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Datasheet for the decision of 17 September 2020

Case Number: T 0426/16 - 3.4.03

Application Number: 08807366.3

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IPC: G06Q40/00, G06Q10/00, G06Q50/00

Language of the proceedings: EN

Title of invention:
WATER AS COMMODITY FOR FINANCIAL INVESTMENT

Applicant:
Aqua Index Ltd.

Relevant legal provisions:
EPC Art. 123(2), 56

Keyword:
Inventive step - mixture of technical and non-technical features - (no) - all requests

Decisions cited:
G 0003/08, T 0769/92, T 0931/95, T 0641/00

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Case Number: T 0426/16 - 3.4.03

D E C I S I O N
of Technical Board of Appeal 3.4.03
of 17 September 2020

Appellant: (Applicant)	Aqua Index Ltd. 11 Bilu Street 49462 Petach Tikva (IL)
Representative:	Becker & Kurig Partnerschaft Patentanwälte PartmbB Bavariastrasse 7 80336 München (DE)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 29 September 2015 refusing European patent application No. 08807366.3 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman	G. Eliasson
Members:	M. Ley
	C. Heath

Summary of Facts and Submissions

I. The appeal is against the decision of the examining division to refuse European patent application No. 08 807 366.3.

The examining division decided that the subject-matter of the independent claims of the main request and of the first to third auxiliary requests lacked an inventive step (Article 56 EPC) in view of a notoriously-known computer network system, all requests having been filed by telefax on 10 August 2015.

II. In a communication pursuant to Article 15(1) RPBA 2020, the Board informed the appellant of its provisional opinion that neither the main request nor the first and second auxiliary requests filed with the statement of grounds of appeal met the requirements of Articles 123(2) EPC and 84 EPC and that the presence of an inventive step in the sense of Article 56 EPC of claimed subject-matter potentially fulfilling the above requirements was questionable.

III. With a letter dated 17 August 2020, the appellant replaced the claims hitherto on file by a main request, a first and a second auxiliary requests.

IV. During the oral proceedings before the Board on 17 September 2020, the appellant requested to set aside the impugned decision and to grant a European patent based on either the main, the first or the second auxiliary requests.

V. At the end of the oral proceedings the chairman announced the Board's decision.

VI. Claim 1 according to the main request (feature labelling **(a)** to **(n)** added by the Board) reads as follows:

(a) A method of determining and using a professional appraisal of a water quality of an amount of water, comprising:
(b) professionally appraising, by means of professional water quality appraisal instruments, the amount of fresh water to determine a categorization of the amount of fresh water, into at least two of the following water quality categories (i) domestic water, (ii) desalinated water, (iii) bottled water or (iv) purified water;
(c) determining, and storing on one or more computers the results of said determining, at least one of a quantity of water utilized to produce a quantity of at least one first product other than water and a quantity of water constituent in the quantity of the at least one first product;
(d) constantly monitoring a varying price, P_1, of at least one product other than water and constantly providing one or more processors with the varying price P_1 of the at least one first product;
(e) configuring one or more processors to determine and repetitively adjust a first index value applied to the amount of fresh water based on changes in the constantly provided varying price P_1 of the at least one first product and based on at least one of (i) a quantity of water utilized to produce a quantity of the at least one first product and (ii) a quantity of water constituent in the quantity of the at least one first product,
(f) configuring the one or more processors such that adjustments in the index value are made at least daily to reflect any changes in P_1,

(g) instructing digital display devices to display an adjusted first index value in real time when the one or more processors determine a change in P_1; and

(h) determining a value of a defined portion of the amount of water, by the one or more processors, by taking into consideration the professionally appraised water quality category of the amount of water and the determined first index value or adjusted first index value; and

(i) determining, and storing on one or more computers the results of said determining, a quantity of water utilized to produce a quantity of at least one second product other than water and a quantity of water constituent in the quantity of the at least one second product;

(j) constantly monitoring a varying price, P_2, of at least one second product other than water and constantly providing one or more processors with the varying price P_2 of the at least one second product;

(k) configuring one or more processors to determine and repetitively adjust a second index value applied to the amount of fresh water based on changes in the constantly provided varying price P_2 of the at least one second product and based on at least one of (i) a quantity of water utilized to produce a quantity of the at least one second product and (ii) a quantity of water constituent in the quantity of the at least one second product,

(l) configuring the one or more processors such that adjustments in the second index value are made at least daily to reflect any changes in P_2,

(m) instructing digital display devices to display an adjusted second index value in real time when the one or more processors determine a change in P_2; and

(n) determining a value of a defined portion of the amount of water, by the one or more processors, by

taking into consideration the professionally appraised water quality of the amount of water and the determined second index value or adjusted second index value.

The same letters with an apostrophe (i. e. **(a')** to **(p')**) are used for the corresponding device features in claim 6 according to the main request, which reads as follows:

(a') A system for determining and using a professional appraisal of a water quality of an amount of fresh water comprising:
(b') professional water quality appraisal instruments configured for use in determining a categorization of amount of fresh water into at least two of the following water quality categories (i) domestic water, (ii) desalinated water, (iii) bottled water or (iv) purified water;
(c') apparatus for determining at least one of (i) a quantity of water utilized to produce a quantity of a first product other than water, (ii) a quantity of water constituent in the quantity of the first product;
(d') one or more processors programmed to constantly receive a varying price P_1 of the first product and to repetitively determine, an index value of water applied to the amount of water based on the constantly varying price P_1 of the first product other than water and based on the at least one of (i) the quantity of water utilized to produce a quantity of the first product, and (ii) the quantity of water constituent in the quantity of the first product,
(e') the one or more processors also configured to continually adjust the index value applied to the amount of water in real time based on changes in the constantly received varying price P_1 of the product and on the at least one of (i) the quantity of water

utilized to produce the quantity of the first product and (ii) the quantity of water constituent in the quantity of the first product,

(f') the one or more processors configured such that adjustments in the first index value are made at least daily to reflect any changes in P_1,

(h') the one or more processors also configured to determine a value of a defined portion of the amount of water by taking into consideration the determined first index value and the professionally appraised water category of the amount of water;

(g') digital display devices configured to receive instructions from the one or more processors to display adjusted first index values in real time when the one or more processors determine a change in the price P_1;

(i') apparatus for determining at least one of (i) a quantity of water utilized to produce a quantity of a second product other than water, (ii) a quantity of water constituent in the quantity of the second product;

(j') one or more processors programmed to constantly receive a varying price P_2 of the second product and to repetitively determine, an index value of water applied to the amount of water based on the constantly varying price P_2 of the second product other than water and based on at least one of (i) a quantity of water utilized to produce a quantity of the second product, and (ii) a quantity of water constituent in the quantity of the second product,

(k') the one or more processors also configured to continually adjust the second index value applied to the amount of water in real time based on changes in the constantly received varying price P_2 of the second product and on the at least one of (i) the quantity of water utilized to produce the quantity of the second

product and (ii) the quantity of water constituent in the quantity of the second product,
(l') the one or more processors configured such that adjustments in the second index value are made at least daily to reflect any changes in P_2,
(n') the one or more processors also configured to determine a value of a defined portion of the amount of water by taking into consideration the determined second index value and the professionally appraised water quality of the amount of water, and
(p') a memory configured to store at least one of the first index value and the second index value of the amount of water.

Claim 1 according to the first auxiliary request consists of features (a) to (h) and claim 6 according to the auxiliary request consists of features (a') to (h') and (p''), wherein (p'') reads "a memory configured to store at least the first index value of the amount of water."

Claim 1 according to the second auxiliary request (labelling **(A)** to **(H)** added by the Board) has the following wording:

(A) A computer-implemented method of connecting traders to a water exchange, comprising:
(B) at least one of (a) determining a first quantity of water utilized to produce a first quantity of a first product; and (b) determining a first water quantity constituent in the first quantity of the first product;
(C) using a first data feed to constantly feed to one or more processors a varying price of the first product;
(D) using one or more processors to repeatedly detect the varying price of the first product in the first

data feed and to receive at least once, in regard to the first product, at least one of the first quantity of water utilized to produce the first quantity of the first product and the first water quantity constituent in the first quantity of the first product;

(E) using the one or more processors to repeatedly determine a first index value of water applied to a particular amount of water based on the repeatedly varying price of the first product and based on at least one of (i) the first quantity of water utilized to produce the first quantity of the first product, and (ii) the first water quantity constituent in the first quantity of the first product,

(F) using the one or more processors to continually adjust the first index value of water applied to the particular amount of water based on changes in the constantly received varying price of the first product and based on the at least one of (i) the first quantity of water utilized to produce the first quantity of the first product and (ii) the first water quantity constituent in the first quantity of the first product,

(G) having the one or more processors instruct a digital display device to display adjusted first index values of water,

(H) determining a value of a defined portion of the particular amount of water, by the one or more processors, by taking into consideration a professionally appraised water quality of the particular amount of water and the determined first index value or adjusted first index values of water, wherein the professionally appraised water quality categorizes the amount of fresh water into at least two of the following water quality categories: (i) domestic water, (ii) desalinated water, (iii) bottled water or (iv) purified water.

VII. Appellant's arguments

(a) In the statement of grounds of appeal and its letter dated 17 August 2020, the appellant indicated page 8, lines 9 to 10, 18 to 22, figure 3, box 236 and page 6, lines 13 to 15 as a basis for features (b) and (b') (the Board understands that figure 2 was meant, as only this figure has a "box 236"). The appellant argued that the term "professional" referred to a person "having the required skills and training to perform the water appraisal".

(b) With its letter dated 17 August 2020, the appellant further specified in the independent claims that the professional water quality appraisal instruments were used to determine "a categorization of amount of fresh water into at least two of the following water quality categories (i) domestic water, (ii) desalinated water, (iii) bottled water or (iv) purified water". As a basis in the application as originally filed page 9, lines 1 to 18 and the top of figure 3 were indicated.

(c) In the statement of grounds of appeal and its letter dated 17 August 2020, the appellant indicated page 6, last paragraph to page 7, line 5 and figure 1 in combination with page 10, lines 18 to 28 as a basis for features (g), (g'), (m) and (m'), page 8, lines 5 to 12 as a basis for features (h), (h'), (n) and (n') and page 10, lines 18 to 28 for a method or a system using two separate index values in the sense of features (e), (e'), (k) and (k'). As examples of first and second "index

values", the appellant mentioned t_1, t_2 and t_3 as described on page 10, lines 18 to 28.

(d) According to the appellant, the claims recited a non-abstract technical solution with a technical character and, hence, provided a technical solution to a technical problem. In view of the "professional water quality appraisal instruments" in the independent claims, the skilled person was "an expert in the field of technical evaluation of substances in the water by technical instruments", which "could not be interpreted as an abstract mental or pure business act that can even be performed by a human being". Features (b) and (b') therefore were technical features. As examples of an "professional water quality appraisal", the appellant mentioned the measure of the amount of one or more substances in water e. g. to determine its salinity or its pH, the term "water quality" being a known "technical characteristic". The appellant cited a number of web pages related to the testing of water quality.

(e) The appellant argued that the "water quality appraisal instruments" were "integrated together with the inventive combination of elements" according to features (h) and (n) or (h') and (n'), because for determining the "value of a defined portion of the amount of water" the first (or second) index and the appraised water quality (category) were taken into consideration.

(f) The appellant also justified the presence of an inventive step by the display devices used to display two "index values" derived from first and second products, respectively, and by the fact that

first and second index values were used to determine a value of a portion of the amount of water and the value of a further separate portion of the amount of water, respectively.

(g) The appellant mentioned decisions **T 931/95** and **T 769/92**, where the Board of Appeal held "allowable a method claim based merely on an implied need for technical considerations". The Board in case **T 769/92** found that the invention had technical character because it implied a need for technical considerations when carrying out that invention. A technical invention could not lose its technical character, because it was used for a non-technical purpose, like for instance, financial management.

Reasons for the Decision

1. The appeal is admissible.

2. The invention

The present application aims at providing an investment instrument for water based on a stable free market price, as "no one has been able to build a stable investment instrument for water", see page 1, line 11 to page 2, line 22 and page 2, lines 9 to 22, in particular.

Figure 1 is an illustration of a financial instrument for investing in fresh water, see page 6, line 12 to page 7, line 16. A collateral 101 (i. e. a "large" body of water 101 owned by a municipality 102) is marketed via a broker. The broker computes an index value of water 104 (1.07 $ per m3, for example), which allows to evaluate a defined portion of the body of water 101. In

the example of figure 1, the broker sells a certificate 106 for 1000 m3 of water for 1000 m3 x 1.07 $/m3 = 1070 $ (plus a 2% commission) to an investor 108. The flowchart of figure 4 illustrates the same method of investing from the point of view of the investor 108.

Figure 2 and the related description on page 7, line 17 to page 9, line 2 provide more details about the method of marketing water, which, according to the Board, can be divided into four sub-parts:

(1) steps 211 and 215 concern the broker's decision to locate fresh water rights that can be acquired as collateral 101,

(2) steps 217 to 222 relate to the calculation of the index value of water (104 in figure 1 or 369 in figure 3).

(3) steps 223 to 229 are about marketing portions of the collateral by acquiring water rights from the municipality, calculating the value of divided portions of the collateral 101 using the computed index value 104 and selling financial products (e. g. shares) to an investor 108, and

(4) steps 231 to 239 concern the update of the parameters used to calculate the index value (steps 231 to 235) and include an appraisal of the state of the collateral (step 236, see page 8, lines 18 to 24).

Finally, figure 3 details the way the broker computes the index value of water in accordance with steps 217 to 222 of figure 2, see page 8, lines 1 to 4, page 9, line 3 to page 13, line 12. In the example, eight water

product classes or categories (A, Q, U, H, I, E, T and B for export, domestic desalinate, bottled, purify, food crops and biofuel, respectively) are chosen by the broker. For each class, a global market weight factor (Wa, Wq, Wu, Wh, Wi, We, Wt, Wb) is resolved, said weight factors being the portion of the water market represented by the respective product class, see page 9, lines 3 to 17, page 9, last line to page 10, line 5, figure 3, 362. For each product class, a virtual value (368, 365a, 365b) for water is calculated by selecting a certain number of products in that class. In the example of food crops (product class "T"), three products are selected, namely corn, coffee and wheat. Page 10, lines 6 to 32 details how a virtual prize 365a of water in food crops is found. The virtual values 364e of water t_1, t_2, t_3 in corn, coffee or wheat are calculated by using the quantity of water utilized to produce corn, coffee or wheat and the amount of water constituent in corn, coffee or wheat, see page 10, lines 18 to 28. The virtual value 365a of water in food crops is then given by $T = W_{t1}*t_1 + W_{t2}*t_2 + W_{t3}*t_3$, wherein W_{t1}, W_{t2} and W_{t3} are the market weights 363e of corn, coffee and wheat, respectively. As further examples, the specification describes how a virtual value 368 of desalinated water U (page 11, lines 5 to 17) and a virtual value 365b of water in bio-fuels (page 11, line 18 to page 12, line 25) are to be calculated.

The description makes it clear that the broker obtains the global market weights factors (362, Wa, Wq, Wu, Wh, Wi, We, Wt, Wb), the product weights (363a, ..., 363f) and the data necessary to compute the virtual values (364a, ..., 364f) of water in a given product (e. g. corn, coffee or wheat) from available statistics, see page 8, lines 24 to page 9, line 1, "periodic reports

of international trade organization of the quantity of various goods in the world", "available on the Internet or from other sources", page 9, lines 11 to 16, "trade data", page 9, last line to page 10, line 5, "using available statistics". Once each product weight (W_{t1}, ..., W_{u1}, ..., W_{b1}, ...) and the value of water (t1, ..., u1, ..., b1, ...) in each product are known, the virtual values A, Q, U, H, I, E, T, B for water in the respective product classes are calculated. Then, a virtual value 366 of water is computed by Wa*A + Wq*Q + Wu*U + Wh*H + Wi*I + Wt*T + Wb*B (see page 12, lines 29 to 33), and finally further adjusted so as to obtain an index value of water 369 (i. e. element 104 in figure 1), see page 12, lines 29 to page 13, line 12.

According to steps 231 to 235 of figure 2, the relevant factors for computing the value index of water 369 are regularly updated, see page 8, line 24 to page 9, line 2. Furthermore, the state of the collateral 101 itself is periodically appraised by a "professional appraiser" and the value of the collateral adjusted in order to make sure that "each certificate is covered by valid assets", steps 236 and 237 in figure 2, page 8, lines 17 to 24.

3. Preliminary remark

In its communication pursuant to Article 15(1) RPBA 2020, the Board expressed its provisional opinion that neither the main request nor the first and second auxiliary requests filed with the statement of grounds of appeal met the requirements of Articles 123(2) EPC and 84 EPC.

The Board made the observation that neither claims 1 to 24 as originally filed nor the summary of the invention

from page 2, tenth last line to page 5, last line disclose the combination of the features of the independent claims according to the main request. A basis cannot be found in the more specific embodiment described on pages 6 to 14 as originally filed, either.

The Board is of the view that the amendments made to the claims filed with the letter dated 17 August 2020 do not overcome these objections. However, in its decision, the Board focuses on inventive step.

4. Main request

4.1 The examining division decided that the subject-matter of the independent claims of the main request and of the first to third auxiliary requests, all filed on 10 August 2015, lacked an inventive step (Article 56 EPC) in view of a notoriously known computer network system. The technical features of the method claim 1 of the requests were no more than a notoriously known "computerized system", see sections 12.3 and 12.4 of the contested decision. The step of "professionally appraising fresh water in regard to the quality and quantity", the steps of determining and repetitively updating an index value (based on changes on the price of a product, the quantity of water utilized to produce the product and the quantity of water constituent in the product) and the step of determining a value of the collateral using the computed index value and the appraised quality/quantity of the collateral were considered as related to "a business concept on an abstract level", see sections 12.2. For the examining division, it was obvious for the skilled person, i. e. a computer expert provided with a complete description of the abstract business concept in the form of a requirements specification, to implement the business

concept on a computer, see sections 12.6 to 12.12 of the impugned decision.

4.2 The Board is not convinced by the appellant's arguments made in support of an inventive step, see section VII., points (d) to (f).

4.3 The argument (see section VII., points (d) and (e)) that the step of "professionally appraising by professional water quality appraisal instruments" was a technical step, which, in combination with the first or second index values, provided a technical solution, cannot convince the Board.

For the Board, the application as originally filed discloses neither "professional water quality appraisal instruments" nor a "categorization into water quality categories" as result of "professionally appraising" an amount of fresh water. Consequently, determining a value of a defined portion of the amount of water "taking into consideration the professionally appraised water quality category" is also not disclosed in the application as originally filed.

The reasons being as follows:

(a) Features (b) and (b'): professional water quality appraisal instruments

No indication can be found in the application as originally filed for "professional water quality appraisal instruments" according to features (b) and (b'). "Professional water quality appraisal instruments" are neither explicitly mentioned on page 6 nor can they be derived therefrom. Page 8, lines 9 to 10, lines 17 to 22 and figure 2, box 236

merely mention that a "professional appraiser appraises (box 236) the collateral for the quantity, the quality and availability of the water". From this passage, a skilled person reading the application as originally filed cannot directly and unambiguously derive that "professional water quality appraisal instruments" are involved or what kind of analysis (salinity, pH or other) is performed. The Board understands from page 8, lines 17 to 24 that step 236 in figure 2 concerns an evaluation by a professional of the state of the collateral 101, e. g. a lake. However, no indication can be found in the application that this evaluation requires any "professional water quality appraisal instruments". The passage of page 8 could merely imply that a professional person evaluates the water level of a lake by means of a picture and provides a broker with this information. If the appraisal's outcome is that the quantity of water has significantly decreased, a new collateral is to be located so that the certificates 106 sold to investors 108 are covered by valid assets. If, on the contrary, the outcome is that the amount of water has increased (e. g. after an important rainfalls), even more certificates could be sold by the broker to investors. However, no hint can be found in the application as a whole that technical instruments are necessarily used in performing the appraisal step of box 236 in figure 2.

In the statement of grounds of appeal and his letter dated 17 August 2020, the appellant listed a number of web sites to indicate what was to be understood by the term "water quality". The Board is of the opinion that from the terms "water

quality" or "professional appraisal" alone a skilled person cannot derive how the appraisal is performed (e. g. by sophisticated technical instruments or by just dipping a finger into a body of water), what is to be understood by "water quality" or that the term "water quality" has the meaning given on the listed websites.

From the term "professional" the Board merely understands that a person is paid to perform the appraisal. The Board also agrees that a "professional" normally has the required skills and training to perform its task. However, a skilled person cannot derive from the term "professional appraisal" alone that "professional water quality instruments" are necessarily used.

Hence, the application as originally filed does not disclose "water quality appraisal instruments" as such or does not suggest that the professional appraisal mentioned on page 8, lines 17 to 22 is necessarily performed by using technical means.

(b) Features (b) and (b'): categorization into water quality categories

The Board does not share the appellant's view regarding the "categorization into water quality categories". Page 8, line 24 to page 9, line 16 and page 9, last line to page 10, line 5 make it clear that global market factors Wx are resolved for product classes considered to calculate the index value of water 369. The weight factors represent the water market portions represented by a respective product class, see page 9, lines 4 to 7 or page 9, last line to page 10, line 5. In the

example of Figure 3, eight water product classes or categories (A, Q, U, H, I, E, T and B: Export, Domestic, Desalinate, Bottled, purify, Food Crops and Biofuel, respectively) are selected, the four "water quality categories" mentioned in claims 1 and 6 being among these eight products classes, namely as Q, U, H and I. However, figure 2 and the related description text make it clear that the eight water product classes are chosen by the broker (step 217 in figure 2, page 7, line 29 to page 8, line 4) and that the respective global market weight factors (line 362 in figure 3) are retrieved by the broker and originate from e. g. "periodic reports of international trade organization" (page 8, lines 27 - 31, figure 2, step 219). Neither the product classes nor the global market weight factors are determined by "professionally appraising by means of professional water quality appraisal instruments" of an "amount of fresh water", as stipulated by features (b) and (b'). In addition, figure 2 clearly discloses that the step 217 of establishing products is unrelated to step 236 of appraising the collateral (page 8, lines 17 to 24).

(c) Features (h), (h'), (n) and (n'): determining the value of an amount of water using the water quality "category"

As explained above, a "professionally appraised water quality category", i. e. a "water quality category" as an outcome of a "professional appraisal", is not disclosed in the application as originally filed. In the example of figure 3, the "index values" according to (c), (c'), (e), (e'), (i), (i'), (k) and (k') are those of the category

food crops", see figure 3, elements t_1, t_2 or t_3, 364e, page 10, lines 18 to 28, which are used to calculate a virtual value T of water in food crops 365a. A relation with the four water quality categories according to (b) and (b'), i. e. Q, U, H and I, fails to be described.

4.4 The appellant further argued (see section VII., point (f)) that the claimed subject-matter did involve an inventive step because two different "index values" derived from first and second products were displayed (features (g), (g'), (m) and (m')) and because first and second index values were used to determine a value of a portion of the amount of water and the value of a further separate portion of the amount of water, respectively (features (h), (h'), (n) and (n')).

These arguments have not convinced the Board, because these features lack a basis in the application as originally filed.

From the passages indicated by the appellant the skilled person would not directly and unambiguously derive a display showing in real time two indexes based on two different products. Page 10, lines 18 to 28 explains an example of how the virtual values 365a of water in three different food crops (t_1 for corn, t_2 for coffee and t_3 for wheat) are computed and then used in the calculation of the one displayed index value, namely the index price of water 369, see figure 1, element 104. No indication could be identified in the application as originally that the virtual values t1, t2 and t3 are displayed on any digital display device.

Contrary to the appellant's view (see letter dated 17 August 2020, page 4, last paragraph to page 5,

second paragraph), the passage indicated on page 8, lines 5 to 15 does not disclose determining a value of a first predetermined portion of the amount of water taking into account a first index according to (c), (c'), (e) and (e') and determining a value of an other second predetermined portion of the amount of water taking into account a second index according to (i), (i'), (k) and (k'). Page 8, lines 5 to 15 as well as page 6, last paragraph to page 7, line 6 state that only the index value of water 369 in figure 3 (1.07 $ per m3) is used to determine a value of a defined portion (e. g. 1000 m3) of an amount of water.

4.5 In other words, the appellant mainly based its argumentation in support of an inventive step on the addition of features, which are not explicitly mentioned in the application as originally filed and which cannot be directly and unambiguously derived therefrom, either. While it is legitimate that the appellant attempts to overcome the examining division's objection regarding a lack of inventive step by amendments that potentially underline the technical nature of the claimed-subject matter, said amendments still have to fulfil the additional requirements of the EPC, and in particular those of Article 123(2) EPC.

4.6 Regarding the appellant's comments on **T 769/92**, see section VII., point (g), the Board notes that this decision concerned the question whether the claimed subject-matter was covered by the exclusion provisions of Article 52(2) and (3) EPC and still followed the now abandoned "contribution approach", see e. g. Case Law of the Boards of Appeal of the European patent office, I.A.1.4.1 a) and b). A discussion of the contribution approach and the departure from it can be found e. g. in **G 3/08**, points 10.6 and 10.7 of the Reasons for the

Opinion. In the present case, the examining division did not question that the subject-matter of the claims was not falling within the exclusions of of Article 52(2) and (3) EPC. Furthermore, the Board in **T 769/92** found that technical considerations were necessary before programming of the computer-implemented method could begin. In the present case, no technical considerations are to be made, as each consideration appears to be made by a broker, and not a computer engineer.

4.7 Hence, in view of sections 4.3 to 4.6 above and of the example of figures 1 to 3, the Board is of the view that the only technical features disclosed in the application as a whole and present in the above subject-matter are a notoriously-known computer with a processor, a memory and a display. As a side remark, the Board notes that a basis for a method involving or a system having plural computers, plural processors or plural display devices is not disclosed in the application as originally filed, figure 1 only showing one desktop computer with a processor, a memory and a display device.

Even if one, for the sake of argument, would accept the (implicit) use of a laboratory (hence technical means), this could only be notoriously known equipment, as no details whatsoever about the "water quality appraisal instruments" are disclosed.

4.8 Taking into account the observations of sections 4.3, 4.4 and 4.7 above, the Board identifies the following non-technical features in the method of claim 1, which are also disclosed in the application as originally filed:

(a*) A method of determining and using a professional appraisal of a water quality of an amount of fresh water, comprising:

(b*) professionally appraising~~, by means of professional water quality appraisal instruments,~~ the amount of fresh water ~~to determine a categorization of the amount of fresh water, into at least two of the following water quality categories (i) domestic water, (ii) desalinated water, (iii) bottled water or (iv) purified water~~ [steps 236, 237];

(c*) determining, and storing ~~on one or more computers~~ the results of said determining, at least one of a quantity of water utilized to produce a quantity of at least one first product other than water and a quantity of water constituent in the quantity of the at least one first product [steps 219];

(d*) constantly monitoring a varying price, P_1, of the at least one first product other than water and constantly providing ~~one or more processors with~~ the varying price P_1 of the at least one first product [step 220];

(e*) ~~configuring one or more processors to determine~~ determining and repetitively adjusting a first index value applied to the amount of fresh water based on changes in the constantly provided varying price P_1 of the at least one first product and based on at least one of (i) a quantity of water utilized to produce a quantity of the at least one first product and (ii) a quantity of water constituent in the quantity of the at least one first product [steps 221, 222, 231, 233],

(f*) ~~configuring the one or more processors~~ such that adjustments in the first index value are made at least daily to reflect any changes in P_1 [step 231];

(g*) ~~instructing digital display devices to display~~ providing an adjusted first index value in real time

~~when the one or more processors determine~~ after a change in P_1 [step 231]; and

(h*) determining a value of a defined portion of the amount of water~~, by the one or more processors,~~ by taking into consideration the professionally appraised water quality ~~category~~ of the amount of water and the determined first index value or adjusted first index value [steps 222, 223, 239]; and

(i*) determining, and storing ~~on one or more computers~~ the results of said determining, a quantity of water utilized to produce a quantity of at least one second product other than water and a quantity of water constituent in the quantity of the at least one second product [step 219];

(j*) constantly monitoring a varying price, P_2, of the at least one second product other than water and constantly ~~providing one or more processors with~~ the varying price P_2 of the at least one second product [step 220];

(k*) ~~configuring one or more processors to determine~~ determining and repetitively adjusting a second index value applied to the amount of fresh water based on changes in the constantly provided varying price P_2 of the at least one second product and based on at least one of (i) a quantity of water utilized to produce a quantity of the at least one second product and (ii) a quantity of water constituent in the quantity of the at least one second product [steps 221, 222, 231, 233],

(l*) ~~configuring the one or more processors~~ such that adjustments in the second index value are made at least daily to reflect any changes in P_2 [step 231],

(m*) ~~instructing digital display devices to display~~ providing an adjusted second index value in real time ~~when the one or more processors determine~~ after a change in P_2 [step 231]; and

(n*) determining a value of ~~a~~ said defined portion of the amount of water~~, by the one or more processors,~~ by taking into consideration the professionally appraised water quality of the amount of water, the determined second index value or adjusted second index value [step 222, 223, 239].

For a better understanding, the Board indicated between brackets those steps in the specific example of figures 1 to 3 corresponding to each of the above method steps.

As already detailed in section 2. above, the first and a second regularly adjusted index values (e. g. the virtual value of water in corn, coffee or wheat, t_1 ,t_2, t_3, page 10, lines 18 to 28) and the "professional appraisal" according to page 8, line 17 to 24 are used to compute an index value of water (figure 3, 369, figure 1, 104, 1.07 $/m3) and to evaluate a defined amount of water (e. g. 1000 m3) with the aim of selling a certificate 106 for said defined amount of water to an investor 108. Hence, as also argued by the examining division, these features relate to a method of making business between a broker and an investor and do not provide a solution to a technical problem by technical means.

The Board therefore concurs with the examining division that the steps of professionally appraising an amount of fresh water, the steps of retrieving the data related to first and second products other than water (prizes, the quantity of water utilized to produce said products, the quantity of water constituent in the quantity of said products), the step of determining first and second index values and, finally, the step of determining a value of a defined portion of the amount of water all relate to the non-technical field of doing

business by selling certificates for water and that the only technical aspect of the independent claims is the implementation of the business method on a standard computer.

The Board would like to underline that even if it accepted the appellant's argument that the "professional appraisal of water" was performed by technical instruments analysing water, the Board would still consider the professional appraisal step as a part of a method of doing business between a broker and an investor. According to the application on page 8, lines 17 to 22, the appraisal step does not necessarily need any technical means and is only relevant insofar as data regarding the "water quality" is provided somehow to a broker. The outcome of the water analysis is not performed to solve any technical problem of a technical system, but is merely used to better evaluate the monetary value of certificates sold to investors. It is therefore irrelevant whether or not lab equipment was involved in the appraisal, as only the outcome of the analysis is used by the broker. In addition, the Board fails to see that the use of a notoriously known laboratory for carrying out appraisal of water would be inventive, since this would be the normal, notoriously known procedure (sometimes even mandated by law or regulations) to determine the quality of water. This would also have nothing to do with the rest of the computer-implemented method, so that any synergy could be ruled out.

Furthermore, even accepting that features (h), (h'), (n) and (n') as claimed had a basis in the application as filed, the Board does not see any technical contribution from using two index values (i. e. one for calculating the value of a first amount of water and

another one for determining the value of a second amount of water). The decision to use more index values is the work for a broker to assess the monetary value of an asset (i. e. the predetermined amounts of water).

4.9 According to **T 641/00**, non-technical features, i. e. features that fall within the non-exhaustive categories of excluded matter in Article 52(2) EPC, do not contribute to inventive step. Such features are instead considered to be part of the framework of the technical problem to be solved, which is often a set of requirements to be implemented.

Hence, in the present case, the objective problem to be solved by the skilled person, a computer engineer, is to implement the non-technical method with features (a*) to (n*) on a standard computer.

4.10 It would be obvious for the skilled person, e. g. a computer engineer, to implement the above non-technical business method on a standard computer using normal programming skills and, hence, also arrive without any inventive skill at an apparatus implementing said business method. The Board notes that the application as a whole is silent about any details on programming a standard computer to run the steps of the claimed method.

Hence, an inventive step (Article 56 EPC) of the method of claim 1 and of the apparatus of claim 6 according to the main request has to be denied.

5. First auxiliary request

The amendments made to the independent claims according to the first auxiliary request do not overcome the

objections under Article 56 EPC raised against the main request.

6. Second auxiliary request

6.1 For the reasons given in section 4.3, points (b) and (c) above, at least feature (H) in claim 1 according to the second auxiliary request does not comply with Article 123(2) EPC. The Board has also doubts that the application as originally filed discloses a "data feed" in the sense of features (C) and (D).

6.2 The Board is of the opinion that the technical features present in claim 1 are the same as for claim 1 of the main request and that claim 1 of the second auxiliary request, insofar disclosed in the application as originally filed, concerns the following non-technical method implemented on a computer:

(A*) A ~~computer-implemented~~ method of connecting traders to a water exchange, comprising:

(B*) at least one of (a) determining a first quantity of water utilized to produce a first quantity of a first product; and (b) determining a first water quantity constituent in the first quantity of the first product;

(C*) ~~using a first data feed to constantly feed to one or more processors~~ determining a varying price of the first product;

(D*) ~~using one or more processors to repeatedly detect~~ detecting the varying price of the first product ~~in the first data feed~~ and to receive~~e~~ing at least once, in regard to the first product, at least one of the first quantity of water utilized to produce the first quantity of the first product and the first water quantity constituent in the first quantity of the first product;

(E*) ~~using the one or more processors to repeatedly determine~~ determining a first index value of water applied to a particular amount of water based on the repeatedly varying price of the first product and based on at least one of (i) the first quantity of water utilized to produce the first quantity of the first product, and (ii) the first water quantity constituent in the first quantity of the first product,
(F*) ~~using the one or more processors to~~ continually adjusting the first index value of water applied to the particular amount of water based on changes in the constantly received varying price of the first product and based on the at least one of (i) the first quantity of water utilized to produce the first quantity of the first product and (ii) the first water quantity constituent in the first quantity of the first product,
(G*) ~~having the one or more processors instruct a digital display device to display~~ providing adjusted first index values of water,
(H*) determining a value of a defined portion of the particular amount of water~~, by the one or more processors,~~ by taking into consideration a professionally appraised water quality of the particular amount of water and the determined first index value or adjusted first index values of water~~, wherein the professionally appraised water quality categorizes the amount of fresh water into at least two of the following water quality categories: (i) domestic water, (ii) desalinated water, (iii) bottled water or (iv) purified water.~~

6.3 For the same reasons as given for the main request, the method comprising steps (A*) to (H*) is not related to the solution of any technical problem, but concerns a method of doing business by selling certificates for water. It would be obvious for the skilled person

(i. e. a computer engineer) to implement this method of doing business on a a standard desktop computer. Although the Board has doubts that the application as originally filed discloses a "data feed", it would be obvious for the skilled person to use "data feeds" when implementing the business concept on a computer.

Hence, the subject-matter of claim 1 according to the second auxiliary request lacks an inventive step (Article 56 EPC).

7. As no allowable request is on file, the appeal must fail.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

S. Sánchez Chiquero G. Eliasson

Decision electronically authenticated