



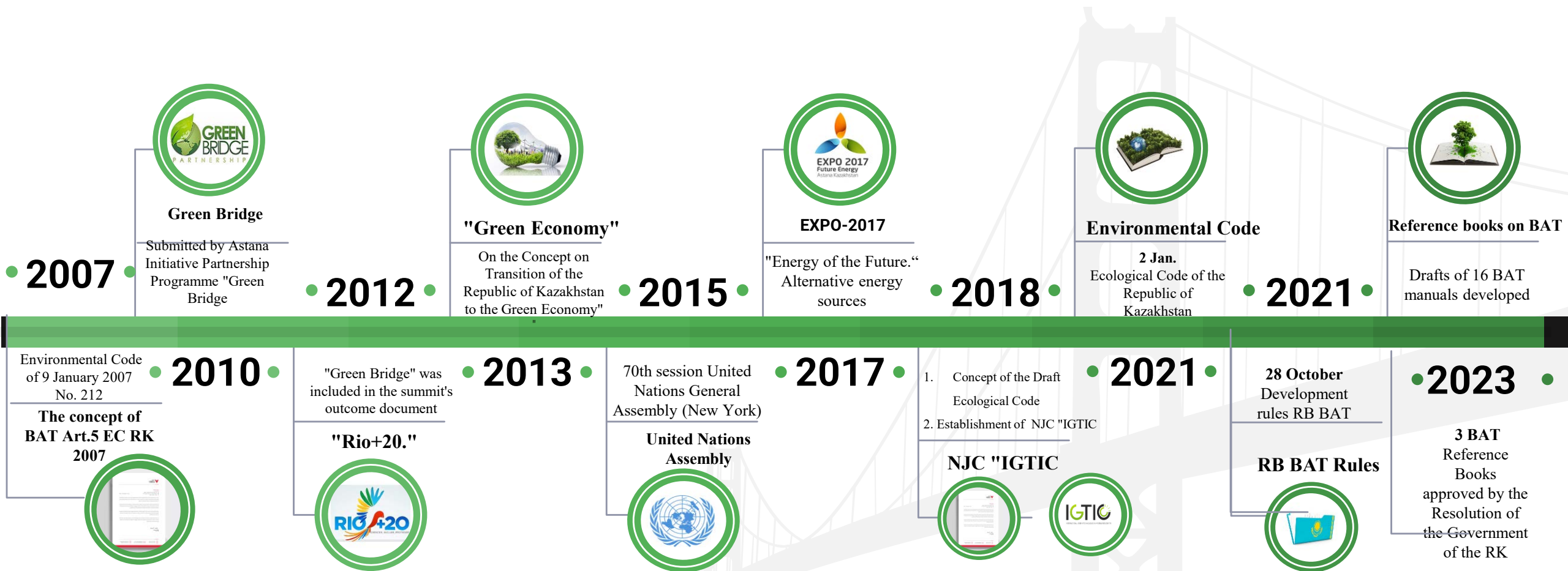
Министерство экологии и
природных ресурсов
Республики Казахстан



"TRANSITION TO THE BEST AVAILABLE TECHNIQUES IN RK"

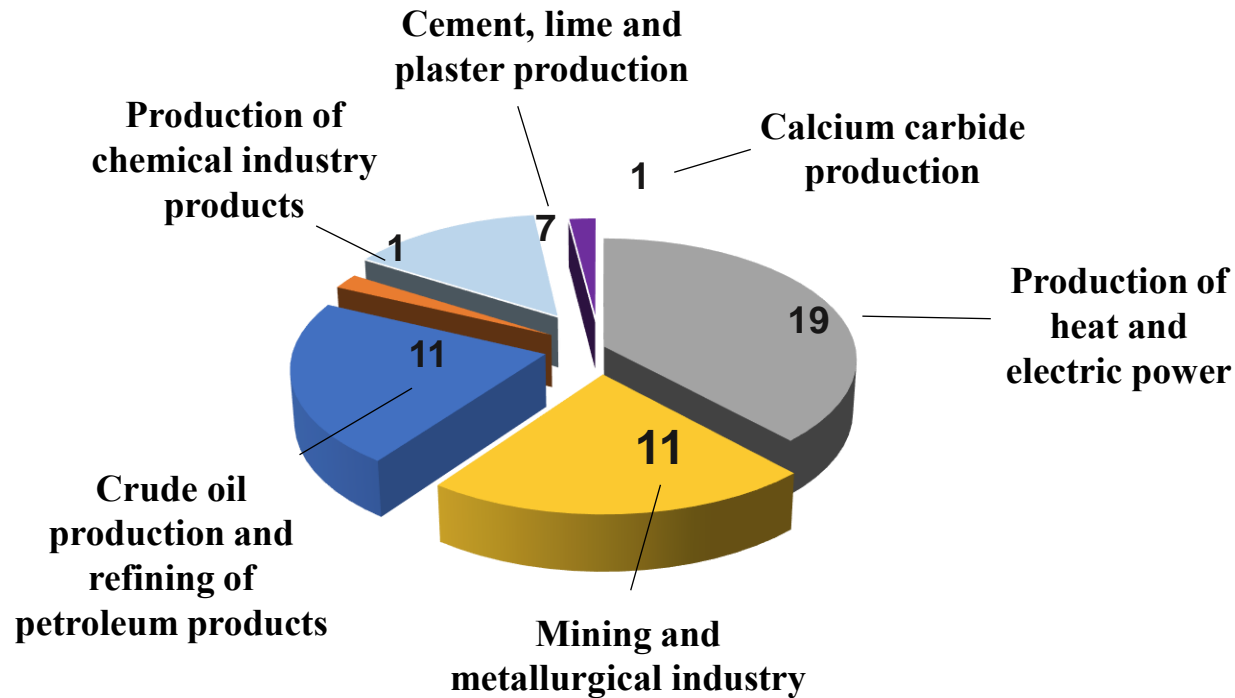
MINISTRY OF ECOLOGY AND NATURAL RESOURCES OF THE REPUBLIC OF KAZAKHSTAN
NCJCC «INTERNATIONAL GREEN TECHNOLOGIES AND INVESTMENT PROJECTS CENTER»

Stages of transition to BAT principles in Kazakhstan



Coverage of TOP-50 enterprises by BAT reference books

The developed 16 draft BAT reference books fully cover the activities of large enterprises included in the TOP-50 list



Name of BAT reference books	
1. Oil and Gas Refining	
2. Oil and Gas Production	
3. Production of Inorganic Chemicals	Approved
4. Production of Cement and Lime	Approved
5. Lead Production	Approved
6. Production of Copper and Precious Metal – Gold	Approved
7. Zinc and Cadmium Production	Approved
8. Extraction and Enrichment of Non-ferrous Metal Ores (incl. precious)	
9. Mining and Processing of Iron Ores (including other ferrous metal ores)	
10. Production of Ferroalloys	
11. Energy Efficiency in Economic Operations and (or) other activities	
12. Combustion of Fuels in Large Plants for Energy Production	
13. Production of Iron and Steel	
14. Aluminum Production	
15. Further Processing of Ferrous Metals	
16. "Coal mining and preparation."	

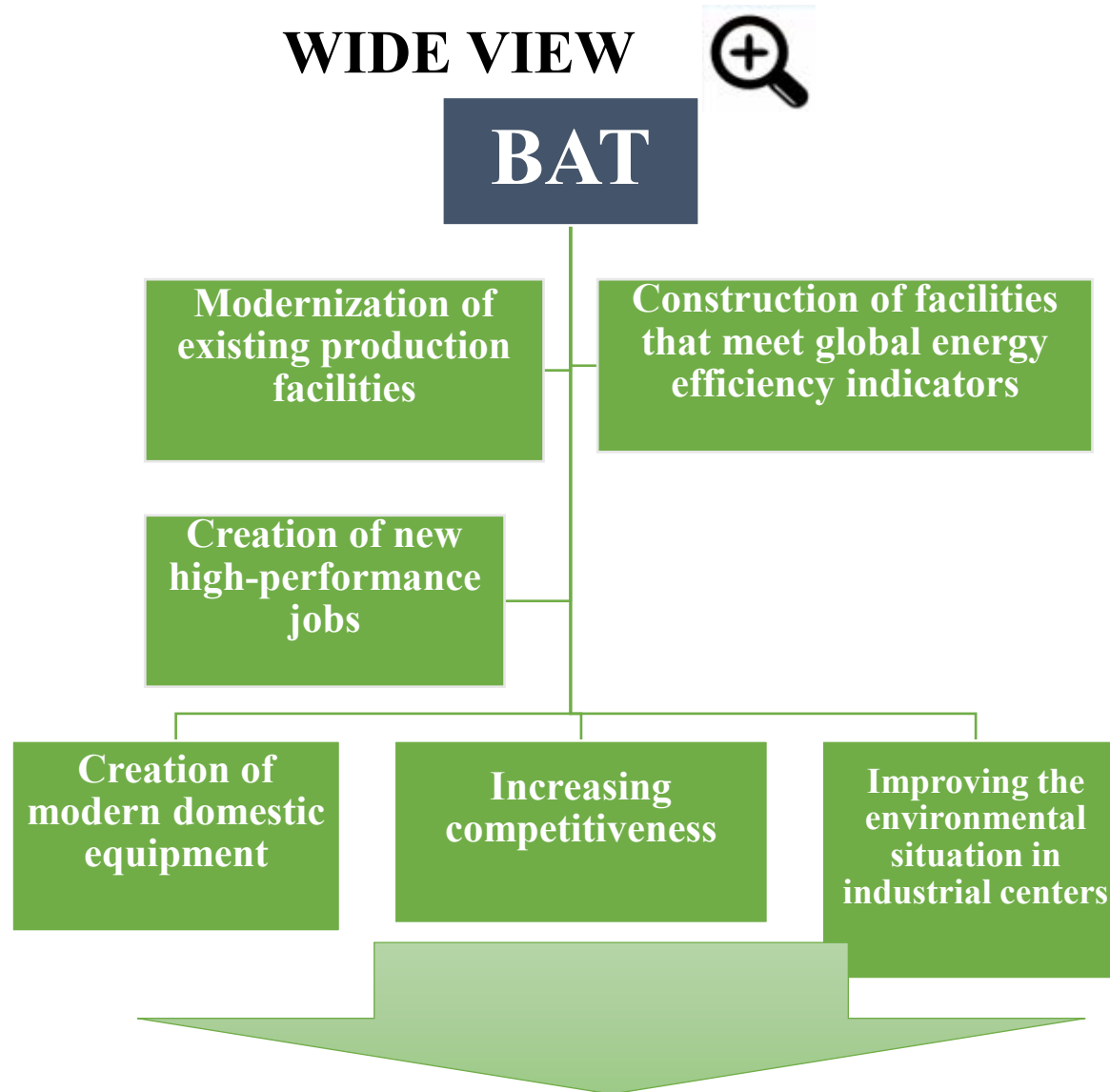
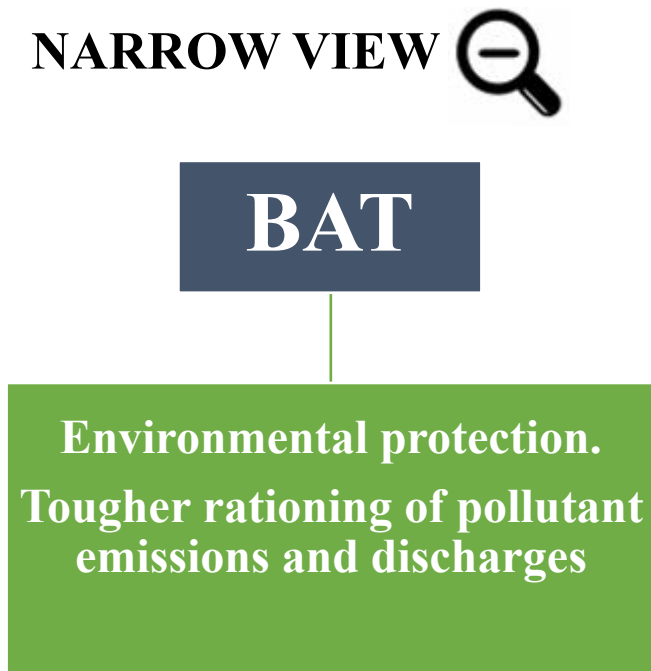
Planned reference books to be developed in 2024-2027

- 1) *Production of basic organic chemicals, products of fine organic synthesis and polymers*
- 2) *Production of titanium and magnesium*
- 3) *Wastewater treatment of centralized wastewater disposal systems of settlements*
- 4) *Monitoring of pollutant emissions into atmospheric air and water bodies (AMS)*
- 5) *Production of rare non-ferrous metals*
- 6) *Destruction and disposal of waste by thermal treatment*
- 7) *Waste neutralization*
- 8) *Landfilling of waste*
- 9) *Intensive breeding of pigs and poultry*
- 10) *Slaughter of animals at meat processing plants, meat and cold slaughterhouses*
- 11) *Manufacture of food, beverages, milk and dairy products*
- 12) *Tanning, dyeing, dressing of hides and skins*
- 13) *Production of pulp from wood or other fibrous materials*
- 14) *Production of glass, ceramic products*
- 15) *Dyeing of textile fibres, bleaching, dyeing of textile products*

Forecast effect from the introduction of BAT by industry

Industry	Name of BAT reference books	% of emission reductions
Oil and gas industry	<i>Oil and Gas Refining</i>	13
	<i>Oil and Gas Production</i>	56
Chemical industry	<i>Production of Inorganic Chemicals</i>	60
Cement industry	<i>Production of Cement and Lime</i>	35
Mining and Metallurgical Complex (MMC)	<i>Lead Production</i>	70
	<i>Production of Copper and Precious Metal - Gold</i>	65
	<i>Zinc and Cadmium Production</i>	55
	<i>Extraction and Enrichment of Non-ferrous Metal Ores (incl. precious)</i>	75
	<i>Mining and Processing of Iron Ores (including other ferrous metal ores)</i>	80
	<i>Production of Ferroalloys</i>	77
	<i>Aluminum Production</i>	70
	<i>Production of Iron and Steel</i>	40
	<i>Further Processing of Ferrous Metals</i>	60
<i>"Coal mining and preparation."</i>	70	
Energy industry	<i>Energy Efficiency in Economic Operations and (or) other activities</i>	<i>Reduction of fuel consumption - 40%</i>
	<i>Combustion of Fuels in Large Plants for Energy Production</i>	78
TOTAL		60

BAT approach



**ACCELERATED TECHNOLOGICAL GROWTH
ACROSS ALL INDUSTRIES**

**THANK YOU FOR
ATTENTION!**