

Use of AI in patent matters

Daniel Werner, Dr. Nikolaus Buchheim & Dr. Niels Gierse
German and European Patent Attorneys
UPC Representatives

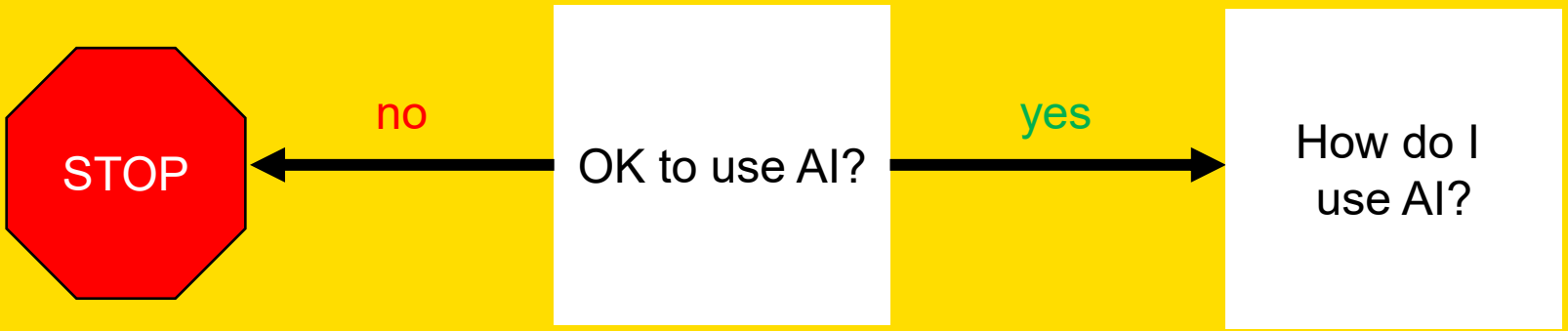
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Impact.
Passion.
IP.

Overview

I. AI-Augmented Patent Prosecution

II. Risks, Benchmarking, and Quality Assurance



German Lawyers/Patent Attorneys:

Obligation of professional secrecy
(„Verschwiegenheitspflicht“, § 203 StGB, §§ 43a, 43e BRAO, § 39c PAO)

➔ careful selection of compliant AI provider; awareness of criminal sanctions

European Patent Attorneys:

Epi Guidelines, https://information.patentepi.org/issue-4-2024/epi-guidelines-use-of-generative-ai.html

➔ client consent mandatory

Client Engagement Terms:

➔ may contain stricter provisions; e.g. use of AI only for machine translations, etc.

Two approaches – *Examples*

General purpose

BLOCKBRAIN

Langdock

neuland.ai

PRO

Claude

Legal

Libra by Wolters Kluwer

LEGORA

Harvey

Beck-Noxtua DIE RECHTS-KI

IP specific

ANKAR

Solve Intelligence

Qthena

Rowan Patents

IPRally

Patlytics

Kwintely

DeepIP

PatentMaker DIGITAL ASSISTANT FOR PATENTS

https://blog.patentext.com/blog-posts/a-complete-list-of-ai-patent-tools, retrieved 4 March 2026

Note: **Not an endorsement**

I. AI-Augmented Patent Prosecution

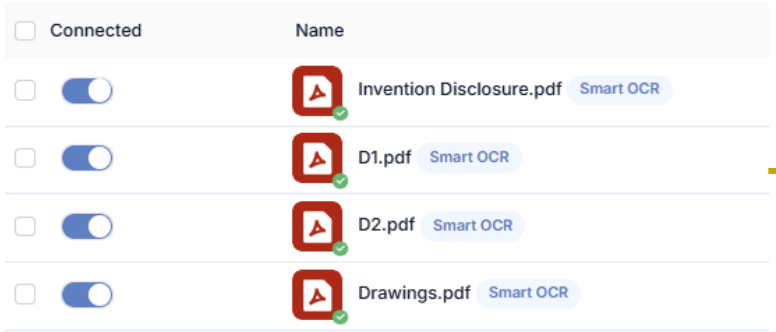
Solving the European Patent Attorney Qualification Exam (EQE) with AI

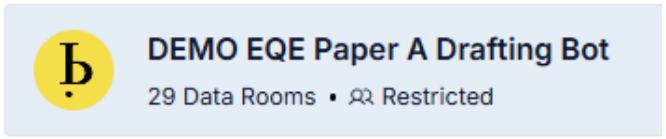
European Patent Attorney Qualification Exam (EQE)

- **EQE 2021 – Paper A: Gas Turbine Engine Component**
- **Patent drafting** exercise from the European Qualifying Examination

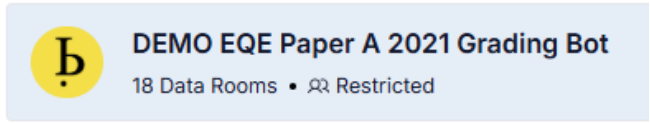
- **A toy example – see how AI operates on a „real“ patent task**
- **EQE designed to capture relevant (European) patent law challenges**
- **Later: Benchmarking and Translation to actual client work**

Benchmarking





1. A coated engine component comprising….



Scoring Analysis for Claim 1

Maximum available: 40 marks

Criterion	Deduction	Reasoning
Novelty	0	Thickness ≥25 µm ensures novelty over D2 (≈1 µm security marking) ✓
Embodiment coverage	0	No adhesion layer required → all 3 embodiments covered ✓
No engine-type limitation	0	Not limited to turbine or specific engine type ✓
No ceramic oxide type limitation	0	Not limited to zirconium oxide ✓
Ceramic oxide undefined	−5	Term "ceramic oxide" used without defining it as "a metal oxide with a melting point above 1600°C" (per D1 clarity requirement)
Column angle	0	Range 75–105° is explicitly stated ✓ (the additional "substantially perpendicular" wording does not narrow scope since numerical range governs)
Superalloy substrate	0	Present ✓
Minimum thickness	0	≥25 µm correctly specified ✓
"Thermally insulating"	0	Inherent functional descriptor of a 25+ µm ceramic oxide layer; does not materially narrow scope
Reference signs	−1	No reference signs included in the claim
Two-part form	0	Not used, but no penalty for omission (only penalised if used incorrectly)

Estimated Score: 34 / 40

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Drafting a patent claim – Example Results from different AI systems

1. A coated engine component comprising a superalloy substrate and a thermally insulating ceramic oxide layer on the component, wherein the ceramic oxide layer has a columnar microstructure with columns oriented substantially perpendicular to the surface of the substrate, the angle between a column and the surface being between 75 and 105°, and wherein the ceramic oxide layer has a thickness of at least 25 micrometres.

34 points

1. A coated engine component for use in an engine having a combustion zone at a temperature of at least 1600 °C, comprising:
– a substrate made of a superalloy, and
– a ceramic oxide layer on a surface of the substrate, wherein
– the ceramic oxide layer has a columnar microstructure comprising columns of ceramic oxide and spaces between adjacent columns, and
– the columns are oriented substantially perpendicular to the surface of the substrate.

17 points

1. A coated engine component (10), comprising:

a substrate (11) made of a superalloy; and
a ceramic oxide layer (13) provided on the substrate (11), the ceramic oxide being a metal oxide having a melting point higher than 1 600 °C, wherein the ceramic oxide layer (13) has a columnar microstructure with columns (14a, 14b, 14c) oriented at an angle of between 75° and 105° to the surface of the substrate (11), and

wherein the ceramic oxide layer (13) has a thickness of at least 25 micrometres.

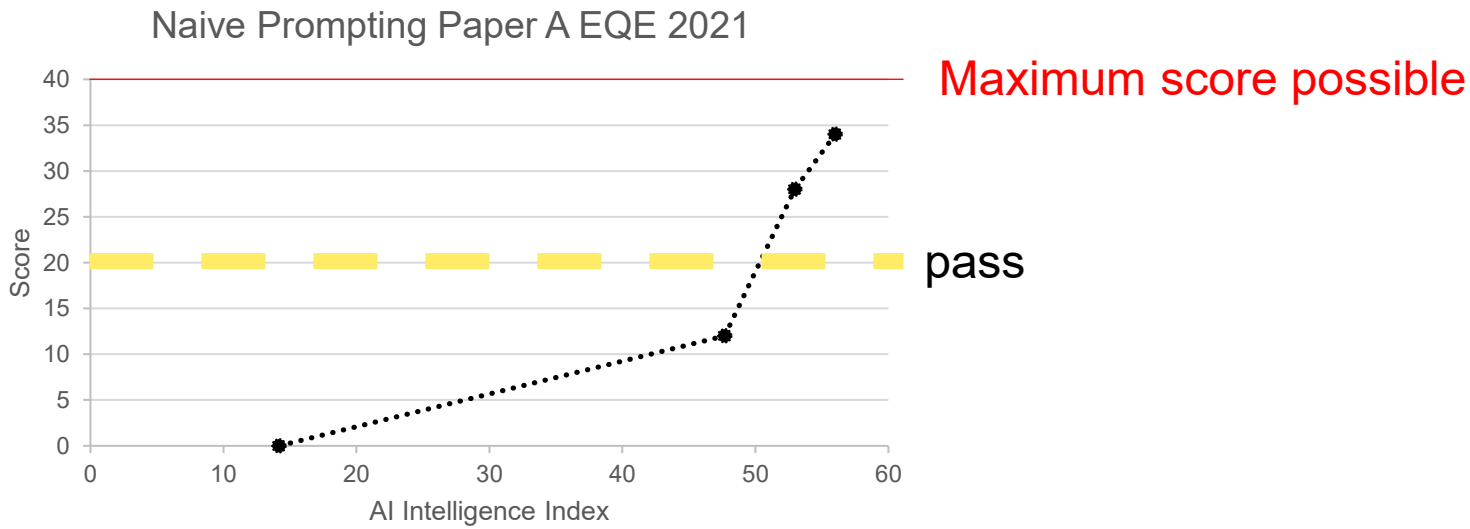
40 points

Overview

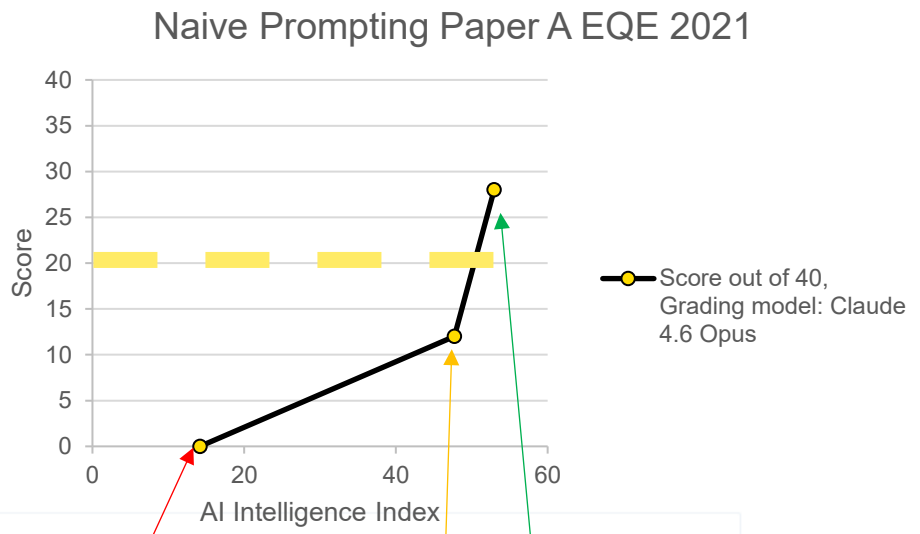
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II. Risks, Benchmarking, and Quality Assurance

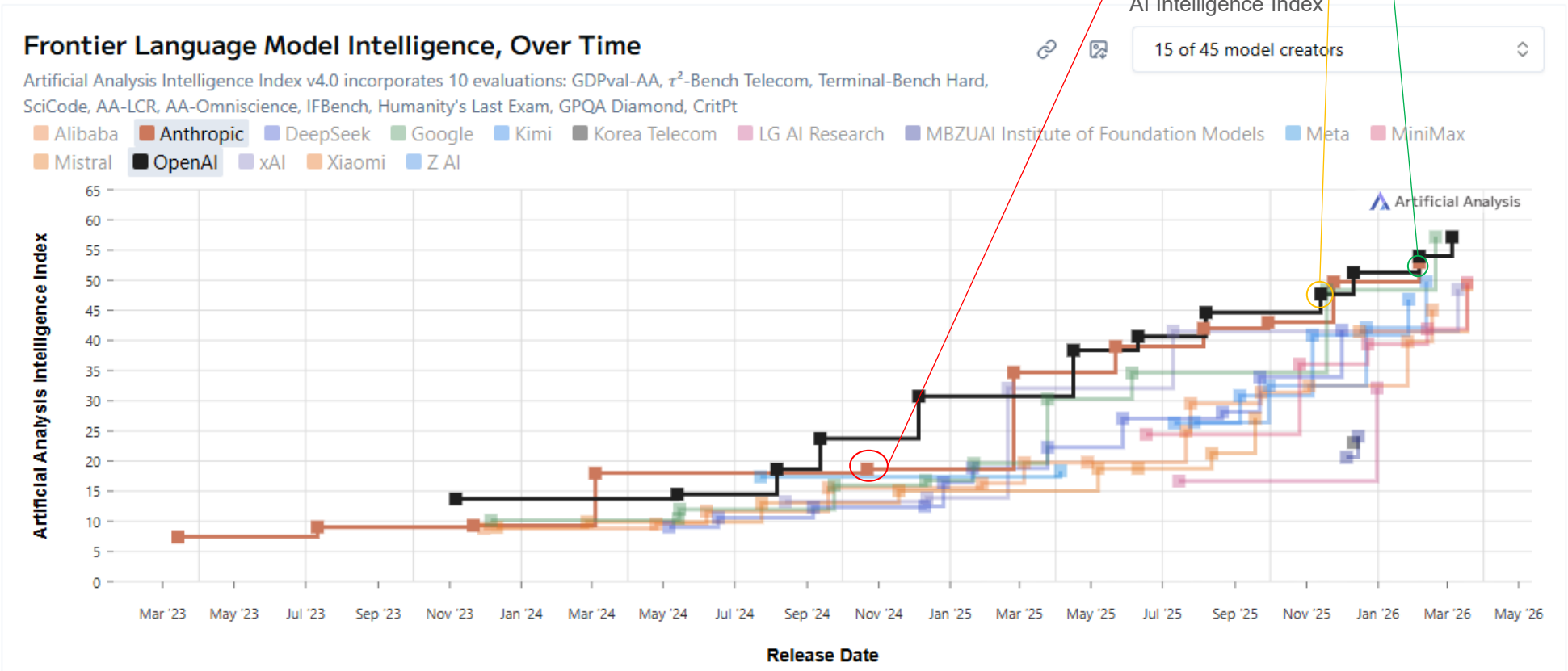
Model used	Score out of 40, Grading model: Claude 4.6 Opus
GPT 5.5 Pro	35
Claude Opus 4.8	34
Claude Opus 4.6	28
GPT 5.1	12
Claude 3.5 Sonett	0



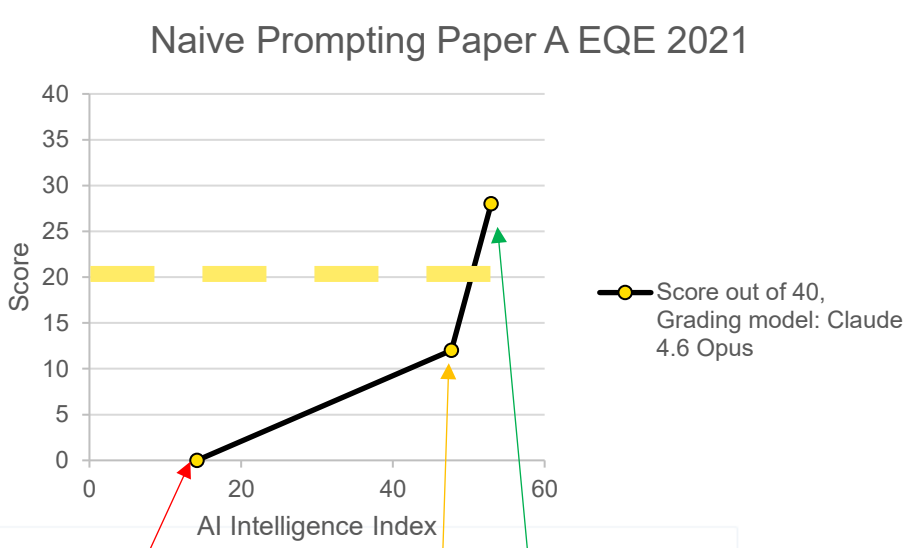
Rapid evolution of LLM capabilities



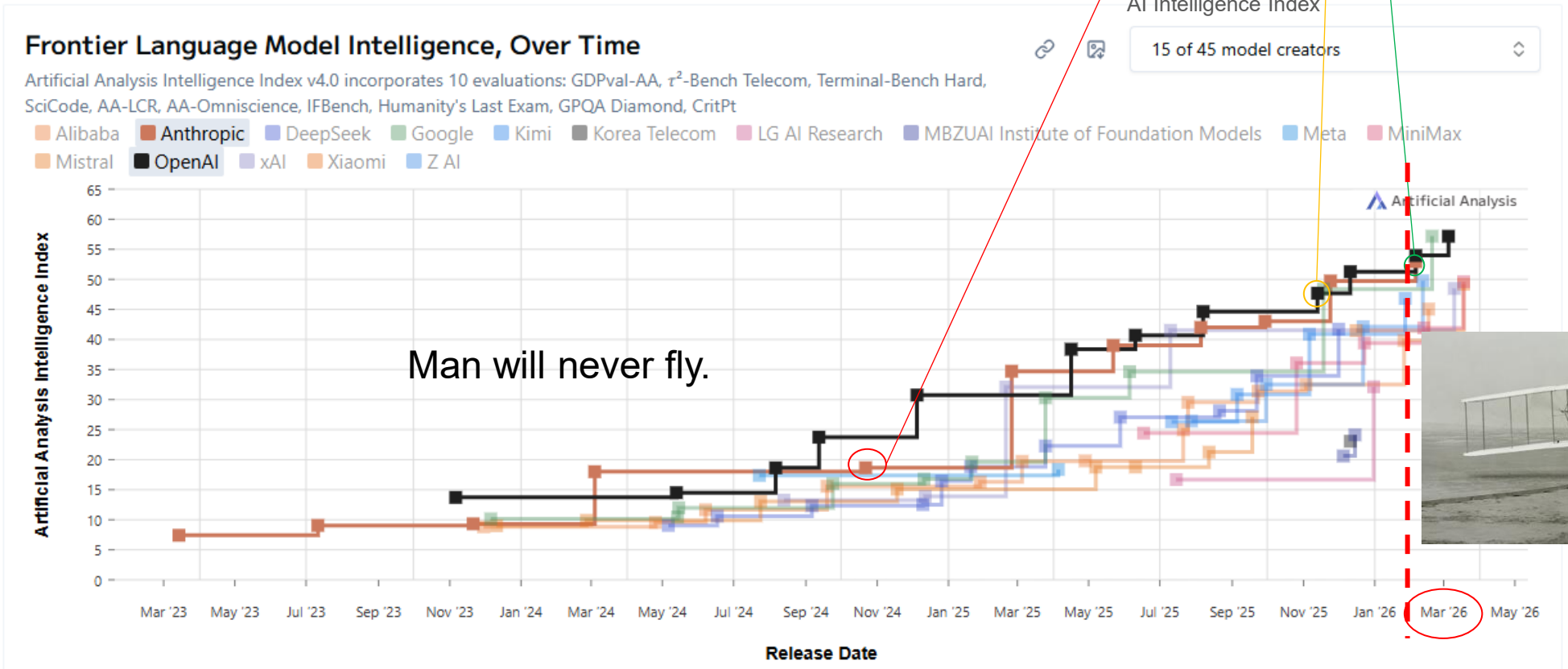
https://artificialanalysis.ai/trends



Rapid evolution of LLM capabilities



https://artificialanalysis.ai/trends



Man will never fly.



Improvement with context engineering

Model used	Score out of 40, Grading model: Claude 4.6 Opus
Claude 4.8 Opus	~~34~~ **40/40 (sic!)**
Claude 4.6 Opus	28/40 (with naive prompting)
GPT 5.1	~~12~~ **28/40 (with context engineering)**
Claude 3.5 Sonett	0/40 (claim not new)
Claude 4.7 + Context engineering	???

Opus 4.8, „bootstrapped“

1. A coated engine component (10), comprising:

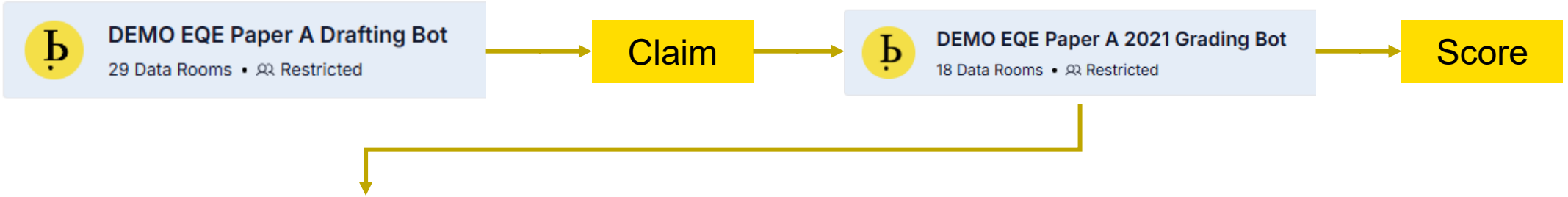
a substrate (11) made of a superalloy; and

a ceramic oxide layer (13) provided on the substrate (11), the ceramic oxide being a metal oxide having a melting point higher than 1 600 °C,

wherein the ceramic oxide layer (13) has a columnar microstructure with columns (14a, 14b, 14c) oriented at an angle of between 75° and 105° to the surface of the substrate (11), and

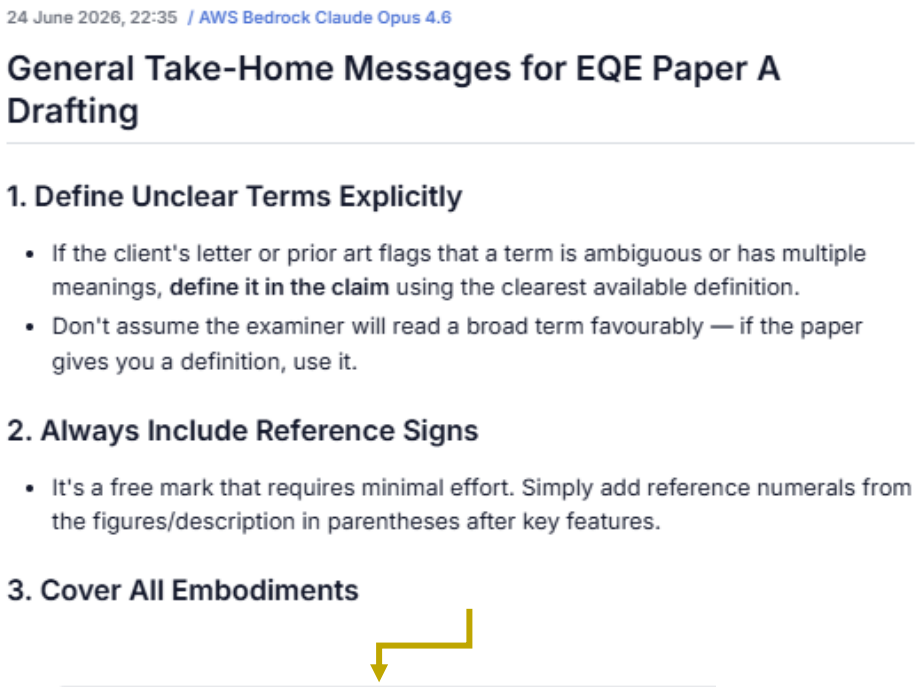
wherein the ceramic oxide layer (13) has a thickness of at least 25 micrometres.

From 34 to 40 point:
Technique „Bootstrapping“ – Learn from mistakes



Grading bot:

“Okay, now on an abstract level, what can be learned from this? How could I improve my drafting? What are general take-home messages, lessons learned and checklist for the next draft? Please generalize, make it independent from the case at hand.”



24 June 2026, 22:35 / AWS Bedrock Claude Opus 4.6

General Take-Home Messages for EQE Paper A Drafting

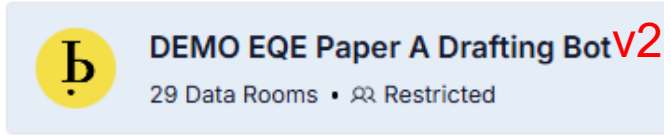
1. Define Unclear Terms Explicitly

- If the client's letter or prior art flags that a term is ambiguous or has multiple meanings, **define it in the claim** using the clearest available definition.
- Don't assume the examiner will read a broad term favourably — if the paper gives you a definition, use it.

2. Always Include Reference Signs

- It's a free mark that requires minimal effort. Simply add reference numerals from the figures/description in parentheses after key features.

3. Cover All Embodiments



Quality Assurance



- Demos showed:
  high quality can be achieved with patent attorney in the lead & know

- AI can be used to supplement „classic“ quality checks assurance strategy can be expanded to AI

- 30+ automated quality checks in 4 categories, specialized for patent prosecution and litigation filings before EPO, DPMA, UPC and German Courts
- Checks language, grammar, missing words, as well as structural and terminological consistency
- Validates procedural formalities such as claims, file references, and signatures
- Detects artifacts and unreplaced placeholders
- Includes an iterative review process with cross-validation to avoid hallucinated content

Key Take-Aways

- **AI augments – allows to focus on value creation**
- **Human–Machine Synergy is the key**
- **The human needs to be in the lead & know –**
  „with great power comes great responsibility“
- **Quality enhancements across the board**
- **AI enables patent attorneys to keep pace with AI accelerated progress of science and technology**

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Thank you!

BARDEHLE PAGENBERG
Partnerschaft mbB
Prinzregentenplatz 7
81675 München

Patent Litigation Firm of the Year in Germany 2024 – IAM Global IP Awards
Patent Disputes Firm of the Year in Germany 2025 – Managing IP
Intellectual Property Team of the Year in Germany 2025 – Legal 500
Best IP Advisor DACH 2025 – Leaders League
Law Firm of the Year for Patents in Germany 2023 – JUVE
Best Lawyers for Intellectual Property Law – Best Lawyers® and Handelsblatt
Europe's Leading Patent Law Firms – Financial Times
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