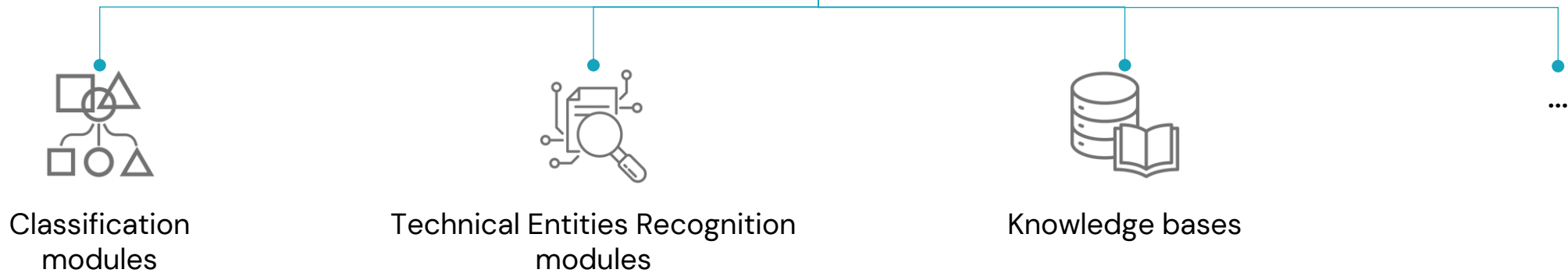# ERREQUADRO

Unlock the power of technical data

KYD®

WHAT IS KYD®?

KYD® (Knowledge in Your Data) is a **modular software** designed to analyze companies' internal **technical data** to exploit their knowledge and avoid reinventing the wheel (e.g. RFQ – Requirements).

Classification modules

Technical Entities Recognition modules

Knowledge bases

...

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Unlock the power of technical data

WHAT IS KYD®?

KYD® (Knowledge in Your Data) has been developed to help companies **analyzing** their **data and get information from it**.

In the context of PoC projects Erre Quadro can design simple UI for validation purposes only.

| Data entry | Data management | **Data analysis** | **Data interpretation** | Data visualization* |

*for PoC/validation purposes only.

The RFQ process

Transform the request in Requirements

1. A new request arrives. Sales teams usually have to ask Clients for clarifications. In this phase they tend to involve technical departments so to collect the right questions to ask in order to collect adequate and complete Requirements.

Retrieve internal knowledge

2. Sales teams ask technical departments to assess the technical feasibility and formulate a valuable proposition. This usually implies the analysis of all the documentation sent by the Client and long design sessions.

Create the quotation

3. Once the technical proposition has been defined, technical departments and Sales teams collaborate on the final quotation. This usually implies multiple iterations.

The common process can take weeks or even months before completion and lacks in scalability.

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The RFQ process with KYD®

Transform the request in Requirements

1. KYD® supports Sales teams by retrieving those past conversations with the technical departments that are more correlated to the Client's request. This in turn reduces the number of low-value interactions with the technical departments and the overall time needad.

Retrieve internal knowledge

2. KYD® analyses the documentation and extracts:
   - Technical parameters
   - Norms and standards
   - Tests on materials
   - …

   It then retrieves the past projects and quotations that better correlating with the retrieved technical requirements

Create the quotation

3. KYD® matches the extracted requirements with past projects and quotations, thus maximizing the reuse of companies' internal knowledge.

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Business cases

The RFQ process with KYD®: three business cases

Extract the Requirements	**Retrieve internal knowledge**	**Create the quotation**
1 A search engine to support Sales teams in retrieving past e-mail threads and quotations		
2		
3		

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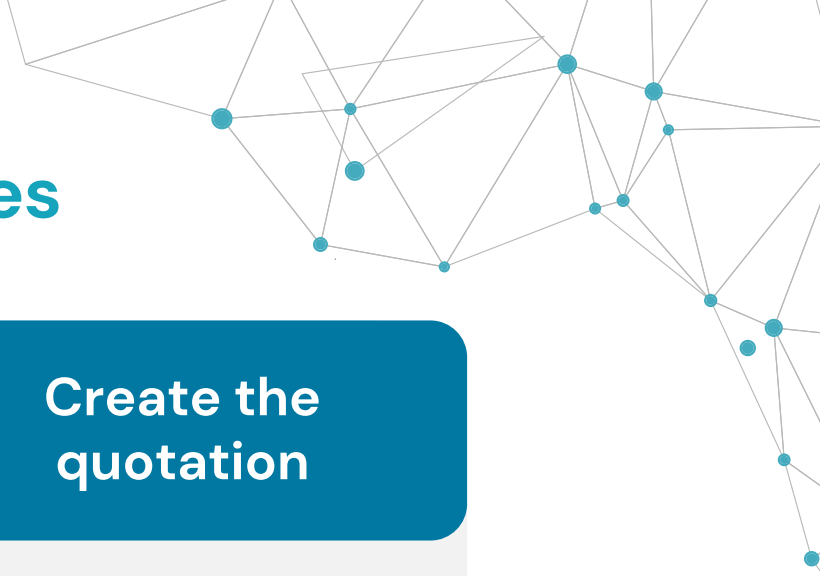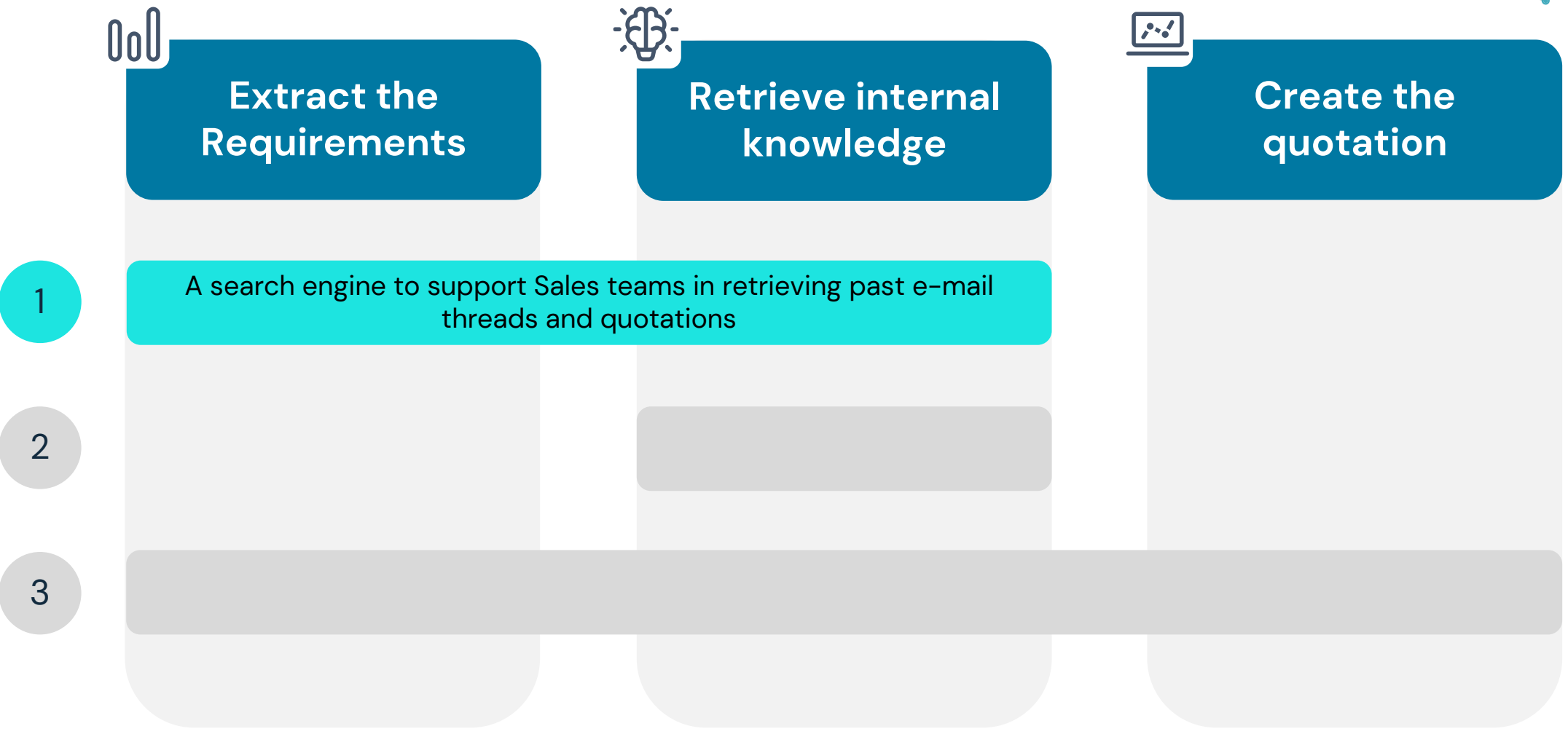
KYD® for RFQ – 1

Client / Sector: Medium Enterprise / Industrial analytical laboratory

Problems

- Too much time to respond to Clients requests (1 week ÷ 1 months)
- Too many useless interactions between Sales and Engineering
- No reuse of corporate's knowledge (constantly reinventing the wheel)

Technical context

- Absence of a structured CRM
- Presence of a structured db of past quotations
- Documents features
  - High standardization
  - .pdf; .json

KYD® for RFQ – 1

Client / Sector: Medium Enterprise / Industrial analytical laboratory

Solution

- Search engine

1. As a new request from a Client arrives <u>the user translates the request into a query</u>.

KYD® for RFQ – 1

Client / Sector: Medium Enterprise / Industrial analytical laboratory

Solution

- Search engine

2. The search engine retrieves <u>either past email threads or past quotations</u>, depending on what the user is interested in. The results are sorted according to a <u>correlation score</u>.

Query

resistenza a trazione

🔴 Use semantic engine

Document Type

offerte

	title	id	score
0		ce2bafe3-ba13-4703-b7b6-b8ff87ec0d1d	0.9064
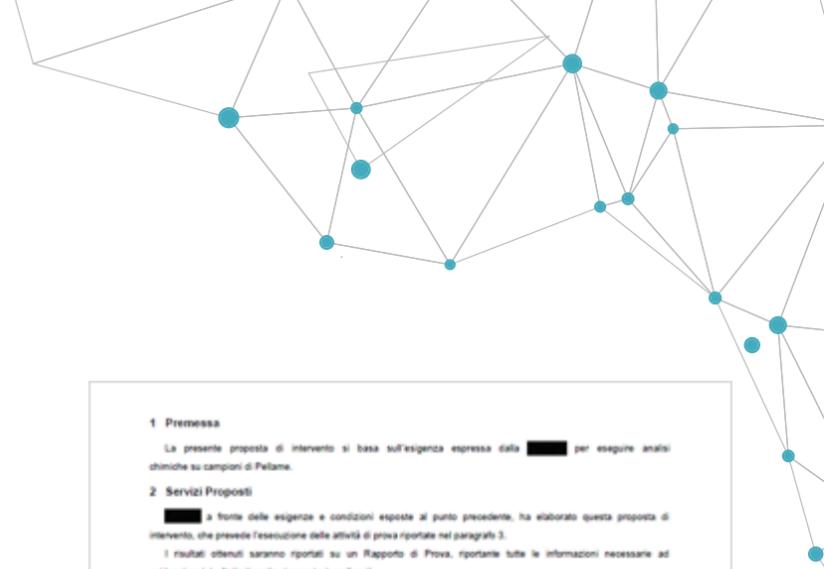
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KYD® for RFQ – 1

Client / Sector: Medium Enterprise / Industrial analytical laboratory

Solution

- Search engine

> **3.** **In few seconds** the user can retrieve either past quotations or past conversations with the Engineering team revolving around the technical concepts of interest for the Client.

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KYD® for RFQ – 1

Client / Sector: Medium Enterprise / Industrial analytical laboratory

Project highlights
- Time to delivery: 3 months
- The Client has been involved in the first phase consisting in the co-design of the UX
  - Client's effort: 0,5 day
- In a second phase, the search algorithms have been tuned exploiting a training set of 100 docs.
  - Client's effort: 2 days

Project results
- Average response time lowered: **-80%**
- Average number of interactions with tech. dep.: **-50%**

The RFQ process with KYD®: three business cases

	Extract the Requirements	**Retrieve internal knowledge**	**Create the quotation**
1	A search engine to support Sales teams in retrieving past e-mail threads and quotations		
2		A UI to support assign tenders and retrieve most similar past projects	
3			

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KYD® for RFQ – 2

Client / Sector: Big Company / Architecture

Problems
- Too much time to assign tenders to internal staff (1 week ÷ 1 months)
- Scarce reuse of corporate's knowledge (constantly reinventing the wheel)

Technical context
- Data entry already covered
- Presence of a structured db of past projects
- Documents features
  - High standardization
  - .pdf; .json

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KYD® for RFQ – 2

Client / Sector: Big Company / Architecture

Solution

- Classification software + search engine + matchmaking

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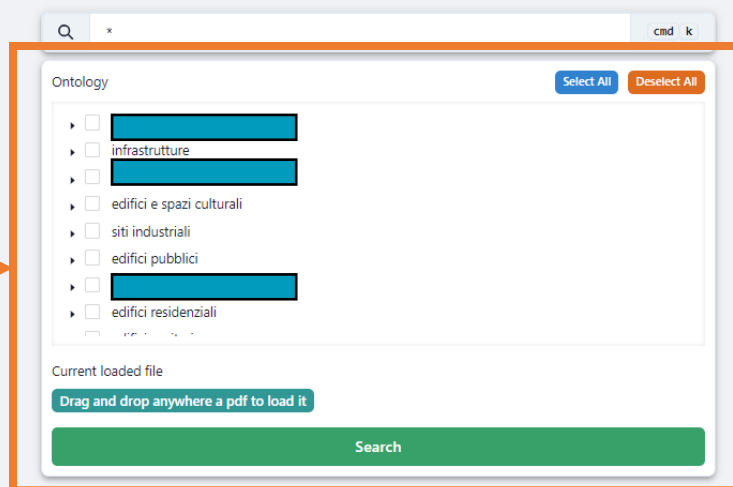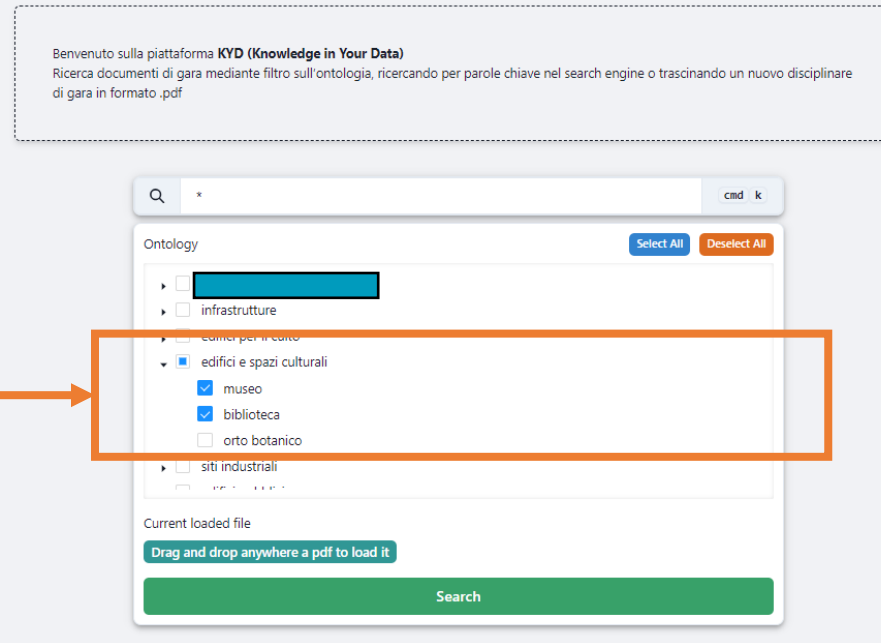Unlock the power of technical data

KYD® for RFQ – 2

Client / Sector: Big Company / Architecture

Solution

- Classification software + search engine + matchmaking

1. On a daily basis, the Client obtains tenders from various sources using a semi-automatic solution.

2. The tenders collected throughout the day are categorized overnight by a **classification software** based on a **jointly developed taxonomy**.

Benvenuto sulla piattaforma **KYD (Knowledge in Your Data)**
Ricerca documenti di gara mediante filtro sull'ontologia, ricercando per parole chiave nel search engine o trascinando un nuovo disciplinare di gara in formato .pdf

Ontology

Select All   Deselect All

infrastrutture

edifici e spazi culturali

siti industriali

edifici pubblici

edifici residenziali

Current loaded file

Drag and drop anywhere a pdf to load it

Search

ERRE QUADRO

Unlock the power of technical data

KYD® for RFQ – 2

Client / Sector: Big Company / Architecture

Solution

- Classification software + search engine + matchmaking

4. The user can select one or more of the taxonomical classes. The search engine will retrieve all the corresponding tenders from the db
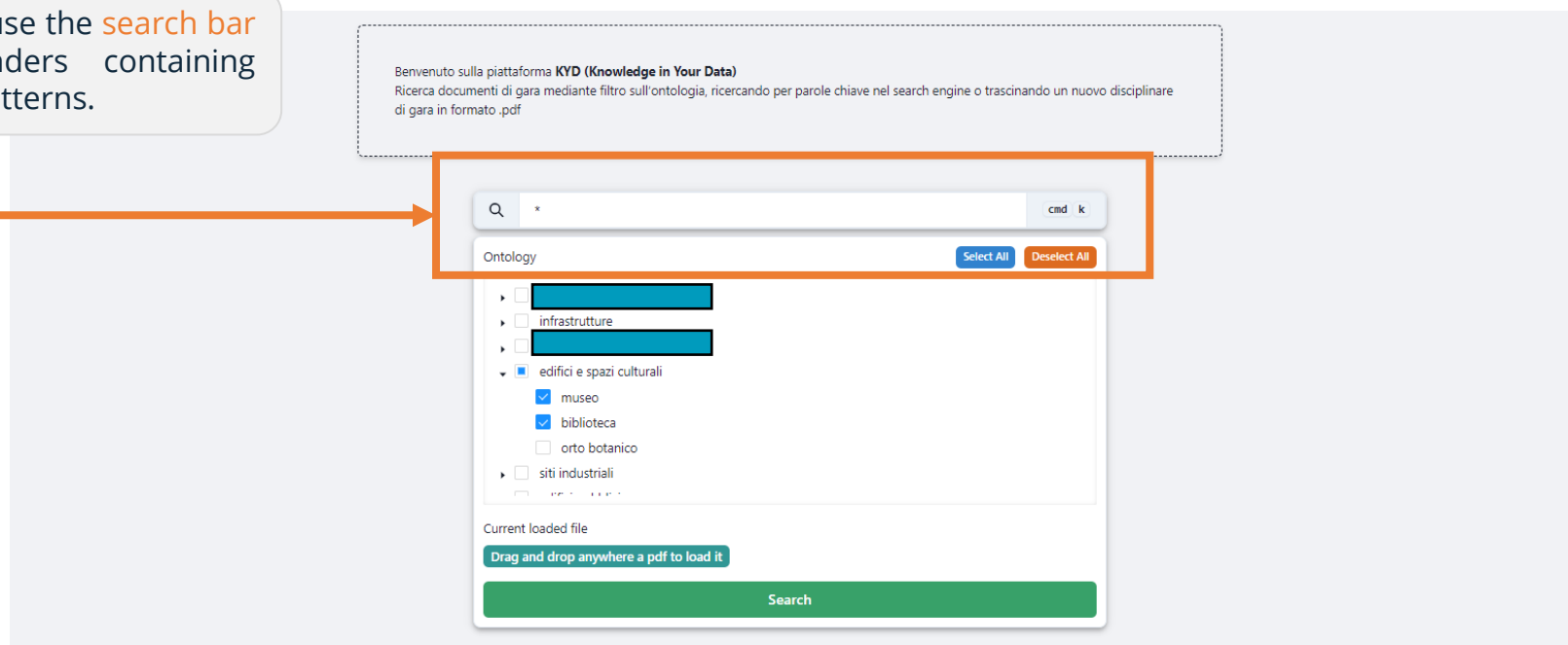

Benvenuto sulla piattaforma **KYD (Knowledge in Your Data)**
Ricerca documenti di gara mediante filtro sull'ontologia, ricercando per parole chiave nel search engine o trascinando un nuovo disciplinare di gara in formato .pdf

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Unlock the power of technical data

KYD® for RFQ – 2

Client / Sector: Big Company / Architecture
Solution

- Classification software + **search engine** + matchmaking

5. The user can also use the search bar to look for tenders containing specific keyword patterns.

Benvenuto sulla piattaforma **KYD (Knowledge in Your Data)**
Ricerca documenti di gara mediante filtro sull'ontologia, ricercando per parole chiave nel search engine o trascinando un nuovo disciplinare di gara in formato .pdf

KYD® for RFQ – 2

Client / Sector: Big Company / Architecture

Solution

- Classification software + search engine + **matchmaking**

6. Users can also drag and drop .pdf files. KYD will retrieve and sort the Client's past projects better correlating with the inputted doc.
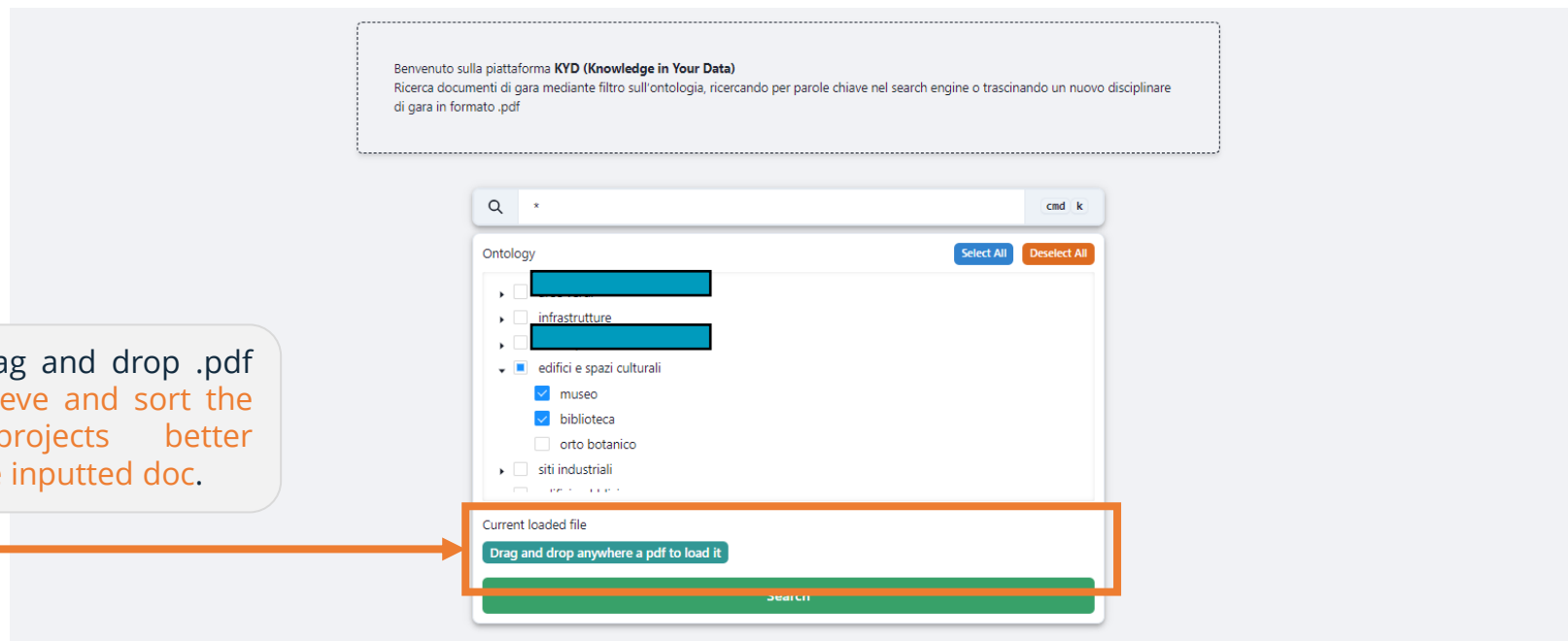
KYD® for RFQ – 2

Client / Sector: Big Company / Architecture

Project highlights

- Time to delivery: 3 months
- The Client has been involved in the first phase consisting in the co-design of the taxonomy and UX
  - Client's effort: 2 days
- In a second phase, the matchmaking algorithms have been tuned exploiting a training set of 100 docs.
  - Client's effort: 4 days
- In a third phase, the software has been released and validated by the Client after 15 days of trial.

Project results

- Average time needed to assign tenders internally lowered: **-95%**
- Average time needed to recover past projects lowered: **-80%**

The RFQ process with KYD®: three business cases

Extract the Requirements	Retrieve internal knowledge	Create the quotation

1 — A search engine to support Sales teams in retrieving past e-mail threads and quotations

2 — A UI to support assign tenders and retrieve most similar past projects

3 — A software that retrieves technical requirements from tenders and correlates them with products specifications and past projects.

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KYD® for RFQ – 3
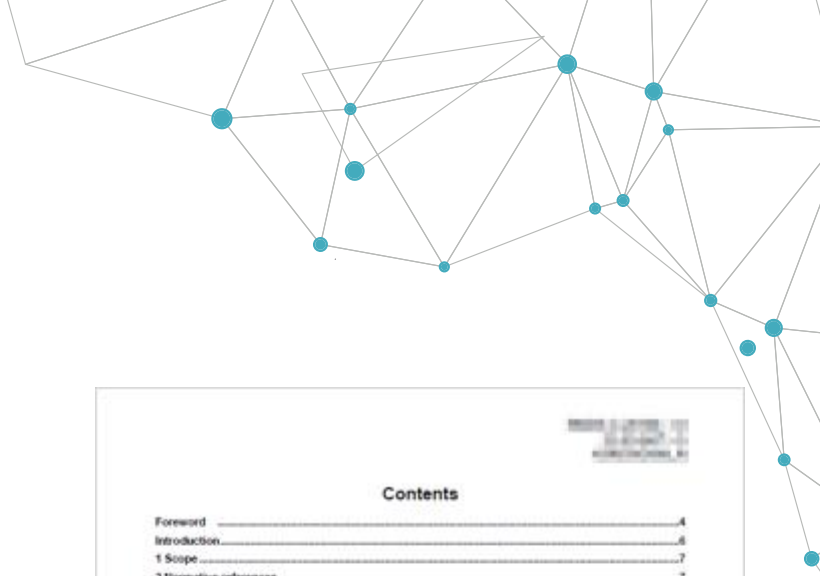
Client / Sector: Multinational corporation / Automotive

Problems
- Too much time spent to generate quotations for tenders (1 week ÷ 2 months)
- Scarce reuse of corporate's knowledge (constantly reinventing the wheel)

Technical context
- Data entry already covered by the Client
- Presence of a structured db of product specifications
- Documents features
  - Medium standardization
  - .pdf; .json
  - Data of interest reported within tables and/or images

KYD® for RFQ – 3

Client / Sector: Multinational corporation / Automotive

Solution

- Technical entity recognition + matchmaking

1. The user selects a tender from a list.
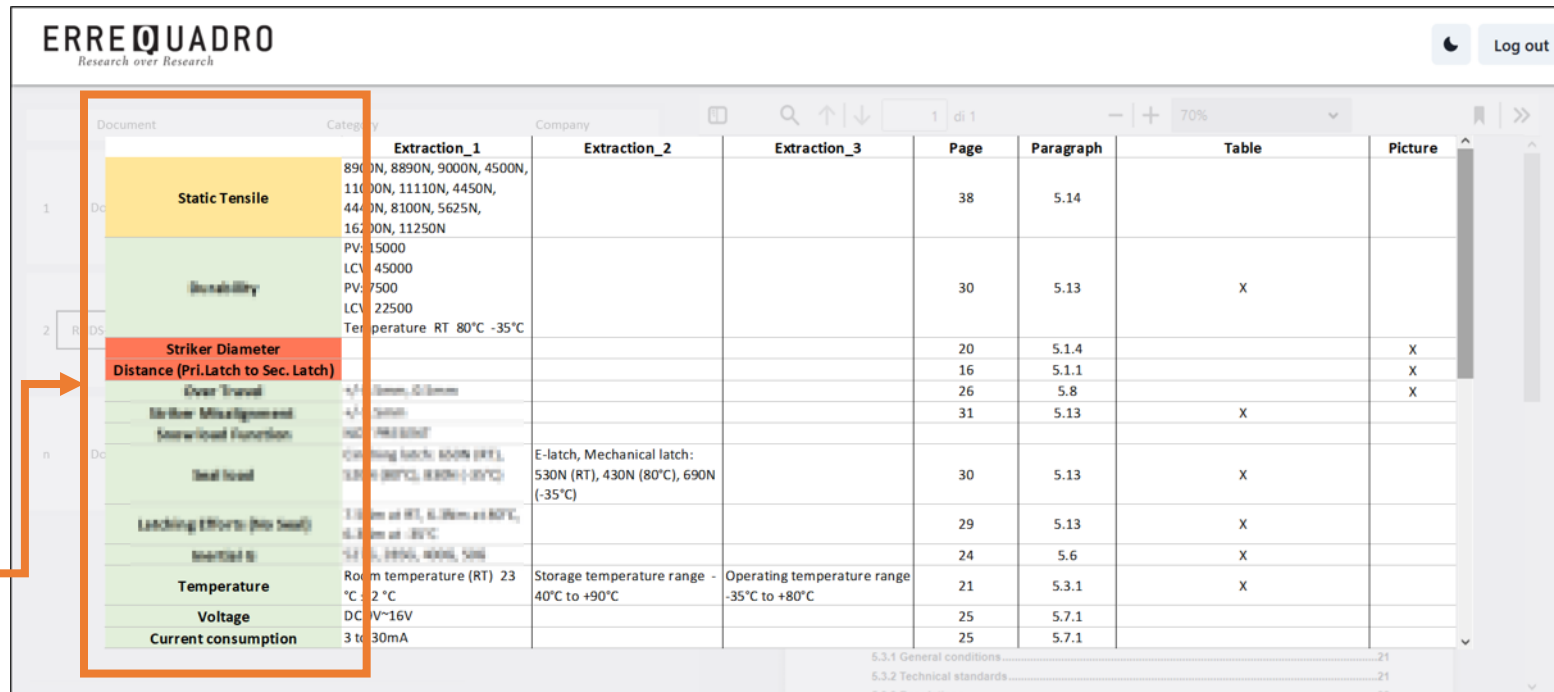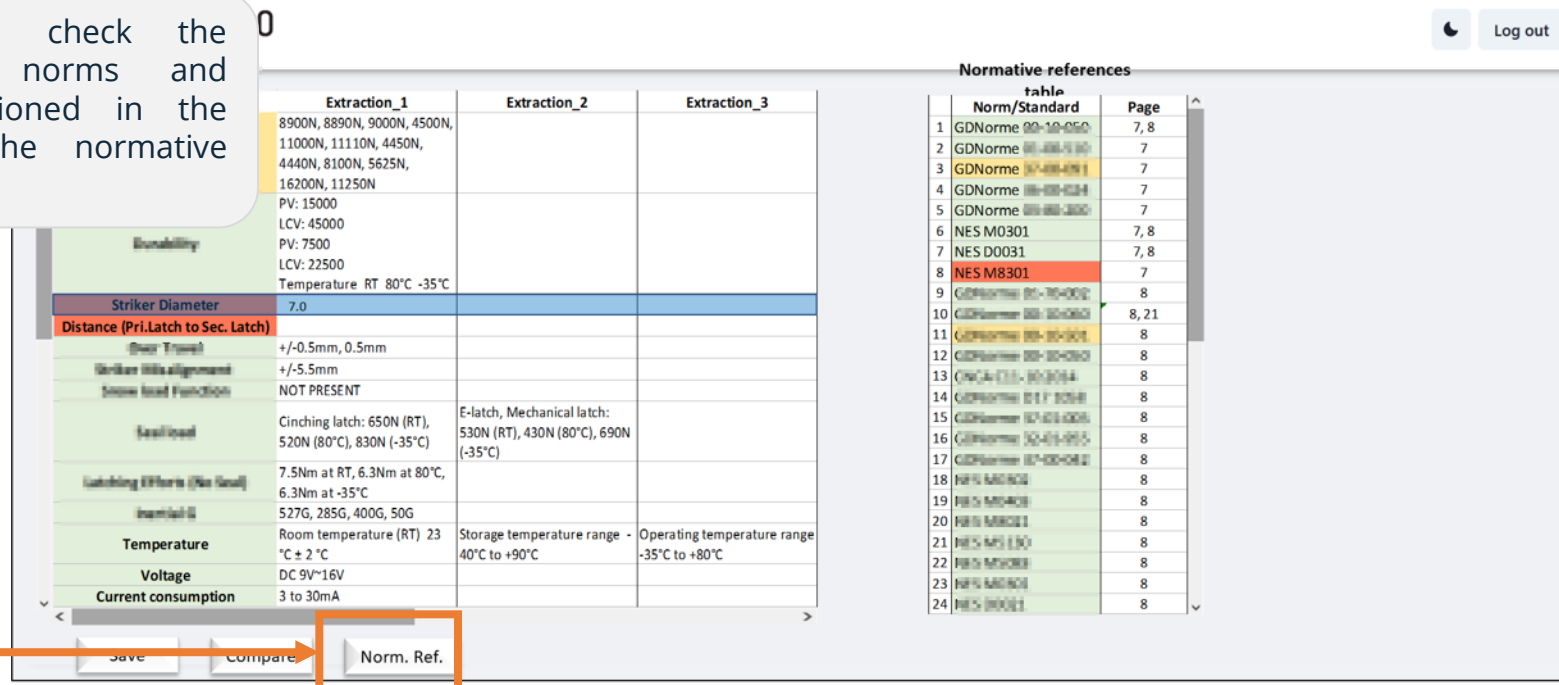
KYD® for RFQ – 3

Client / Sector: Multinational corporation / Automotive

Solution

- Technical entity recognition + matchmaking

2. The platform automatically extracts a predetermined set of requirements from selected document and fills the requirements table.

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KYD® for RFQ – 3

Client / Sector: Multinational corporation / Automotive

Solution

- Technical entity recognition + matchmaking

3. The user selects one of the requirements. The platform shows the part of document in which the requirement has been extracted.

KYD® for RFQ – 3

Client / Sector: Multinational corporation / Automotive

Solution

- Technical entity recognition + matchmaking

4. The user can check the availability of norms and standards mentioned in the document in the normative references table
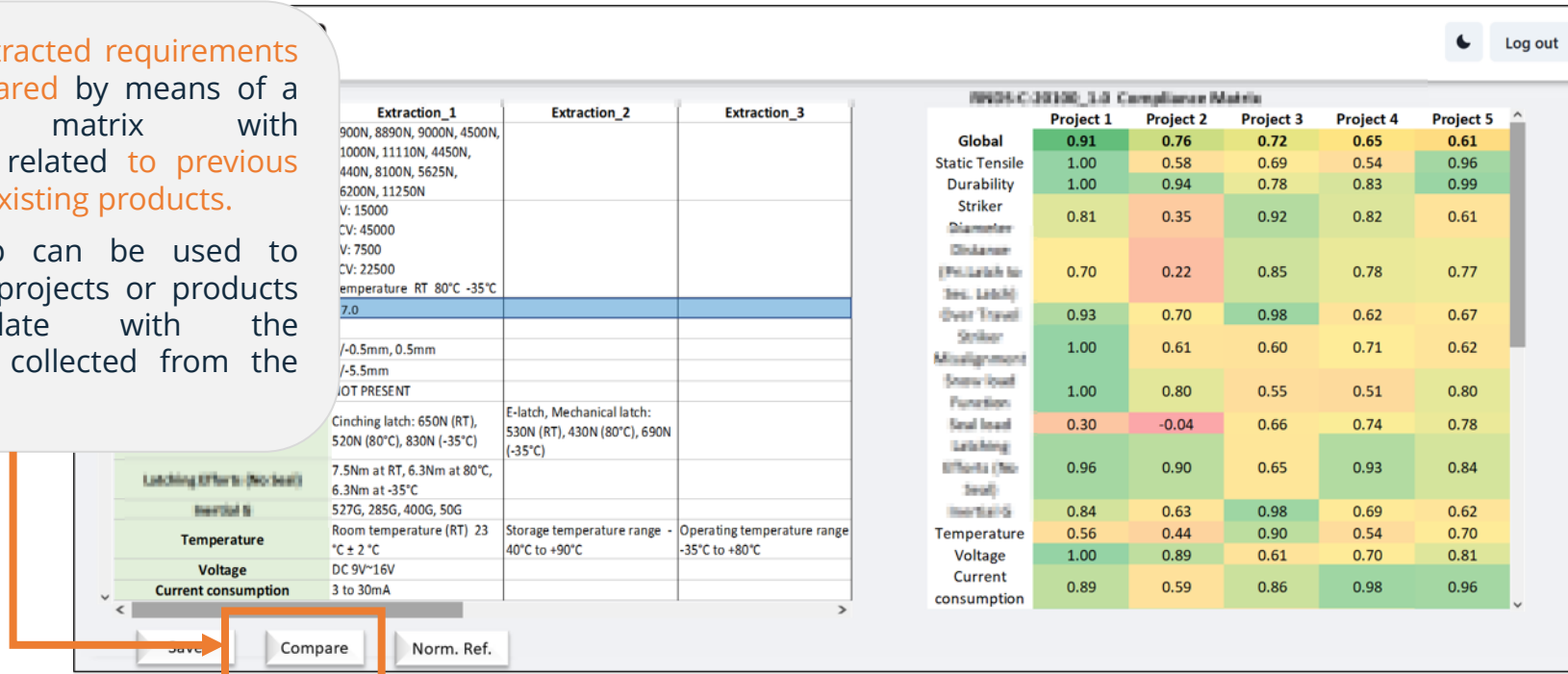
Client / Sector: Multinational corporation / Automotive

Solution

- Technical entity recognition + matchmaking

5. The set of extracted requirements can be compared by means of a compliance matrix with requirements related to previous projects and existing products.

6. The heatmap can be used to retrieve past projects or products that correlate with the requirements collected from the tender.

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KYD® for RFQ – 3

Client / Sector: Multinational corporation / Automotive

Project highlights

- Time to delivery: 6 months
- The Client has been involved in many phases, including creating training sets and validating the results.
  - Client's effort: 1 month
- In a final phase, the software has been released and validated by the Client after 1 month of trial.

Project results

- Average time needed to analyse tenders: **-95%**
- Number of human errors lowered: **-20%**

Contacts

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