# Principle 1: Inclusive, sustainable development

Let's see how this principle guides responsible AI practice.  We'll look at a key risk this principle is designed to address and explore a brief practical example of how this principle relates to an AI use case.

**Definition:**

“Public Service AI systems should contribute to inclusive growth and sustainable development through a focus on innovation, efficiency and resilience, and on reducing economic, social, gender and other inequalities and protecting natural environments. AI use should consider and address concerns about unequal access to technology.”**Let’s focus on: Environmental Impact:**

The data servers leveraged to create and operate AI systems are thirsty – they require significant computing power, meaning more electricity and water usage than you might expect. This translates to higher carbon emissions and the potential for greater environmental harm in the form of noise or light pollution too.

As we use AI more and more, we should think critically about whether our use cases merit AI systems.

**Practical example:**

A government agency wants to use a Large Language Model (LLM) to build a chatbot that can help the New Zealand Public better understand and interact with their services. They had initially planned on building their own LLM but realised that this would not have a good cost-benefit trade-off. Why?

Beyond the time and funds required to train a custom LLM, the environmental resources consumed are significant. In most real-world applications, a custom-trained LLM does not outperform those that are available out-of-the-box – making the latter a much better option from a carbon footprint perspective.

## Spotlight: Māori and AI

Māori representatives hold diverse views on Government use of AI systems. In particular, there are concerns among Māori, Pacific peoples, and ethnic communities about possible discrimination resulting from the use of AI. Embracing AI safely in the New Zealand public service also means respecting and upholding the unique obligations we have. When Māori data are involved in AI, some important questions that should be front of mind include:

1. How could the use case impact Māori, directly and indirectly?
2. What Māori data might be involved? Is the status of the data tapu (sacred, prohibited) or noa (unrestricted)?
3. How might Māori data governance apply?

Article 1, Te Tiriti o Waitangi: The Crown was granted kāwanatanga (the right to govern) but must do so in a way that respects Māori interests and sovereignty.

**example:** So, AI systems should incorporate governance structures that include Māori decision-makers, particularly where Māori data is involved.

Article 2, Te Tiriti o Waitangi: Guarantees Māori tino rangatiratanga over lands, estates, and taonga (treasures).

**example:** So, AI systems should protect Māori data sovereignty, recognising Māori data as a taonga that requires protecting and should be treated with care.

## Managing datasets for Māori

Involving iwi Māori in the management and development of AI helps to identify potential bias and/or possible discriminatory outputs. If te ao Māori perspectives are not considered early on and as part of implementing or using AI systems, this can result in a range of undesired outcomes such as bias or other ethical concerns.

If you have an AI use case you would like to implement, consider if Māori perspectives have been incorporated into the use case design. If not, consult with your other kaimahi (staff) or a manager.

**Partnership:** Engage Māori communities early in AI project discussions to ensure community perspectives are integrated.

**Participation:** Ensure Māori can actively participate in decisions that impact them – that could be governance or consultation panels or something else.

**Protection:** Safeguard the interests of Māori by implementing robust data privacy measures to protect that data from being misused or exploited.

## Recommended reading

* The Māori engagement guidelines published by Te Puni Kōkiri are a great place for public servants to start when thinking about what good looks like for Māori-Crown engagement. <https://whakatau.govt.nz/>
* The New Zealand Government maintains information about Māori interests in digital technology and architecture, with “Cloud Te Tiriti” guidance coming soon. <https://www.digital.govt.nz/standards-and-guidance/technology-and-architecture/cloud-services/help/maori-interests>
* Te Kāhui Raraunga released their first iteration of the Māori Data Governance Model in 2023, designed by Māori data experts and great for use by public servants when thinking about Māori data and AI considerations. <https://www.kahuiraraunga.io/maoridatagovernance>
* Lastly, if you are looking for ways to incorporate a Māori worldview to inform your data practice, Nga Tikanga Paihere is a great option. It helps you think through working with communities and ensure that your data practices align with a Māori worldview. <https://www.data.govt.nz/toolkit/data-ethics/nga-tikanga-paihere>

So what: Key takeaways for evaluating use cases.

Does the use case...

* Impact Māori communities directly or indirectly?
* Respect the cultural sensitivity of Māori data (tapu or noa)?
* Include Māori decision-makers in governance?
* Protect Māori data as taonga?
* Involve Māori communities from the start?
* Facilitate Māori participation in decisions?