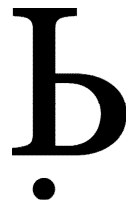# PATENTABILITY OF CII AROUND THE GLOBE
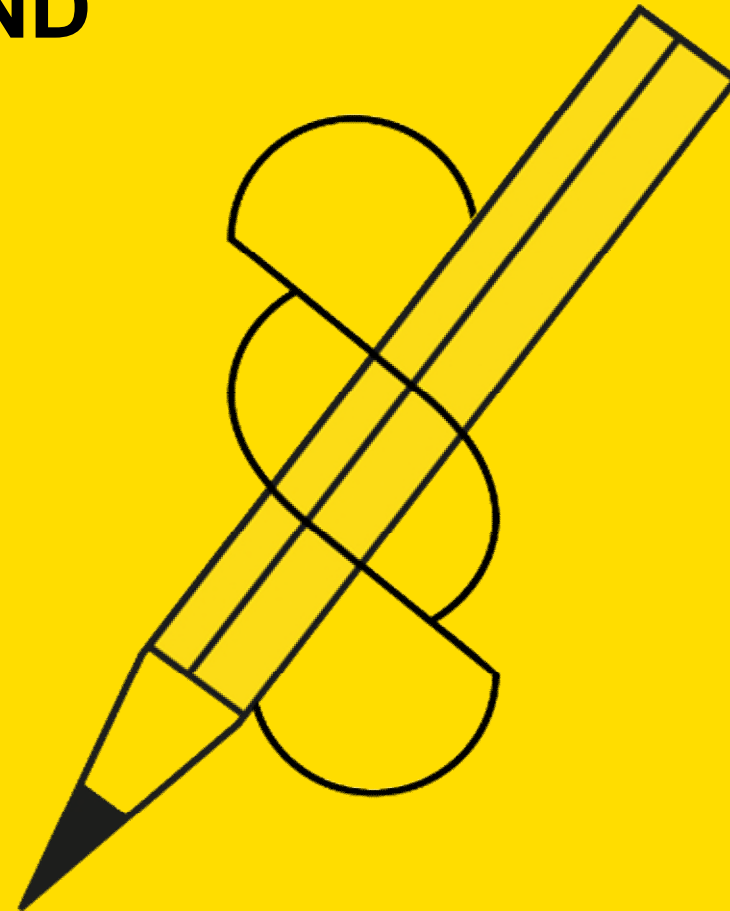
THE EPO'S APPROACH

Tobias Kaufmann
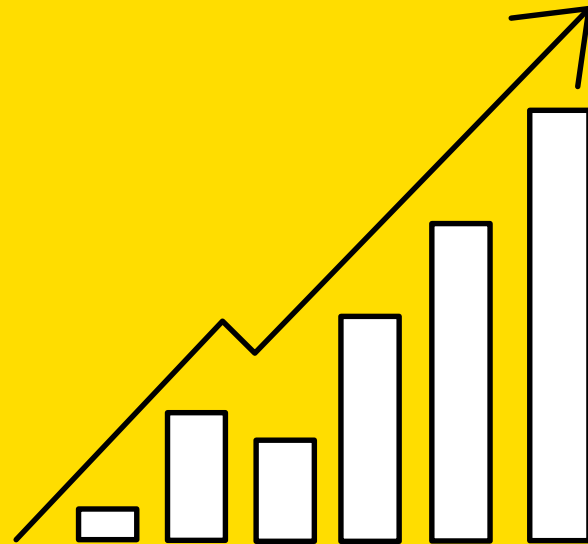
German & European Patent Attorney, Partner

CIIs at the EPO – state of play
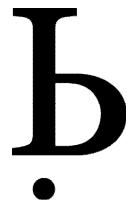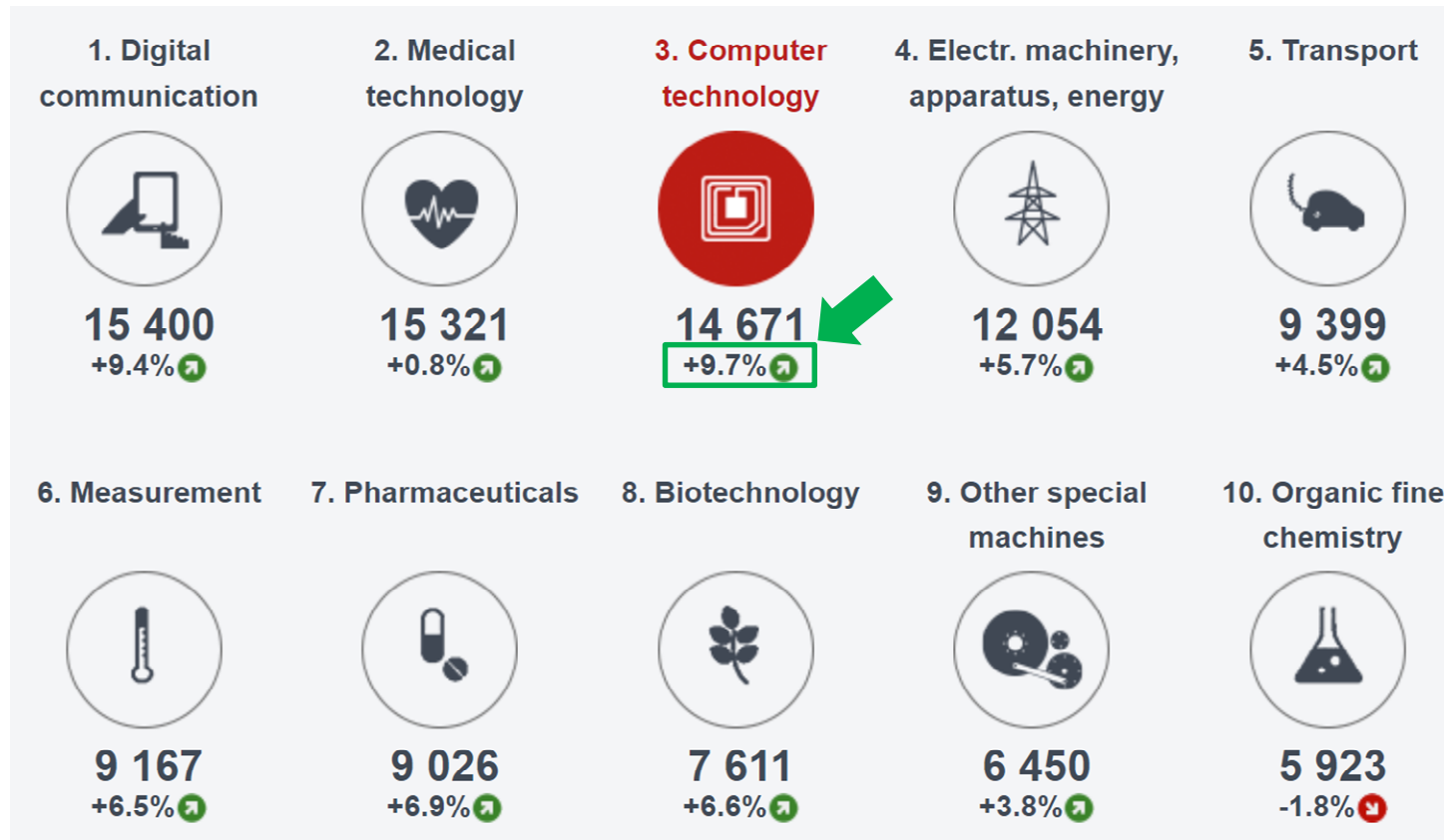
EPO filing statistics

Highest growth rate of top 10 technical domains:

1. Digital communication	2. Medical technology	3. Computer technology	4. Electr. machinery, apparatus, energy	5. Transport
15 400	15 321	14 671	12 054	9 399
+9.4%	+0.8%	+9.7%	+5.7%	+4.5%

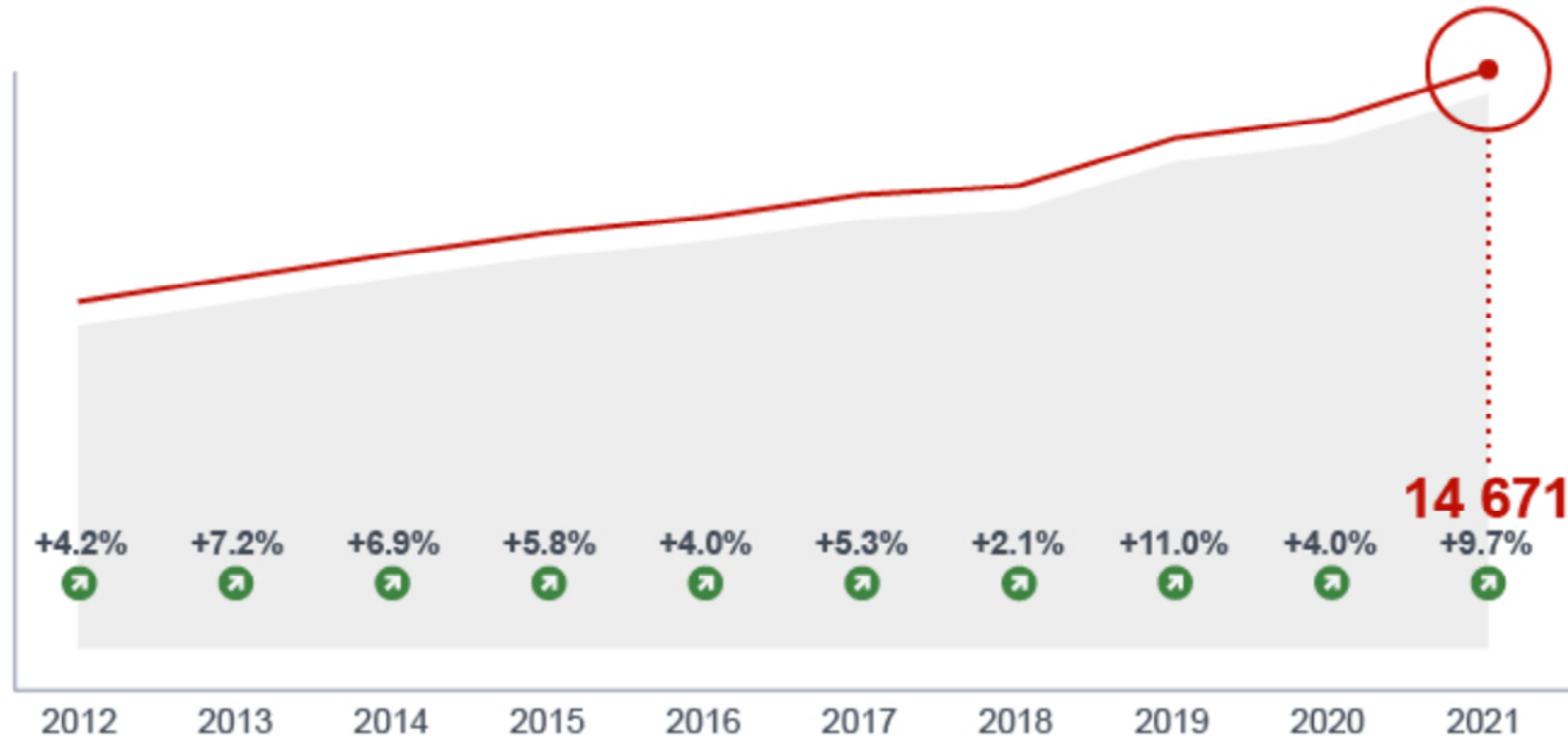| 6. Measurement	7. Pharmaceuticals	8. Biotechnology	9. Other special machines	10. Organic fine chemistry
9 167	9 026	7 611	6 450	5 923
+6.5%	+6.9%	+6.6%	+3.8%	-1.8%

Source: https://www.epo.org/about-us/annual-reports-statistics/statistics/2021/statistics/patent-applications.html#computer

EPO filing statistics

Long-lasting growth trend:

2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
+4.2%	+7.2%	+6.9%	+5.8%	+4.0%	+5.3%	+2.1%	+11.0%	+4.0%	+9.7%

14 671
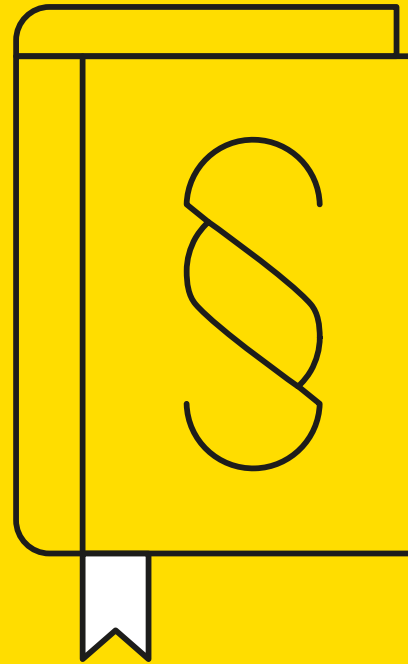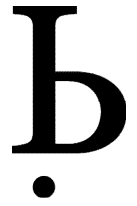
Source: https://www.epo.org/about-us/annual-reports-statistics/statistics/2021/statistics/patent-applications.html#computer

The Law –
Technicality and assessment of inventive step

Special treatment in the EPC

Artikel 52[38, 39]
Patentierbare Erfindungen

(1) Europäische Patente werden für Erfindungen auf allen Gebieten der Technik erteilt, sofern sie neu sind, auf einer erfinderischen Tätigkeit beruhen und gewerblich anwendbar sind.

(2) Als Erfindungen im Sinne des Absatzes 1 werden insbesondere nicht angesehen:

a) Entdeckungen, wissenschaftliche Theorien und mathematische Methoden;

b) ästhetische Formschöpfungen;

c) Pläne, Regeln und Verfahren für gedankliche Tätigkeiten, für Spiele oder für geschäftliche Tätigkeiten sowie Programme für Datenverarbeitungsanlagen;

d) die Wiedergabe von Informationen.

(3) Absatz 2 steht der Patentierbarkeit der dort genannten Gegenstände oder Tätigkeiten nur insoweit entgegen, als sich die europäische Patentanmeldung oder das europäische Patent ~~Patentanmeldung~~ oder das europäische Patent ~~...~~stände oder Tätigkeiten als

Article 52[38, 39]
Patentable inventions

(1) European patents shall be granted for any inventions, in all fields of technology, provided that they are new, involve an inventive step and are susceptible of industrial application.

(2) The following in particular shall not be regarded as inventions within the meaning of paragraph 1:

(a) discoveries, scientific theories and mathematical methods;

(b) aesthetic creations;

(c) schemes, rules and methods for performing mental acts, playing games or doing business, and programs for computers;
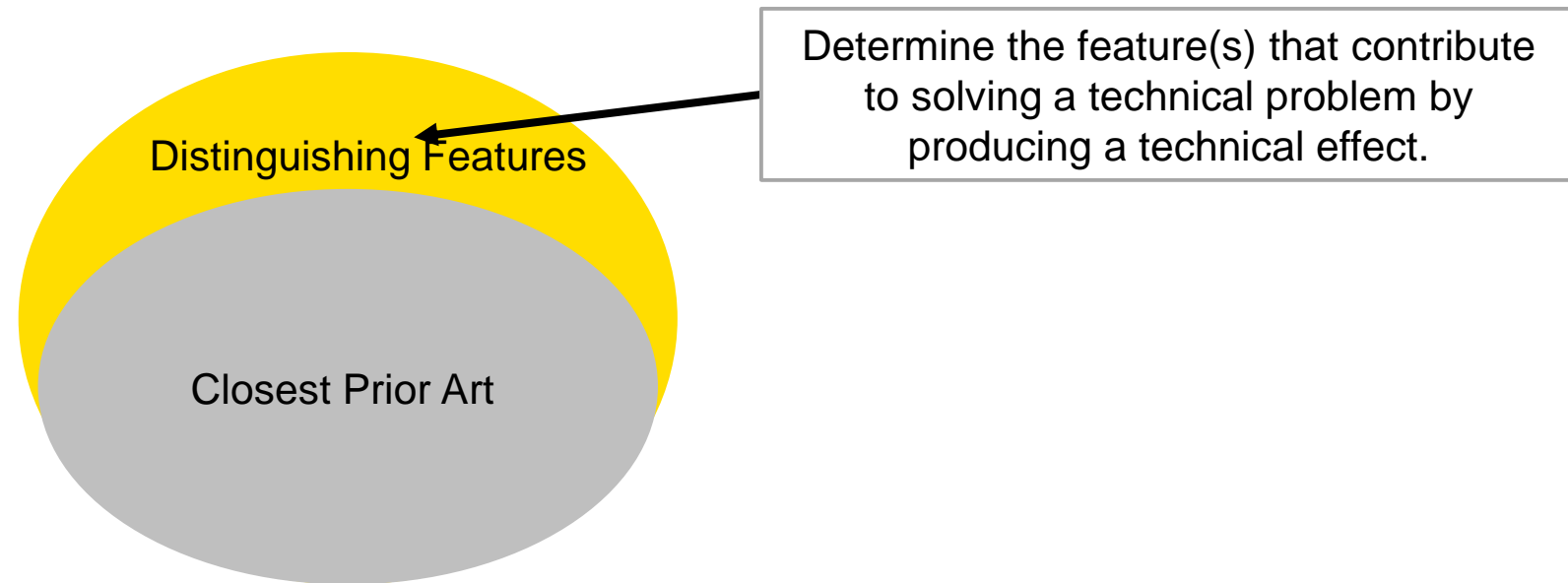
(d) presentations of information.

(3) Paragraph 2 shall exclude the patentability of the subject-matter or activities referred to therein only to the extent to which a European patent application or European patent relates to such subject-matter or activities as such.
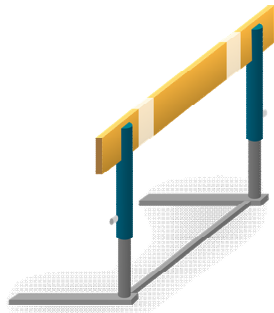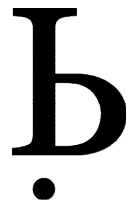
?

6

The COMVIK Approach (T 641/00)…
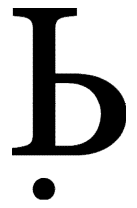
- Legitimate to have a mix of technical and non-technical features in a claim

- Non-technical features that do not interact with the technical subject-matter for solving a technical problem (= "non-technical features as such") are ignored for novelty and inventive step

- Technical problem may be formulated using an aim to be achieved in a non-technical field

Determine the feature(s) that contribute to solving a technical problem by producing a technical effect.

Distinguishing Features

Closest Prior Art

… and the two-hurdle appraoch

1. Assessing eligibility (Art. 52 EPC):
Does the claimed subject-matter
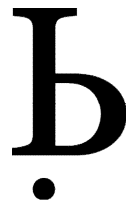have "technical character"?
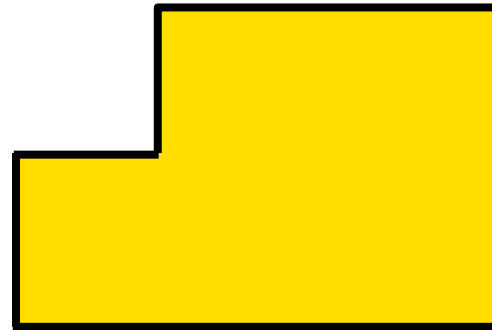
Intermediate Step:
"Filter" for features contributing
to a technical solution of a
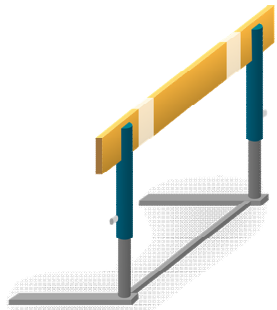technical problem in view of the
closest prior art
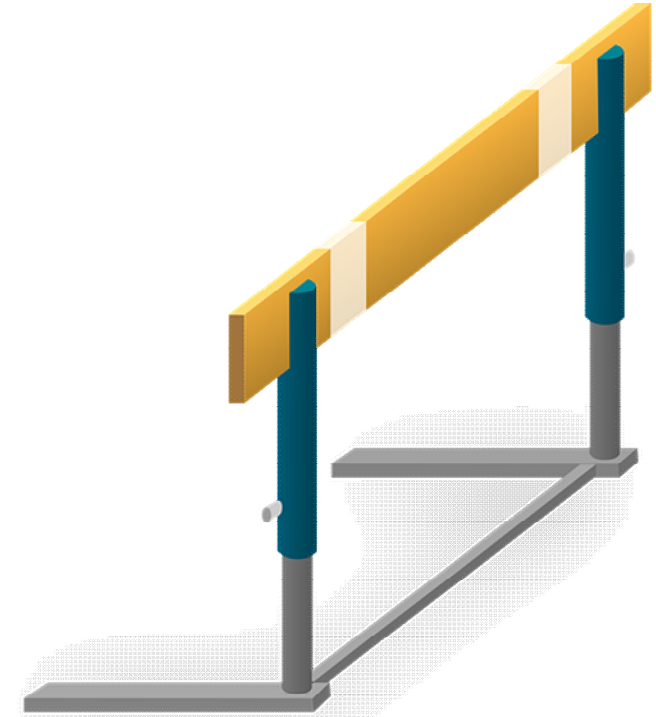
2. Inventive Step (Art. 56 EPC):
Does the claimed subject-matter provide
for a non-obvious technical solution to a
technical problem?

… and the two-hurdle appraoch

But who defines what is "technical"?

1. Assessing eligibility (Art. 52 EPC):
Does the claimed subject-matter have "technical character"?

Intermediate Step:
"Filter" for features contributing to a technical solution of a technical problem in view of the closest prior art

2. Inventive Step (Art. 56 EPC):
Does the claimed subject-matter provide for a non-obvious technical solution to a technical problem?
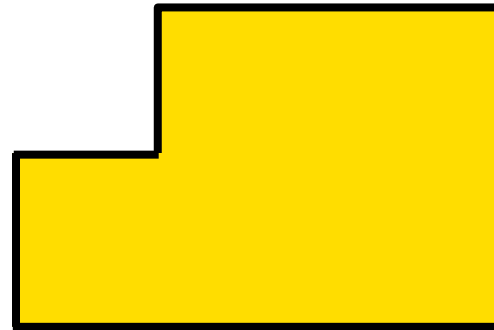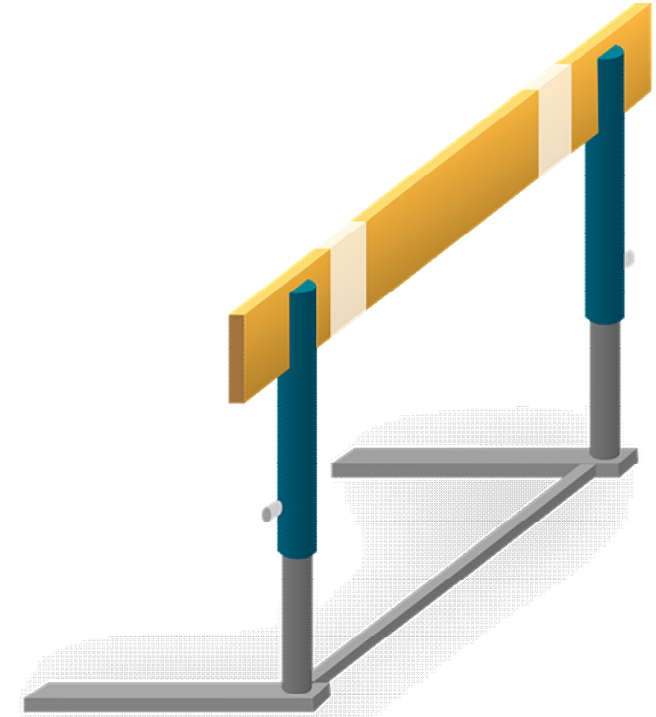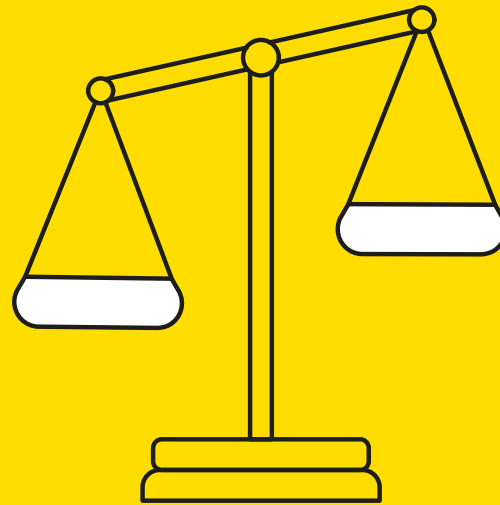
The Boards' Approach re "technical" inventions

The "technical effect" needed for contributing to an inventive step

- Any **further technical effect** going beyond the "normal" physical interactions between a program and the computer on which the program / simulation is run (T 1173/97)

- The further technical effects

  - are "typically" technical effects on a physical entity in the real world,
    or requiring a "direct link with physical reality",

  - or they could also be "other effects" such as technical effects within the computer system or network

- These further technical effects must go beyond the "straightforward or unspecified implementation on a standard computer system"

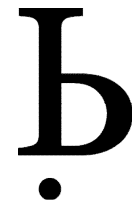- and be present over the whole scope.

I/O during process

Input

Output

Computer-implemented process
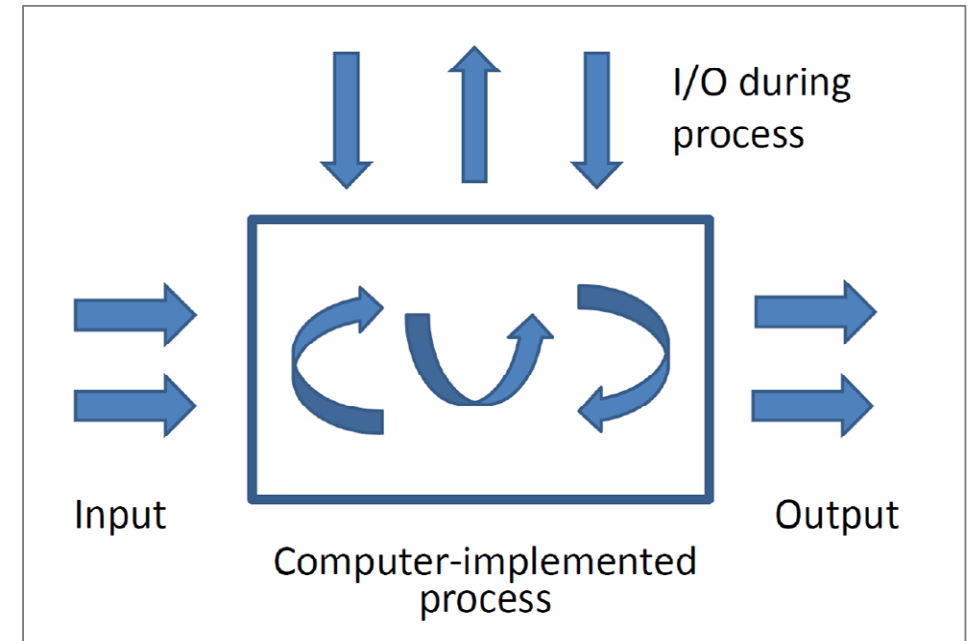
measurements

control signal for controlling a machine

adaptions to the computer or its operations (e.g. better use of storage capacity or bandwidth)

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Example 1: Presentation of information

**T 1442/16 of August 30, 2019**

- **Gist of the invention:**

  - Displaying patient data in a multi-axes diagram.
  - Position of the axes is related to the position of the sensors arranged on the patient.

    → More intuitive representation than mere points plotted on axes.
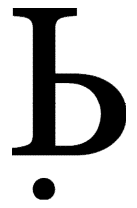
- **Technical?**

  - No: intuitiveness of presentation of information is not an objective effect, but rather a subjective one.

    No technical effect in the sense of the EPC.
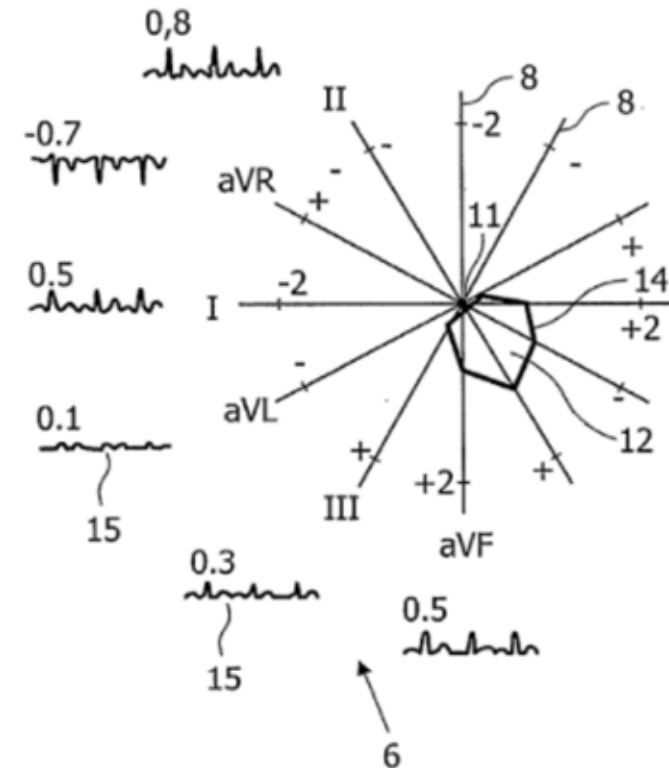
Example 2: Presentation of information

T 0013/18 of April 12, 2019

- **Gist of the invention:**

  - Displaying information on a display device of an aircraft
  - Calculated touchdown point is visually highlighted

- **Technical?**

  - Yes: increases safety of landing process because pilot is enabled to abort the landing in due time if necessary.

   This is a technical effect in the sense of the EPC.
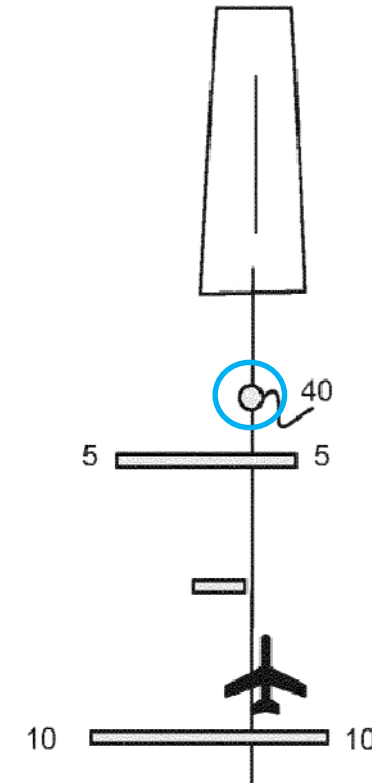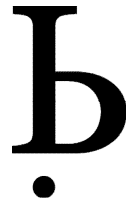
Example 3: Database Systems/Mathematical Models

T 1924/17 of July 29, 2019

- **Gist of the invention:**

  - Joint use of a relational database system (RDBMS) and a NoSQL database

  - RDBMS:
    - Advantage: data consistency
    - Disadvantage: slow processing

  - NoSQL database:
    - Advantage: faster processing
    - Disadvantage: data consistency not guaranteed

  - <u>Invention</u>: Decide whether parts of the data structures should be managed by the RDBMS or by the NoSQL database based on a linear combination (formula present in claims).

14
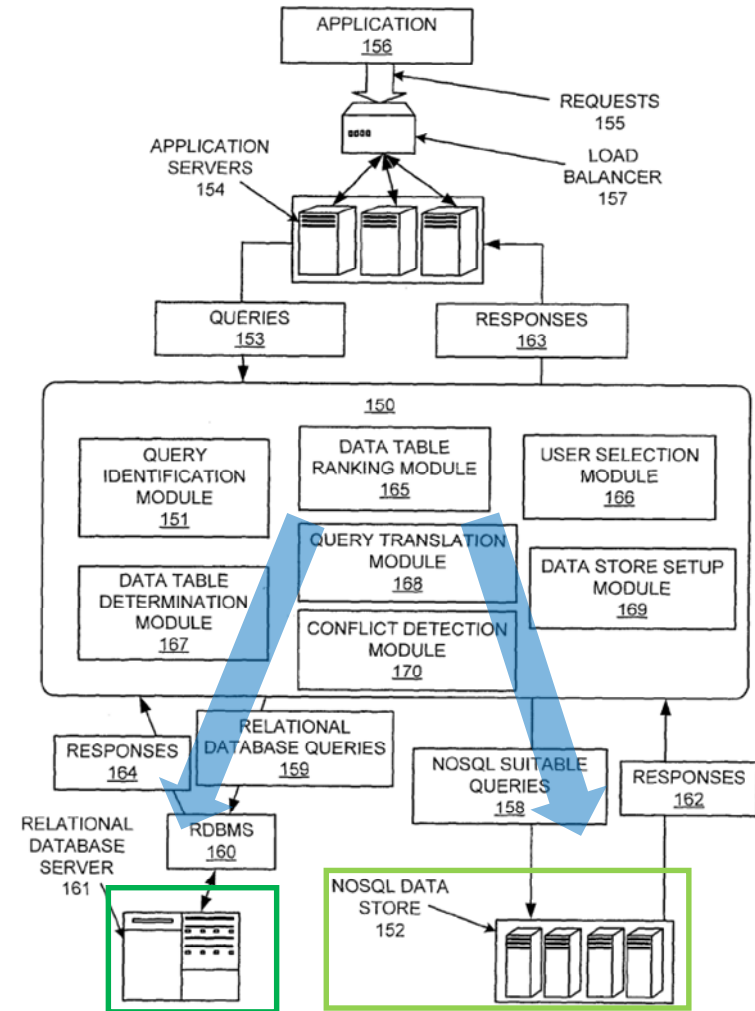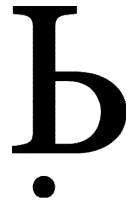
# Example 3 (cont'd): Database Systems/Mathematical Models

T 1924/17 of July 29, 2019

- Mathematical methods are thus excluded from patent protection "as such" if they involve purely intellectual activities apart from the real (physical) world.
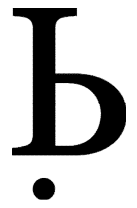
  → No exclusion if they solve a <u>technical problem</u> (and if this is also reflected in the claim wording).

- **Technical?**

  - Yes: exploiting the different performance characteristics of the different data stores for improved query processing solves a technical problem.

15
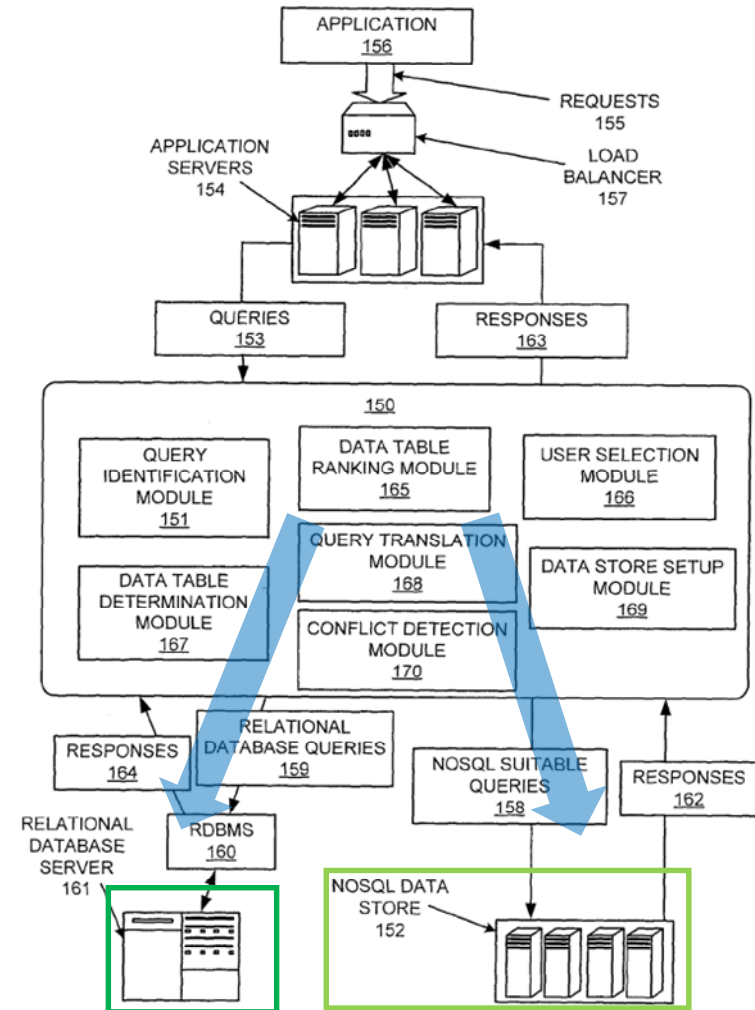
Example 4: Classification of data

T 0504/18 of June 18, 2021:

- **Gist of invention:**

  - Detecting a physical address such as a street address within a text message, followed by creating a link for the physical address.
  - Selecting the link will result, for example, in the address location being displayed on a map.

- **Technical?**

  - No: a street address consists of data in an administrative, non-technical data format. Merely finding an algorithm in a non-technical field is non-technical.
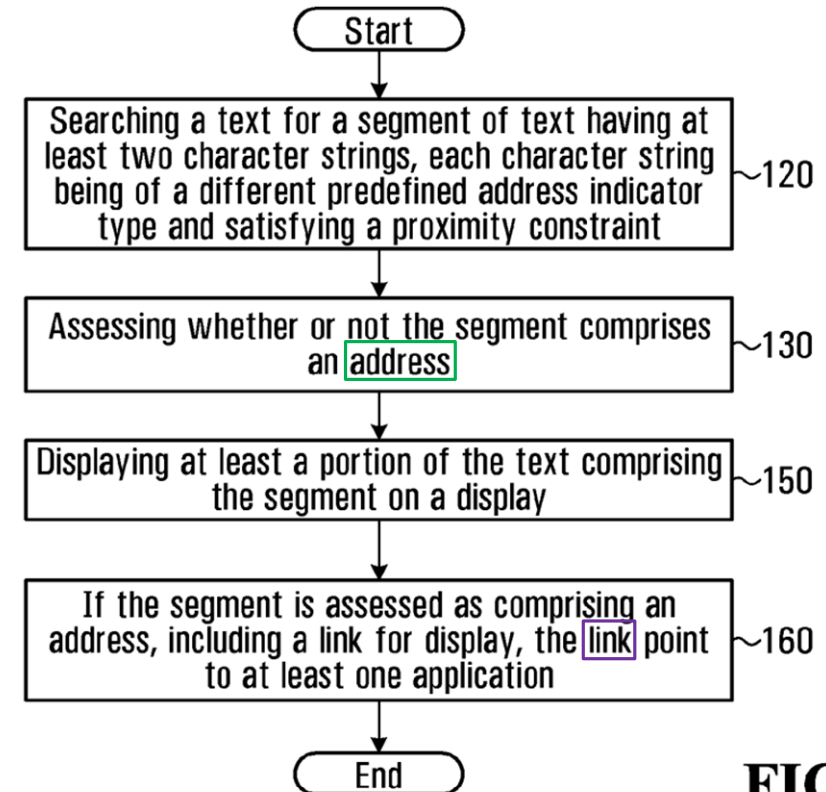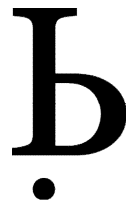
Start

Searching a text for a segment of text having at least two character strings, each character string being of a different predefined address indicator type and satisfying a proximity constraint ~120

Assessing whether or not the segment comprises an address ~130

Displaying at least a portion of the text comprising the segment on a display ~150

If the segment is assessed as comprising an address, including a link for display, the link point to at least one application ~160

End

FIG. 1

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Example 5: Classification of data

T 0200/19 of April 30, 2021:

- **Gist of invention:**

  - Relates to a handheld electronic device that includes a reduced keyboard as shown on the right side.
  - User intends to write "BlackBerry"
  - Example: sequence BN, L, AS, CV, LK, BN is pressed, wherein only the second SN is explicitly written in upper case mode: blackB… .
  - Invention automatically converts it to **B**lack**B**… based on a disambiguation list.
    → avoids the need to press an additional key to obtain upper case letter.

- **Technical?**
  - Yes: enhancing the efficiency of disambiguation of a user input provided via a reduced keyboard of a handheld device is considered technical.
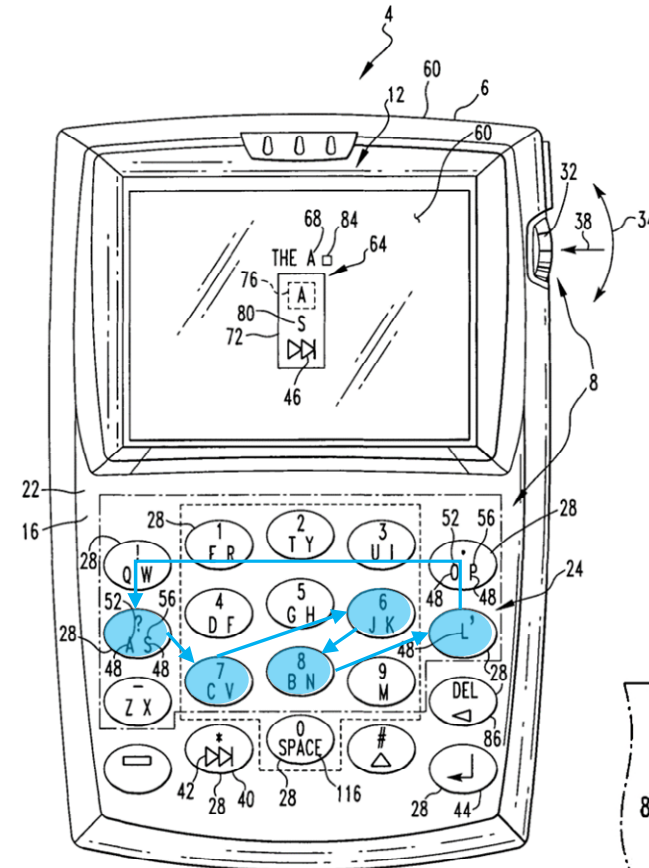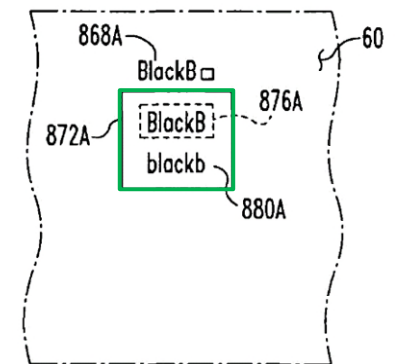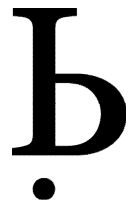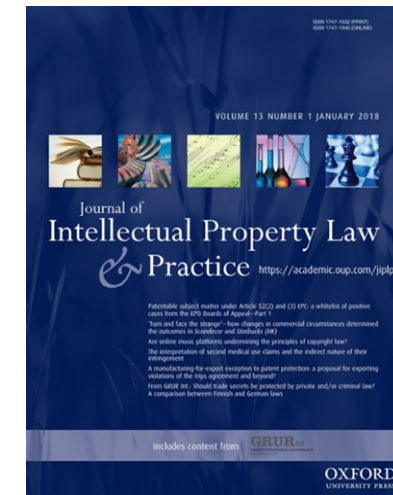

FIG.1

FIG.18

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Further material regarding technicality

www.europeansoftwarepatents.com
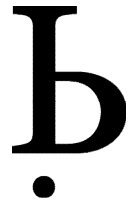New EPA decisions on technicality on a weekly basis operated by BARDEHLE PAGENBERG CII team

"Patentable subject matter under Article 52(2) and (3) EPC: **a whitelist of positive cases** from the EPO Boards of Appeal"
(Stefan V. Steinbrener)

Aitäh!

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81675 München

Law Firm of the Year 2020 for Intellectual Property Law – Best Lawyers® and Handelsblatt
Firm of the Year for Copyright/Design in Germany 2019 – Managing IP
Europe's Leading Patent Law Firms 2020 – Financial Times
IP Law Firm of the Year and Law Firm of the Year for Trademarks & Unfair Competition 2018 – JUVE
TOP-KANZLEI Patentrecht 2019 – WirtschaftsWoche

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