



Opportunity Assessment for Bio-based Building Blocks

Case Study

Opportunity Assessment for Bio-based Building Blocks

Client	Company specializing in bio-based solutions
Industry	Agrochemicals and pharmaceuticals
Products	Bio-based building blocks/starting materials

Context

- The client focused on evaluating the growth opportunity for its bio-based building blocks/starting materials that can be used to synthesize several families of chiral intermediates and active ingredients.

Key Business Questions

- Which chiral intermediates and active ingredient families would be the most lucrative for the client?
- Which are the most prospective customers for the client?

Engagement Scope

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Scouting for Potential Molecules

- Which are the various intermediates and active ingredients that can be synthesized from bio-based building blocks/starting materials?

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Profiling of Selected Molecules

- How long has the product been in the market (no. of years)? Is the product generic or patented?
- How is the global market segmented based on family member and geography?
- Which are the key players across various nodes in the value chain?
- What would be the growth outlook, including demand drivers and inhibitors?
- What is the average market price?
- Which are the major customers in the market?

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Key Findings and Conclusion

- Two intermediates and seven active ingredient families have been identified as the most lucrative for the client
- Several new customers have been identified, which were not known to the client

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Research Methodology

Secondary Research

- Conducted desk research to study company websites, annual reports, etc.
- Referred to paid and public databases for association report, market report, etc.

Primary Research

- 20+ interviews with senior executives and key personnel working with bio-based building blocks to synthesize chiral intermediates and active ingredients

Benefits to Client

- Two intermediates and seven active ingredient families have been identified as the most lucrative for the client
- Several new customers have been identified

Sample Analysis

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Scouting for Potential Molecules

Family	Family number	Class. no.	Inventor	Major company with patent
Product A	+ Product A1	33-33-33	100%	Super Group, Inc., Syngenta, Monsanto, Novartis, DuPont, Degussa, Wacker, BASF, Kantha Ltd., Kumho Chemical Industry Co. Ltd., Kumho, Hubei, Kumho, Co. (China) Co. Ltd., Hubei Design Chemical Co. Ltd., Shuangxing, National Chemical Chemical Co. Ltd., Shuangxing, National Chemical Ind., Haining Huafu Pharmaceutical
	+ Product A2	33-33-33	100%	Super Group, Inc., Asanto, DuPont, Degussa, Wacker Design Kantha Ltd., Kumho Chemical Industry Co. Ltd., Hubei, Kumho Chemical Industry Co. Ltd., Shuangxing, Hubei Chemical Ind., Haining Huafu Pharmaceutical
	+ Product A3	33-33-33	100%	Super Group, Inc., Syngenta, Asanto, DuPont, Wacker Design Kantha Ltd., Kumho Chemical Industry Co. Ltd., Novartis, Haining Huafu Pharmaceutical, Hubei Chemical Ind., Shuangxing, Kumho Chemical Industry Co. Ltd.
Product B	+ Product B1	33-33-33	100%	No patent available
	+ Product B2	33-33-33	100%	BASF, Dow, Wacker Design Kantha Ltd., Kumho

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Profiling of Selected Molecules



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Key Findings and Conclusion

Intermediate / active ingredient	Demand demand	Global volume	IP (A/B, %)	Average manufacturing cost (\$/kg)	Price concentration
Intermediate A1	500	500	500	500	Low (50% to 1)
Intermediate A2	500	500	500	500	High (50% to 1)
Intermediate A3	500	500	500	500	Low (50% to 1)
Active ingredient B1	500	500	500	500	High (50% to 1)
Active ingredient B2	500	500	500	500	Low (50% to 1)
Active ingredient B3	500	500	500	500	High (50% to 1)

Thank you

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