Artificial Intelligence and Mobile Big Data:

Use cases delivering SDG impact

Today, Artificial Intelligence (AI) and Mobile Big Data (MBD) are being used to address some of the biggest challenges facing the world, in line with the United Nations Sustainable Development Goals (SDGs). These powerful forces are transforming business and society through public-private partnerships that bring together diverse expertise. The GSMA has created a framework which reflects the key areas where MBD and AI are having the most impact and where further value can be added. This publication highlights some of the wide variety of existing projects delivering positive impacts. Around the world, across the different themes and sub-themes in this framework, AI and MBD are being used to generate better knowledge about, and solutions to, both long-standing and emerging issues.

Figure 1 — AI for Impact Use Case Framework

	Cities and Public Infrastructure	Climate Change and Environment	Managing Disasters	Industry and Commerce	Social Inclusion
Themes	Insights for cities and communities that enable better planning, service delivery, connection and mobility	Improved understanding and monitoring of environmental issues, supporting climate change impact reduction and more accurate forecasting	Providing better disaster alerts, supporting emergency response, informing potential for recovery and specific rehabilitation initiatives	Inclusive and efficient economic and industrial development through increased transparency, operational planning and financial access	Enhancing equity, social welfare, public access and health, and informing effective solutions to pressing social challenges
Sub Themes	Utilities	Air pollution	Early warning systems	Agritech	Access, equality and security
	Integrated transport systems	Climate migration and resilience	Emergency response	Tourism, retail and manufacturing	Protecting vulnerable people
	Smart asset management	Safe water	Disaster displacement	Transport, logistics and supply chain	Inclusive education
	Infrastructure planning	Weather forecasting	Disaster rehabilitation	Mobile financial services	Health response planning

The Opportunity:

$15.7 trillion

PwC estimates that AI could contribute **$15.7 trillion** to the global economy by **2030**[1].

17 SDGs

AI is already being used to address all **17 SDGs**[2].

5.7bn — 53%

With **5.7bn** unique mobile subscribers globally and **53%** of people worldwide having used internet services on a mobile device, the mobile industry has **unprecedented global reach**[3].

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1   PwC (2017) '*Sizing the prize – PwC's Global Artificial Intelligence Study: Exploiting the AI Revolution*'
2   Cowls, J, Tsamados, Taddeo, M, Floridi, L (2021) '*A definition, benchmark and database of AI for social good initiatives*', *Nature Machine Intelligence*
3   GSMA (2021) '*The Mobile Economy 2021*'

The Model:

The projects are the result of collaborative partnerships between operators, governments, international agencies and academics

Emerging use cases capitalise on advancements in AI combined with new technologies like IoT sensors

Well-established use cases (such as urban planning) have led to the sustainable long term adoption of solutions

The Use Cases:

The framework illustrates some of the areas where mobile operators and MBD can have the most impact.
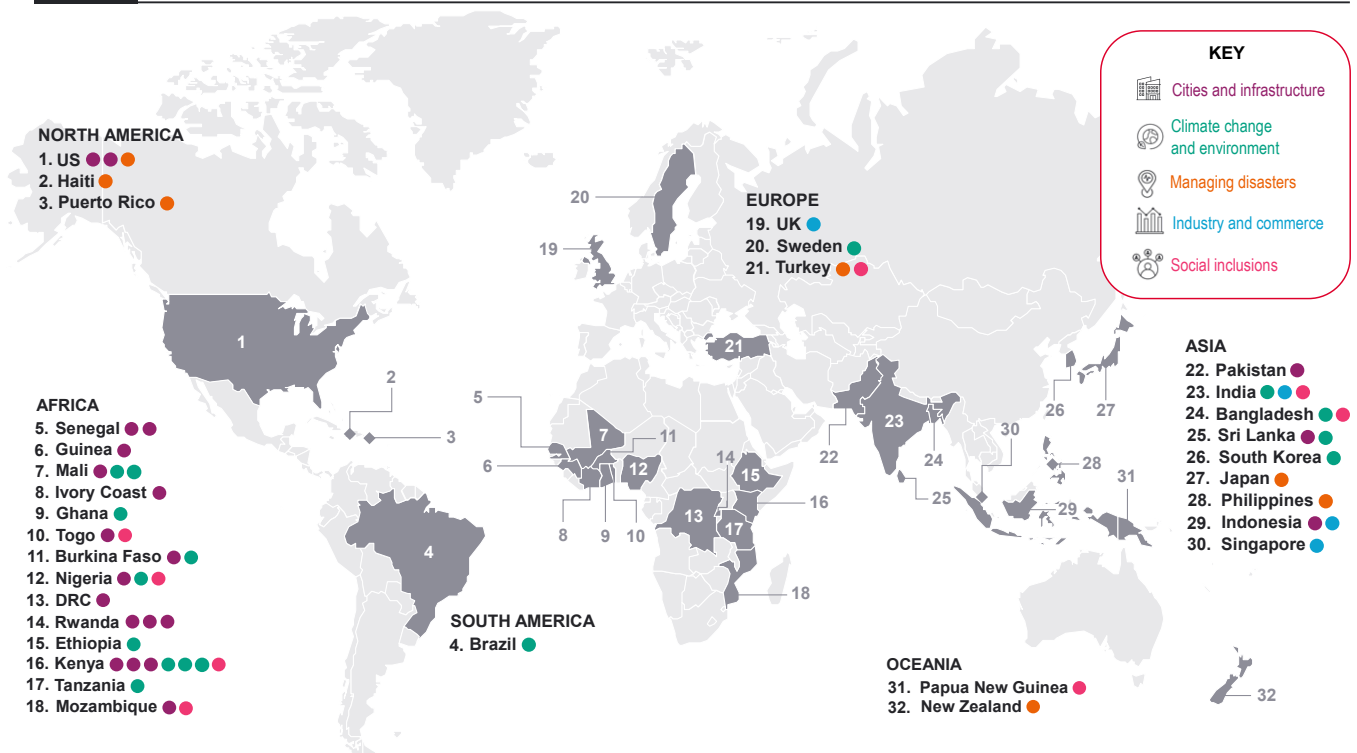
Mobile operators are investing in analytics, developing capabilities and building innovative technology services.

In addition to the projects explored in the AI for Impact Use Case Framework, further example use cases can be found in the **AI for Impact Digital Toolkit**.

Figure 2 Global map of example use cases of AI and MBD for the SDGs

KEY
- Cities and infrastructure
- Climate change and environment
- Managing disasters
- Industry and commerce
- Social inclusions

NORTH AMERICA
1. US
2. Haiti
3. Puerto Rico

AFRICA
5. Senegal
6. Guinea
7. Mali
8. Ivory Coast
9. Ghana
10. Togo
11. Burkina Faso
12. Nigeria
13. DRC
14. Rwanda
15. Ethiopia
16. Kenya
17. Tanzania
18. Mozambique

SOUTH AMERICA
4. Brazil

EUROPE
19. UK
20. Sweden
21. Turkey

ASIA
22. Pakistan
23. India
24. Bangladesh
25. Sri Lanka
26. South Korea
27. Japan
28. Philippines
29. Indonesia
30. Singapore

OCEANIA
31. Papua New Guinea
32. New Zealand

For more information:
gsma.com/betterfuture/aiforimpact

AI for Impact digital toolkit:
aiforimpacttoolkit.gsma.com

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