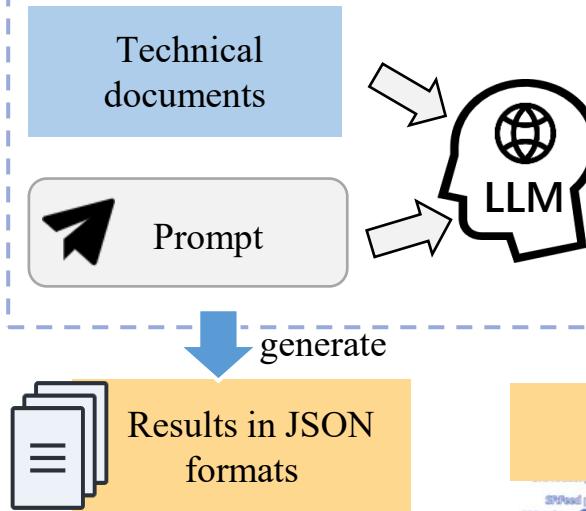


## Stage 1: Sourcing Product Knowledge from Engineering Documents

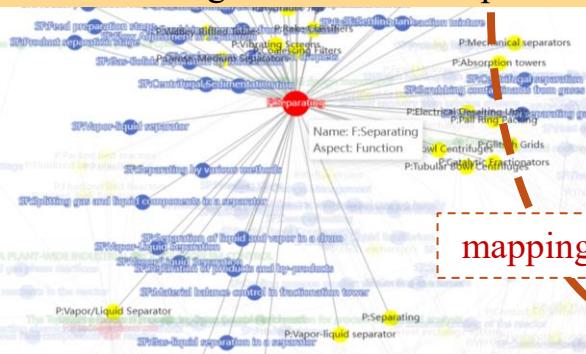


Knowledge extraction

Knowledge fusion

result

Product modelling knowledge base in RDF triple



## Stage 2: Structuring Foundational Product Information Model

```
ottr:query """
SELECT
'imf:fulfils',
CONCAT('ex:', 'product/',
REPLACE(REPLACE(TRIM(Name), '%20'), '/',
'%2F')),
.....
```

OTTR template

IMF model construction

output

Intermediate information model

IMF model example:



Precision

Recall

Knowledge relevance

Function validation

Conceptual relevance

Model relevance

## Stage 3: Expertise-based manually modelling

Inspection

Modification

Verification



Confirmation

confirm

Product information model using IMF principles

Time

## Stage 4: Performance evaluation