

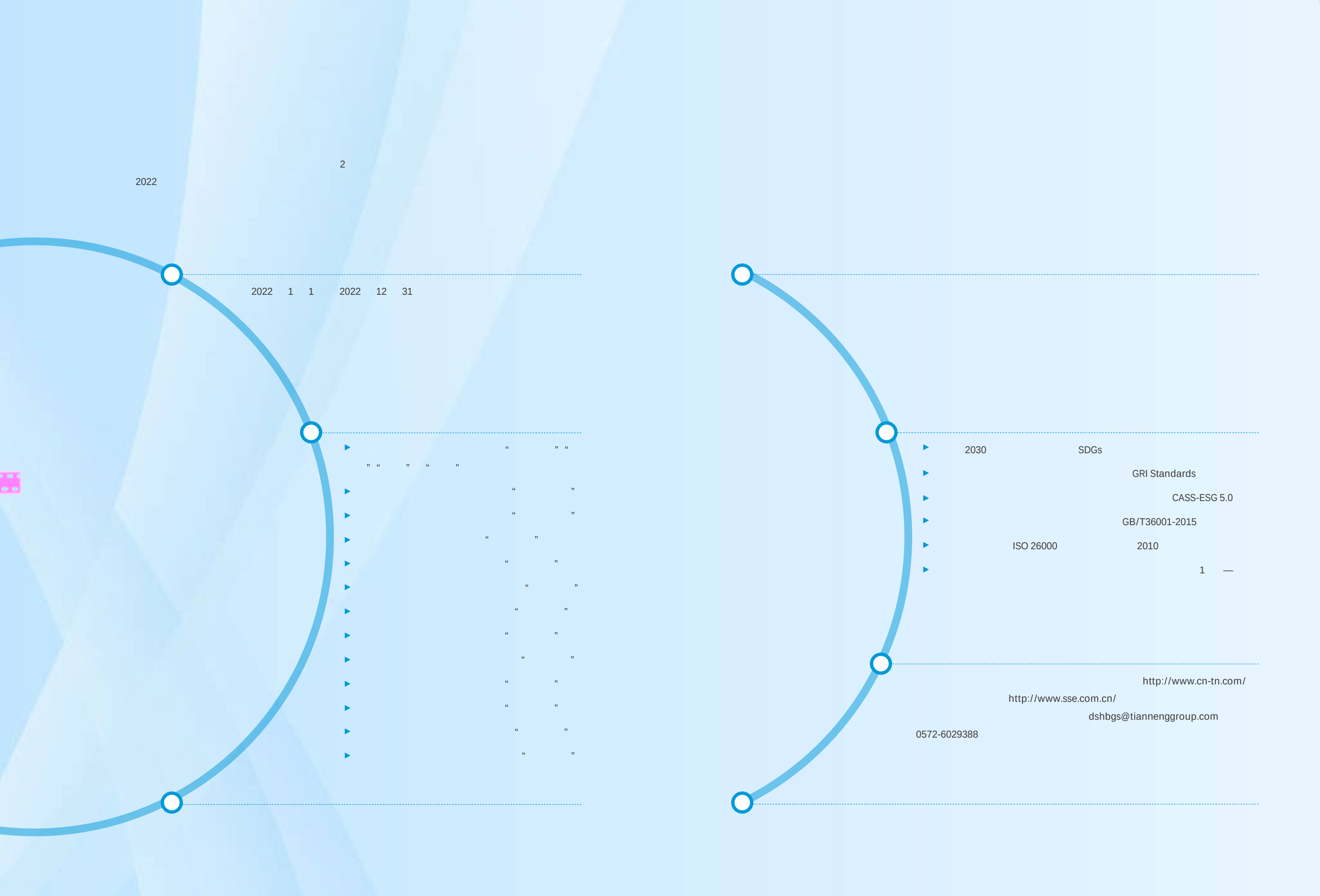


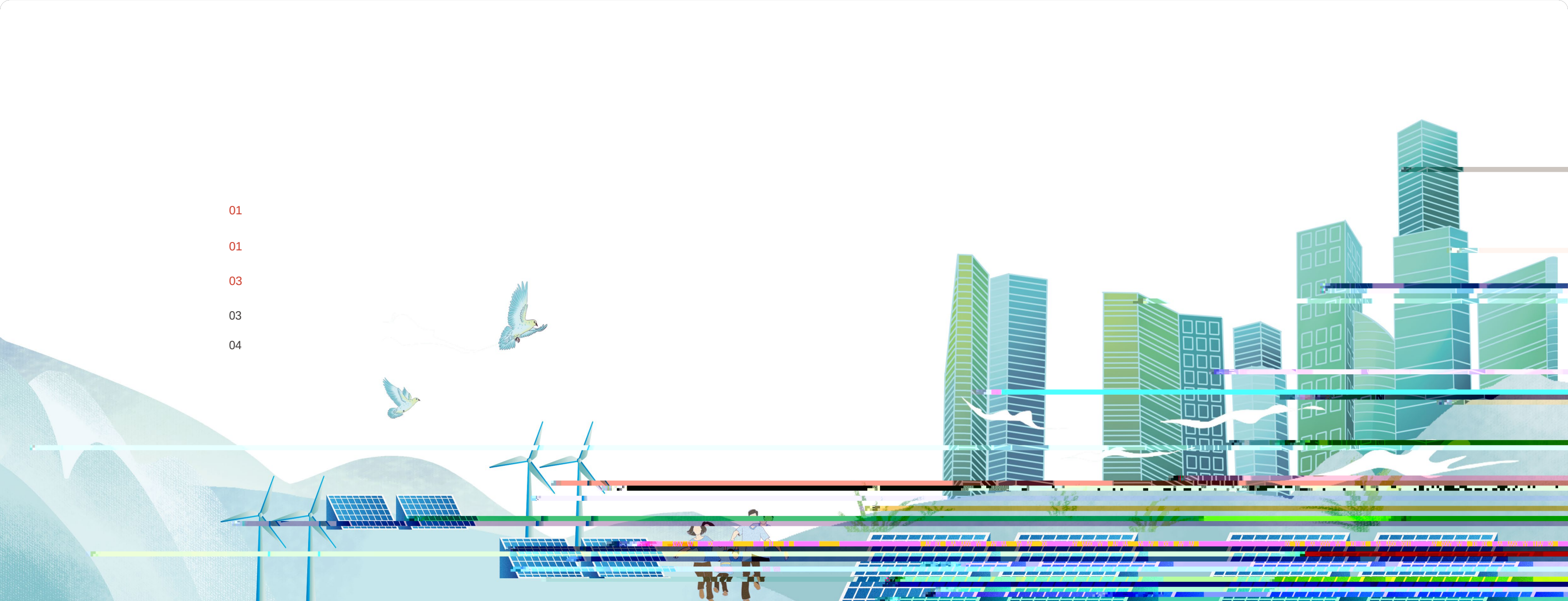
2022

环境、社会与管治报告

天能电池集团股份有限公司







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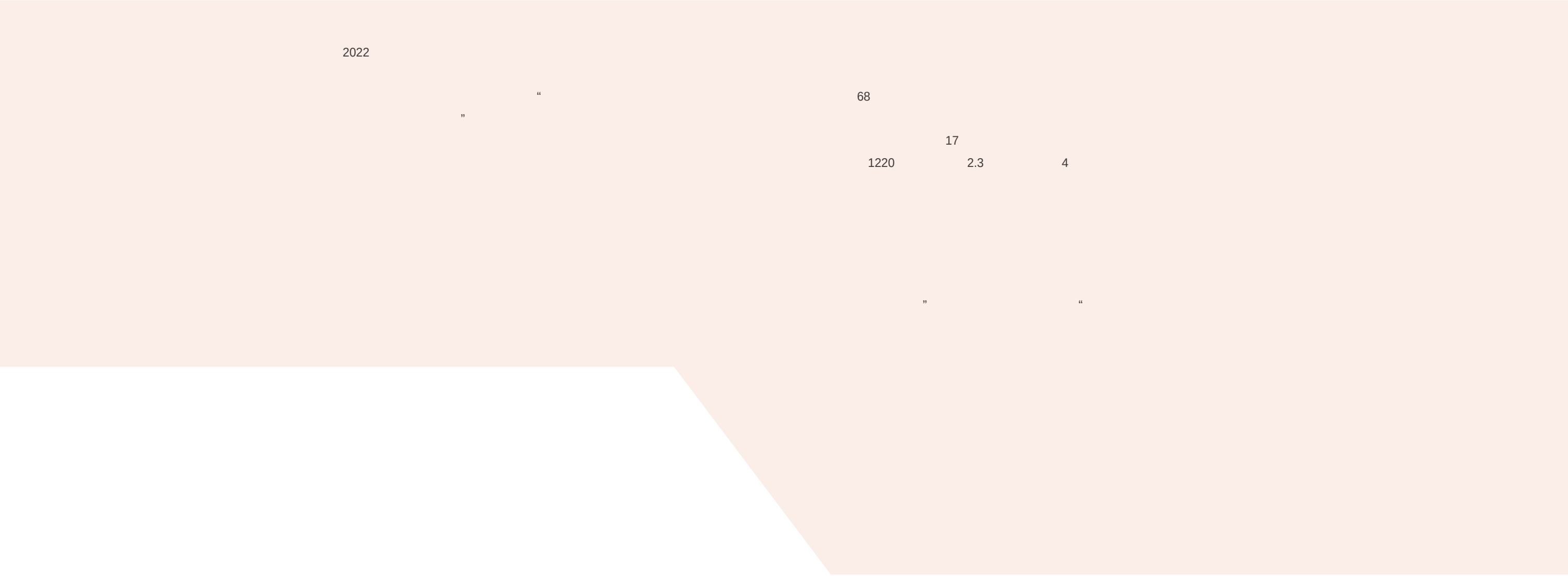
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2022

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2022

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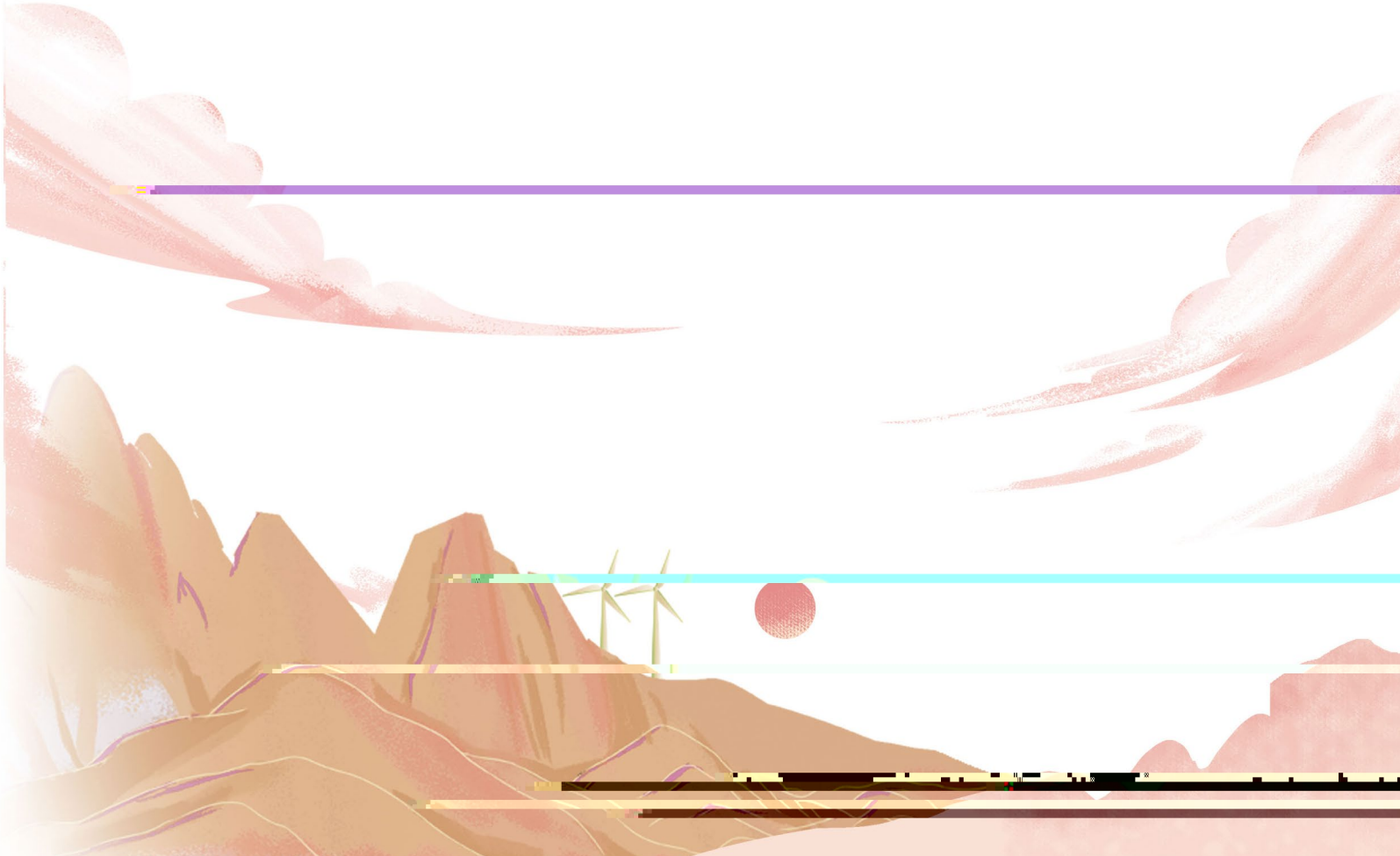
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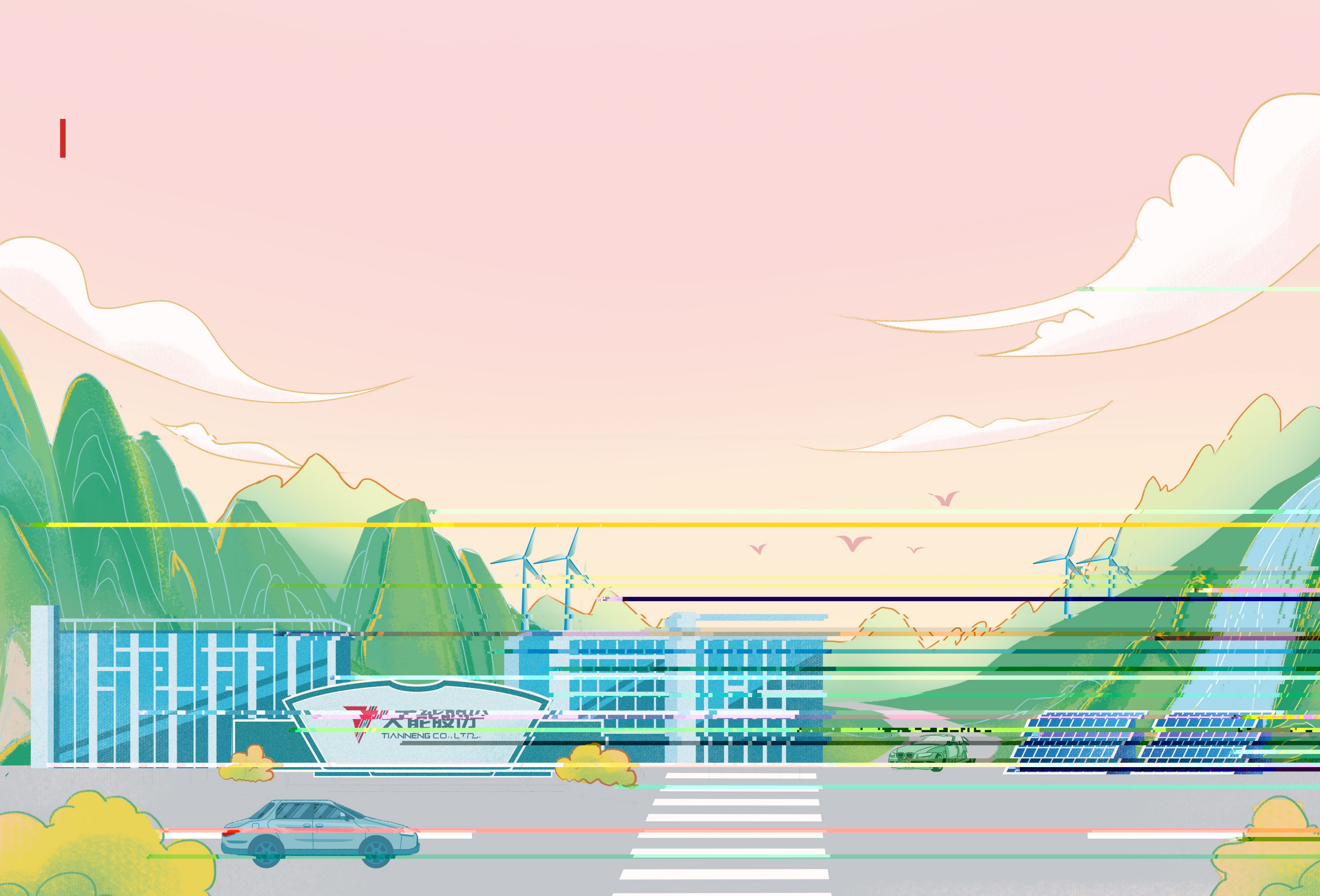
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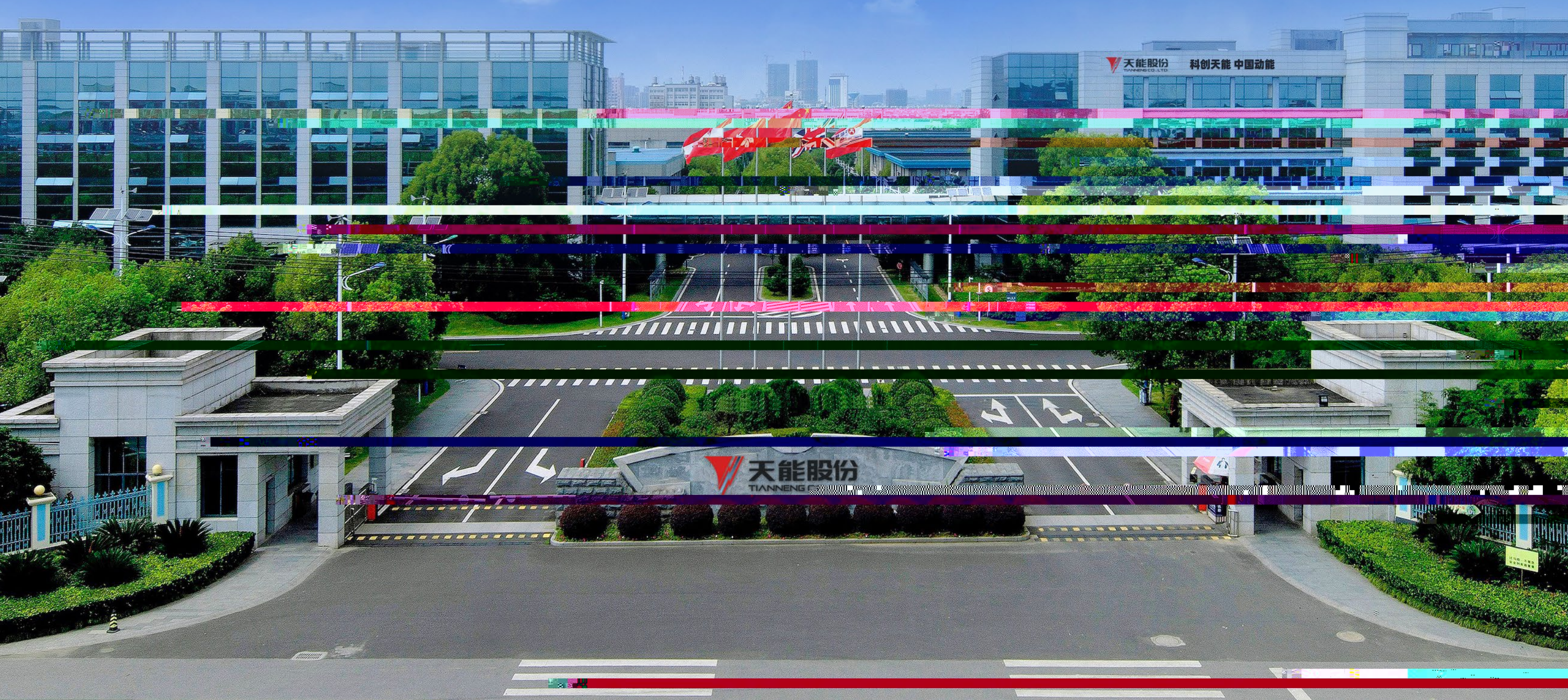


A series of ten horizontal red lines spanning the width of the page, providing a template for writing.





3C



历史沿革

1986



1988

5000



1996



1997

66

77

1998



1999



2002



2005

2007



2010



2011



2013

2017



2018



2019



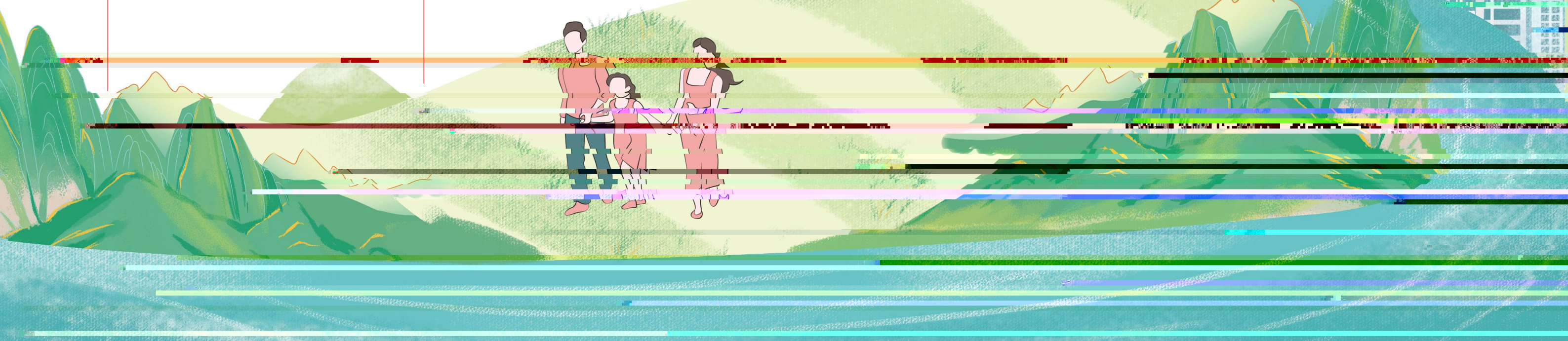
2021



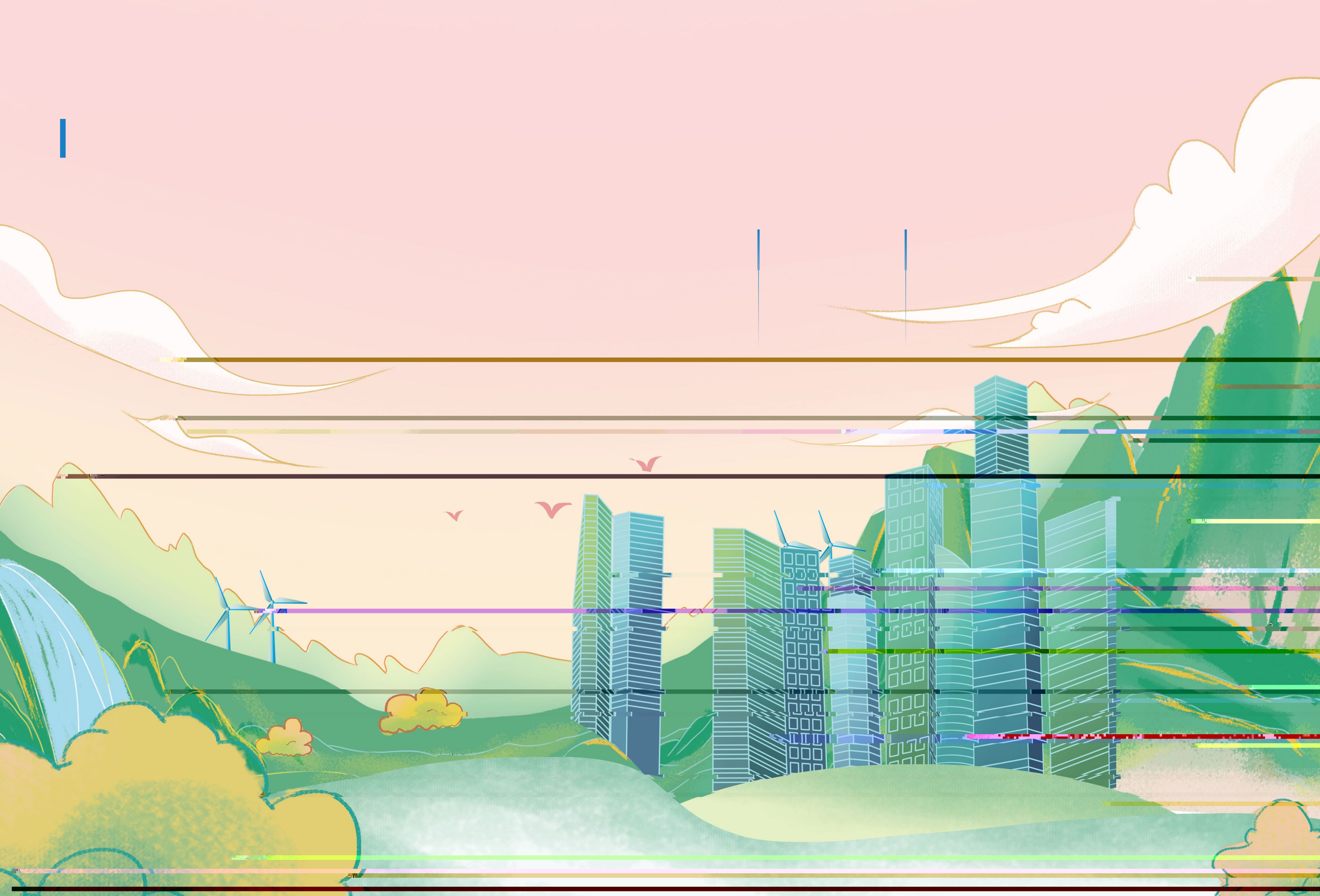
2022

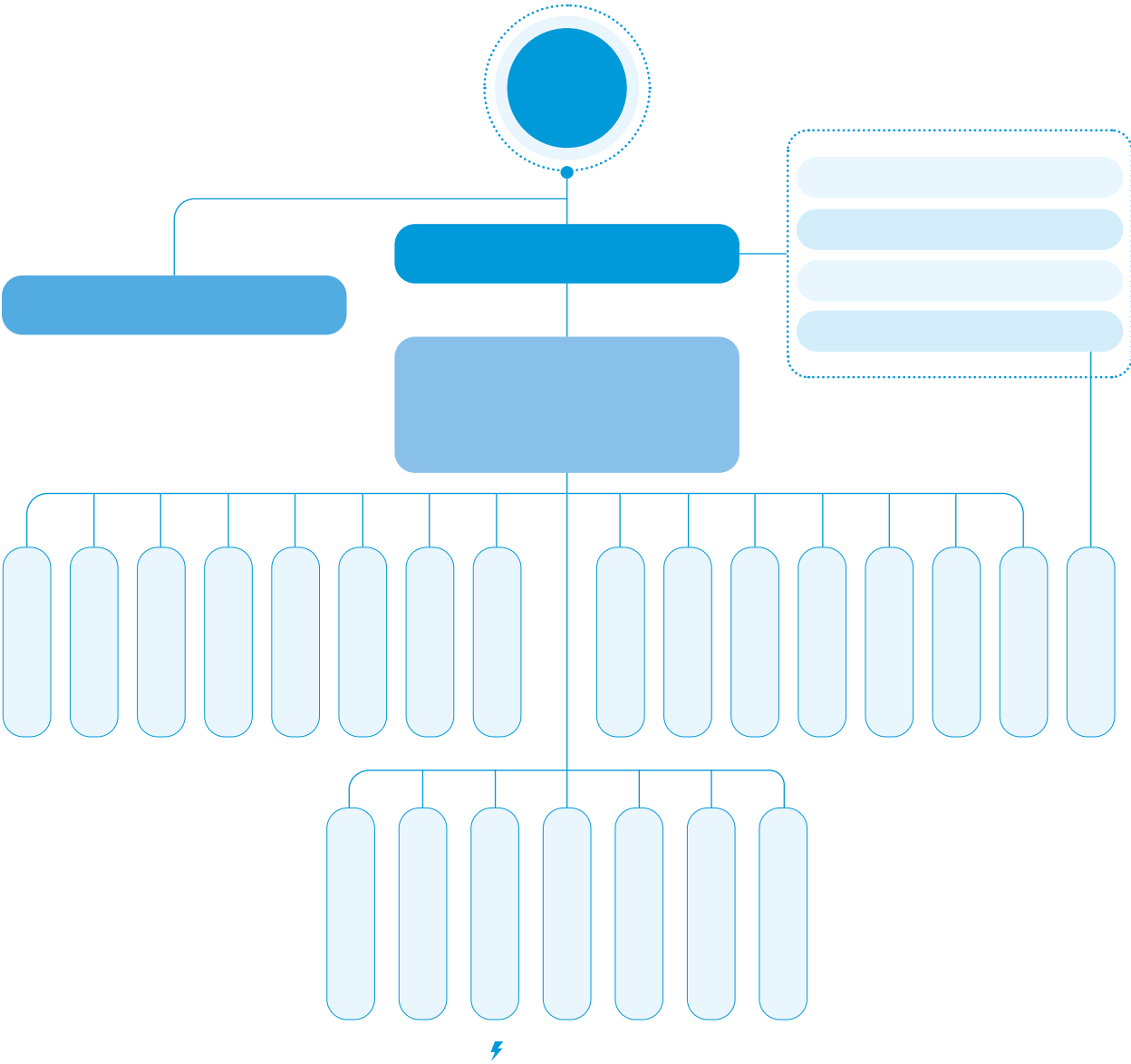
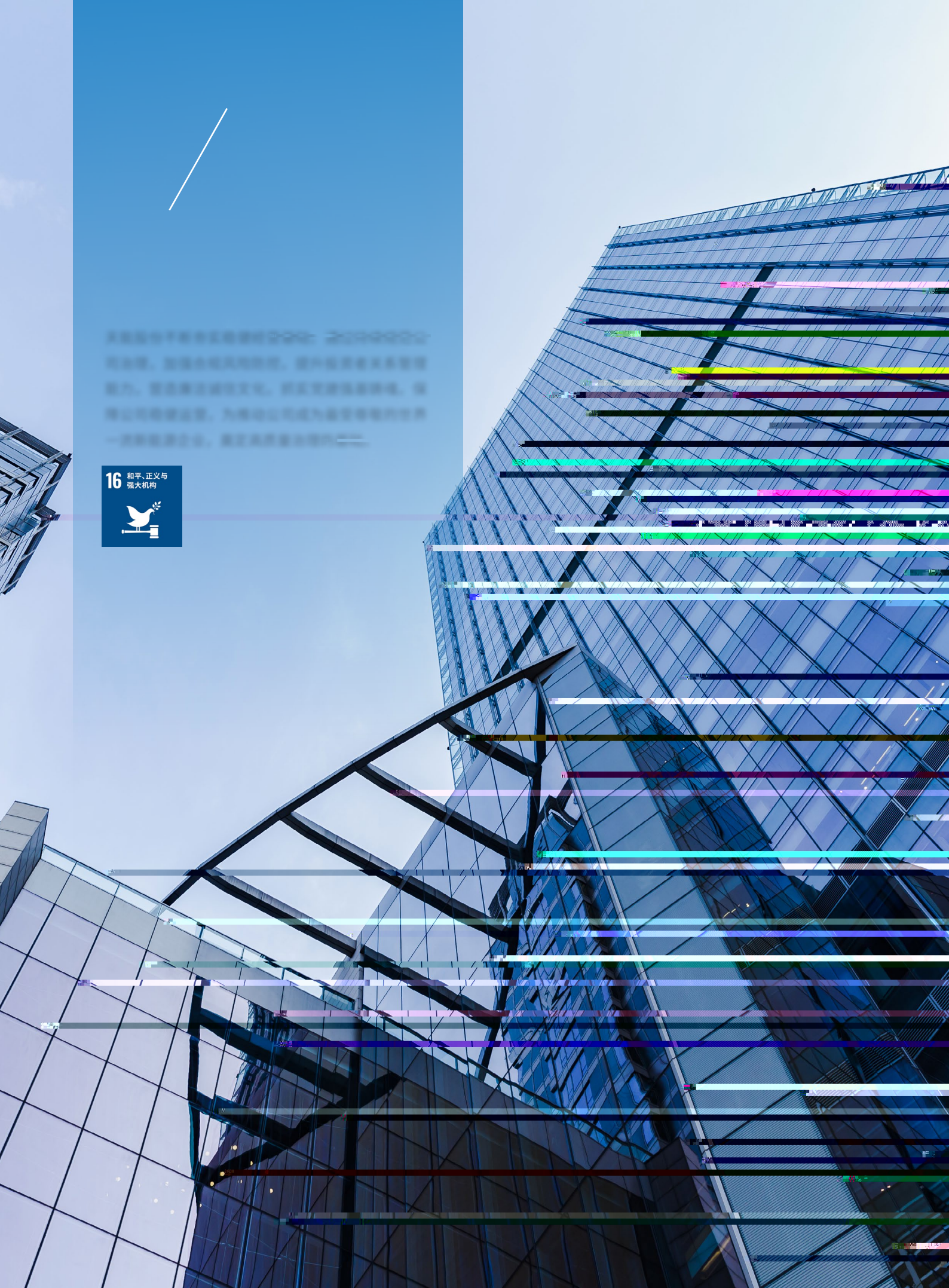
2022

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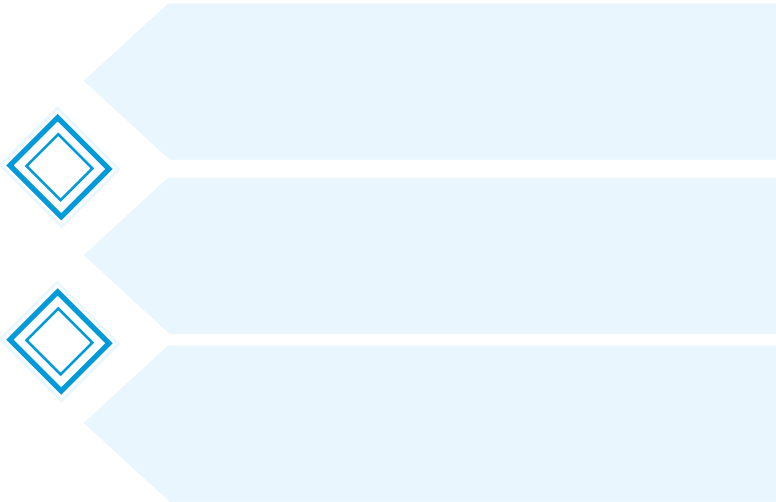
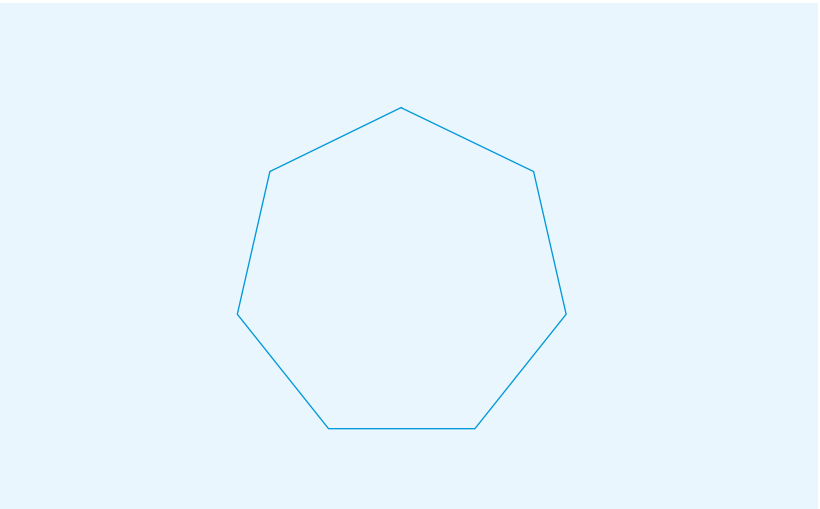
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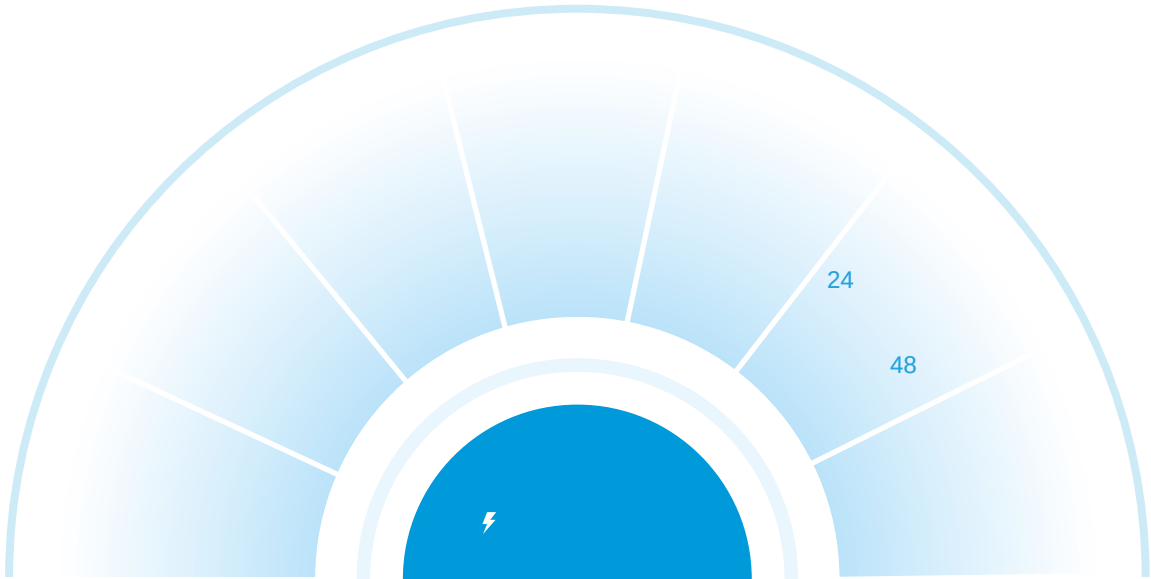
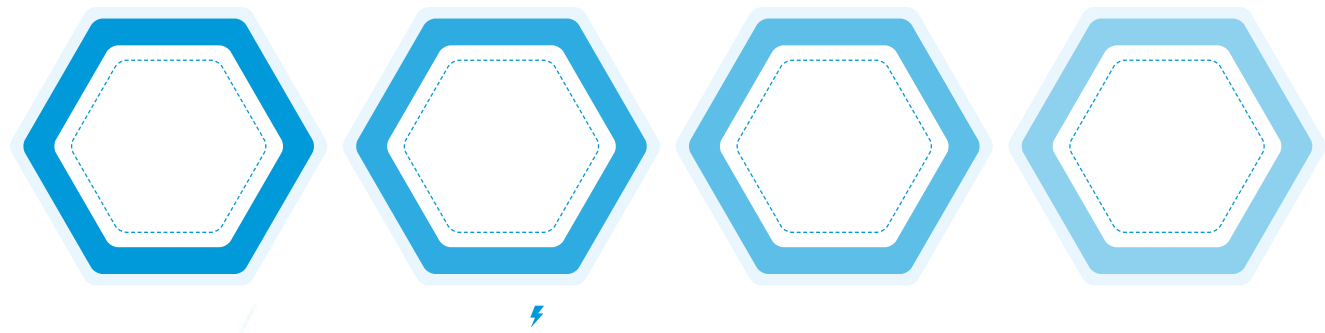
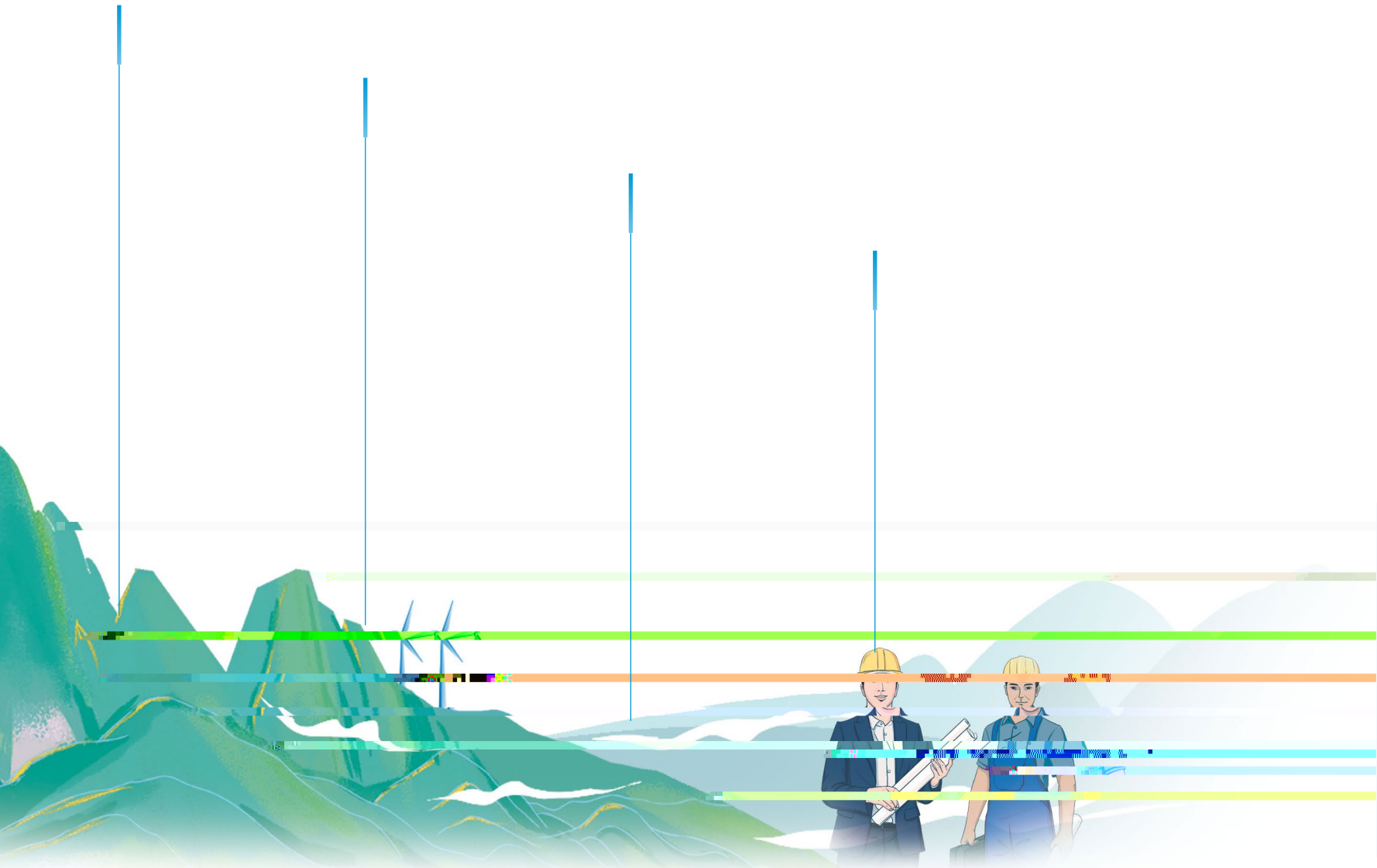


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 $P(\neg a > NJ \uparrow x^{14} J)$

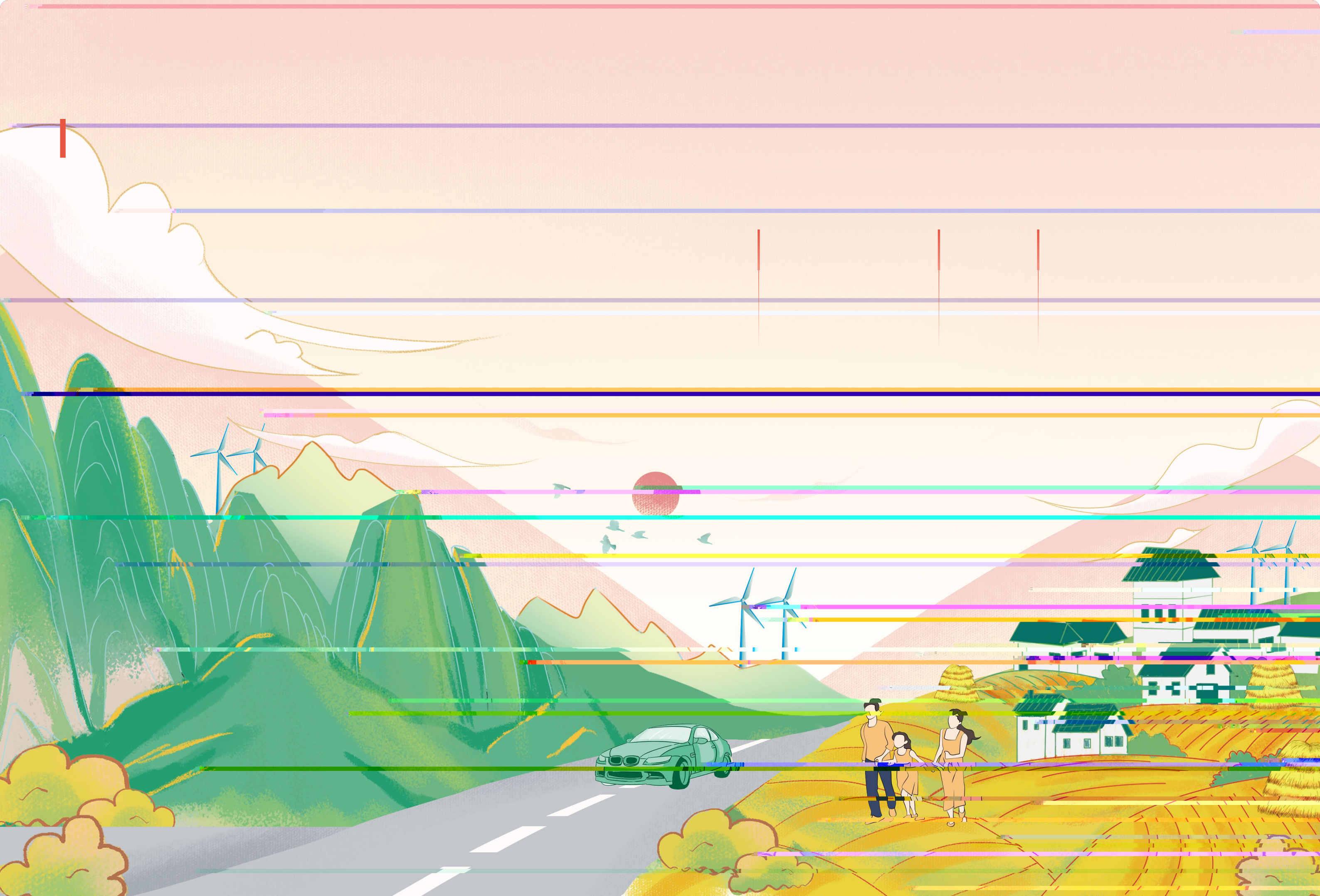


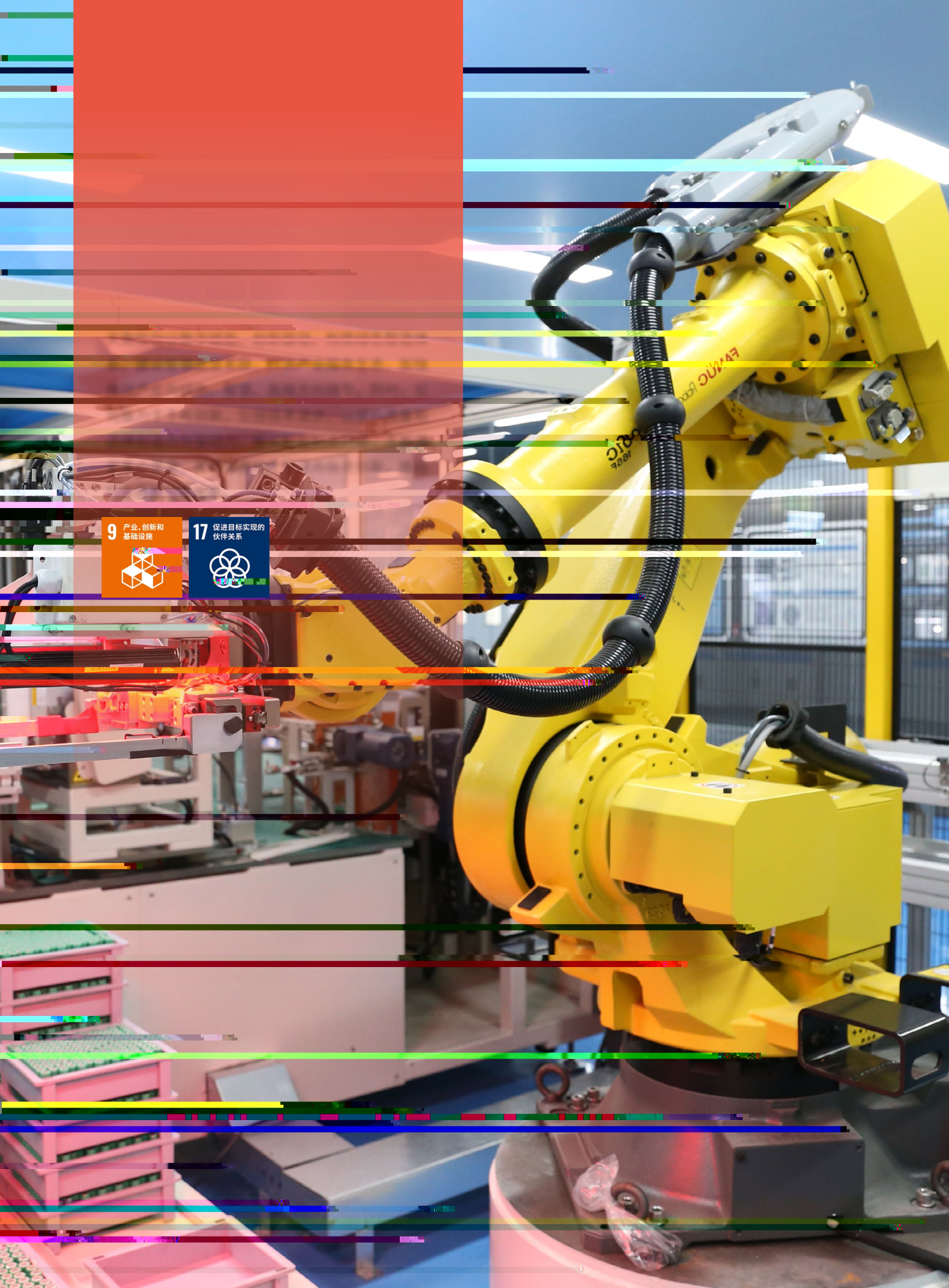
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9 产业、创新和基础设施

17 促进目标实现的伙伴关系

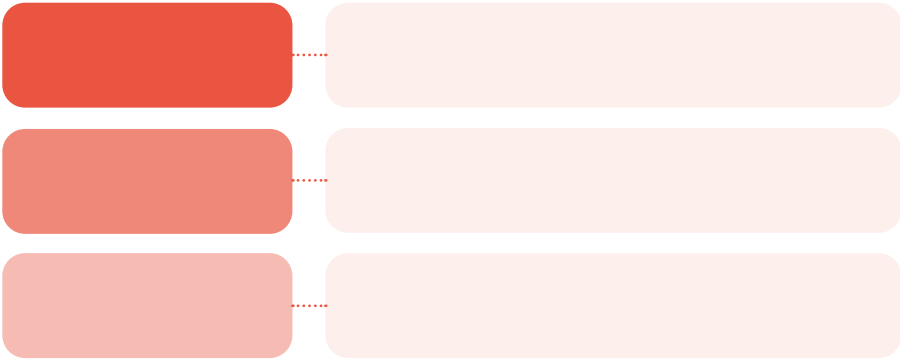
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		37
		585
		55
2022		695
2022		239
2022		60
2022		8

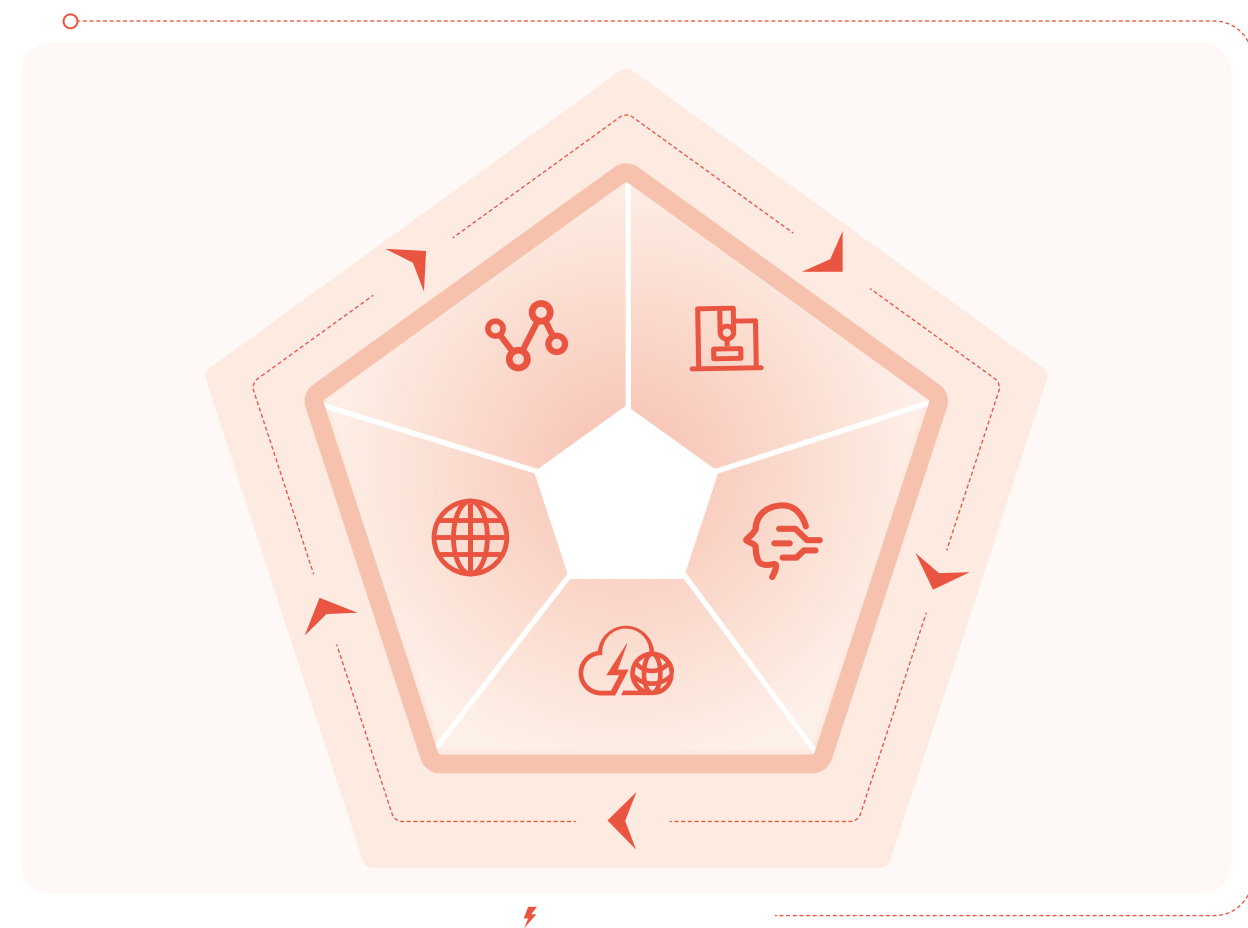
⚡ 2022

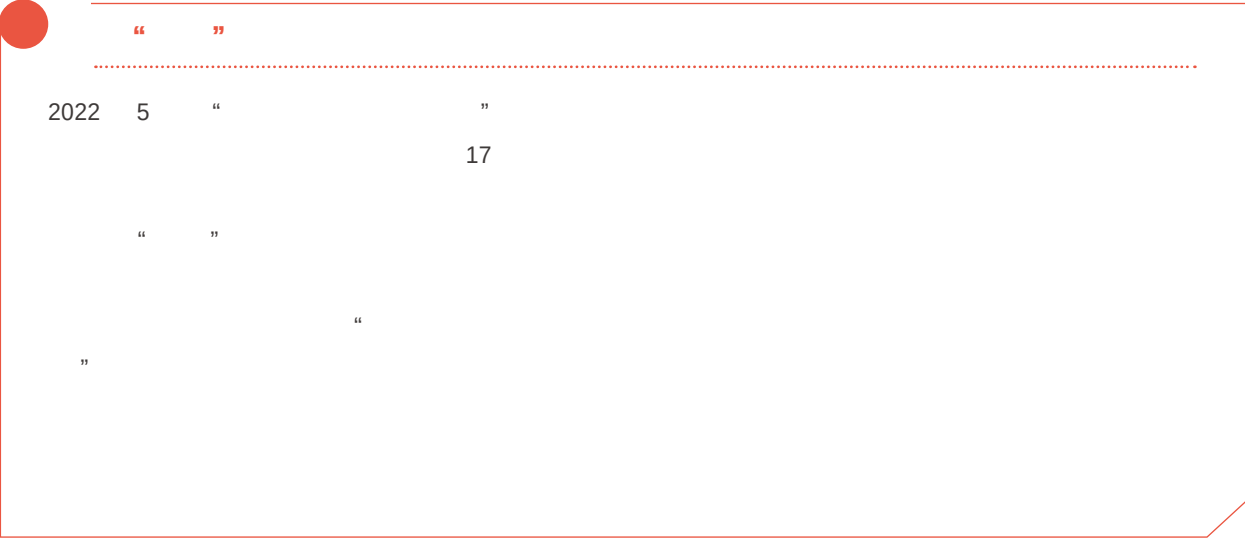
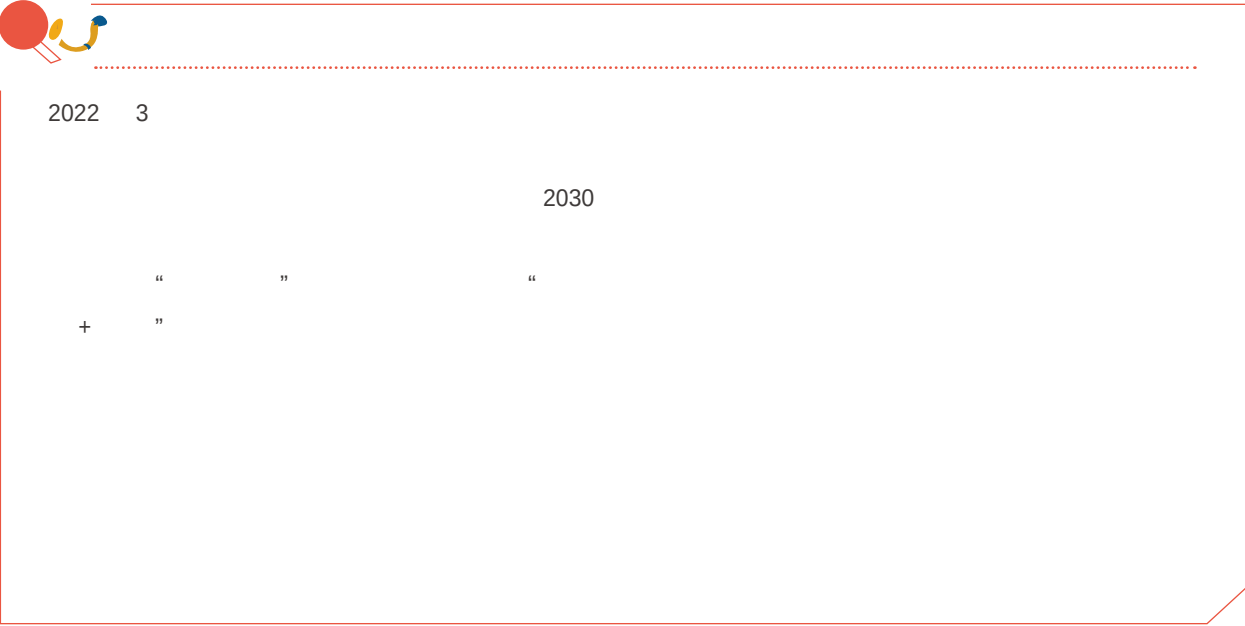
1	GB/T41134.1-2021	
2	GB/T41134.2-2021	
	GB/T22473.1-2021	
	GB/T41620-2022	
	T/CHINABICYCLE 11-2022	
	T/JSEBA 002-2022	
	T/CAS612—2022	
	T/DZJN 90-2022	
	T/DZJN 098-2022	
	T/DZJN 99-2022	
	T/SDJD 003—2022	
2	GB 3565.2-2022	
	GB 42295-2022	
	GB 42296-2022	

⚡ 2022









为实现碳中和目标，中国石化将绿色低碳作为高质量发展的核心，通过技术创新和产业升级，推动能源生产和消费革命，实现碳达峰和碳中和目标。中国石化将加大绿色低碳技术研发投入，推动绿色低碳技术产业化应用，为构建绿色低碳循环发展经济体系作出贡献。

9

产业、创新和基础设施

12

负责任消费和生产

17

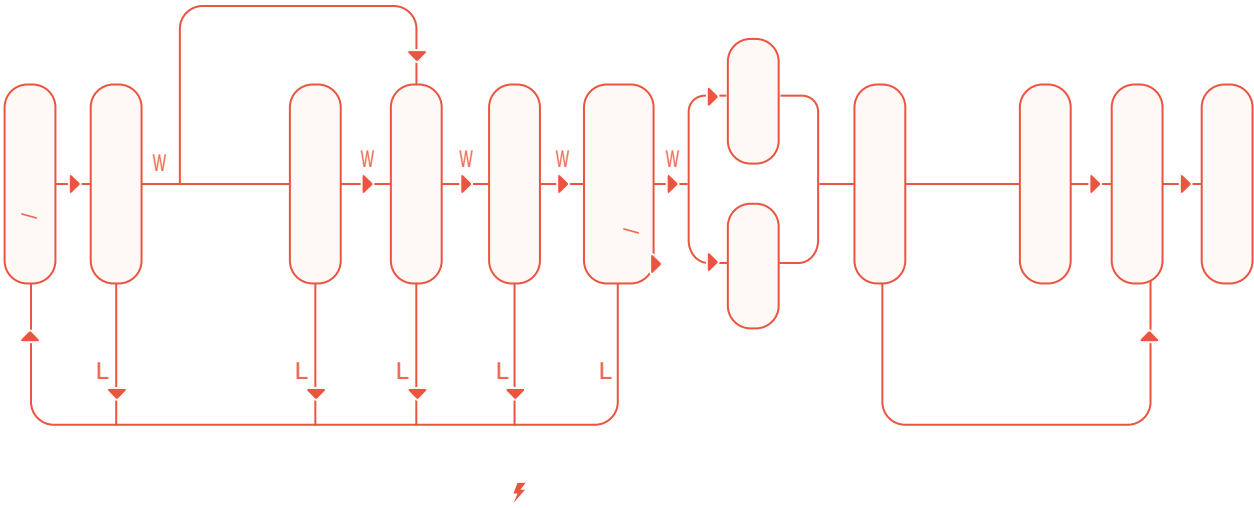
促进目标实现的伙伴关系

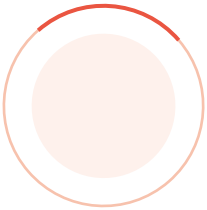
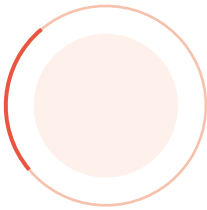
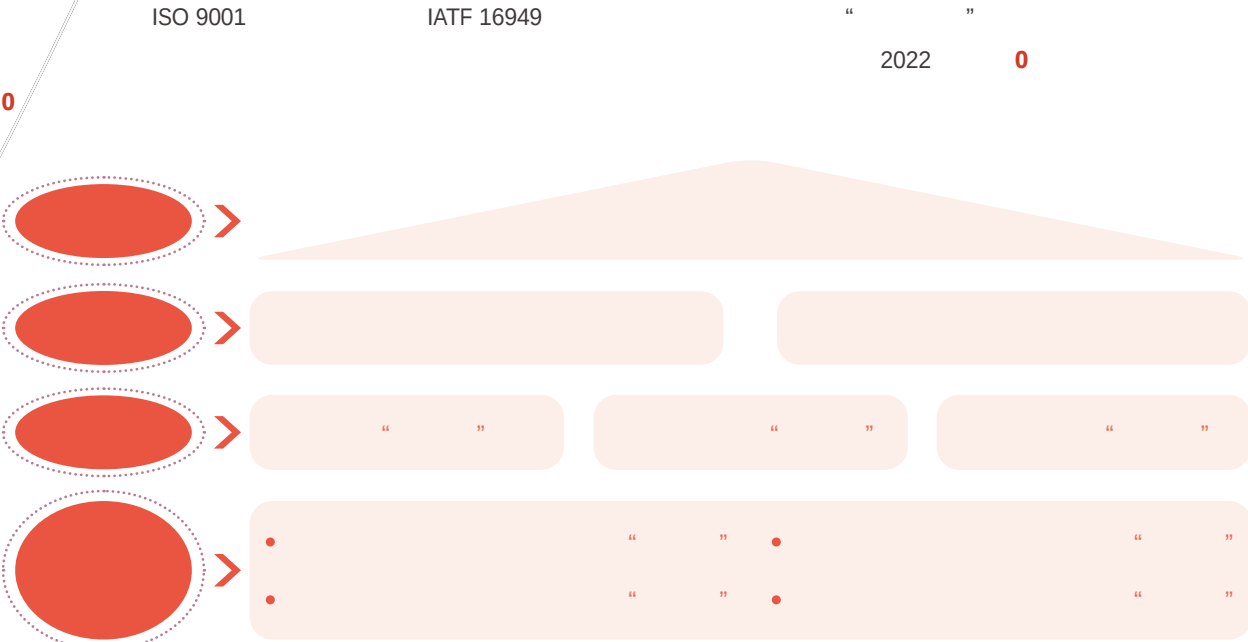
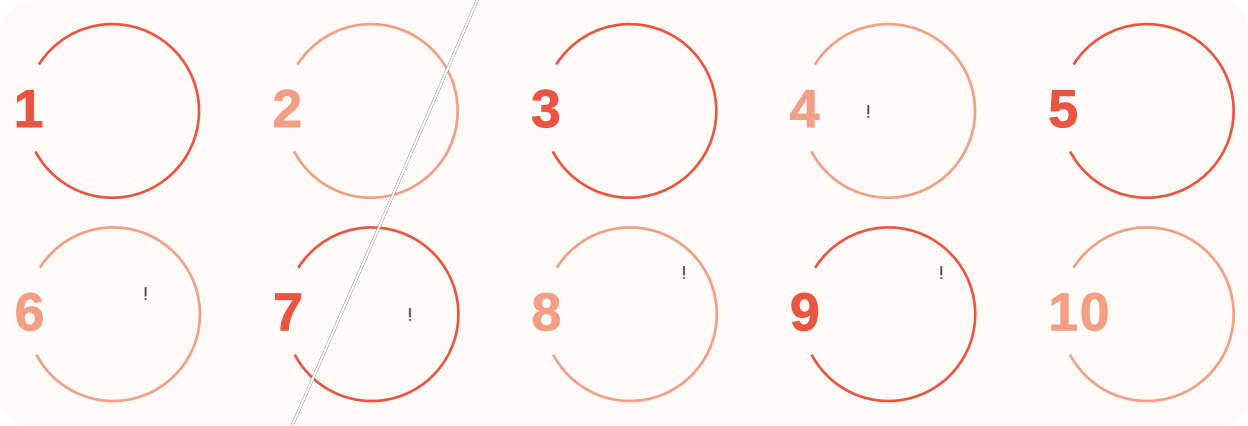


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2022

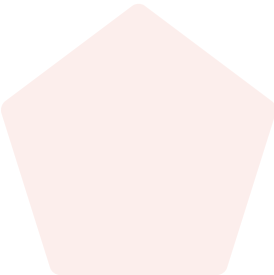
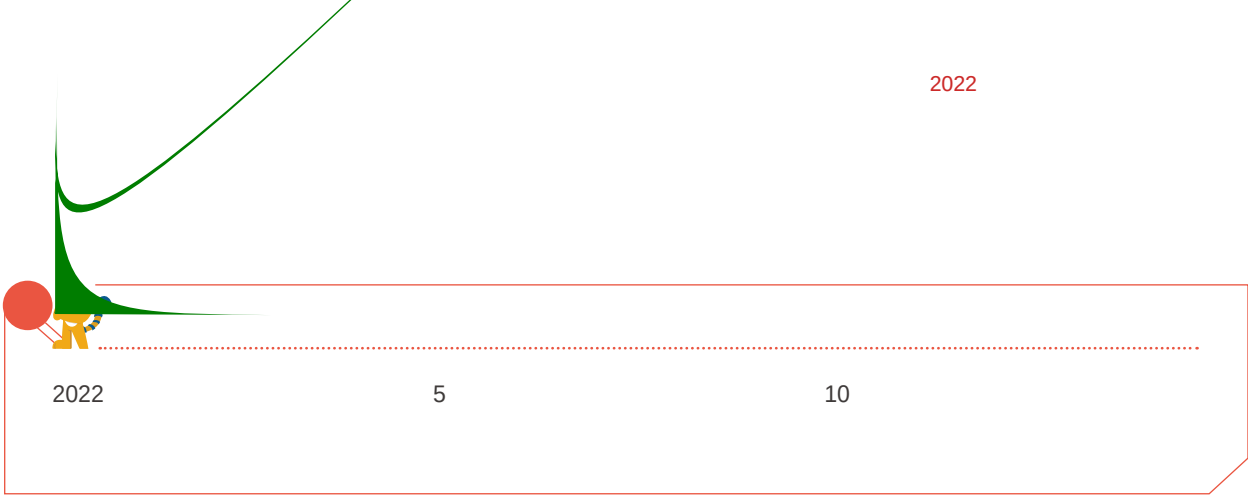
2022

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4M1E

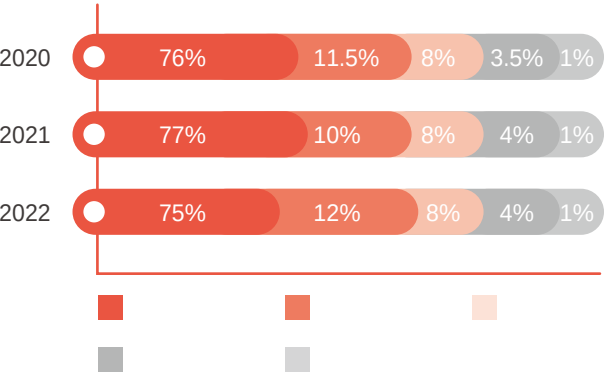
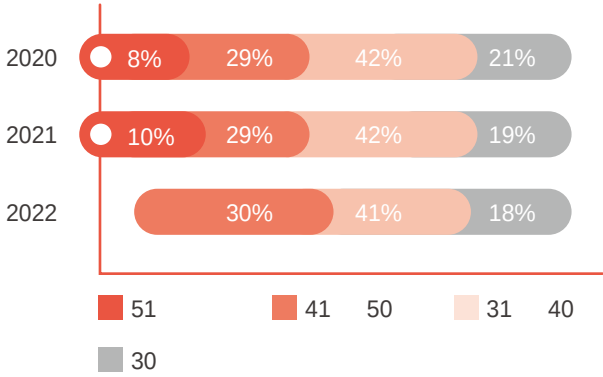
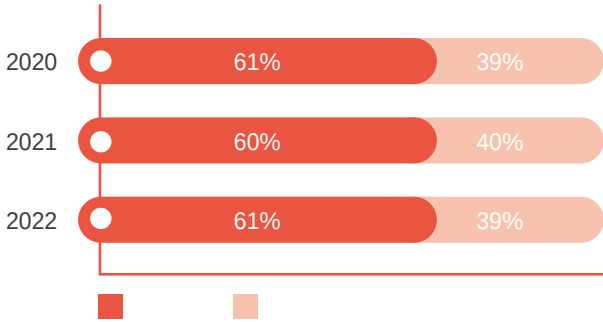


CRMS OA CRMS SRM SRM ERP OA ERP

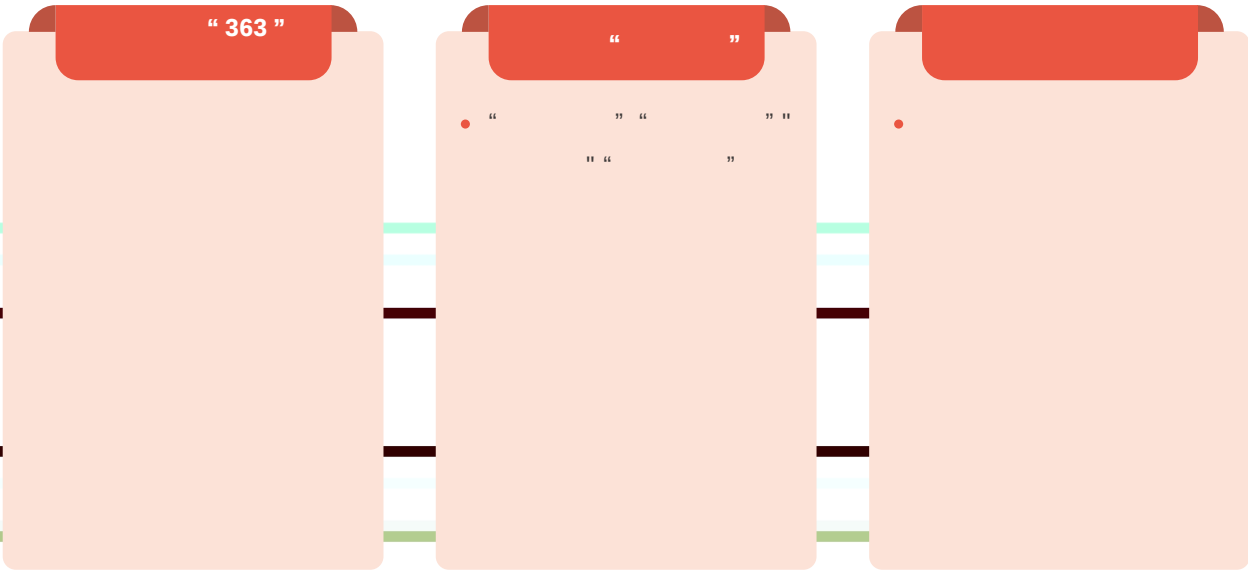
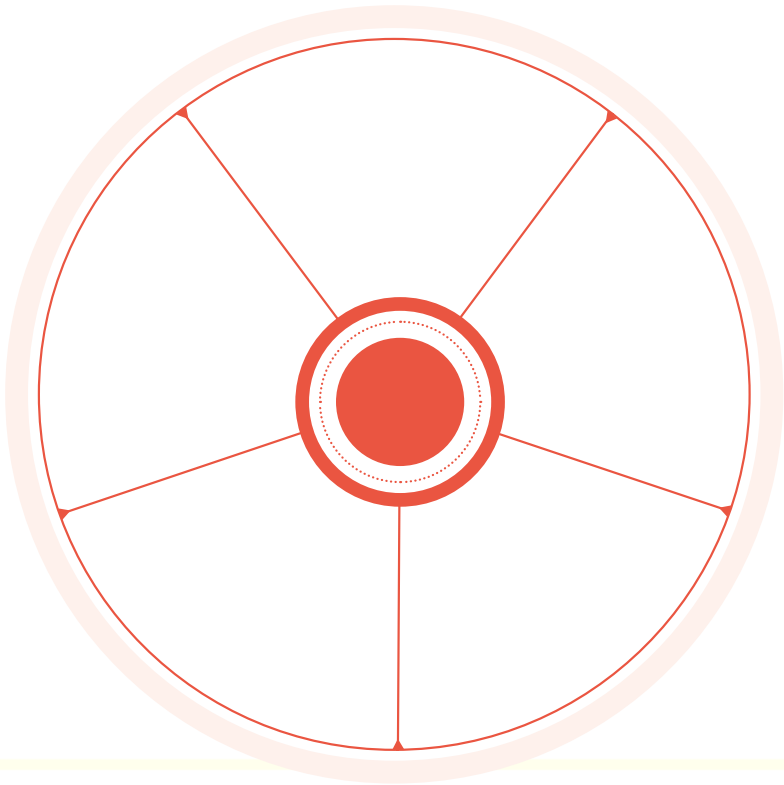
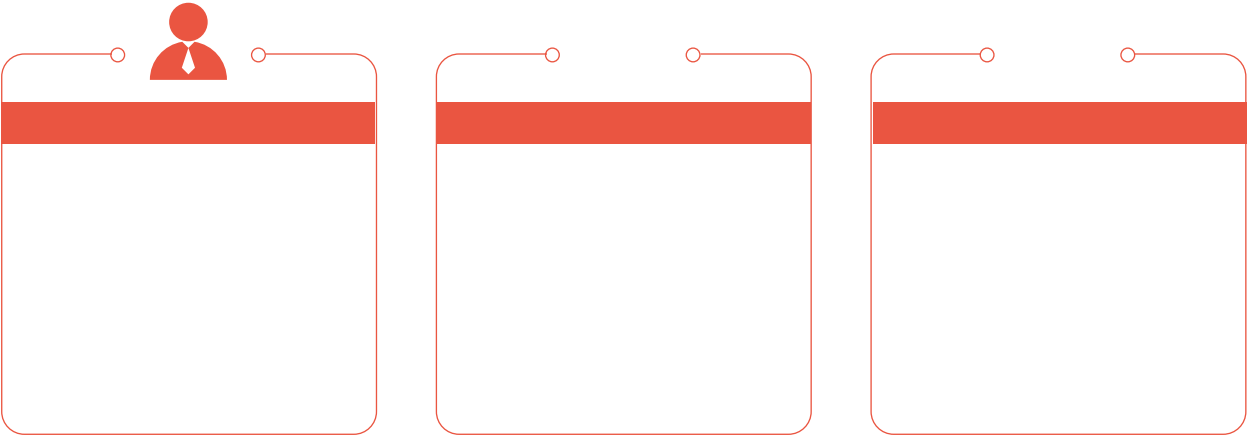


2023





2022

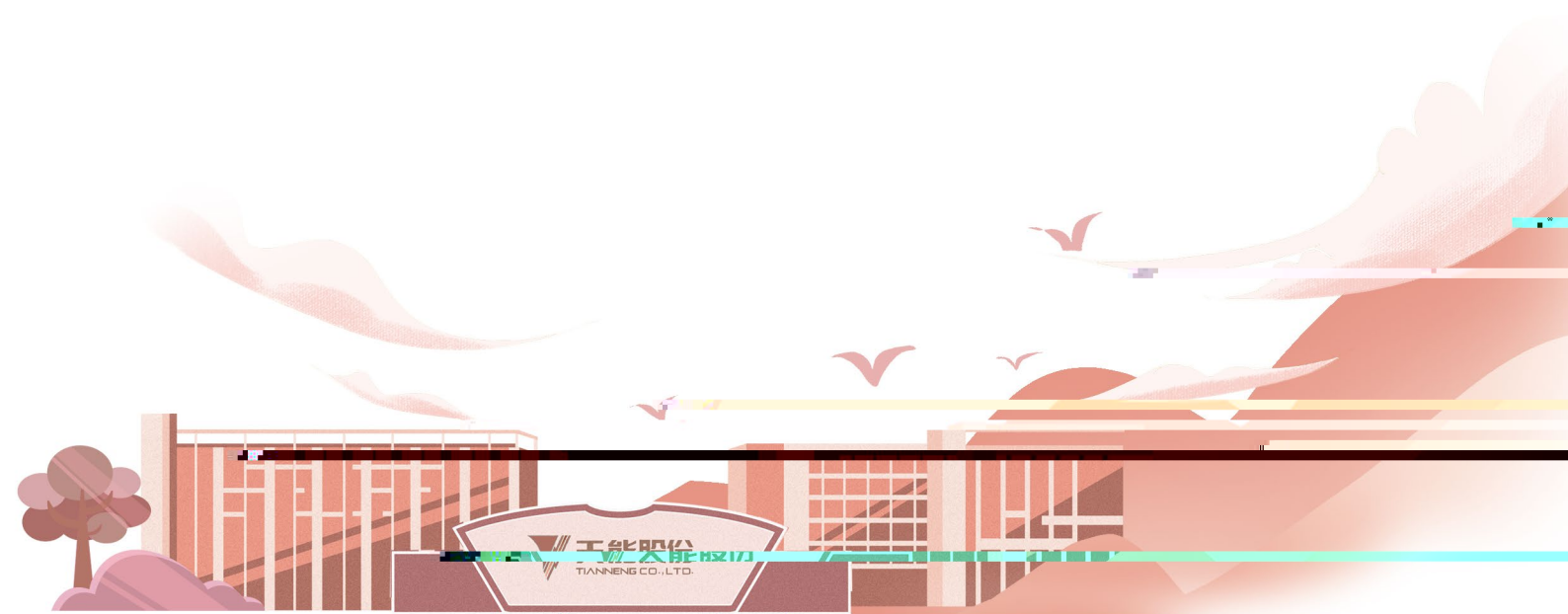


2022 9

62

5

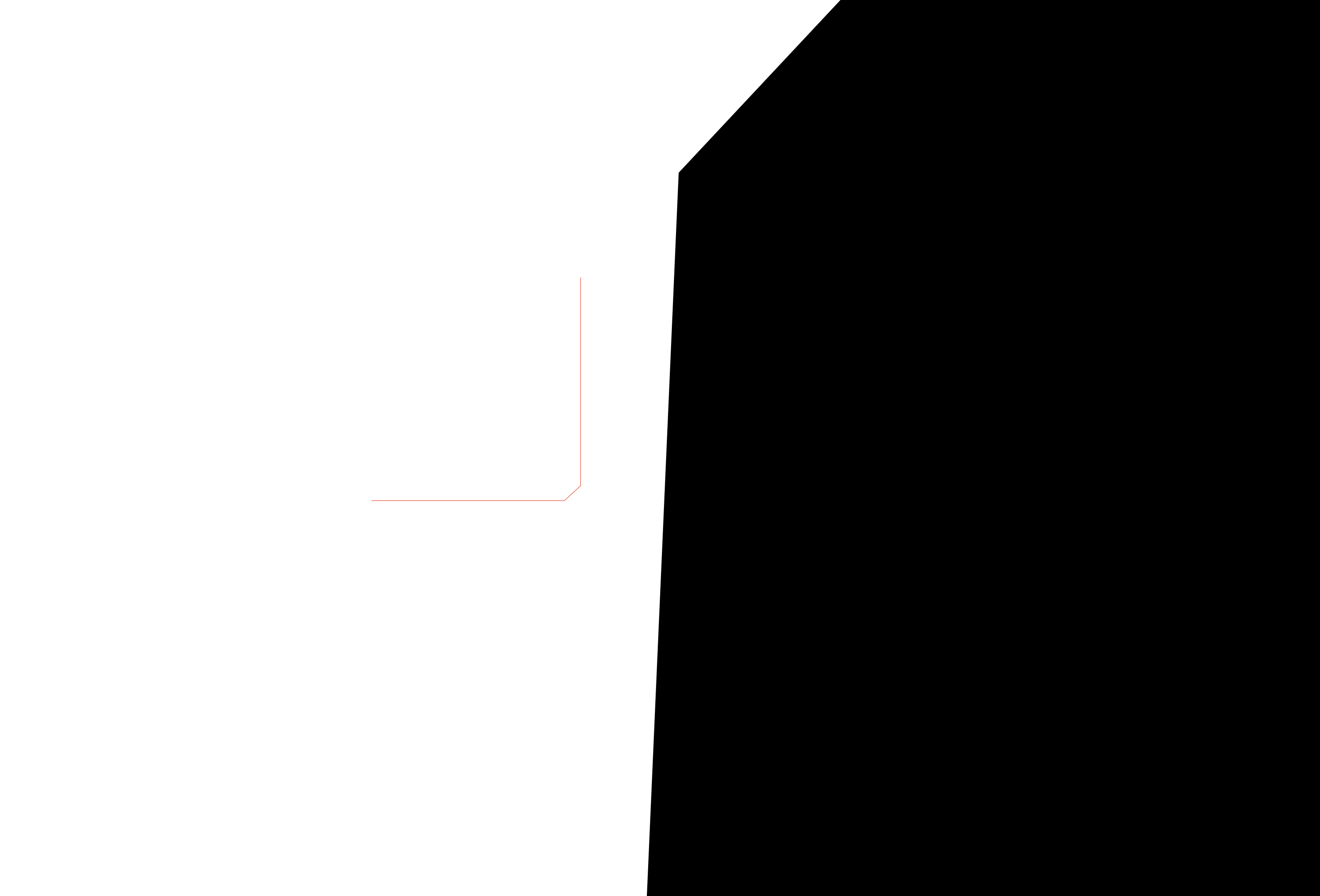
2023



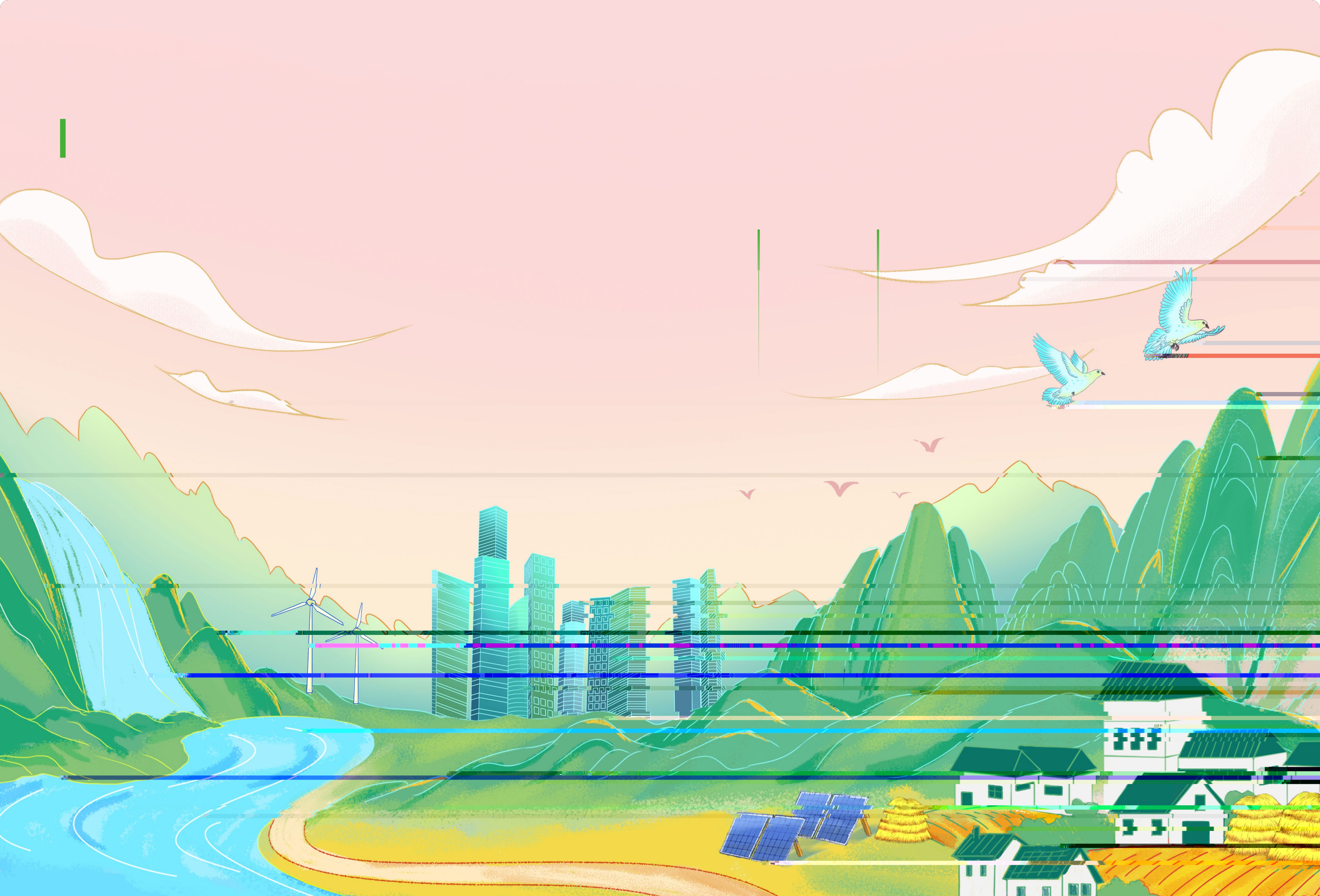
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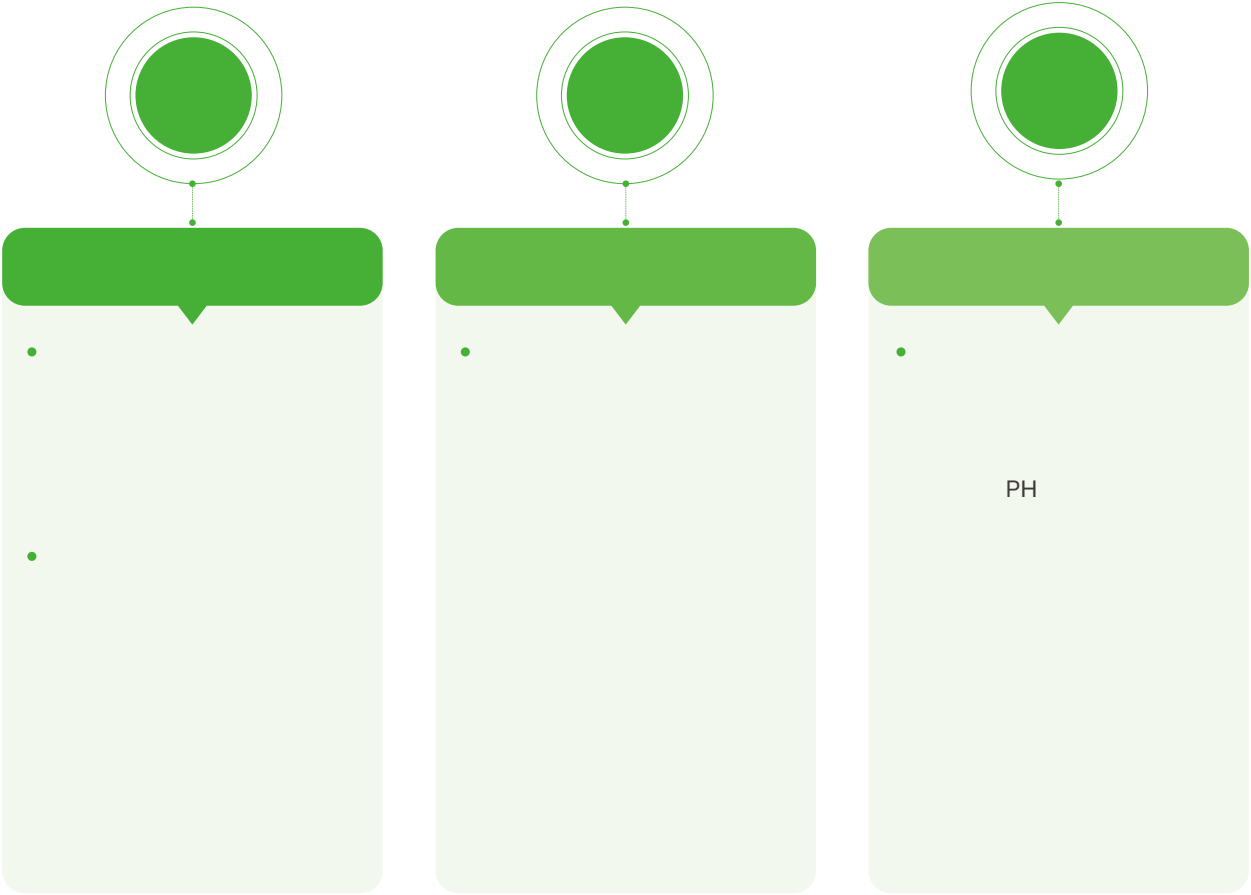
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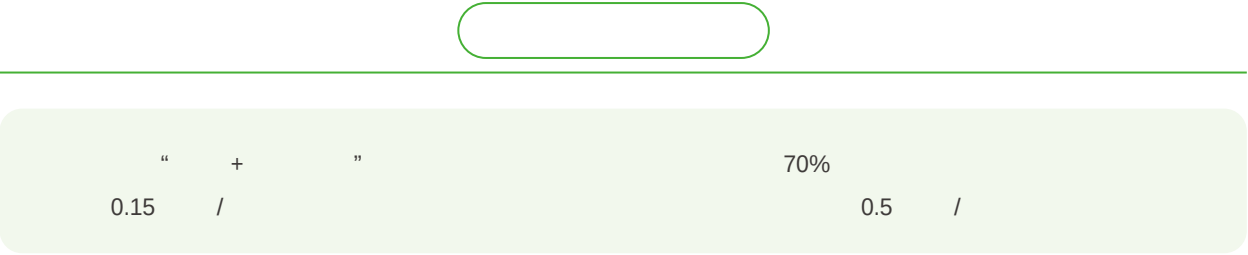






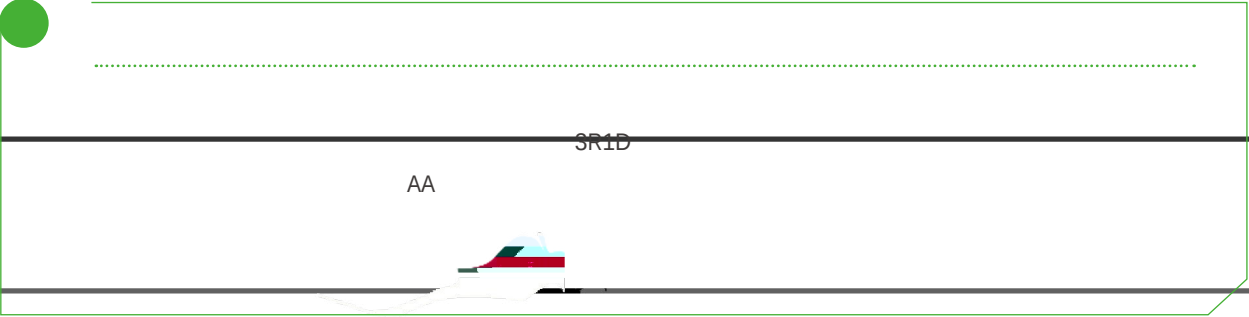
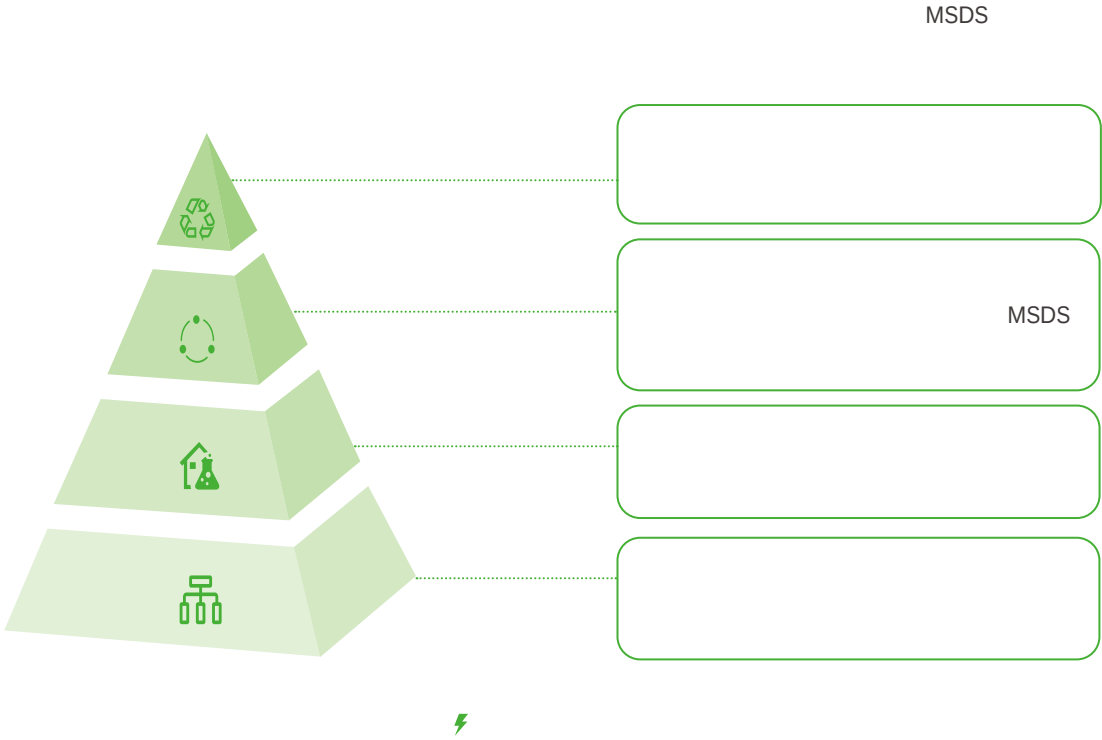


ISO 14001



ISO 14001

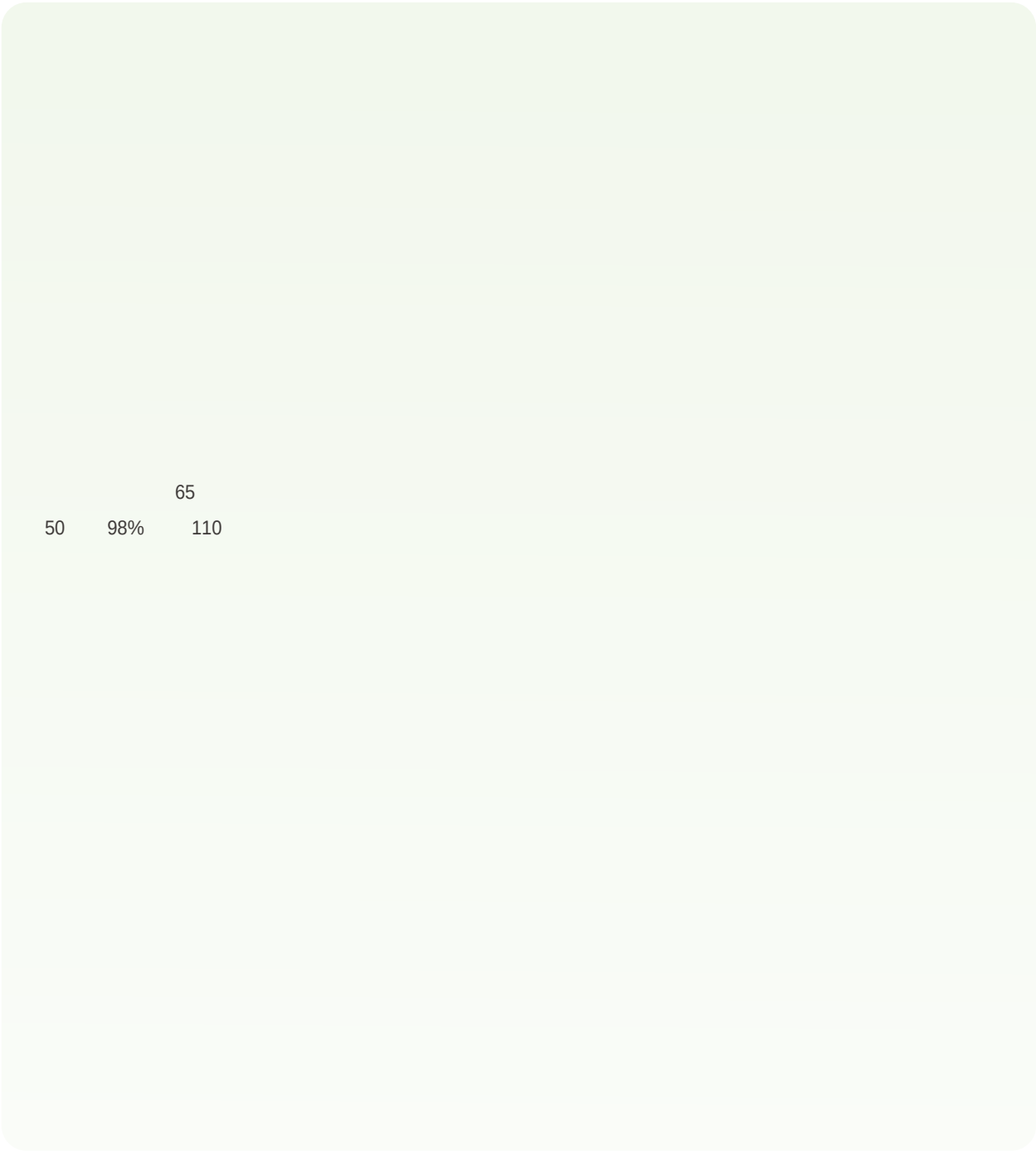
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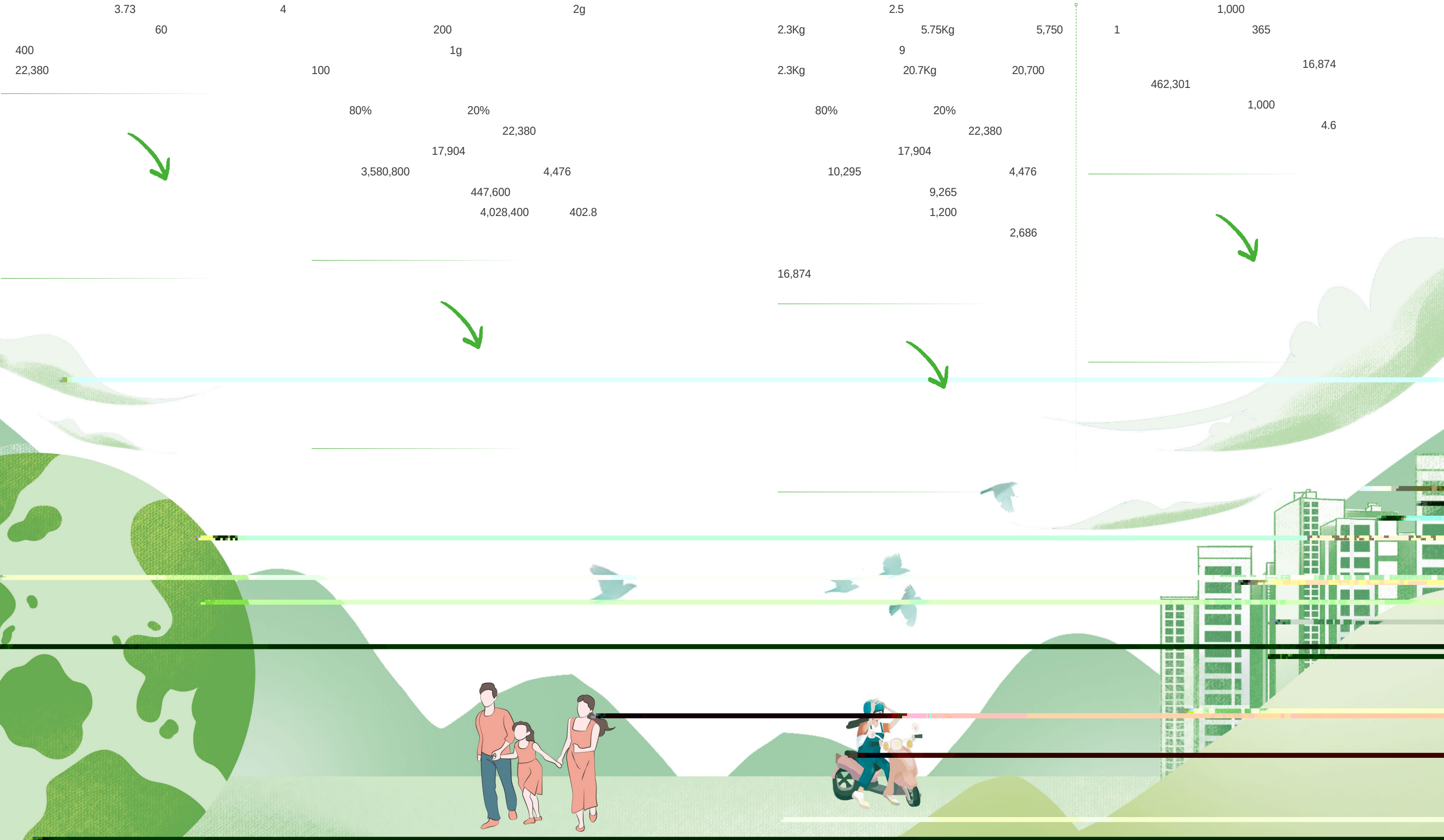
MES

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		65
50	98%	110



2022

	2021	2022
	3,450,013.17	4,188,237.46
	136,936.58	190,818.57
	2,667,708.07	3,237,756.67
		360,110.72

	2021	2022
KWh/Gwh	2,110.98	2,731.09
/Gwh	24.15	32.17
t/GWh	8.39	8.65

	2021	2022
	23,895	25,002
%	40	39
	514,390.10	962,441.3
	142,935.88	152,625.49

CASS-ESG 5.0

P			
	P1.1		
	P1.2		
	P1.3		
	P2.1	ESG	
	P2.2	ESG	
	P3.1	ESG	
	P4.1		
	P4.2		
	P4.3		
	P4.4		
G			
	G1.1		
	G1.2		
	G1.3		
	G1.4		
	G1.5		
	G1.6		
	G1.7		
	G1.8		
	G1.9		
	G1.10		
	G1.11		
ESG	G2.1	ESG	
	G2.2	ESG	
	G2.3	ESG	
	G2.4	ESG	
	G2.5	ESG	

	S1.2		
	S1.3		
	S1.4		
	S1.5		
	S1.6		
	S1.7		
	S1.8		
	S1.9		
	S1.10		
	S1.11		
	S2.1		
	S2.2		
	S2.3		
	S2.4		
	S3.1		
	S3.2		
	S3.3		
	S3.4		
	S3.5		
	S3.6		
	S3.7		
	S3.8		
	S3.9		
	S3.10		
	S3.11	/	
	S3.12		
	S4.1	/	
	S4.2		
	S4.3		
	S4.4		

	S4.5		
	S4.6		
	S4.7		
	S4.8		
	S4.9		
	S5.1	ESG	
	S5.2	ESG	
	S5.3		
	S5.4		
	S5.5		
	S5.6	ESG	
	S5.7	ESG	
V			
	V1.1		
	V1.2		
	V1.3		
	V1.4		
	V2.1		
	V2.2		
	V2.3		
	V2.4		
	V2.5		
	V2.6		
	V2.7		
	V2.8		
	V3.1		
	V3.2		
	V3.3		
	V3.4		
	V3.5		

	V3.6		
	V3.7		
	V4.1		
	V4.2		
	V4.3		
	V4.4		
	V4.5		
A			
	A1		
	A2		2022
	A3		
	A4		
	A5		

GRI

GRI									
		2022	1	1	2022	12	31	GRI	GRI
GRI 1	GRI 1:	2021							
GRI 2	G2-1								
	G2-2								
	G2-3								
	G2-4								
	G2-5								
	G2-6								
	G2-7								
	G2-8								
	G2-9								
	G2-10								
	G2-11								
	G2-12								
	G2-13								
	G2-14								
	G2-15								
	G2-16								
	G2-17								
	G2-18								
	G2-19								
	G2-20								
	G2-21								
	G2-22								
	G2-23								
	G2-24								
	G2-25								
	G2-26								
GRI 2	G2-27								
	G2-28								
	G2-29								
	G2-30								

GRI			
GRI 3	G3-1		
	G3-2		
GRI 3	G3-3		
GRI 201	G201-1		2022
	G201-2		
	G201-3		
	G201-4		
GRI 202	G202-1		
	G202-2		
GRI 203	G203-1		
	G203-2		
GRI 204	G204-1		
GRI 205	G205-1		
	G205-2		
	G205-3		
GRI 206	G206-1		
GRI 207	G207-1		
	G207-2		
	G207-3		
	G207-4		
GRI 301	G301-1		
	G301-2		
	G301-3		
GRI 302	G302-1		
	G302-2		
	G302-3		2022
GRI 302	G302-4		
	G302-5		
GRI 303	G303-1		
	G303-2		
	G303-3		
	G303-4		
	G303-5		
GRI 304	G304-1		

GRI			
GRI 304	G304-2		
	G304-3		
	G304-4	IUCN	
GRI 305	G305-1	1	
	G305-2	2	
	G305-3	3	
	G305-4		
	G305-5		
	G305-6	ODS	
	G305-7	NOX	SOX
GRI 306	G306-1		
	G306-2		
	G306-3		
	G306-4		
	G306-5		
GRI 308	G308-1		
	G308-2		
GRI 401	G401-1		
	G401-2		
	G401-3		
GRI 402	G402-1		
GRI 403	G403-1		
	G403-2		
	G403-3		
	G403-4		
	G403-5		
	G403-6		
	G403-7		
	G403-8		
	G403-9		
	G403-10		
GRI 404	G404-1		
	G404-2		

