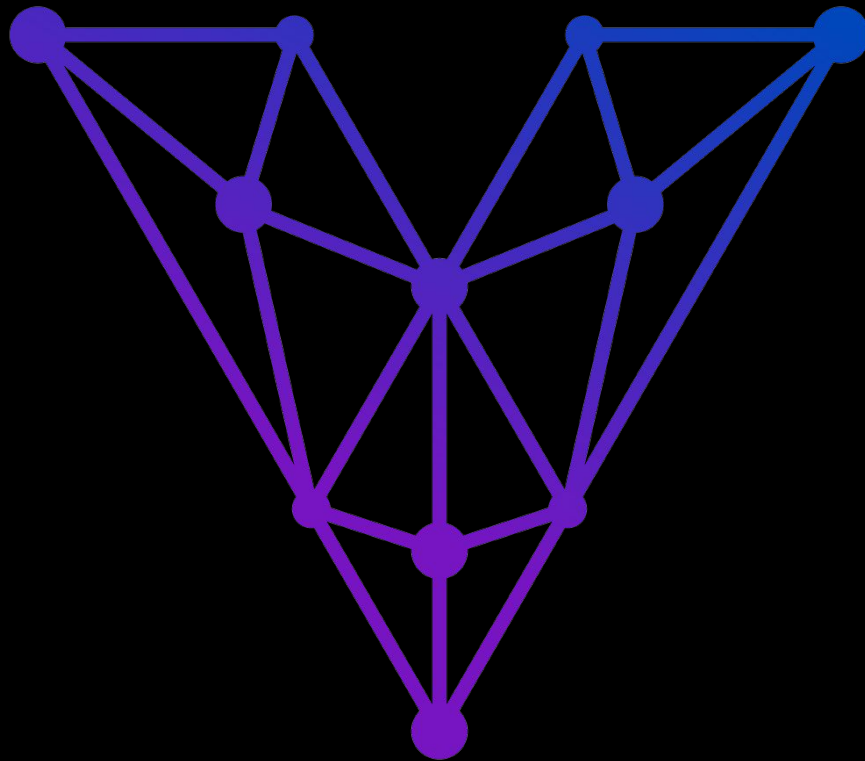


Vertesia

Generative AI at enterprise scale



DEFINITION

semantics [noun]

1. The study of language meaning
2. The meaning of a word, phrase, sentence, or text

semantic [adjective]

1. Of or relating to meaning or the study of meaning

BACKGROUND

What is a semantic layer?

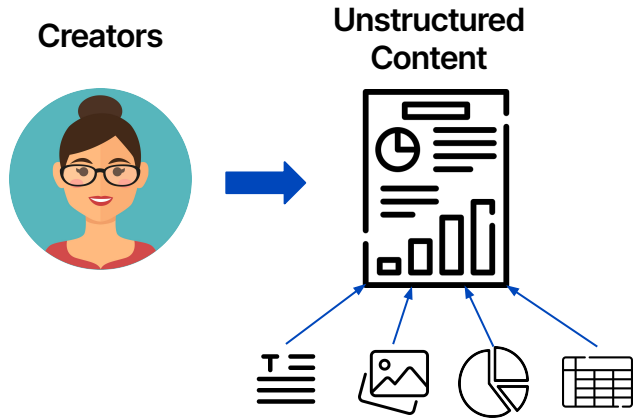
A traditional semantic layer is a business representation of data to help users find or understand it.

Over 30 years ago, Business Objects patented their semantic layer for business intelligence software.

Semantic Layer for Accessing Relational Databases

“provides a new data representation and a query technique which allows information system end users to access (query) relational databases without knowing the relational structure or the structure query language (SQL)”

Why are semantic layers critical for users?



No Metadata

- Title: [✗]
- Author: [✗]
- Created Date: [✗]
- Category: [✗]
- Sub Category: [✗]
- Language: [✗]
- Keywords: [✗]
- etc.

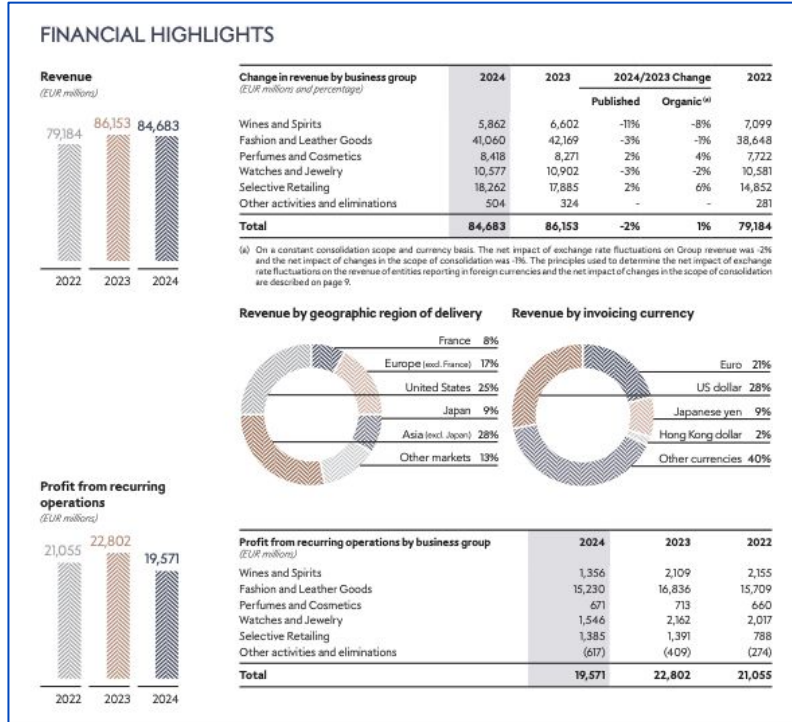
Users

Enriched Metadata

- Title: [✓]
- Author: [✓]
- Created Date: [✓]
- Category: [✓]
- Sub Category: [✓]
- Language: [✓]
- Keywords: [✓]
- etc.


Users

Why are semantic layers critical for LLMs?




```
# FINANCIAL HIGHLIGHTS

## Revenue

(EUR millions)


2022
2023


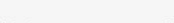
## Profit from recurring operations

(EUR millions)


2022
2023

| Change in revenue by business group <br> (EUR millions and percentages) | 2024 | 2023 | 2024/2023
Change | | 2022 |
| :--: | :--: | :--: | :--: | :--: | :--: |
| | | | Published | Organic (a) | |
| Wines and Spirits | 5,862 | 6,602 | $-11 \\\$ | $-8 \\\$ | 7,099 |
| Fashion and Leather Goods | 41,060 | 42,169 | $-3 \\\$ | $-1 \\\$ | 38,648 |
| Perfumes and Cosmetics | 8,418 | 8,271 | $2 \\\$ | $4 \\\$ | 7,722 |
| Watches and Jewelry | 10,577 | 10,902 | $-3 \\\$ | $-2 \\\$ | 10,581 |
| Selective Retailing | 18,262 | 17,885 | $2 \\\$ | $6 \\\$ | 14,852 |
| Other activities and eliminations | 504 | 324 | - | - | 281 |
| Total | 84,683 | 86,153 | $-2 \\\$ | 1\% | 79,184 |

(a) On a constant consolidation scope and currency basis. The net impact of exchange rate fluctuations on
Group revenue was -2% and the net impact of changes in the scope of consolidation was $-1 \\\$. The
principles used to determine the net impact of exchange rate fluctuations on the revenue of entities
reporting in foreign currencies and the net impact of changes in the scope of consolidation are described
on page 9 .

Revenue by geographic region of delivery Revenue by invoicing currency


```

Semantic Layer for Documents

Foundation for LLMs and RAG

- Transform PDF to structured XML
- Intelligently process each page
- Customizable semantic zone detection
- Never re-writes or modifies text
- Identify and normalize tables
- Intelligently process and describe images
- Preserve the full content hierarchy
- Zero hallucinations

FINANCIAL HIGHLIGHTS

Revenue (EUR millions)

2022	2023	2024
79,184	86,153	84,683

Change in revenue by business group (EUR million and percentage)

	2024	2023	2024/2023 Change		2022
			Published	Organic ^(a)	
Wines and Spirits	5,862	6,602	-18%	-8%	7,099
Fashion and Leather Goods	41,060	42,169	-3%	-1%	38,648
Perfumes and Cosmetics	8,483	8,271	2%	4%	7,722
Watches and Jewelry	10,577	10,902	-3%	-2%	10,581
Selective Retailing	18,262	17,885	2%	6%	14,852
Other activities and eliminations	524	324	-	-	381
Total	84,683	86,153	-2%	1%	79,184

Revenue by geographic region of delivery

- France 8%
- Europe (excl. France) 17%
- United States 25%
- Japan 9%
- Asia (incl. Japan) 28%
- Other markets 13%

Revenue by invoicing currency

- Euro 27%
- US dollar 28%
- Japanese yen 9%
- Hong Kong dollar 2%
- Other currencies 40%

Profit from recurring operations (EUR millions)

2022	2023	2024
21,055	22,802	19,571

Profit from recurring operations by business group (EUR million)

	2024	2023	2022
Wines and Spirits	1,356	2,109	2,355
Fashion and Leather Goods	15,230	16,836	15,709
Perfumes and Cosmetics	671	713	660
Watches and Jewelry	1,644	2,362	2,037
Selective Retailing	1,385	1,391	788
Other activities and eliminations	(697)	(409)	(274)
Total	19,571	22,802	21,055

Stores (number)

2022	2023	2024
5,664	6,097	6,307

Geographic breakdown of stores (number of Companies as of 2024)

- 1,193 United States
- 553 France
- 1,254 Europe
- 2,019 Japan
- 778 Other markets
- 510 China

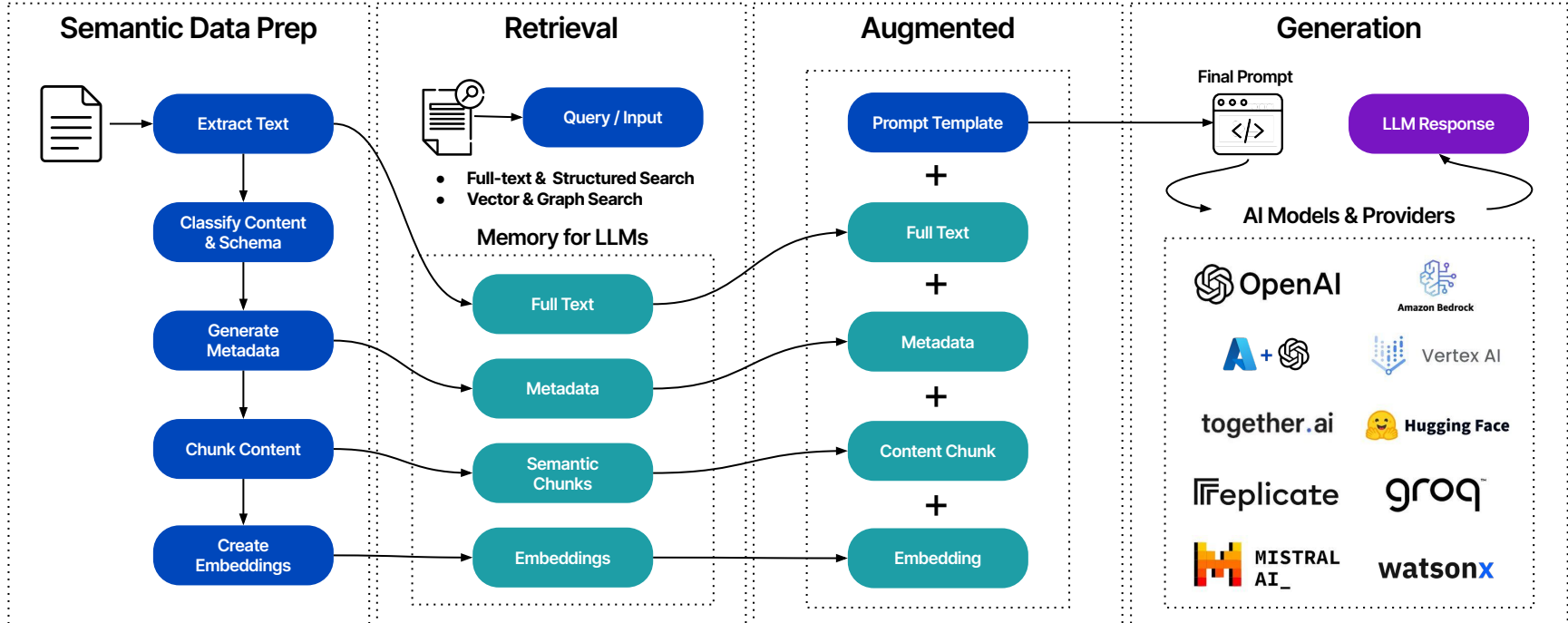
(a) Excluding France. (b) Excluding Japan.

```

<page id="111" number="4" height="793.701" width="609.449" best_processed_as="text"
meaningful_images="true" needs_ocr="false" has_tables="true" language="en" dubious_ocr="false"
complexity_level="high">
  <table id="112" groupId="3">FINANCIAL HIGHLIGHTS</table>
  <heading id="113" level="2">Revenue</heading>
  <table id="114" title="FINANCIAL HIGHLIGHTS">
    <rows>
      <row id="115" index="0">
        <revenue>Revenue ( EUR millions)</revenue>
        <_2022>79,184</_2022>
        <_2023>86,153</_2023>
        <_2024>84,683</_2024>
      </row>
      <row id="116" index="1">
        <revenue>Profit from recurring operations ( EUR millions)</revenue>
        <_2022>21,055</_2022>
        <_2023>22,802</_2023>
        <_2024>19,571</_2024>
      </row>
      <row id="117" index="2">
        <revenue>Stores ( number)</revenue>
        <_2022>5,664</_2022>
        <_2023>6,097</_2023>
        <_2024>6,307</_2024>
      </row>
    </rows>
  </table>
  <table id="127" title="Change in revenue by business group (EUR millions and percentage)">
    <rows>
      <row id="128" index="0">
        <business_group>Wines and Spirits</business_group>
        <_2024>5,862</_2024>
        <_2023>6,602</_2023>
        <change_published>-11%</change_published>
        <change_organic>-8%</change_organic>
        <_2022>7,099</_2022>
    </rows>
  </table>

```

Semantic RAG



Thank you

visit vertesiahq.com for more information

