



# Using AI to enhance the visitor experience at Te Papa Museum



Bailey Allmon, Klaudio Fusha, Ethan Shanbaum, Aditri Thakur  
In collaboration with the Museum of New Zealand - Te Papa Tongarewa



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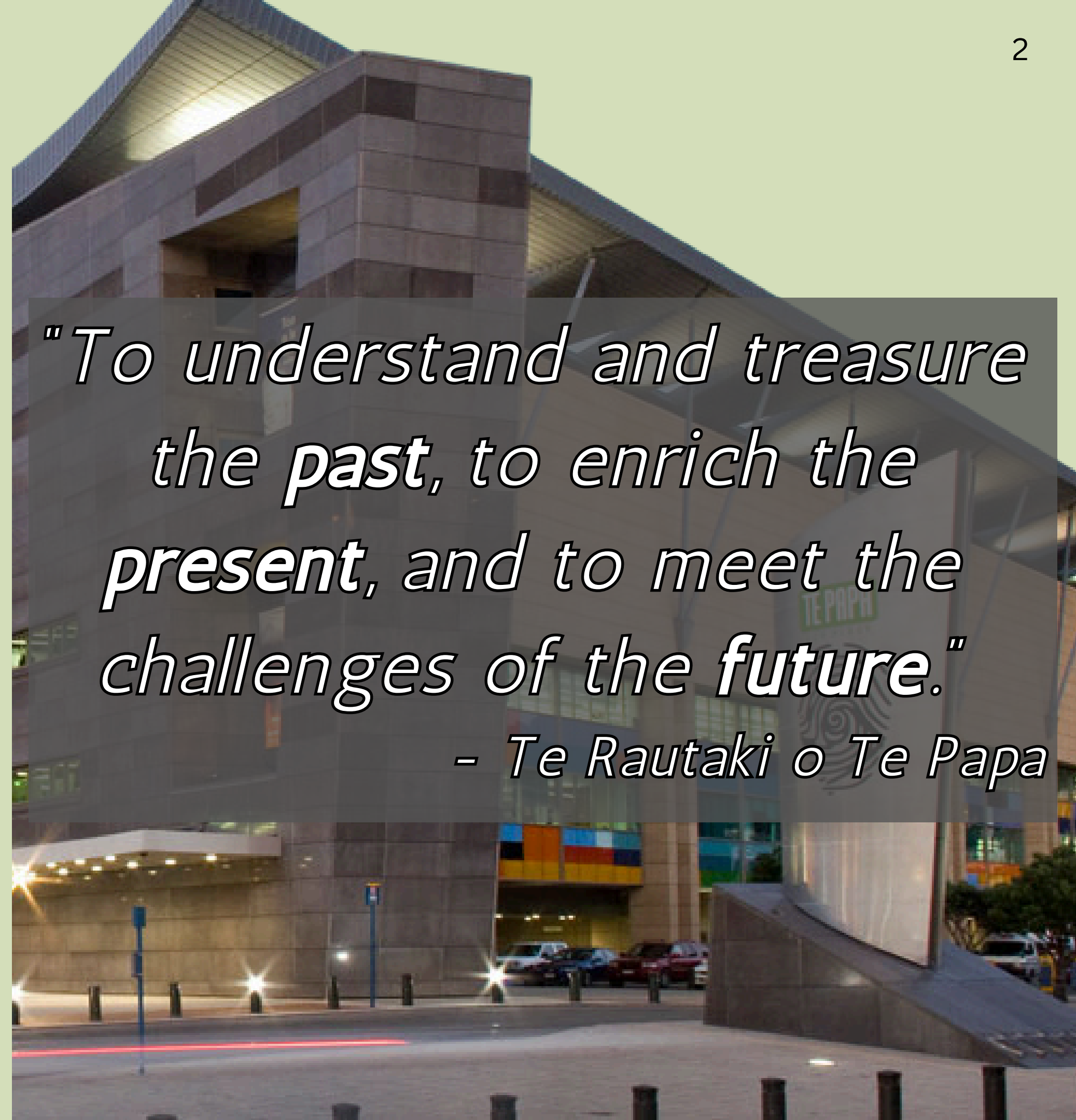
# Our partners at Te Papa seek to innovate with AI



**Dr. Samuele DeStefani**

Head of Audience Insight  
Museum of New Zealand Te Papa  
Tongarewa, Wellington NZ

[2] [1]



*"To understand and treasure  
the **past**, to enrich the  
**present**, and to meet the  
challenges of the **future**."*

*- Te Rautaki o Te Papa*



**We want to consider our stakeholders perspectives**



**We want to consider our stakeholders perspectives**

**Te Papa**





# We want to consider our stakeholders perspectives



Te Papa

[3]



Data Owners

[4]



# We want to consider our stakeholders perspectives



Te Papa

[3]



Data Owners

[4]



Visitors

[5]



# Tomb of General Liu Tingxuan (728 CE)

*"CAMEL CARAVANS CROSSING DESERT DUNES, MERCHANTS TRADING SILKS AND SPICES AT BAZAARS – THESE ARE THE IMAGES THAT COME TO MIND WHEN WE THINK OF THE SILK ROADS. BUT THE REALITY GOES FAR BEYOND THIS. RATHER THAN A SINGLE TRADE ROUTE FROM EAST TO WEST, THE SILK ROADS WERE MADE UP OF OVERLAPPING NETWORKS LINKING COMMUNITIES ACROSS ASIA, AFRICA AND EUROPE, FROM EAST ASIA TO BRITAIN, AND FROM SCANDINAVIA TO MADAGASCAR. THIS MAJOR EXHIBITION UNRAVELS HOW THE JOURNEYS OF PEOPLE, OBJECTS AND IDEAS THAT FORMED THE SILK ROADS SHAPED CULTURES AND HISTORIES.*

*THE SILK ROADS WERE IN USE FOR MILLENNIA, BUT THIS VISUALLY STUNNING SHOW FOCUSES ON A DEFINING PERIOD IN THEIR HISTORY, FROM ABOUT AD 500 TO 1000. THIS TIME WITNESSED SIGNIFICANT LEAPS IN CONNECTIVITY AND THE RISE OF UNIVERSAL RELIGIONS THAT LINKED COMMUNITIES ACROSS CONTINENTS.*

*WORKING WITH 29 NATIONAL AND INTERNATIONAL PARTNERS TO PRESENT OBJECTS FROM MANY REGIONS AND CULTURES ALONGSIDE THOSE FROM THE BRITISH MUSEUM COLLECTION, THE EXHIBITION OFFERS A UNIQUE CHANCE TO SEE OBJECTS FROM THE LENGTH AND BREADTH OF THE SILK ROADS. FROM TANG CHINESE CERAMICS DESTINED FOR PORTS IN THE MIDDLE EAST TO INDIAN GARNETS FOUND IN SUFFOLK, THEY REVEAL THE ASTONISHING REACH OF THESE NETWORKS.*

*HIGHLIGHT OBJECTS FROM UZBEKISTAN AND TAJIKISTAN THAT HAVE NEVER BEEN SEEN IN THE UK BEFORE ALSO UNDERPIN THE IMPORTANCE OF CENTRAL ASIA TO THIS CONTINENT-SPANNING STORY.*

*YOU'LL MEET FIGURES WHOSE STORIES ARE ENTWINED WITH THE SILK ROADS, INCLUDING WILLIBALD, AN INGENIOUS BALSAM SMUGGLER FROM ENGLAND, AND A LEGENDARY CHINESE PRINCESS WHO SHARED THE SECRETS OF SILK FARMING WITH HER NEW KINGDOM. CROSSING DESERTS, MOUNTAINS, RIVERS AND SEAS, THE SILK ROADS TELL A STORY OF CONNECTION BETWEEN CULTURES AND CONTINENTS, CENTURIES BEFORE THE FORMATION OF THE GLOBALISED WORLD WE KNOW TODAY."*




# Figure found in Luoyang, Said to be from the tomb of General Liu Tingxun.

Chat

Metadata



 Hello there! I'm a magnificent ceramic camel from the Tang dynasty, crafted with beautiful sancai glazing in shades of brown and green. I was once part of a grand funerary procession for General Liu Tingxun, carrying precious goods along the Silk Route. My intricate saddlebag features a fierce 'monster' mask meant to ward off danger during my journey. Would you like to hear more about my remarkable travels and the fascinating world of Tang dynasty trade?



What goods did you carry on your journeys?

Tell me about the Tang dynasty's culture.

What was the significance of the 'monster' mask?

What do you want to ask?



[6]

Show details







[ 8 ]











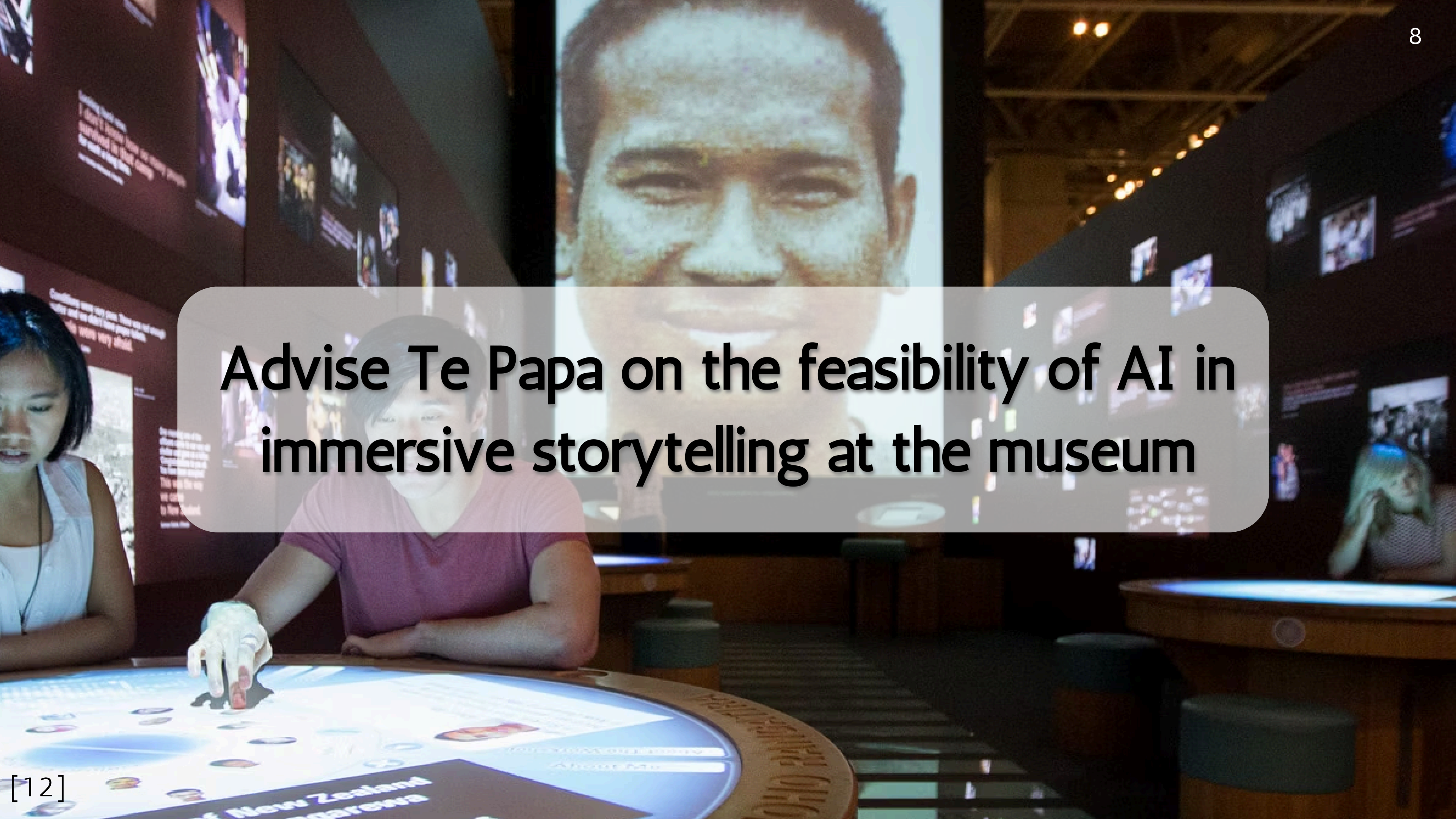




# AI provides an opportunity for engagement





A museum exhibit featuring a large digital display of a man's face and an interactive table with a map of New Zealand. The man's face is shown in a close-up, smiling, and is rendered in a pixelated or mosaic style. The table is circular and displays a map of New Zealand with various icons and text. A person is interacting with the table, pointing at a specific location. The background shows other museum displays and a person sitting at a table.

**Advise Te Papa on the feasibility of AI in immersive storytelling at the museum**



# 1 Explore the limitations and standards of AI





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Technical Interviews





# 1 Explore the limitations and standards of AI

## Technical Interviews

- IMPLEMENTATION
- ETHICS





# 1 Explore the limitations and standards of AI

## Technical Interviews

- IMPLEMENTATION
- ETHICS

## Cultural Interviews



# 1 Explore the limitations and standards of AI

## Technical Interviews

- IMPLEMENTATION
- ETHICS

## Cultural Interviews

- CULTURAL CONCERNS
- DATA OWNERSHIP



2

# Gauge visitors perceptions of AI and interactivity.

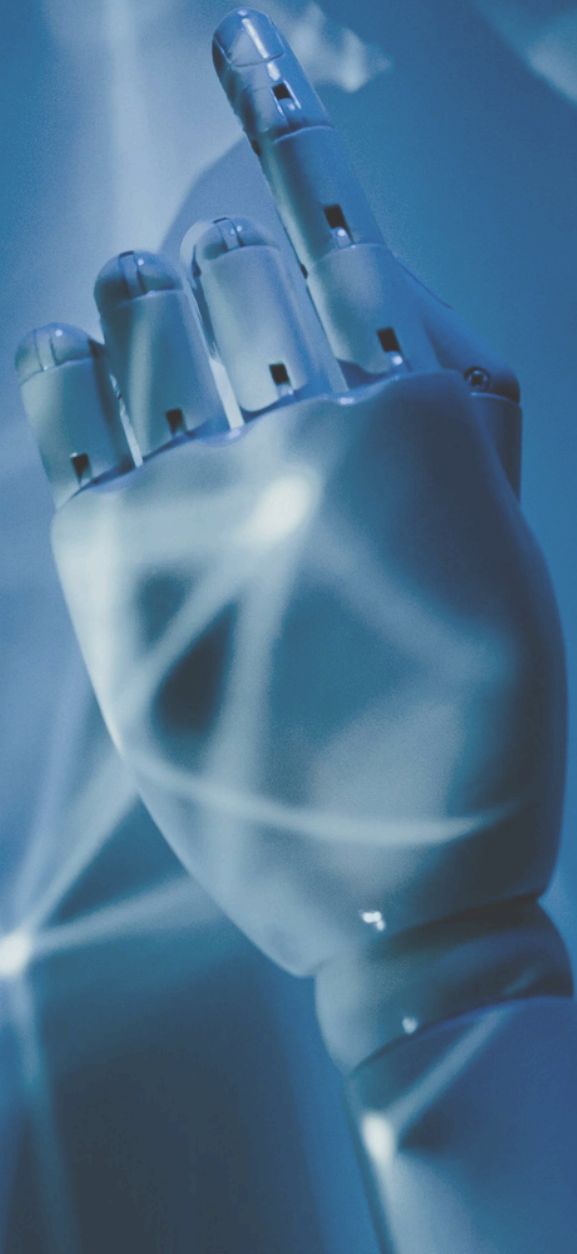




2

# Gauge visitors perceptions of AI and interactivity.

Museum Surveys



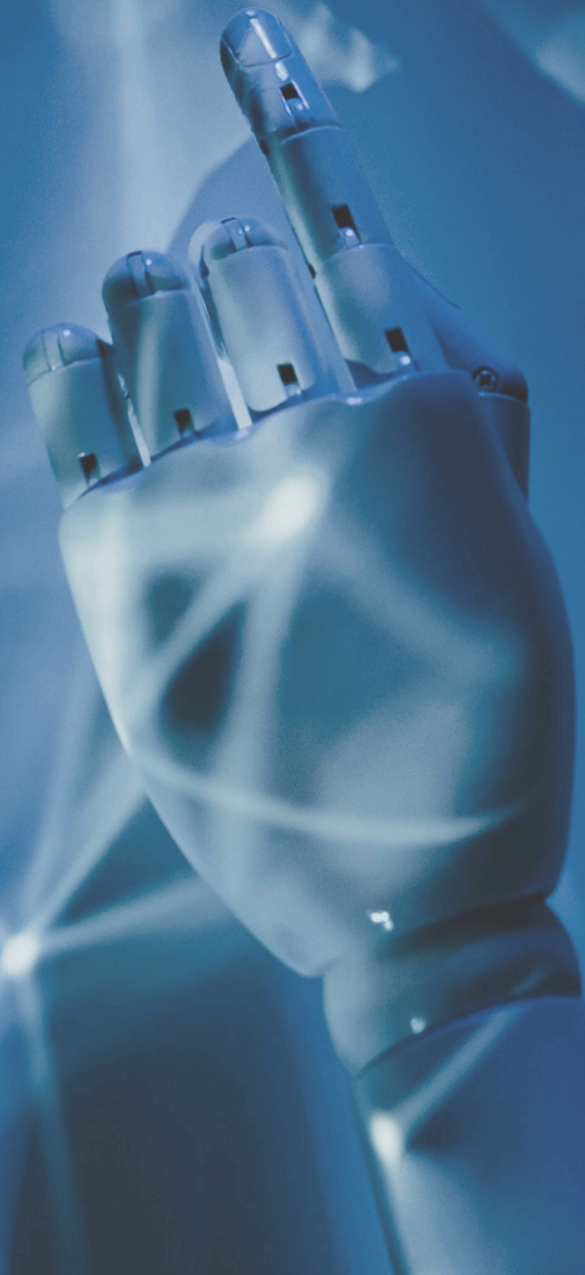


2

# Gauge visitors perceptions of AI and interactivity.

## Museum Surveys

- VISITOR EXPECTATIONS
- CONCERNS





2

# Gauge visitors perceptions of AI and interactivity.

## Museum Surveys

- VISITOR EXPECTATIONS
- CONCERNS

Participant  
Observation



2

# Gauge visitors perceptions of AI and interactivity.

## Museum Surveys

- VISITOR EXPECTATIONS
- CONCERNS

## Participant Observation

- EXPERIENCE
- ENGAGEMENT



3

# Assess methods of engagement in prospective platforms.





3

# Assess methods of engagement in prospective platforms.

Staff Interviews



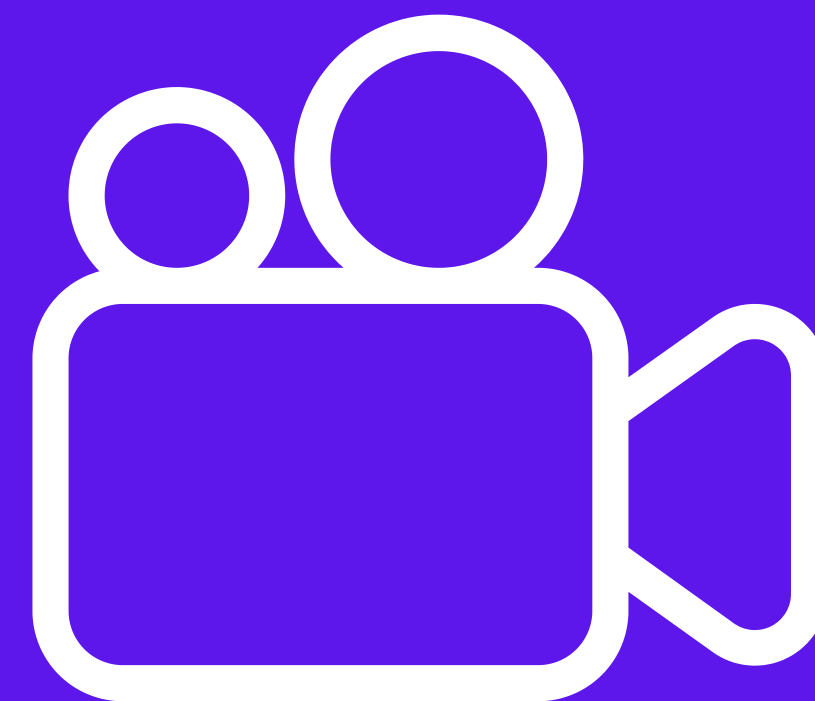


3

# Assess methods of engagement in prospective platforms.

## Staff Interviews

- IMPLEMENTATION
- ETHICS





3

# Assess methods of engagement in prospective platforms.

## Staff Interviews

- IMPLEMENTATION
- ETHICS

## Website Surveys





3

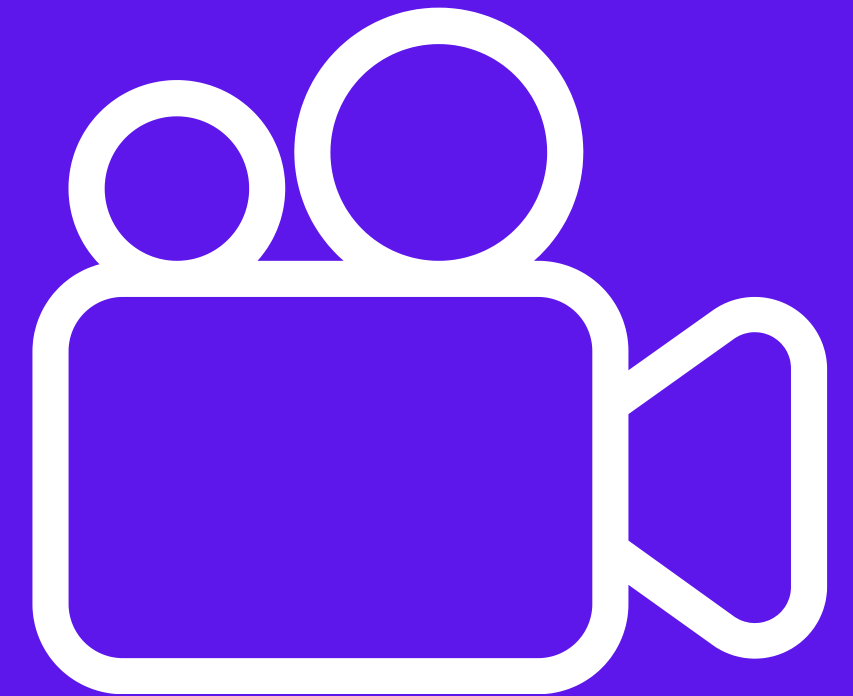
# Assess methods of engagement in prospective platforms.

## Staff Interviews

- IMPLEMENTATION
- ETHICS

## Website Surveys

- FEEDBACK





3

# Assess methods of engagement in prospective platforms.

## Staff Interviews

- IMPLEMENTATION
- ETHICS

## Website Surveys

- FEEDBACK

## Heatmap



3

# Assess methods of engagement in prospective platforms.

## Staff Interviews

- IMPLEMENTATION
- ETHICS

## Website Surveys

- FEEDBACK

## Heatmap

- ENGAGEMENT
- INTERACTIVITY



# We are looking forward to . . .



[16]

CONSIDERATIONS

FEASIBILITY ASSESSMENT

TAILORED RECOMMENDATIONS

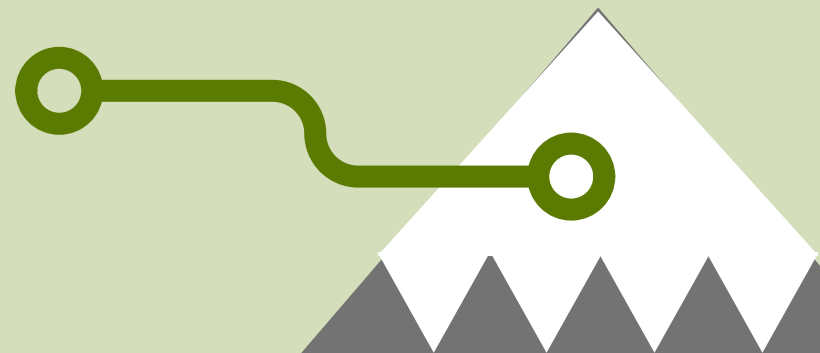


# We are looking forward to ...



[16]

CONSIDERATIONS





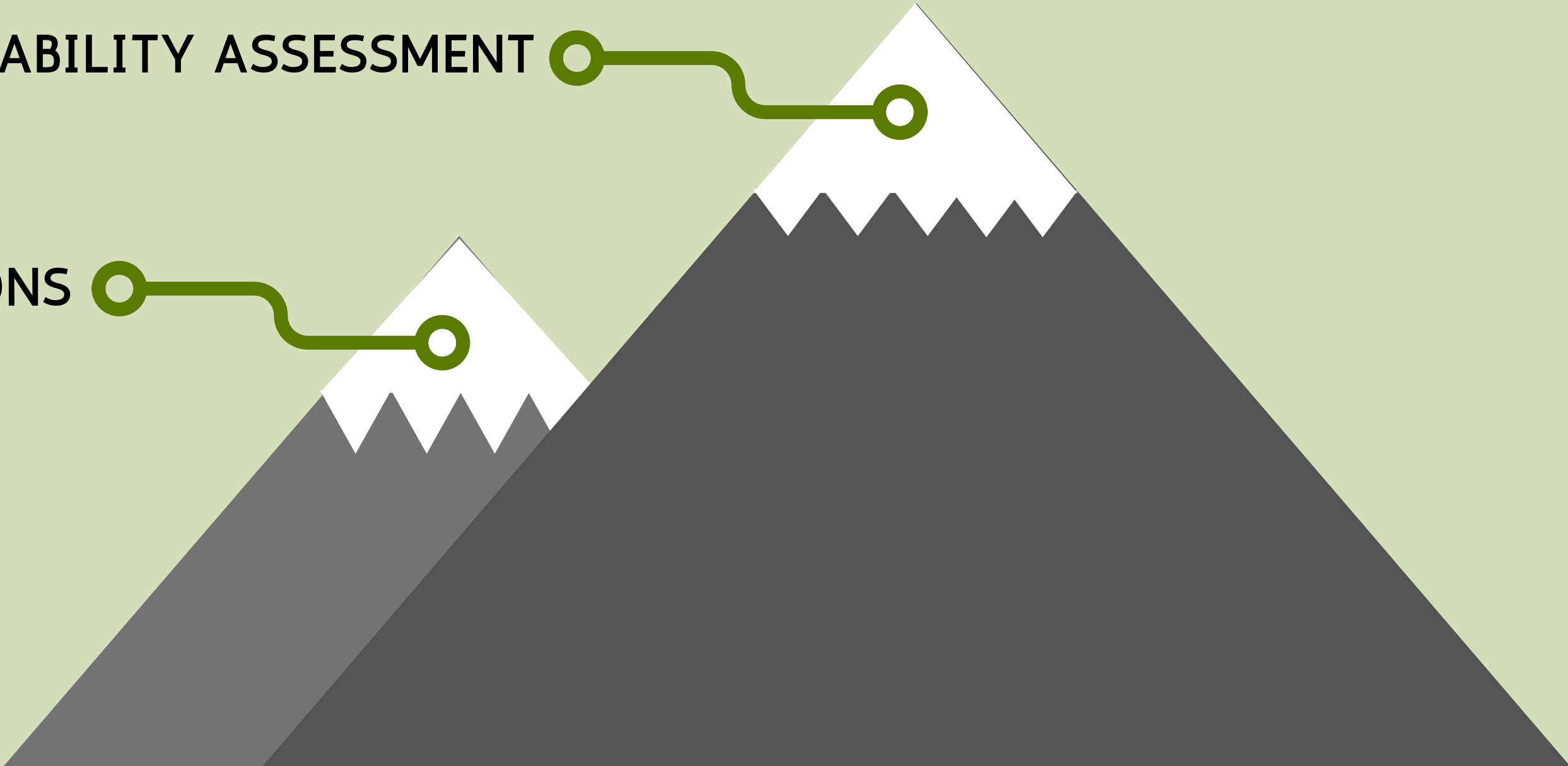
# We are looking forward to ...



[16]

FEASIBILITY ASSESSMENT

CONSIDERATIONS





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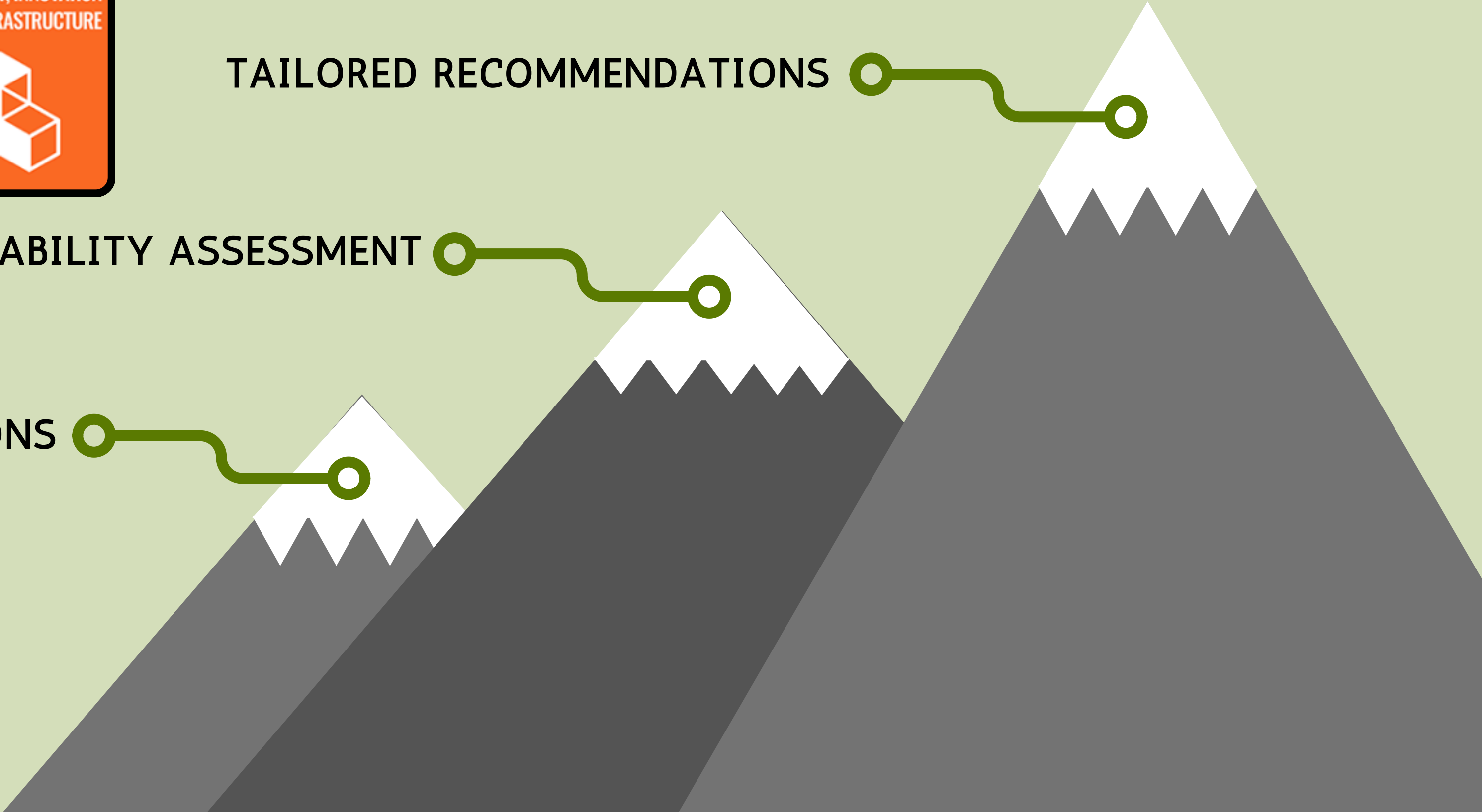


[16]

CONSIDERATIONS

FEASIBILITY ASSESSMENT

TAILORED RECOMMENDATIONS





# Acknowledgments



**Dr. Samuele DeStefani**

[2]



**Professor Ingrid Shockey**

[17]



**Professor Robert Kinicki**

[18]



tēnā koutou  
Thank you





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