



Solution Landscape, Ecosystem & Use-Case Analysis: Metal Organic Framework

Case Study

Solution Landscape, Ecosystem & Use-Case Analysis

Client	Makers and distributor of home appliances and consumer products
Industry	Home Appliances and Consumer Products
Products	Accessories, auxiliary materials, and tools for Consumer Products & Home Appliances

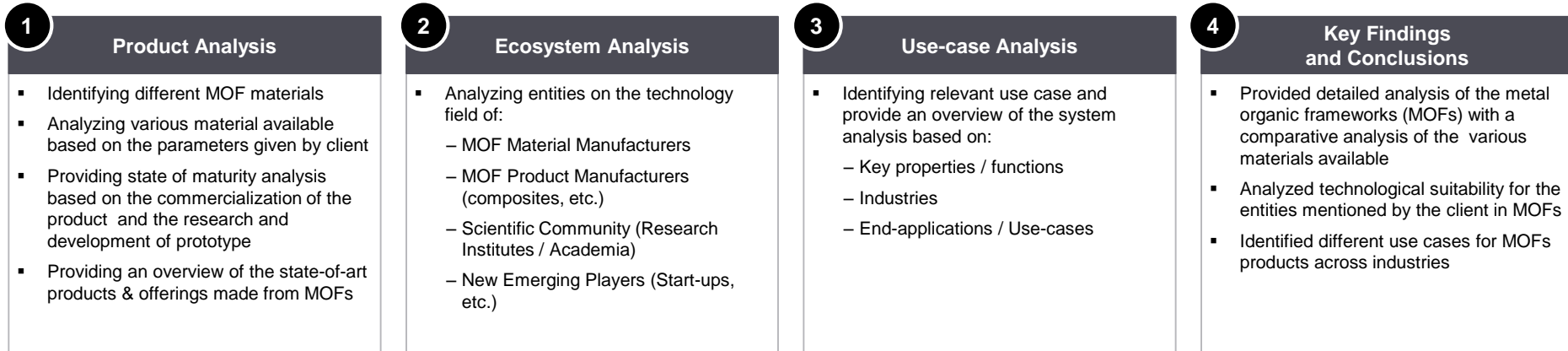
Context

- Client wanted to identify innovative solution for Zeolith applications or adsorption processes for Metal Organic Frameworks (MOF)
- Also, client wanted possible MOFs for water adsorption, below 60°C regeneration temperature and could high adsorption rates

Key Business Questions

- What are the different MOFs for the use-case of interest and how is their suitability for application?
- Who are the main players on the technology field?
- What products including MOFs are already available and what is the maturity level of specific materials?

Engagement Scope



Solution Landscape, Ecosystem & Use-Case Analysis

Research Methodology

Patent Research

- Conducted desk research to understand the overall market
- Referred paid databases and identified patents for metal organic frameworks (MOFs)

Primary Research

- 20+ Telephonic interview with manufacturers, distributors, industry experts, retailers, consumers, etc.

Benefits to Client

- Clients get to know the best MOF compounds and the various offering from the key players
- Client understood different offering from the players and which is best suitable to be used in their product

Sample Analysis

1 Product Analysis

The screenshot displays a dashboard with a table titled 'Benchmarking of MOF Materials'. The table lists various MOF materials with columns for Material, MOF Type, Surface Area (m²/g), Pore Volume (cm³/g), Density (g/cm³), and Application. A summary box on the right highlights key properties and trends.

Material	MOF Type	Surface Area (m ² /g)	Pore Volume (cm ³ /g)	Density (g/cm ³)	Application
MOF-5	Zn4O(BTC)	1900	0.85	1.30	Gas Storage
MOF-175	Zn4O(BTC)	1600	0.75	1.30	Gas Storage
MOF-199	Zn4O(BTC)	1700	0.80	1.30	Gas Storage
MOF-200	Zn4O(BTC)	1700	0.80	1.30	Gas Storage
MOF-201	Zn4O(BTC)	1700	0.80	1.30	Gas Storage
MOF-202	Zn4O(BTC)	1700	0.80	1.30	Gas Storage
MOF-203	Zn4O(BTC)	1700	0.80	1.30	Gas Storage
MOF-204	Zn4O(BTC)	1700	0.80	1.30	Gas Storage
MOF-205	Zn4O(BTC)	1700	0.80	1.30	Gas Storage
MOF-206	Zn4O(BTC)	1700	0.80	1.30	Gas Storage
MOF-207	Zn4O(BTC)	1700	0.80	1.30	Gas Storage
MOF-208	Zn4O(BTC)	1700	0.80	1.30	Gas Storage
MOF-209	Zn4O(BTC)	1700	0.80	1.30	Gas Storage
MOF-210	Zn4O(BTC)	1700	0.80	1.30	Gas Storage

2 Ecosystem Analysis

The screenshot displays a dashboard with a world map titled 'Supplier Geographical Density - Headquarters'. The map shows the distribution of MOF suppliers across different regions. A flowchart on the left illustrates the ecosystem structure, including 'MOF Materials', 'MOF Synthesis', and 'MOF Applications'.

3 Use-case Analysis

The screenshot displays a dashboard with a flowchart titled 'MOF Use Cases'. The flowchart shows the application of MOF materials in various industries, including Gas Storage, Gas Separation, and Catalysis. A summary box on the right highlights key properties and trends.

4 Key Findings and Conclusions

The screenshot displays a dashboard with a summary of key findings and conclusions. The text highlights the importance of MOF materials in various industries and the need for further research and development.

Thank you

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