Future Forward

The Impact of A.I. in the Pharmaceutical Trademark Space

PTMG, Malta – October 18, 2024

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Meet the speakers



Senior Vice President, Brand IP
Clarivate



Head, Legal Brand Protection
Sandoz International GmbH

Agenda

Introduction to Artificial Intelligence (A.I.)

Leveraging A.I. in the Pharmaceutical Brand Lifecycle

- Name Generation
- Pharma TM Clearance
- Pharma In Use
- Contentious Matters / Enforcement
- Portfolio Maintenance
- Commercialisation
- Leveraging Data and Analytics for better decision making

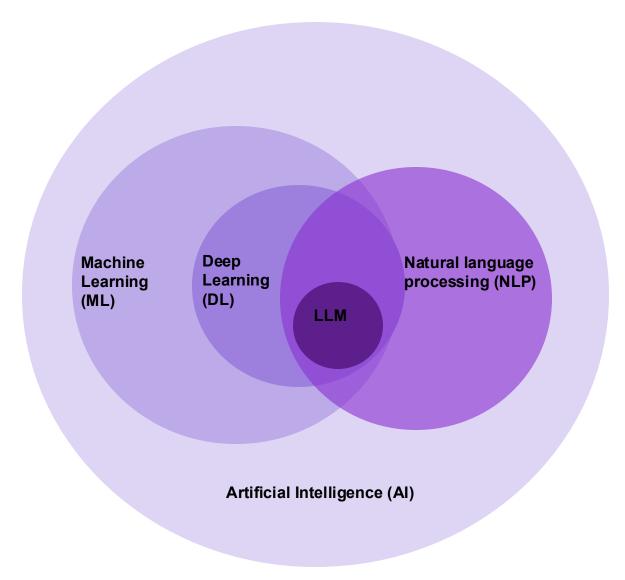
Key Takeaways

"The key to success with AI is not just having the right data, but also asking the right questions."

Ginni Rometty
Former CEO of IBM

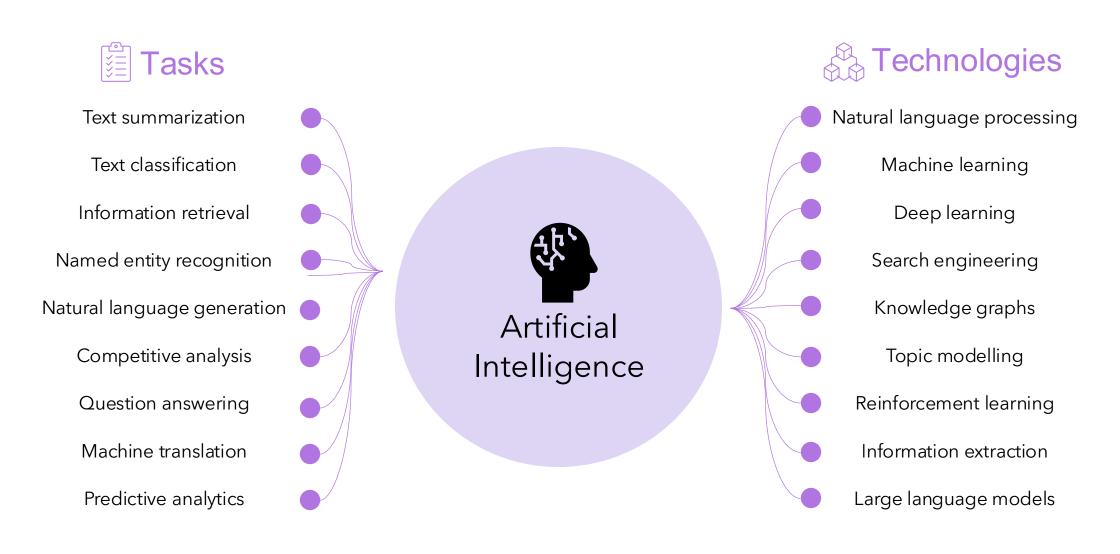
AI? ML? DL? NLP? LLM?

All the same?



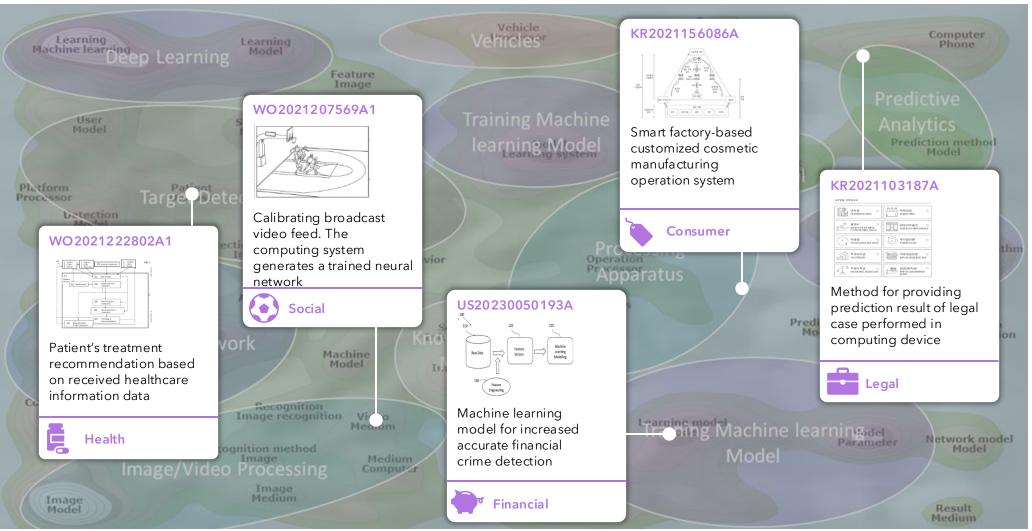


Selecting the right use cases to fuel your organization's Al journey





Al is growing fast and is a key feature in many business and consumer applications.



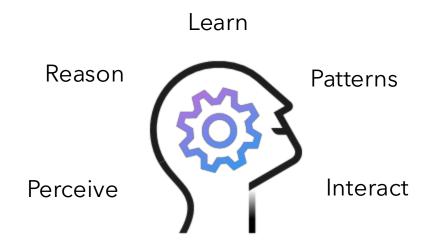
Al encompasses a wide range of capabilities

Accelerating and simplifying our everyday

Level of intelligence Narrow (ANI) General (AGI) Super (ASI) Limited in scope Problem solving Surpasses human (specific focused (on par with humans) intelligence tasks) **ASI** Intelligence AGI ANI

The objectives of AI and modern computing

Machine-led capability to perform cognitive functions associated with humans.





<2016

Al: where do you stand?

Slido Interactive Survey

"Al is a tool. The choice about how it gets deployed is ours."

Oren Etzioni

CEO, A12 and Professor of Computer Science



A.I. as an Ally

What problems can A.I. help solve?







Name Generation

Pharma TM Clearance - TM Registers + Regulatory

Pharma In Use - Competitive Landscape







Contentious Matters / Enforcement

Portfolio Maintenance

Commercialisation



Acquisitions & Divestments



Finding a Trademark

How is it done now vs how can Al help streamline existing process?



Current state of the art

How we do it?





Name ideation

Q&D searches

Base application

6 month priority period



Challenges

Increasingly cluttered Pharma TM Registers

Pressure to deliver cleared candidates faster & cheaper

Geographical scope variable



Meeting the challenges

Increased reliability of Al search tools

Holistic overview vs. multiple sources of truth

Clearer overview of how regulatory guidelines applied (e.g. by NRG in EU)

Better context re competitive landscape – actual or theoretical risk?



Can ChatGPT help out of the box?



can you suggest names for an oncology drug?



Sure! Here are some suggestions for oncology drug names:

- 1. Oncurex
- 2. Cytosolve
- 3. Tumorclear
- 4. Neoplasis
- 5. TheraCure
- 6. Cancelex
- 7. MaligGuard
- 8. CellBane
- 9. OncoLift
- 10. ElysiumRX

Feel free to let me know if you have specific themes or aspects you want to incorporate!



Asking ChatGPT

why did you select these?



I selected these names based on a few criteria:

- 1. **Relevance**: Each name includes elements that relate to oncology, such as "Onco," "Cure," and "Tumor," conveying the drug's purpose.
- 2. **Memorability**: The names are designed to be catchy and easy to remember, which is important in branding.
- 3. **Connotations**: Many of the names evoke positive associations, such as healing ("Cure"), clarity ("Clear"), or strength ("Guard").
- 4. **Unique Sound**: I aimed for a balance between being distinctive and professional, ensuring they sound appropriate for a pharmaceutical product.

If you'd like different themes or styles, I can come up with more options!



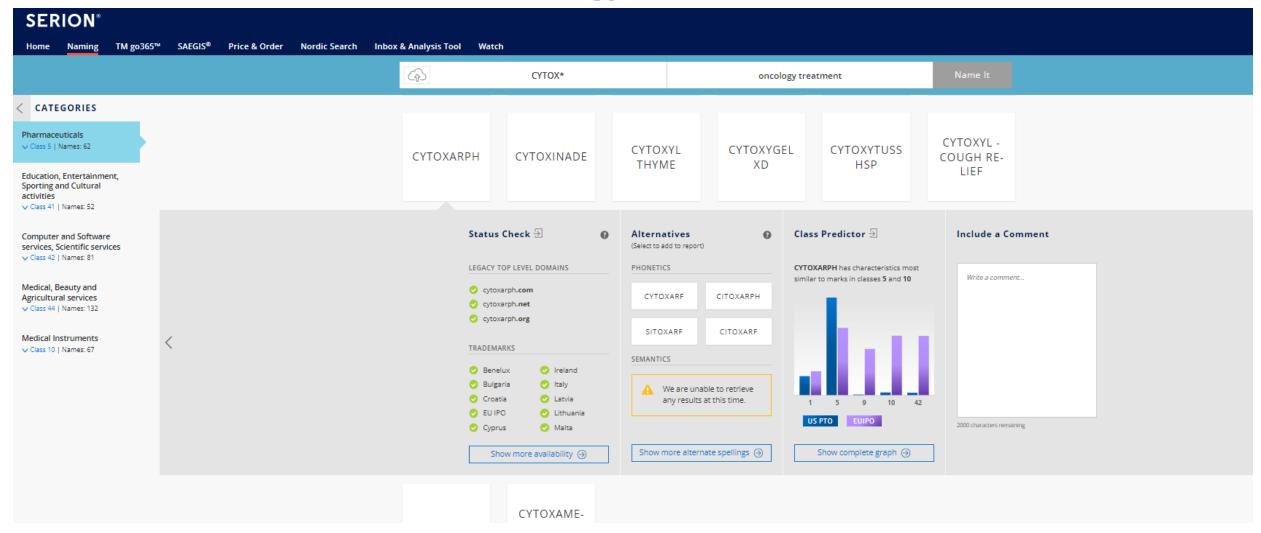


Next Gen Al Tools

Is there a better name?



Pharmaceutical Names for Oncology treatment







Can I get a better POCA Score?

The **Phonetic and Orthographic Computer Analysis** (POCA) program is a software tool that uses an advanced algorithm to determine the *orthographic and phonetic similarity between two drug names*. Aim is to avoid potential confusion with existing pharma brand names to minimise the risk of medication errors and patient safety issues arising.



How does POCA work?

 The program compares a candidate drug name against multiple drug names found in several different "data sources" contained in the software.



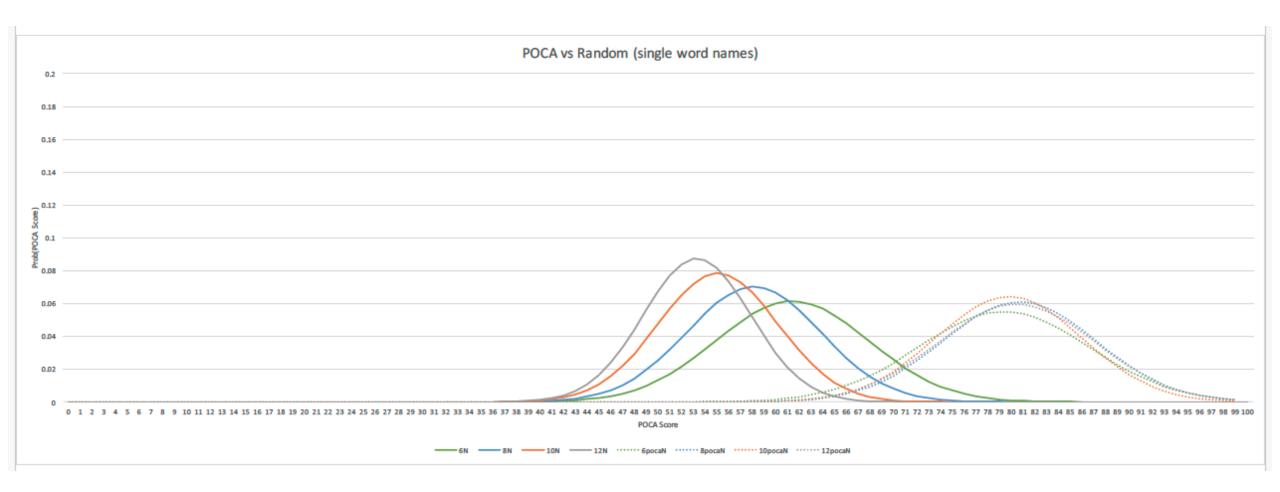
Data Sources

- Drugs@FDA (updated monthly)
- RxNorm (updated monthly)
- Suffixes in the proper name of approved biological products (updated monthly)
- United States Adopted Names (updated twice a year)
- Health Canada?
- European Medicines Agency?

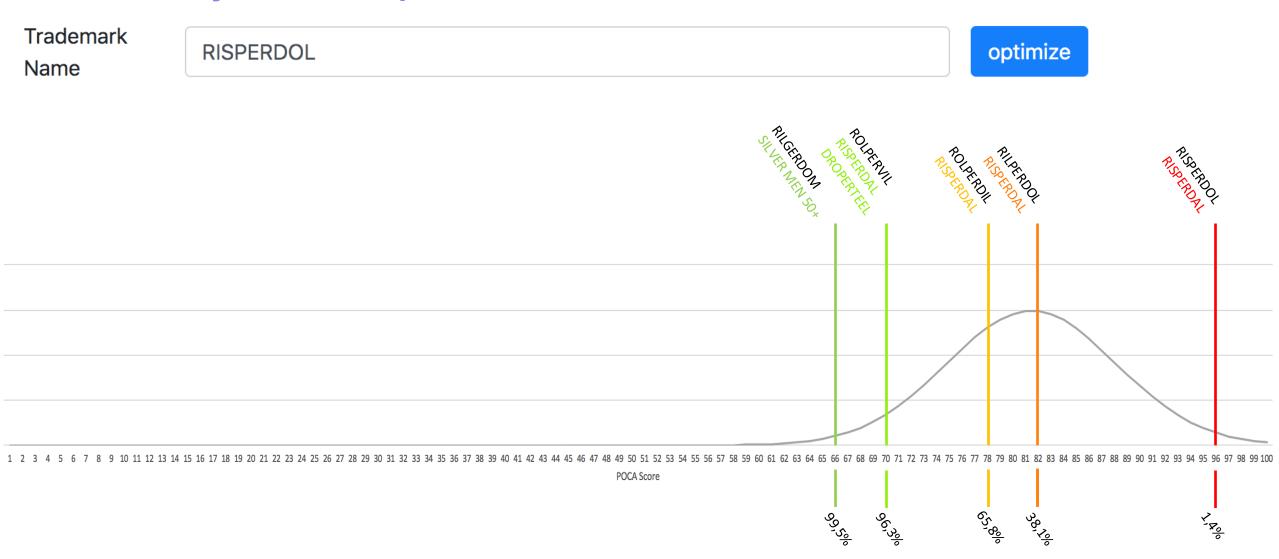




POCA vs. Random (Single Word)



How does my score compare to all Pharma marks?





Example DISPEDRAL

Optimized Name	POCA Score	Closest Existing Drug Name(s)	Parent Name
DISPEDRAL	78	RISPERDAL	DISPEDRAL
QISPEDRAL	73	RISPERDAL	DISPEDRAL
DISPEHRAL	76	RISPERDAL	DISPEDRAL
DISPEHEAL	68	MUSCLEHEAL	DISPEHRAL
QISPIDRAL	68	RISPERDAL, QIN PI DRY	QISPEDRAL
DISPEXRAL	70	RISPERDAL, DESPEC SR	DISPEHRAL
DISPEHIRAL	72	RISPERDAL	DISPEHRAL
DISPEXWAL	68	DYSPEPSIA	DISPEXRAL
DISPEXXRAL	65	DESENEX SPRAY	DISPEXRAL
DISPEXXAL	66	LASIX SPECIAL	DISPEXRAL
DISPHEHEAL	66	MUSCLEHEAL	DISPEHEAL



Trademark Clearance



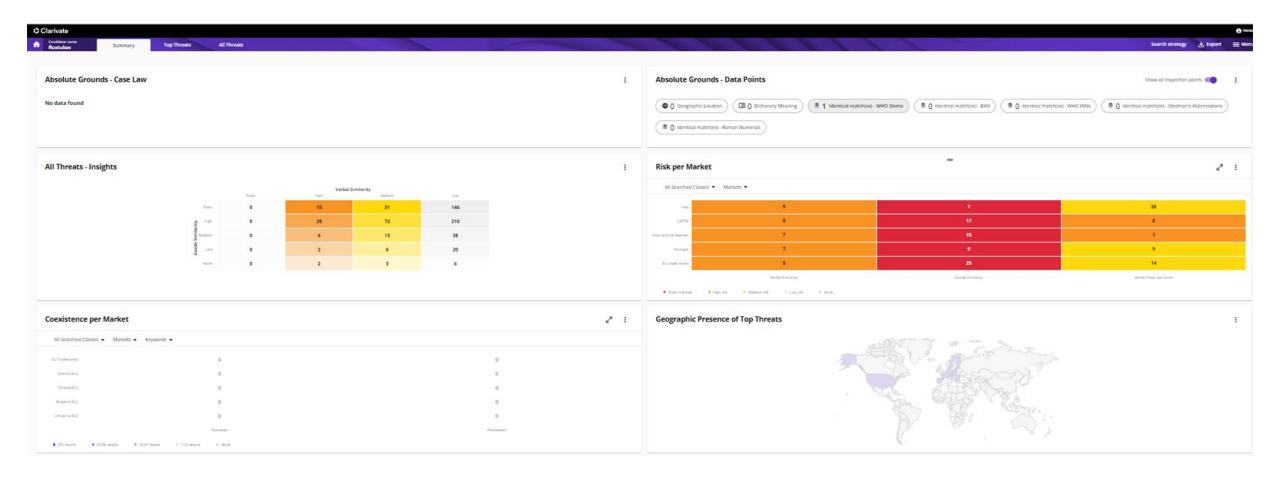


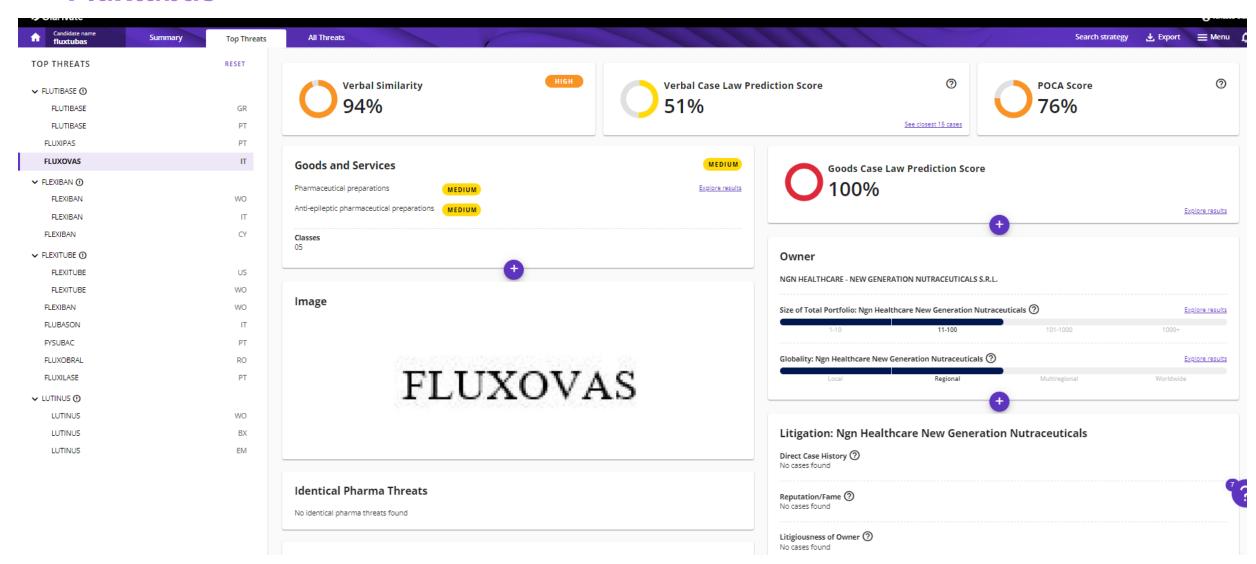
Analysis of Fluxtubas using an Al-powered tool

Brand Landscape Analyzer (compumark.com)

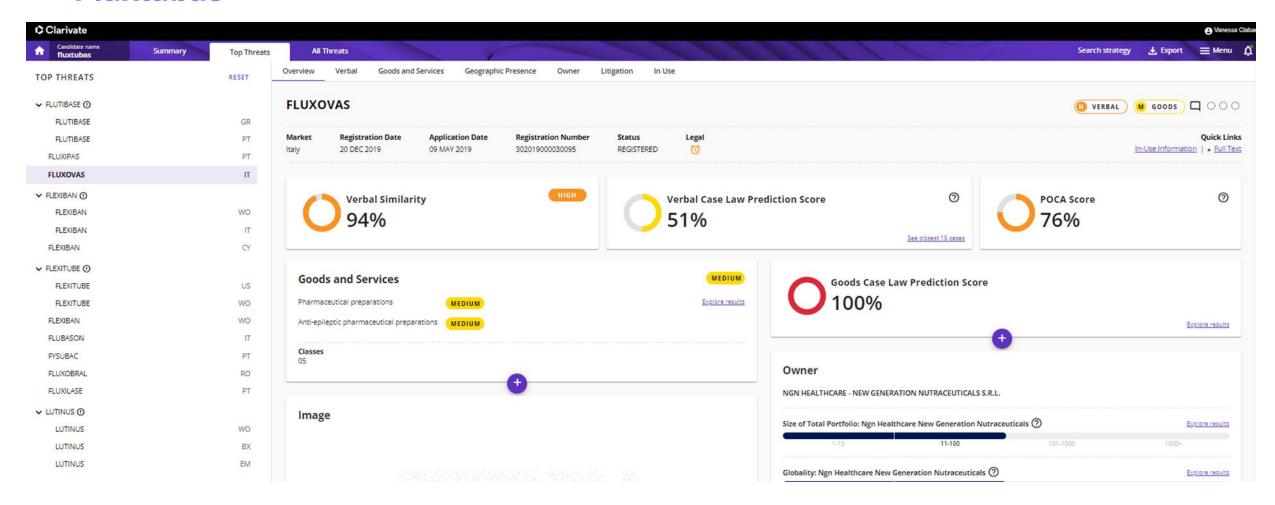


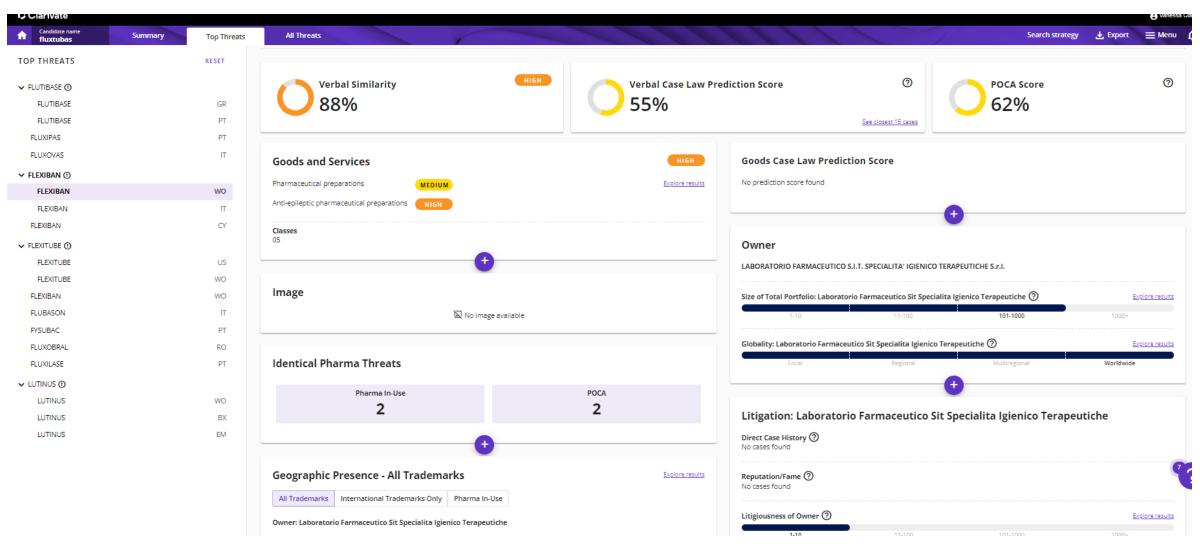










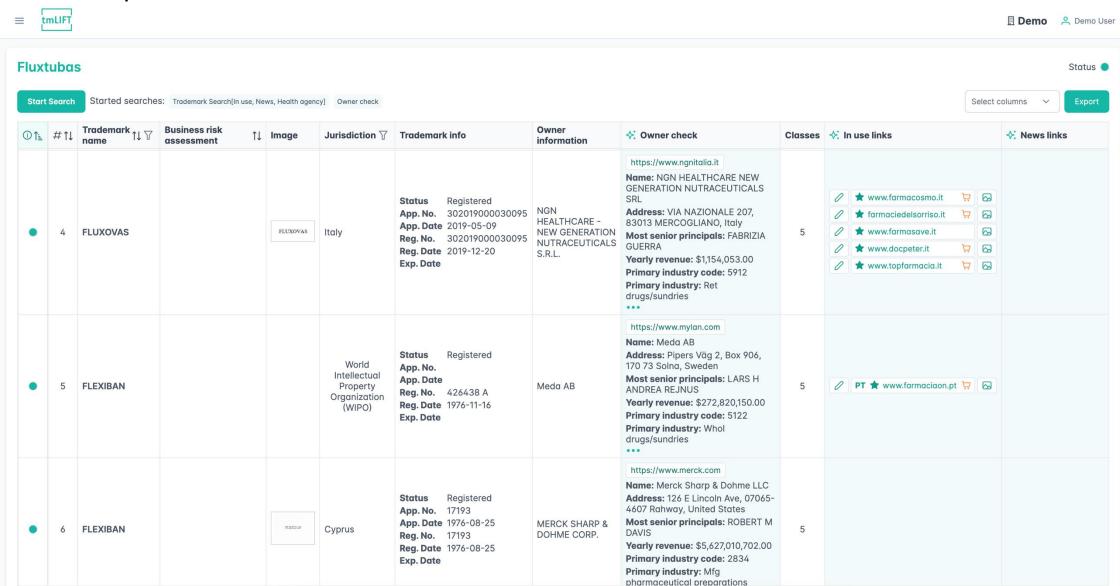




In-Use

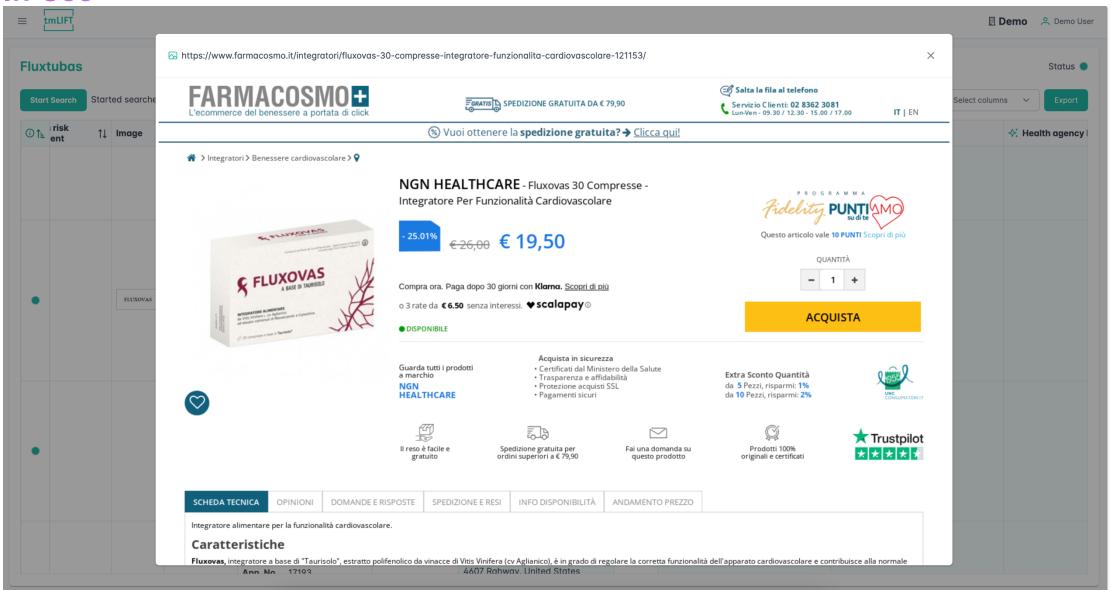


In Use (https://tmlift.com/searches/44/search-results)





In Use





Enforcement



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Fluxtubas vs Fluxovas (IT302019000030095)

https://opposition-assistant.darts-ip.com/trademark-search

Clarivate **Opposition Assistant (Beta version)** Log out Opponent's mark **Jurisdictions** Applicant's mark Verbal element (required) Verbal element (required) fluxtubas FLUXOVAS EM - European Union Intellectual Property Office (EUIPO) International nice classes International nice classes 5 🐼 Nice Class... 5 🐼 Nice Class... Number between 1 and 45 Number between 1 and 45 Goods and Services Goods and Services + Add + Add 5.69. Pharmaceutical preparations 🔞 5.439. Pesticides 🚳 5.204. Herbicides 🔞 5.233. Bandages (Menstruation —) 🔞 5.C61. Extracts for medical purposes 🚳 Nice subclass Al matched nice classification Nice Mark's goods and services 5.69. Pharmaceutical preparations 🚳 pharmaceutical preparations 5.69. Pharmaceutical preparations Nice Mark's goods and services Nice subclass AI matched nice classification Q Retrieve trademark information products subject to protection 5.439. Pesticides 5 products subject to protection 5.204. Herbicides Clear all fields **Compare trademarks**



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Cookie policy

Fluxtubas vs Fluxovas (IT302019000030095) https://opposition-assistant.darts-ip.com/trademark-search

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Opposition Assistant (Beta version)

Log out

Overall similarity

75.3%

Historical cases

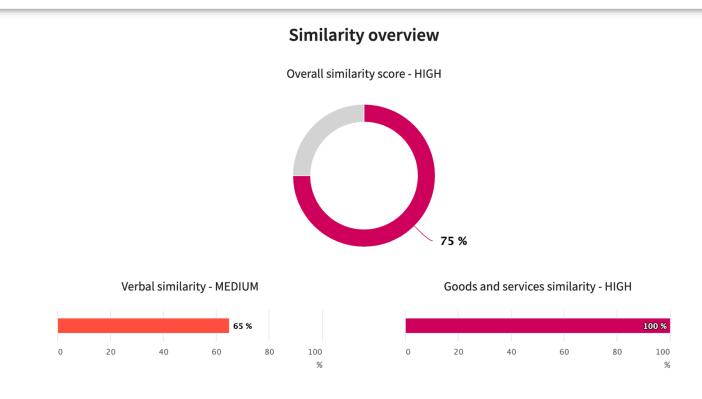
Verbal similarity

Goods and services similarity

Frequency of terms

Distinctiveness issues

Arguments (GenAI)







Man vs. Machine

Slido



Visual Similarity

Which one would you pick? **OPTION A**

While the trademarks FLUXTUBAS and FLUXOVAS share a common prefix "flux" and a similar suffix "as," these elements alone do not sufficiently establish a high degree of similarity.

The presence of distinct components within each trademark—specifically "TUB" in FLUXTUBAS and "OVA" in FLUXOVAS—introduces significant differentiation. These segments contribute unique meanings and associations that can lead to different consumer perceptions.

Additionally, the overall length and structure of the trademarks differ, with FLUXTUBAS containing an additional syllable and a more complex consonant cluster. This complexity may affect how consumers process and recall the trademarks, further distancing them in the marketplace.

Visual Similarity

Which one would you pick? **OPTION B**

Although the signs FLUXTUBAS and FLUXOVAS share the common prefix "flux" and similar suffix "as", the overall visual impression conveyed by the respective signs is different due to the following elements:

- Second Halves: of each sign differs "TUBAS" vs. "OVAS".
- Shapes of Letters: the presence of the letters "T" and "B" in FLUXTUBAS helps differentiate that sign from the more rounded letters "O" and "V" in FLUXOVAS creating a subtle visual contrast in the middle part of each sign.
- **Length**: visually, the signs are different a FLUXTUBAS consists of 9 letters whereas FLUXOVAS consists of only 8 letters.
- **Handwriting:** although the signs share a common prefix, their 2nd and 3rd syllables ("TUBAS" and "OVAS") have clear differences when handwritten. The 2nd syllable in FLUXTUBAS begins with the visually distinctive upstroke letter "T" which creates a different handwriting rhythm.

Despite sharing a common prefix, overall the signs are distinguishable as they have a different length, contain different vowel patterns (U, A, O vs U, O, A), have different 2nd and 3rd syllables and (as pharmaceutical trademarks), would be written differently.

Phonetic Similarity

Which one would you pick? **OPTION A**

Although the relevant signs share the same common prefix (FLUX), aurally the signs differ in the syllables TU vs. O and VAS vs. BAS.

Those differences reduce the perceived similarity between the signs and, despite having a common initial prefix which is the dominant element of both signs, that prefix is endowed with a low degree of distinctive character for the pharmaceutical goods concerned.

As a result, the differences between the marks when examined counterbalance to a large extent the perceived phonetic similarities. Therefore, it is concluded that the marks are aurally similar to at best an average degree.

Phonetic Similarity

Which one would you pick? **OPTION B**

The vowel sounds and syllable structure differ after the prefix: "tubas" (/tjuːbəs/) vs. "ovas" (/oʊvəs/). The stress pattern is different, with "fluxtubas" having primary stress on the first syllable and "FLUXOVAS" on the second syllable.

Conclusion: The trademarks exhibit notable distinctions in their phonetic structure, particularly in the suffixes and stress patterns, which contribute to their dissimilarity.

Conceptual Similarity*

Which one would you pick? OPTION A

While both trademarks share the prefix "flux," which suggests a common theme of flow or movement, they diverge significantly in their specific meanings.

"Fluxtubas" implies a focus on tubes or cylindrical structures, indicating a connection to fluid dynamics or transportation, whereas "FLUXOVAS" suggests a biological context related to "ova," which are eggs.

This difference in thematic focus highlights that, despite the shared root, the trademarks evoke distinct concepts—one related to physical structures and the other to biological elements.

Therefore, the conceptual divergence indicates that they are not identical in meaning or context, undermining any argument for their similarity.

Conceptual Similarity*

Which one would you pick? **OPTION B**

The signs in question share the same dominant prefix "Flux" which, when used as a noun, means "the action or process of flowing" or "any effect that appears to pass or travel (whether it actually moves or not) through a surface or substance" or "a constant state of change."

To determine whether the signs are conceptually similar, each sign must be viewed as a whole taking into account whether either has a specific meaning and whether any differences between the respective signs are sufficient to differentiate the concept each conveys.

"FLUXTUBAS" combines the common element "Flux" with "Tubas" which derives from the Latin word "tubus" meaning a "hollow cylinder, pipe or canal". When viewed in its totality, "FLUXTUBAs" conveys the concept of a substance flowing through a hollow tube.

In contrast, "FLUXOVAS" incorporates the common prefix "Flux" with the term "Ovas" which (as a medical term) refers to eggs (ova) produced by females in the human reproductive cycle.

Based on the above analysis, and taking into account that "flux" is commonly used in relation to pharmaceutical products, "FLUXTUBAS" and "FLUXOVAS" are not conceptually similar and are distinguishable.

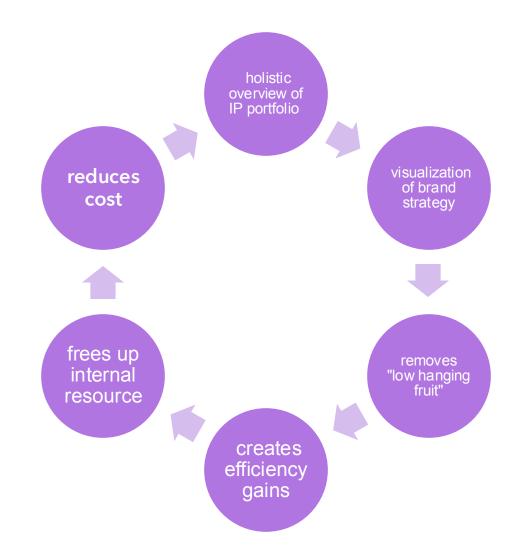


Portfolio Maintenance



Portfolio Management

Simplification Increases Speed & Reduces Costs

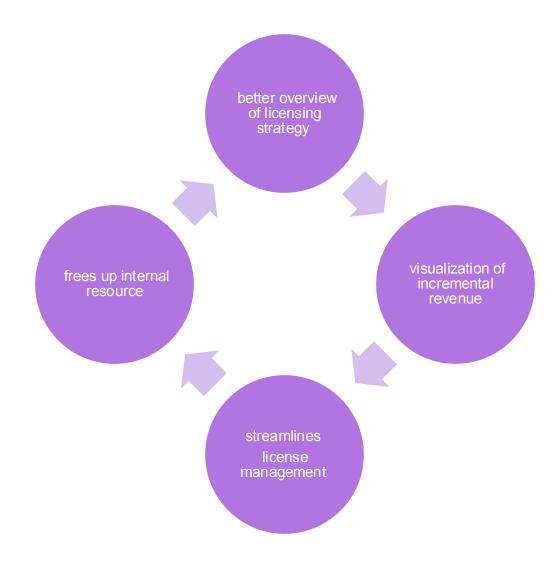


Commercialisation



Commercialisation

Simplifies Contract Management

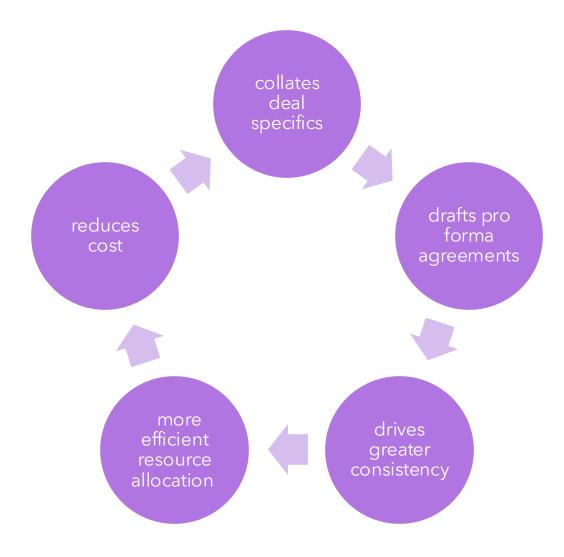




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Commercialisation

Drives Efficiencies





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Leveraging Trademark Data and Analytics for better decision making

Data Analytics

Drive Efficiencies

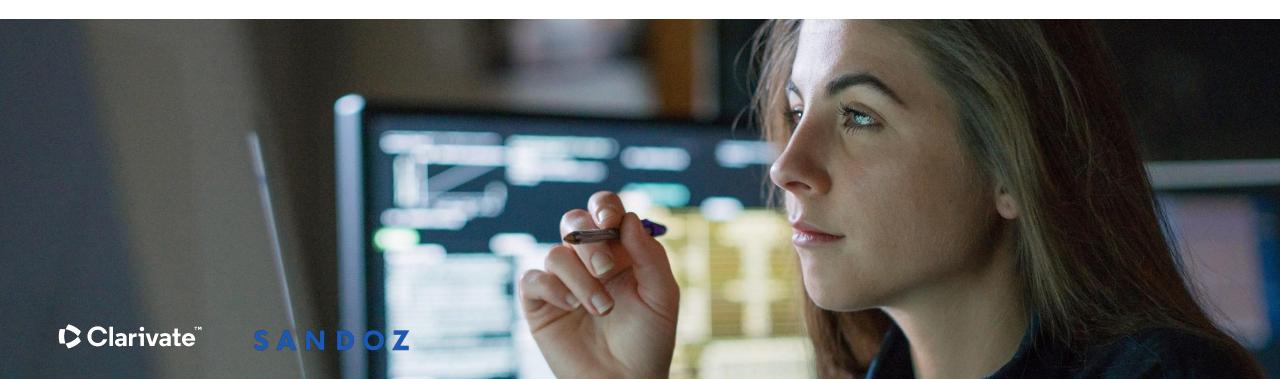
- Provides portfolio overview of the target company(ies)
- Reduces cost
- Enables more efficient allocation of resource

Data Quality

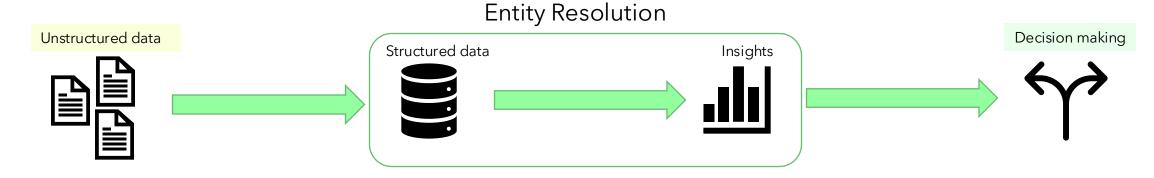
- Accuracy of data supplied to VDR
- Ability to plug the information gaps?
- Flexibility to extract & visualize data for the deal team

Agreements (Settlement, Co-Existence, Licenses)

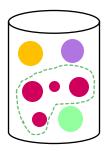
- Increases clarity number, parties, territories
- Restrictions on use indication and/or geographical – impact on deal value?



Improve data quality: Example of Harmonization of Entity names

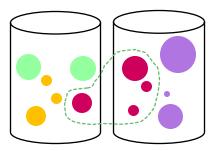


Deduplication



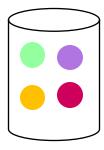
International Business Machines Corporation,
International Busines Machines Corporation
International Business Machines Corporation
International Business Machines Corp
INTERNATINAL BUSINESS MACHINES
CORPORATION

Record linkage



Patent Data - International Business Machines Corporation Trademark Data - IBM Corp Domain Name Data - Red Hat, Inc. Litigation Data - Cognos Inc. Research Data - IBM Research

Canonicalization



Name: International Business Machines

Corporation
Alias: IBM
Country: US

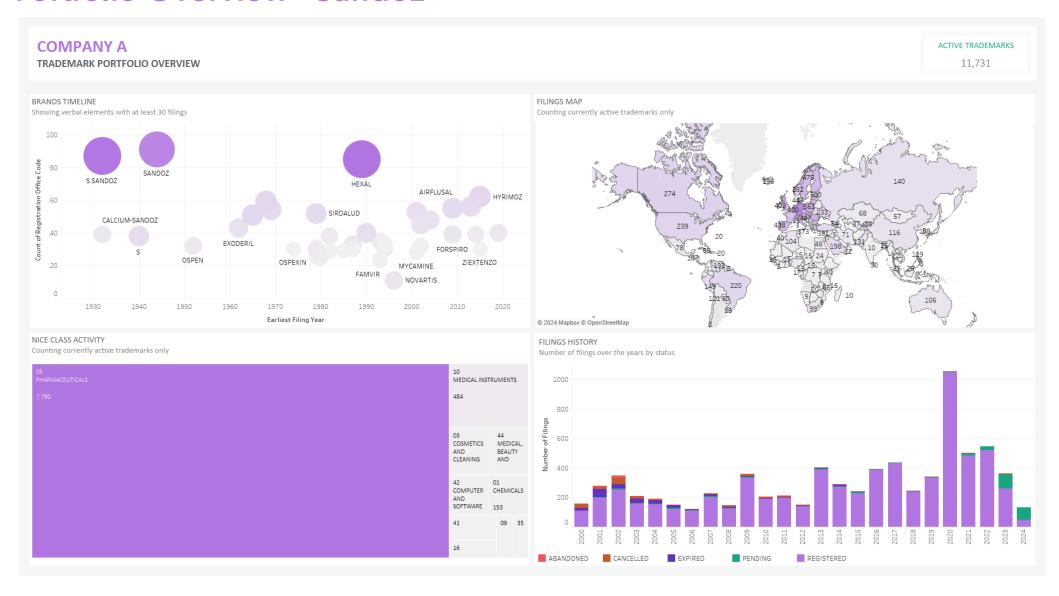
Ticker Symbol: IBM:XNYS

ISIN: **US4592001014**



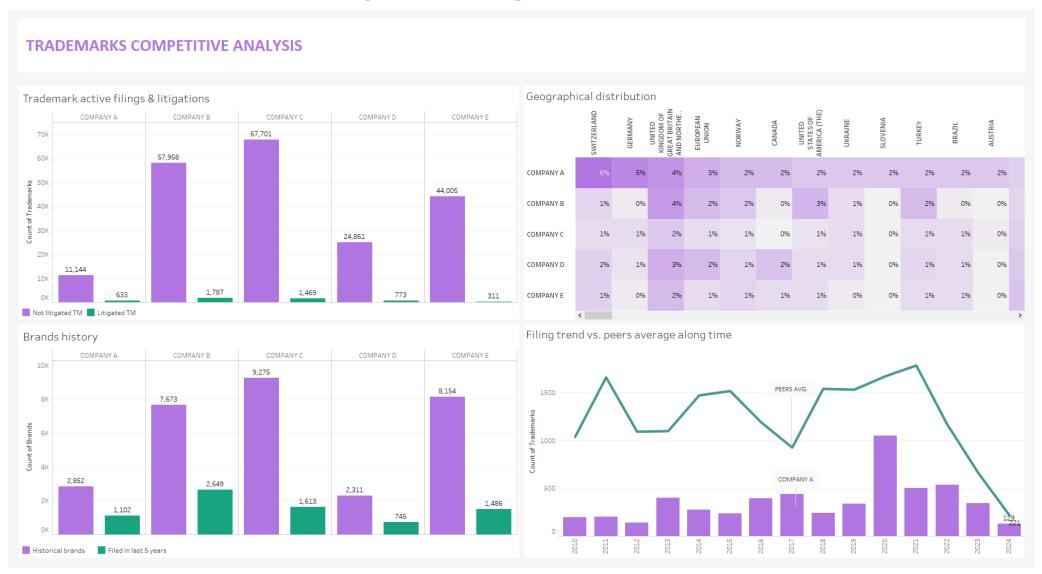
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Portfolio Overview - Sandoz





Trademark Portfolio Analysis - Comparison





A final round of questions



Questions?





Thank you

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Nicholas Foot

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