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- Industry standards

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Most of the WB products in China have their own industry standard. The industry standards for main WB products mentioned in this report are shown as Table I-4.1

Table I-4.1 Industry standards for main WB products

No.	Product	Industry standard
1	MSG	■
2	Vitamin C	■
3	Vitamin B1	■
4	α-Amylase	■
5	Glucosylase	■
6	Pectinase	■
7	Lipase	■
8	Itaconic acid	■
9	Acetone	■
10	Butanol	■
11	Lactic acid	■
12	Denatured fuel ethanol	■
13	Ethanol Gasoline	■

Source: CCM International

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III Overview of White Biotechnology industry in China

III-1 Market value estimation breakdown by category

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WB industry has been one of the emerging biotechnology industries in China. WB industry took up ■% of the market size of biotechnology industry in China in 2008, from ■% in 2004.

Table III-1.1 Market value of WB industry broken down by categories in China, million USD, 2004-2008

Year	White biotechnology						Biotechnology
	Bio-fuel	Bio-based fine product	Bio-based chemicals	Biomaterial	Bio products	Total	
2004	■	■	■	■	■	■	■
2005	■	■	■	■	■	■	■
2006	■	■	■	■	■	■	■
2007	■	■	■	■	■	■	■
2008	■	■	■	■	■	■	■

Source: CCM International

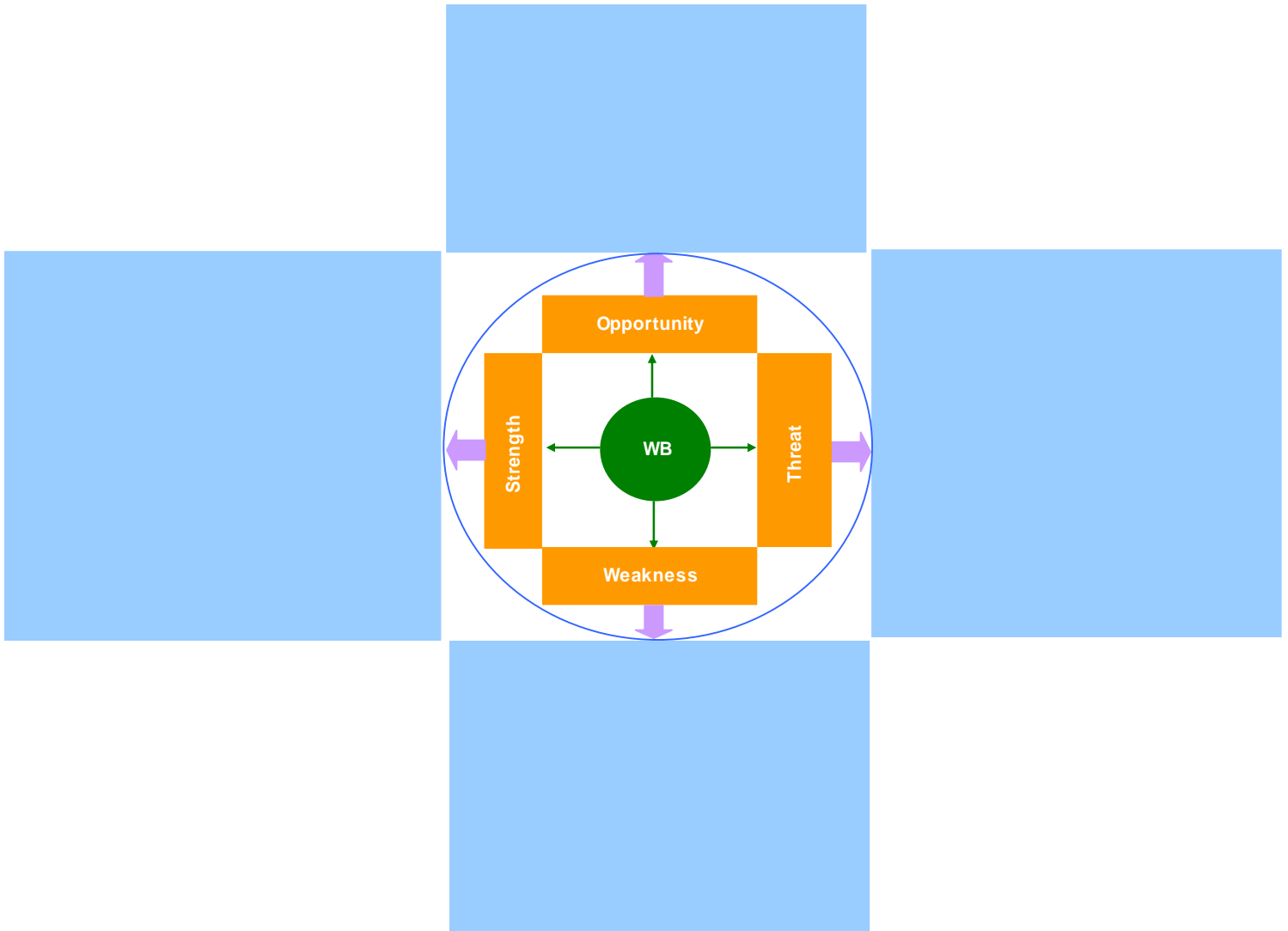
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III-4 SWOT analysis of China's white biotechnology

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By analyzing strength, weakness, opportunity and threat of WB industry in China, a clear picture of the future prospect for WB industry can be gained.

Figure III-4.1 SWOT analysis of China's white biotechnology



Source: CCM International

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Table VII-1.1 Situation of major WB products in China

Industrial stage	Products	Market	Technology barrier	Environment protection requirement	Status in the world
Maturity	■	Domestic	Low	Modest	Equal
	■	Domestic	Low	Modest	Equal
Growth	■	Domestic	High	High	Equal
	■	Domestic	Low	Modest	Equal
	■	Oversea	Modest	Modest	Leading
	■	Oversea	High	Modest	Leading
	■	Oversea	High	Modest	Leading
	■	Domestic	High	Modest	Leading
	■	Oversea	Modest	Low	Equal
	■	Domestic	Modest	Low	Equal
	■	Domestic	Low	Modest	Equal
	■	Domestic	High	Low	Draggled
	■	Oversea	Low	Low	Leading
Introduction	■	Domestic	High	Modest	Equal
	■	Domestic	Low	Low	Draggled
	■	Domestic	Modest	Low	Draggled
	■	Domestic	Modest	Modest	Equal
	■	Domestic	Modest	Modest	Equal
	■	Oversea	High	Modest	Equal
	■	Oversea	High	Modest	Equal
	■	Oversea	High	Low	Equal
Developing	■	-	High	-	Draggled
	■	-	High	-	Draggled
	■	Domestic	Modest	Modest	Draggled
Little research	■	-	High	-	Draggled
No research	■	Domestic	High	Modest	Draggled

Source: CCM International