European
IP Helpdesk

www.iprhelpdesk.eu

# European IP Helpdesk

Stay ahead of the innovation game.

## IP and Artifical Intelligence
## Advanced Webinar + Update

# European IP Helpdesk

- Service initiative of the European Commission
- Addressing **current and potential beneficiaries of EU-funded projects, researchers and EU SMEs**
- Free-of-charge first-line support on intellectual property (IP)
- Hands-on IP and innovation management support
- International pool of IP experts from various thematic fields
- Unique cooperation scheme with the Enterprise Europe Network: 43 ambassadors from 26 EU countries

**Training**
free online and on-site sessions

**Website**
frequent updates from the world of IP and innovation

**Helpline**
confidential treatment of individual IP questions

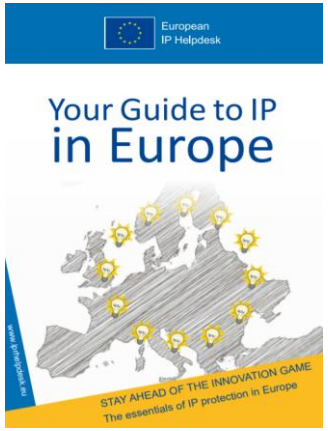
**Publications**
practical IP knowledge through high-level publications

**Ambassadors**
local IP support throughout Europe

**Events**
info point at key networking events and conferences

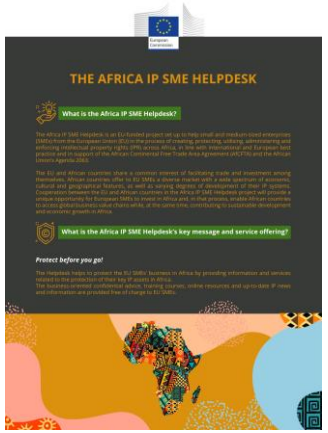
# The EC IP Helpdesks

# EC IP (SME) Helpdesk Hub – Gateway to Information











- E-learning modules & more
- Guides / Topic, country, sector-specific factsheets / Infographics
- Case studies

# Intellectual Property & Quantum: Interview Series with Robert Harrison

Link

# Ambassador Scheme

- **Cooperation scheme** with the Enterprise Europe Network (EEN): 43 ambassadors – 26 countries
- **Building IP capacities** among European SMEs
- **Overcoming language barriers**
- Making the topic **more accessible**
- Exchange and feedback from ambassadors on **needs of SMEs**
- Local **awareness** and **training events**

# Upcoming events


22 APR 2026
Training and workshops
EU - Webinar & Horizon Results Platform: Artificial Intelligence
Live streaming available

22 APR 2026
Training and workshops
EPO Training Coop: From Lab to Market - Scaling Platform Technologies
Online only
Live streaming available

12 MAY 2026
Training and workshops
EU - Webinar: IP and Artificial Intelligence - Advanced
Live streaming available

25 MAY 2026
Training and workshops
EU - Webinar : Unitary Patent
Live streaming available

22 APR 2026
Training and workshops
Sports Industry & IPR - From Performance to Commercial Value

30 APR 2026
Training and workshops
EU - Webinar: Freedom to Operate
Live streaming available

19 MAY 2026
Training and workshops
EU - Webinar: Finding Patents
Live streaming available

28 MAY 2026
Training and workshops
EU - Webinar: Patents and Trade Secrets
Live streaming available

# Thank you!

- www.ec.europa.eu/ip-helpdesk

- helpline@iprhelpdesk.eu
- training@iprhelpdesk.eu

- Twitter @iprhelpdesk

- LinkedIn /european-ipr-helpdesk

# Robert Harrison

Patent and Trade Mark Attorney
Munich/Paris

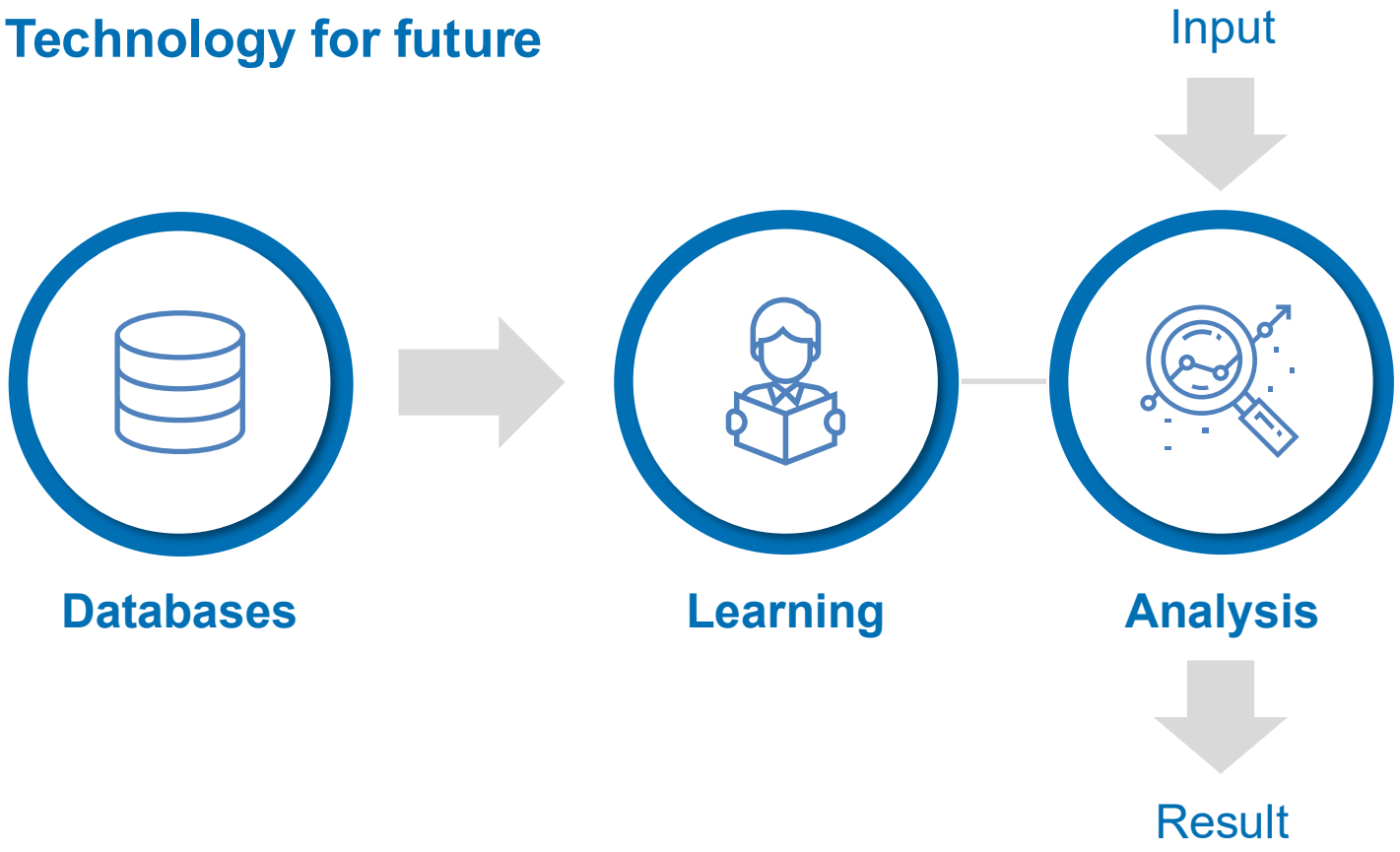
## About me

- BA Physics, Oxford University
- MSc Physics, Sheffield University
- PhD Semiconductors Sheffield University
- EPO Examiner – the Hague
- IBM Germany – Patent Engineer
- W.L.Gore & Associates – European IP Counsel
- Founding Partner, Sonnenberg Harrison (now Of Counsel)
- Advisory Board Member
- IP Strategy / Corporate Governance

# Artificial Intelligence

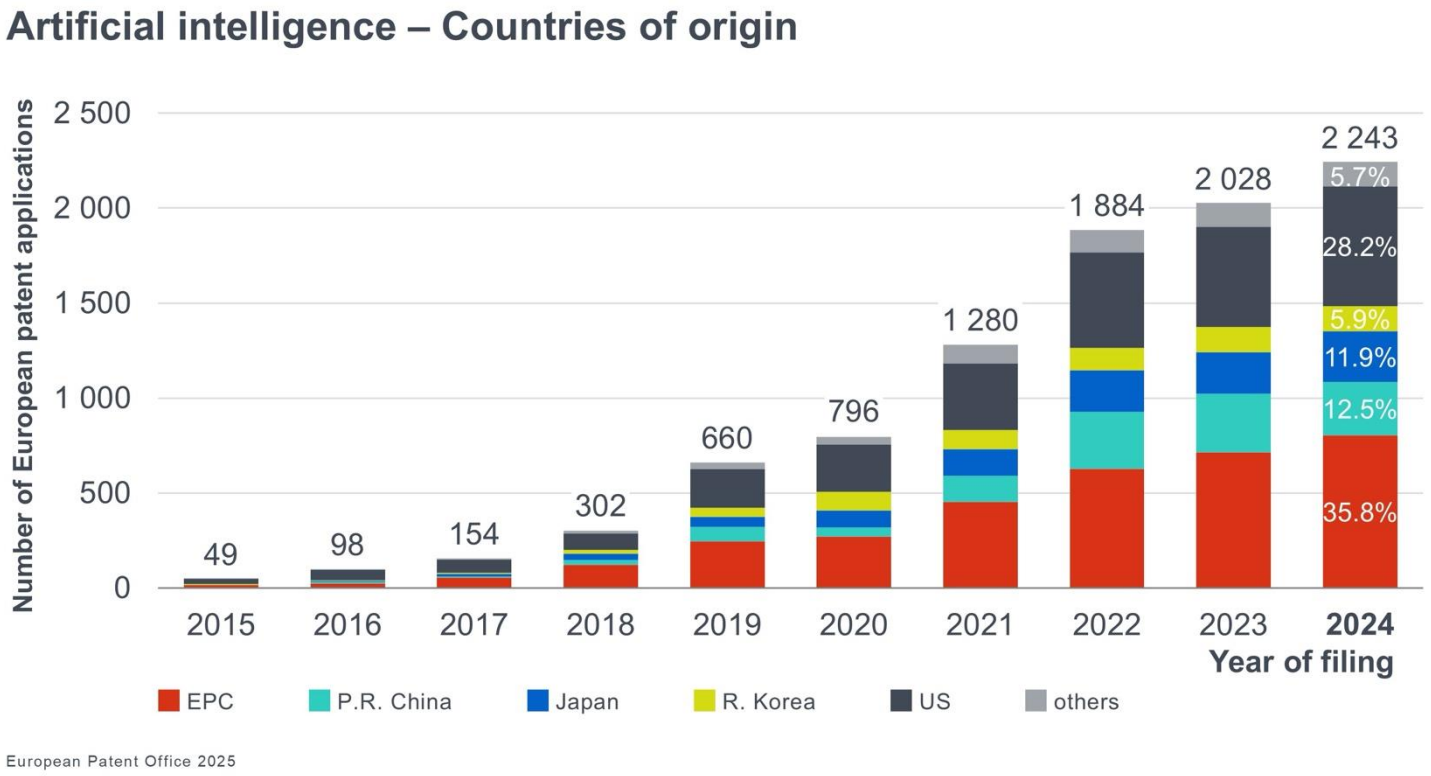
## What do we mean?

### Technology for future




Picture source: Istock.com

# Increase in Patent Applications




European Patent Office 2025

Picture source: Freepik.com

# IP and Artificial Intelligence

## Data ownership

## Trade Secrets

## Copyright

## Patents

Picture source: Pixabay.com

# European Parliament Resolution 20 October 2020

- Importance of IPR Protection
- Economic incentives
- Emphasizes need for technical innovation
- Comprehensive description and notes that this may be a challenge
- No legal personality to AI creations

Picture Source: European Parliament Website

# Copyright

Picture source: Freepik.com

# Copyright Ownership

Level of Creativity Required for Copyright Protection

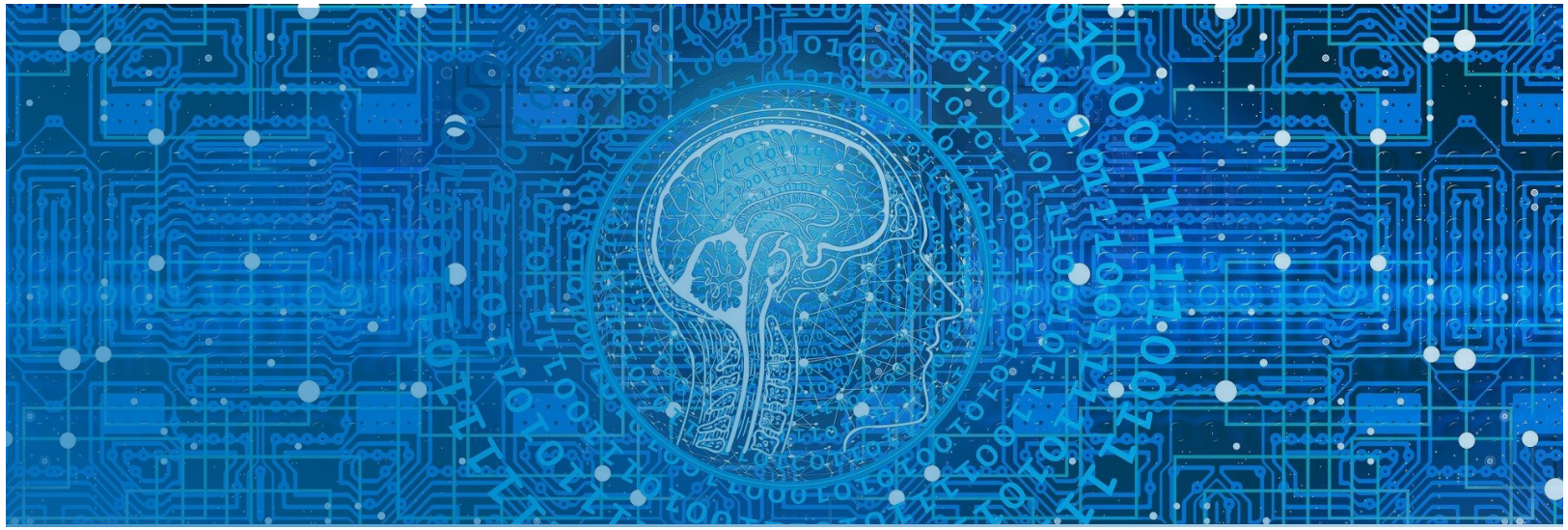
Data per se will not have this level

Compilations of data may enjoy copyright protection

Software is protected – under Berne Convention

Picture source: Freepik.com

# Copyright of Generated Works



US: Author of copyright cannot be a computer

UK: Copyright Patent and Design Act 1988

- Computer- generated works
- Owned by Person who made "Arrangements"
- Only one court decision

Numerous court cases worldwide

Anthropic has paid USD 1.5 bn to settle case against authors (USD 3k per book)

Picture source: Freepik.com
Map: WIkipedia

# Infringement

- Use of Images and Text -> Fair Use?

EU Copyright in Single Market Directive:

Art 3: Text and Data Mining (TDM) allowed by research organisation and cultural institutions for research

Art 4: Text and Data Mining allowed -> but rightsholders can “opt-out”


Image by AgKu from Pixaby

# Copyright Infringement

**Laion e.V. vs. Kneschke Photographer**

- District Court of Hamburg File: 310 O 227/23
- Decision on 27 Sept 2024 (Appealed)
- Appeal rejected 10 Dec 2025
- (Cassation appeal pending at FCJ)
- Laion stored URLs of images
- TDM allowed
- Note: Laion is a non-commercial operation

**Like Company vs Google**

- ECJ File: C-250/25
- Pending
- Google used Hungarian newspaper to train Gemini (this was publicly available)
- Budapest court referred decision to ECJ
- ECJ Decision on 3rd September

# Trade Secrets

Picture source: Freepik.com

# Rise of Trade Secrets

IBM Director of Research (Darío Gill):

"balancing trade secrets and patents alongside a style of R&D called open innovation"

From Fortune "**Why IBM is no longer interested in breaking patent records", Darío Gill, 6 January 2023.**

**Source: https://fortune-com.cdn.ampproject.org/c/s/fortune.com/2023/01/06/ibm-patent-record-how-to-measure-innovation-open-source-quantum-computing-tech/amp/**

# Patent Rights

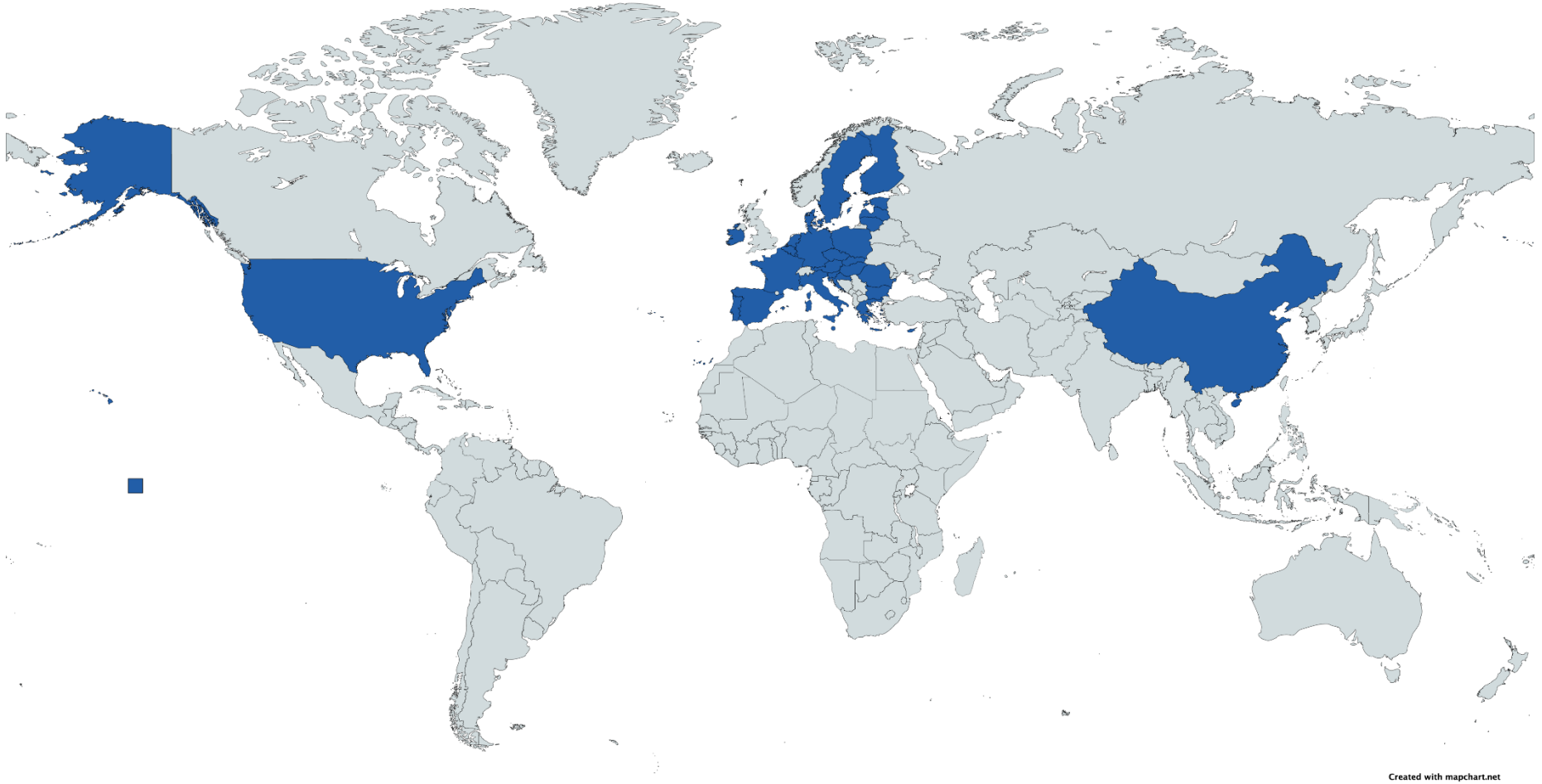
Picture source: Freepik.com

# National Rights

Picture source: Freepik.com

- Different countries treat AI differently
- AI is often seen as software-based
- US – rejects “abstract idea” §101 rejections
- EU – “software excluded form patents per se”
  Guidelines emphasise that AI is to be treated as mathematical method

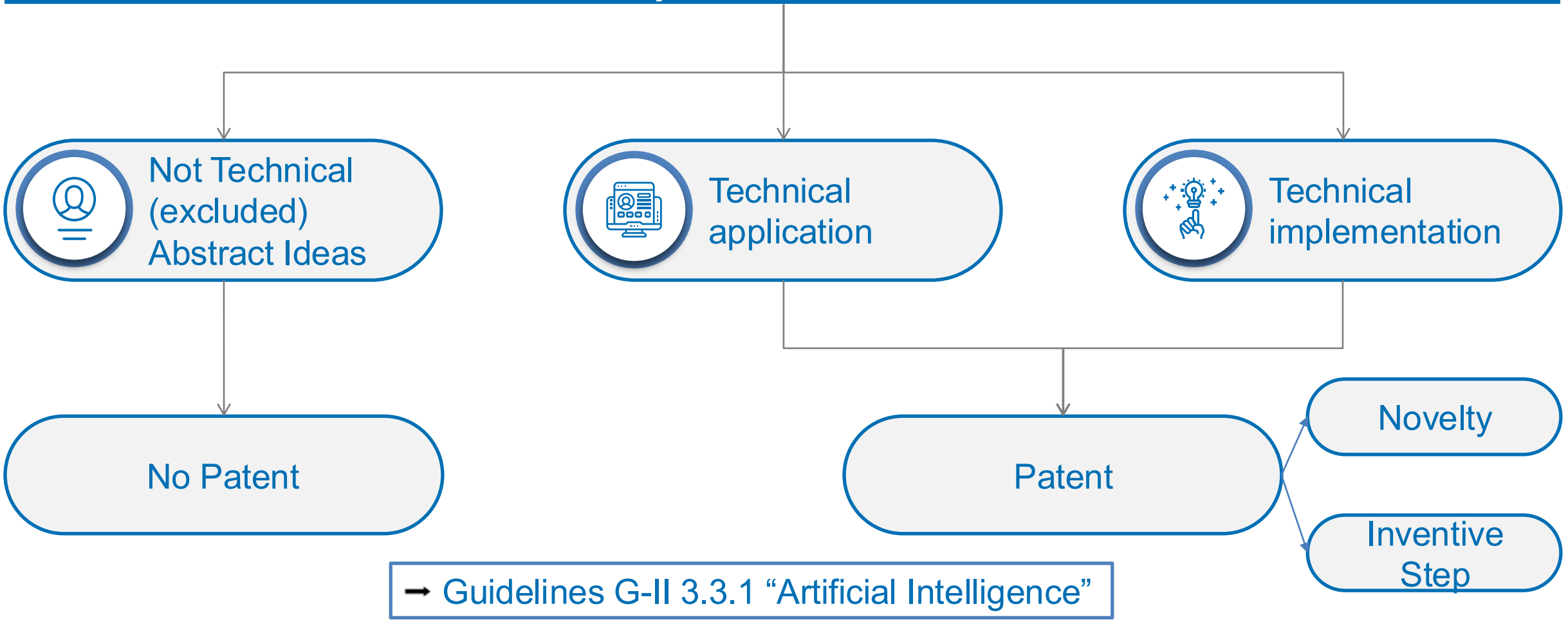
# Focus on US and Europe



# EPO Test for Patentability

## Generalised Approach ( “Two-Hurdle” Approach)

**Confirmed by G1/19 – Pedestrian Simulation**




→ Guidelines G-II 3.3.1 “Artificial Intelligence”

# Overcoming non-technical / abstract objection

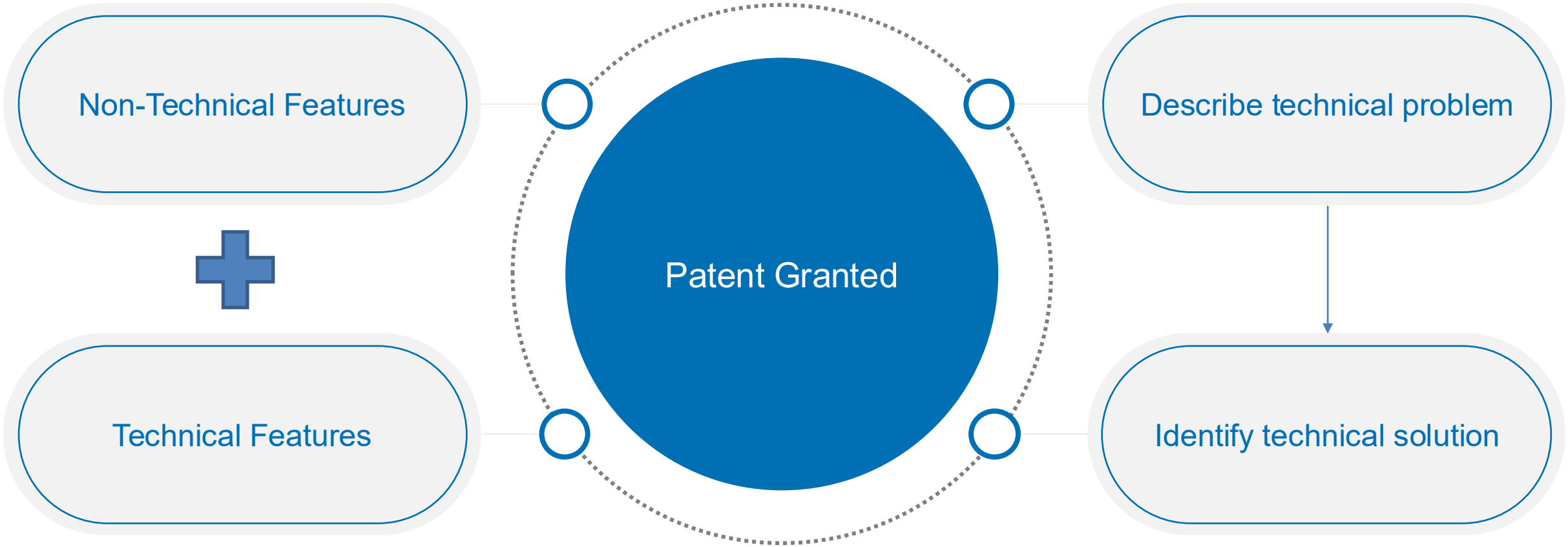
Language of claims is relevant

Computer-Implemented Method

Emphasizing interaction with hardware elements

Picture source: Istock.com

# Inventive Step



# Modified EPO Approach – G1/19

Exclusions

Feature contribute to technical character?

Inventive step

Picture source: Freepik.com

# Application to Artificial Intelligence

## How do we apply the principles of G1/19 “Pedestrian Sinulatio / Bentley” to AI?

Algorithms do not necessarily contribute to technical character of invention

Algorithm must solve a technical purpose

Algorithm contributes to technical solution

Picture source: Istock.com

# US PTO Test for Patentability

## Statuory Subject Matter

- Process
- Machine
- Manufacture
- Composition of Matter

## Judicial Exemptions

- Law of Nature
- Natural Phenomenon
- Abstract Ideas

- Organising Human Activity
- Economic Practices
- Standalone Ideas
- Mathematical Relationships

## Additonal Elements

- Improve technology
- Improve functioning of computer
- Application of idea
- Transformation or reduction of article

→ USPTO: ex Parte Desjardins

# Technical Application

## First Case – Technical Application of a mathematical model

Use in monitoring equipment, such as a heart monitoring device for identifying irregular heartbeats;

Controlling a specific technical system or process, e.g. an X-ray apparatus or a steel cooling process;

Digital audio, image or video enhancement or analysis, e.g. classifying, de-noising, detecting persons in a digital image, estimating the quality of a transmitted digital audio signal;

Separation of sources in speech signals; speech recognition, e.g. mapping a speech input to a text output; or

Providing a medical diagnosis by an automated system processing physiological measurement.

This technical purpose must be specific – Examples from EPO

# Technical Implementation

## Second Case - Technical Implementation of a mathematical model

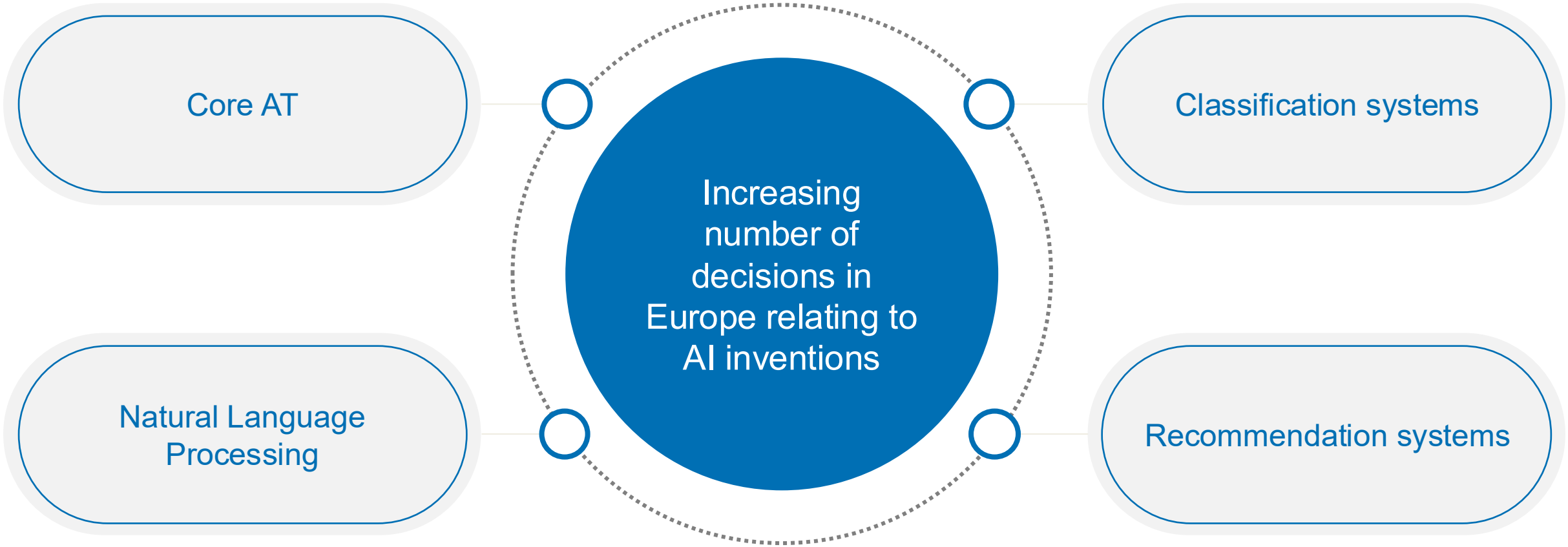
Mathematical method is **particularly adapted** for that implementation.

Data collection

Interaction between hardware elements to collect the data

Picture source: Istock.com

# Patentability of Some AI Technologies



# Core AI

## Fundamental building blocks of AI and machine learning, as opposed to the applications of AI

Difficult to file patent applications on innovations in this “Core AI”. EPO considers it not to be “technical”.

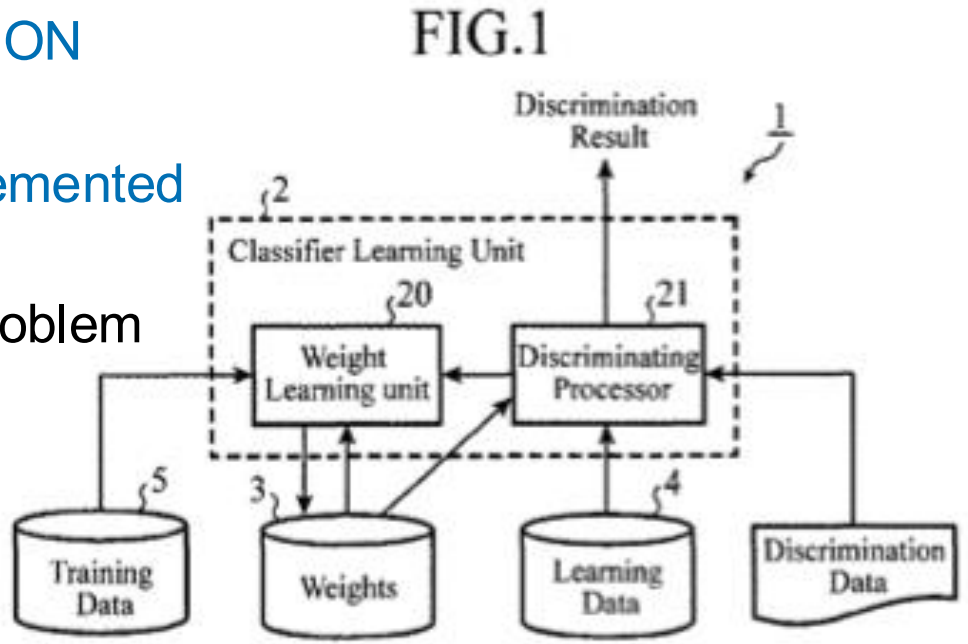
Overcome by specifying in detail

- Implementation of the system
- Working of System in new ways
- New physical combination of hardware
- Application of algorithm to technical operation

Picture source: Pixabay.com

# EPO T072/20 : Neural network does not solve a technical problem

- EP3089081A1 HIERARCHICAL NEURAL NETWORK DEVICE, LEARNING METHOD FOR DETERMINATION DEVICE, AND DETERMINATION METHOD
- Claims a hierarchical neural network apparatus implemented on a computer comprising….
- Subject matter of claim did not solve any technical problem
- Had effects ”within the computer”



# EPO T0183/20 : Minimisation of Network Bandwidth and Storage of Training Data

- **EP2634707** Recommender Control System Apparatus, Method and Related Aspects
- Claims a method for automatically controlling performance of a recommender system
- Technical problem solved is to reduce the use of network bandwidth and amount of storage in a communications system, including a client device and a recommender system in communication with the client device.

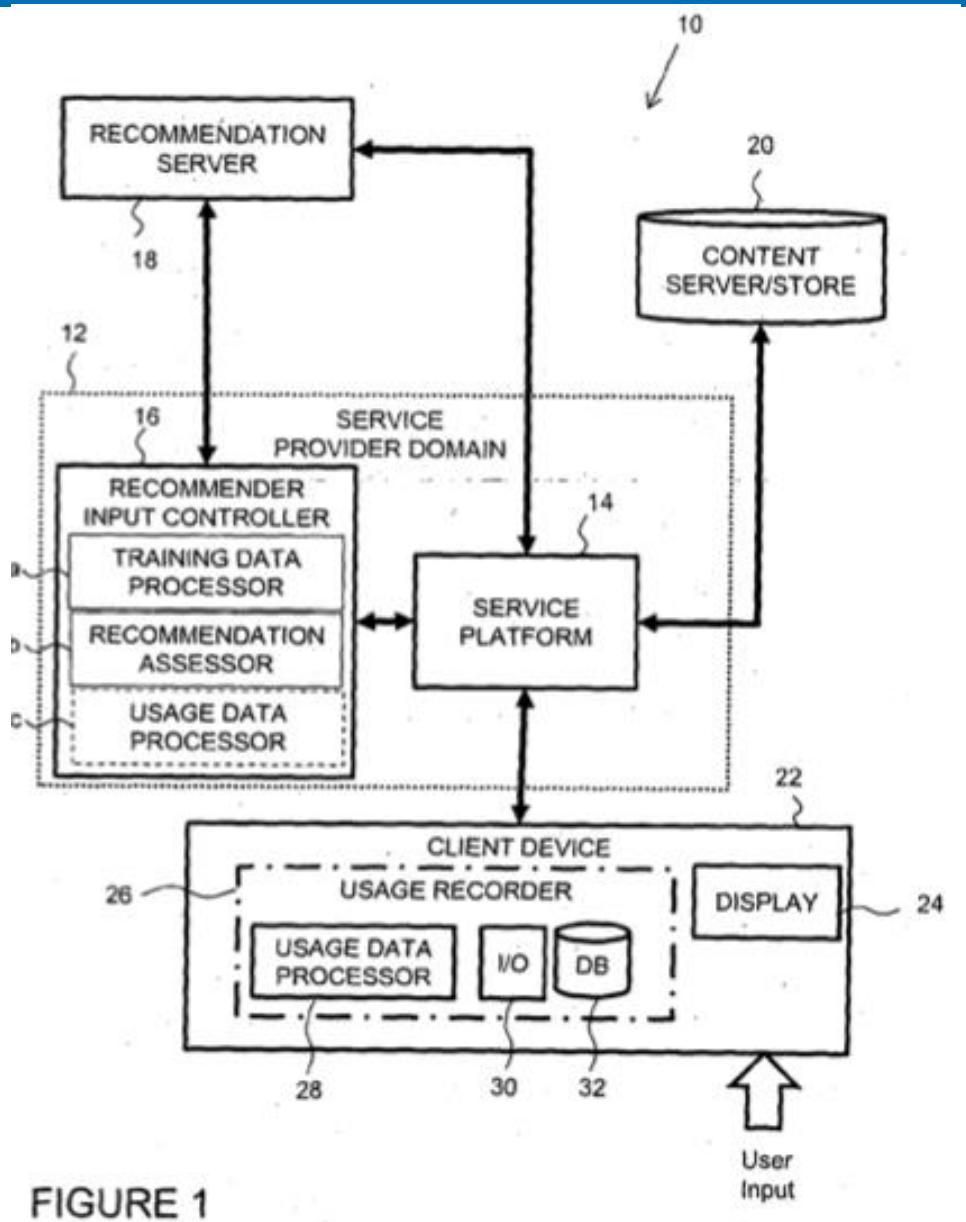



FIGURE 1

# Summary of Decisions in EPO

- Method and Apparatus for Detecting Target – T632/22 – Patent granted
- Method and Device for providing personalized and calibrated adaptive deep learning model for the user of an autonomous vehicle T2412/22 – Appeal rejected, lack of inventive step
- AR (augmented reality) overlays in context of social networks, based on geographic location T1066/22 – technical (but obvious)
- Fulfilment of phone protection plan T0905/21 – not technical
- Training machine learning models (neural networks) T1425/21 – not technical

# Summary of Decisions in EPO

- Translating text in images T0145/21 – not technical
- Training VOD recommender system T0183/21 – technical
- Using feedback in semi-automatic question answering session – not inventive (although more accurate output)
- Machine translation T1177/97 – not technical
- Image Classifier T1286/09 - technical
- Training of neural network – T0161/18 – insufficiently disclosed
- Hear Monitoring Apparatus – T 0598/07 – inventive
- Classifying and Linking Documents T1784/06 – not technical

# Developing an AI-focussed patent strategy

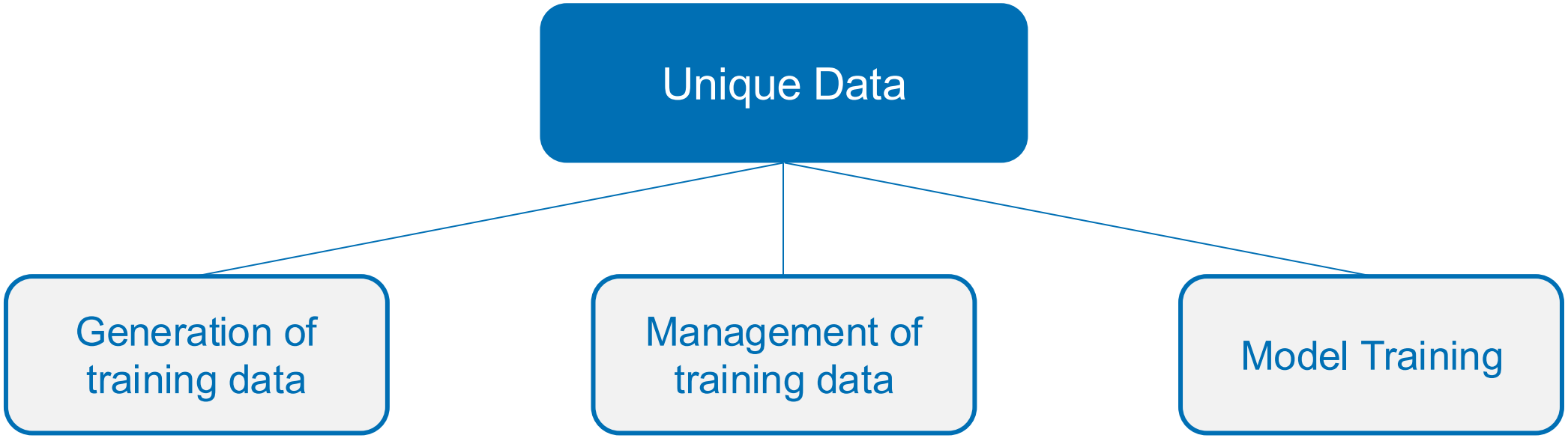
- Identify Customers and Competitors
- Can the ”Infringement” be carried out by a single actor
- Focus on how infringement may take place

# Patent Strategy = Business Strategy I

- Devices using AI to make decisions
  - Decisions
  - Model Training
- Products manufactured using AI
  - Model Training
  - Product highlighting AI generated features

Source: Siemens / Beat Weibel https://www.wipo.int/meetings/en/doc_details.jsp?doc_id=454861

# Patent Strategy = Business Strategy II



# Claiming AI-Related Inventions

## AI-related inventions may have three potentially patentable, aspects

**Generating** training data for use in training a model, such as an artificial neural network;

**Training** the model using the training data (machine learning); and

**Using** the trained model to analyze new data

Each of these aspects should have separate independent claims

Picture source: Istock.com

# Drafting Claims

1. Method Claims
   - without structural elements
   - protection under Art 64(2) EPC
2. Device Claims
3. Computer Program Product
   - capture stand-alone product
   - database storing elements of data
   - database for/configured to store elements of data
4. Separate claims for training and use of AI systems
5. Claims to each independent entity
   - Web server + client

# Inventive Step

Not “could” the skilled person arrive at the invention but “would” they do so?

- Large number of parameters
- Non-convexity
- Human selection of training parameters

Problem-Solution approach is required
Solution must be in the technical sphere

Picture source: Freepik.com

# Could a skilled person combine AI aspects to arrive at any given AI invention

- US 7,542,959
- Feature selection method using support vector machine classifier
- Claim was to a computer-implemented method for predicting patterns in biological data…comprising
- Three Prior Art documents
- Lack of Motivation to combine teachings (“could” but not “would”)

- Extensive disclosure on how data was acquired and processed

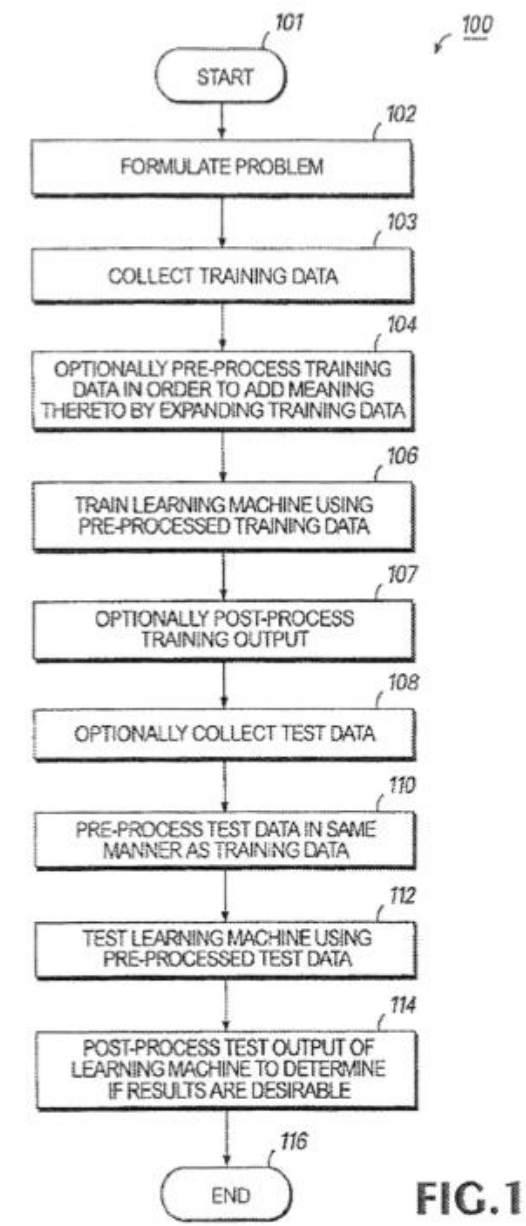
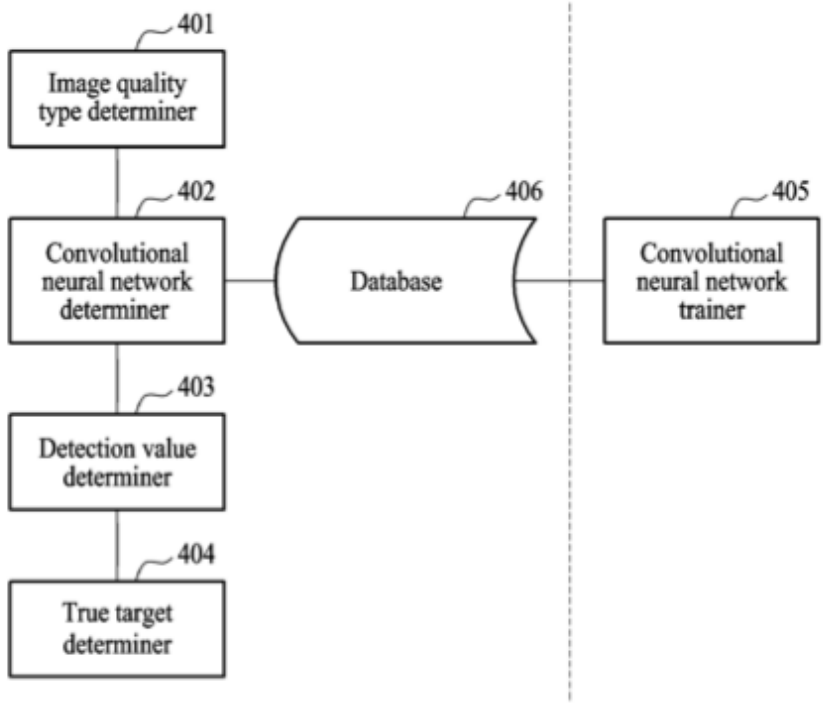


FIG.1

# T 2412/22 Samsung EP 3 333 768
# "Method of Determining whether a target is a true target"

- A method of determining whether a target in a target image is a true target, thus detecting liveness of the target.
- Closest prior art – face authentication
- Differences in parameters chosen for training – in particular prior art was missing "photographic" parameters
- Decision reversed and sent back to Examiners
- Grant of Patent is intended.



# Disclosure / Enablement

Comprehensive Disclosure
Mere reference to an AI network is not sufficient (T0161/18)

- Disclosure of Training Set of Input Data
- Disclosure of Training Method
- Add structural elements
- Explain functional elements in hardware terms
- Human selection of training parameters

But is the invention really reproducible?

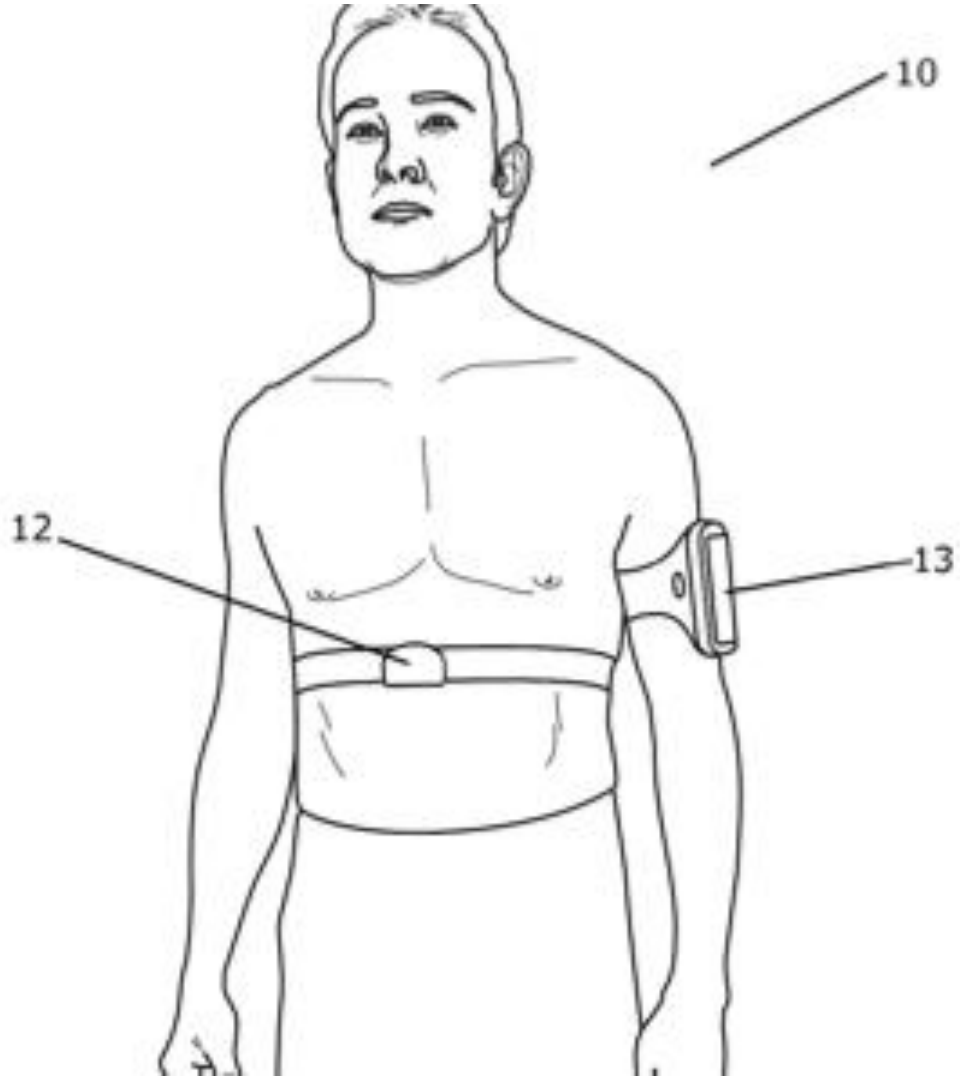
Picture source: Freepik.com

# EPO Guidelines - Disclosure

- Emphasise technical nature
- "support vector machine", "reasoning engine" or "neural network" do not necessarily imply the use of a technical means.
- If the technical effect depends on characteristics of the training dataset, the characteristics required to reproduce the technical effect must be disclosed
- In general, no need to disclose the specific training dataset
- Reproduce the invention without undue burden over the whole scope of the claim

# EPO: Lack of Disclosure T1079/17

- EP 2 889 853 A method for optimizing running performance for an individual
- Claims a method for optimizing running performance for an individual, the method comprising..
- No disclosure of “optimal movement pattern”
- “Artificial intelligence” -> not specific enough

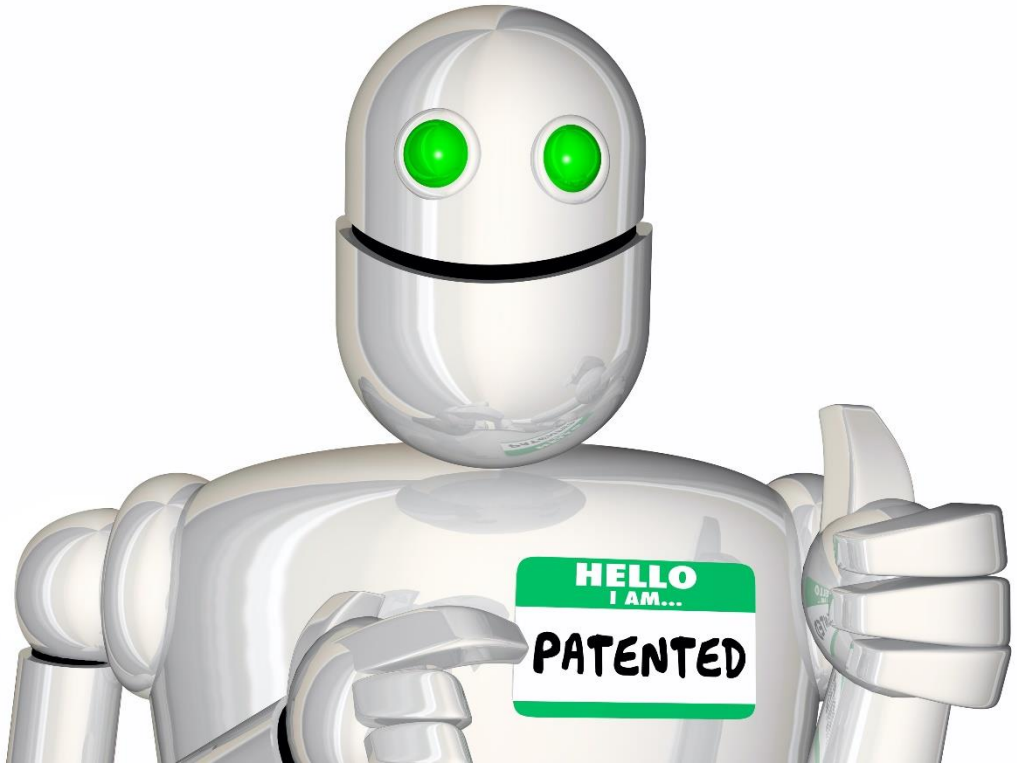


# AI as Inventor or Creator

EPO US UK : No
South Africa: Yes
Germany: No – but include in description

US Copyright Office: Creator must be a human being
US Supreme Court has refused to review the case

"…the inventor designated in a European patent must be a natural person … the understanding of the term inventor as referring to a natural person appears to be an internationally applicable standard, and that various national courts have issued decisions to this effect."




Picture source: Adobe

# ChatGPT (Generative AI)

## IP and other legal issues from massive language models

Uses copyrighted information + non-copyrighted data

Produces useful and useless information

Liability?

Many unanswered questions

Picture source: Istock.com

# Contact

## Thanks!

Dr. Robert Harrison
Sonnenberg Harrison Partnerschaft mbB
+49 1511 2066 303
www.sonnenbergharrison.law
Email: rob@rh-deeptech-strategy.com
Twitter: http://twitter.com/rjharrison000
LinkedIn: http://www.linkedin.com/in/robertharrison/

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Picture source: Freepik.com