 17).

1.2   According to a prior art solution, discussed in paragraph 4 (U.S. patent application 5,800,473), if it is detected that the implant runs a more recent version of the application software than the control device, then the more recent software "objects" are downloaded

from the implant to the control device. In the
application, this solution is stated to require an
undesirably complex implantable device, too much energy
and time, and to have the further disadvantage that the
control device will at any point in time only run a
single version of the application software, which may
not be compatible with all implantable devices (see
paragraph 4, lines 11-15, and paragraph 5). The
invention is intended to overcome these disadvantages
(see paragraph 9).

1.3   As a solution, it is proposed that a control device for
       communicating with a specific implantable device
       generate and transmit an "interrogation signal" to the
       implantable device. In response, the latter generates
       and transmits a "response signal" to the control
       device, the response signal comprising "identification
       information" including one or more of its type and a
       "unique identification number" and the version of the
       application software installed on it (see
       paragraphs 10, 20 and 23-30). The control device stores
       "multiple, preferably all, updates, versions or
       generations of the application software for the control
       device" in question (see paragraphs 16 and 34). Based
       on the received "identification information", the
       control device "correlates or maps" to the implantable
       device a compatible version of the application software
       using a lookup table (see paragraphs 21 and 22).
       Subsequently, the control device uses the so-determined
       compatible version (see paragraph 33). The procedure is
       depicted in figure 2.

Clarity and sufficiency of disclosure,
Articles 84 and 83 EPC

2.   The examining division found the independent claims of
         both requests to be unclear for the following reasons
         (see the decision, points 19-22 and 25).

2.1   It was left open what kinds of interrogation and
         response signals could be processed by all possible
         electronic devices. At least for some pairs of elec-
         tronic devices, it would require inventive skill to
         provide suitable interconnection signals, while the
         description did not disclose further details. As a
         consequence, the independent claims were not supported
         over their full breadth by the description, Article 84
         EPC, and, because "said clarity objection" could not be
         resolved using the description, their subject-matter
         was insufficiently disclosed, Article 83 EPC (see esp.
         the recitation of section 9.1.1.2 on pages 6 and 7 of
         the decision).

2.2   The claimed invention presupposed that the different
         software versions all had different interfaces. Because
         this was an unrealistic assumption, the intended
         "system context" was unclear (see the recitation of
         sections 9.1.1.3 to 9.1.1.5 on page 7 of the decision).

2.3   The claims left open how the control device was meant
         to be "'equipped with multiple software versions
         initially' for all diverse types of 'second electronic
         devices', [and] for all their respective versions of
         software", and how it was avoided that the first
         electronic device had to be modified whenever the
         application software was changed (i.e. continuously or
         frequently). Also, for combinatorial reasons it was
         unrealistic to assume that each first electronic device

could store all versions of the application software
for all types of second electronic device. This
rendered the claims unclear, Article 84 EPC, and meant
that their subject-matter was insufficiently disclosed,
Article 83 EPC, because "said clarity objection" could
not be resolved using the description (see the
recitation of sections 9.1.2.1 to 9.1.2.5 on pages 9
and 10 of the decision).

2.4   "Correlating" a version of the application software to
        the second device did not have a clear technical
        effect, since the "correlated version of [the]
        application software" was neither loaded nor used for
        communication (see esp. the recitation of section 9.1.3
        on page 11 of the decision).

The board's view on clarity and sufficiency

3.   The board does not share the conclusions of the
        examining division on clarity of the independent
        claims.

3.1   While the board agrees with the examining division's
        view that "correlating" has no clear technical effect
        (see point 2.4 above), this alone does not imply a lack
        of clarity.

3.2   The board also agrees with the examining division that
        the claims do not specify any details about the inter-
        rogation or response signals, or what it would mean for
        two devices to be compatible or incompatible. The
        claims further do not include any feature that would
        allow an estimate of the number of versions the first
        electronic device would have to store and when or how
        the first electronic device would have to be updated.

3.3   None of these omissions however implies, in the board's
        view, a lack of clarity - or an insufficiency of
        disclosure, for that matter.

3.3.1   The board considers that the skilled person would have
        no technical difficulty in implementing a form of
        interrogation/response-protocol in devices even in a
        "non-standard scenario" such as a smartphone
        communicating with a cardiac pacemaker (see paragraph
        bridging pages 6 and 7 in the decision).

3.3.2   The skilled person would interpret the notion of
        "compatibility" as used in the claims broadly. In the
        broadest reasonable sense, two pieces of software would
        be considered "compatible" if they are intended - and
        can, thus, be assumed - to interoperate properly.
        Apparently, this would not be the case if their
        interfaces did not match. However, even software with
        matching interfaces might not properly interoperate,
        for various reasons apparent to anyone skilled in the
        art of programming. The skilled person would understand
        that, effectively, "compatibility" is what the
        "correlating" step establishes, and - for the purposes
        of the claimed subject-matter - two pieces of software
        are compatible if the look-up-table "says so".

3.3.3   It would have been evident to the skilled person that
        the memory requirements on the first electronic device
        grow with the number of versions of the application
        software to be stored. The board also agrees with the
        examining division that this number might well be
        larger than what a typical such "first electronic
        device" can actually store (see also "all possible
        versions" in claim 2). However, while it might be
        undesirable or impracticable for various reasons, it
        would not be technically difficult to either enlarge

the memory of the first electronic device or to limit the number of versions to some (the most recent say, or only those needed for some "second" device types) to the detriment of others.

3.4   The board takes the view that the skilled person would not need any explicit statement in the application to be able to handle the mentioned situations properly. Hence, in the board's view, the independent claims are neither unclear in the mentioned respects, nor insufficiently supported. Their subject-matter is also not insufficiently disclosed.

4.   The findings in point 3 are further corroborated by the following considerations.

4.1   An objection that a claim is too broad to be supported by the description over its full breadth can be addressed by limiting the claim to a breadth which is. For that reason, the limitation of a claim covering standard and non-standard scenarios (claim 1 of the main request) to only the standard scenario of a control device and an implantable medical device (see the auxiliary request) is a valid attempt to overcome at least one of the objections regarding incomplete support by the description labelled "9.1.1.2" (see paragraph bridging pages 6 and 7 of the decision).

4.2   Moreover, the board does not agree that the subject-matter of a claim which is not supported over its full breadth by the description or which is unclear is *ipso facto* insufficiently disclosed, as the examining division suggests (*loc. cit.*). Accordingly, the board considers that the objection under Article 83 EPC is not correctly reasoned in the decision.

5.   In the following, the board takes the view that the
        skilled person would construe claim 1 of the auxiliary
        request as follows. The first electronic device (the
        control device), storing multiple versions of some
        application software, asks the second electronic device
        (the implantable medical device) for identification
        information which, *inter alia*, identifies the version
        of the application software it runs. This information
        is then used to identify a preferred version of the
        software to be run on the first electronic device. This
        version is identified using a look-up table and
        referred to in the claims as "compatible".

The prior art

6.   D2 discloses a system by which an "implantable medical
        device" (IMD) can be updated - in terms of parameters,
        settings or upgrades - without requiring the physical
        presence of a clinician (see e.g. page 2, lines 1-11,
        and page 6, lines 5-17). A remote "interrogator" and
        "data center" is disclosed which "interrogate" the IMD
        for relevant information and, based on this, determine
        and upload pertinent upgrade data or other information
        to the IMD (see page 6, lines 10-15 and 22-25). More
        specifically, the remote system identifies the IMD and
        then selects a suitable "device agent module" (page 18,
        line 20, to page 19, line 2). After that, data can be
        exchanged between the remote system and the IMD,
        including, in particular, "software [...] or firmware
        version information" (page 19, lines 3-8) which may
        have to be upgraded.

6.1   D2 does not disclose that the selection of the device
        agent software uses a lookup table.

6.2   Moreover, and as the appellant points out, D2 does not
        disclose the transmission of both the identification of
        the IMD type and the version of the application
        software currently utilized by the IMD (see the grounds
        of appeal, page 6, paragraph 4). Rather, the IMD
        identification has to be transmitted separately from
        and before the software version information (see e.g.
        the paragraph bridging pages 6 and 7 of the grounds of
        appeal).

Inventive step, Article 56 EPC

7.   The device agent software selected at the remote
        computer is chosen so as to be, in some sense,
        "compatible" with the "type or model of IMD" and the
        the preceding "dynamic identification" of the IMD by
        the remote computer (see page 18, lines 26-29) implies
        the use of some interrogation-response protocol as
        claimed, or at least the skilled person reading D2
        would consider it as a matter of common practice. The
        board also regards it as implicit in D2 that several
        possible "agent device software" modules are available
        to the remote system for there to be a selection. The
        board cannot see why an "entire module" cannot
        reasonably be referred to as a version of the
        application software (cf. the grounds of appeal,
        page 7, paragraph 2).

7.1   The alternative "versions" of the agent device software
        are available to the remote system. It would be obvious
        to store it *on* this system. As regards the main
        request, the remote system qualifies as a first
        electronic device as claimed. As regards the auxiliary
        request, the board regards the remote system as a
        "control device". That said, given that claim 1 of the
        auxiliary request does not contain any limitation on

the control device, the board also cannot see why a selection of the version of the agent device software should not be stored on a more narrowly construed control device with sufficient local memory.

7.2   Moreover, the board considers it to be an obvious possibility that the relevant device agent software might not only depend on the "type or model of IMD" but also on the version of some software installed on it, for example an operating system running on the IMD. In such a situation, it would be obvious, in the board's judgment, that the version number of that software also be transmitted before the selection of the agent device software.

7.3   Furthermore, with regard to the auxiliary request, the use of a look-up-table to implement a mapping, such as that from IMD identification to device agent software, is usual programming practice.

8.   The board therefore agrees with the opinion expressed by the examining division in its summons to oral proceedings dated 25 February 2014 (see points 9.2.3 to 9.2.3.6) that the independent claims of both requests lack inventive step over D2, Article 56 EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

L. Stridde   M. Müller

Decision electronically authenticated