

Digital interpretation of cultural heritage

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Heritage+ Lead, Arctur d.o.o.

Supported by





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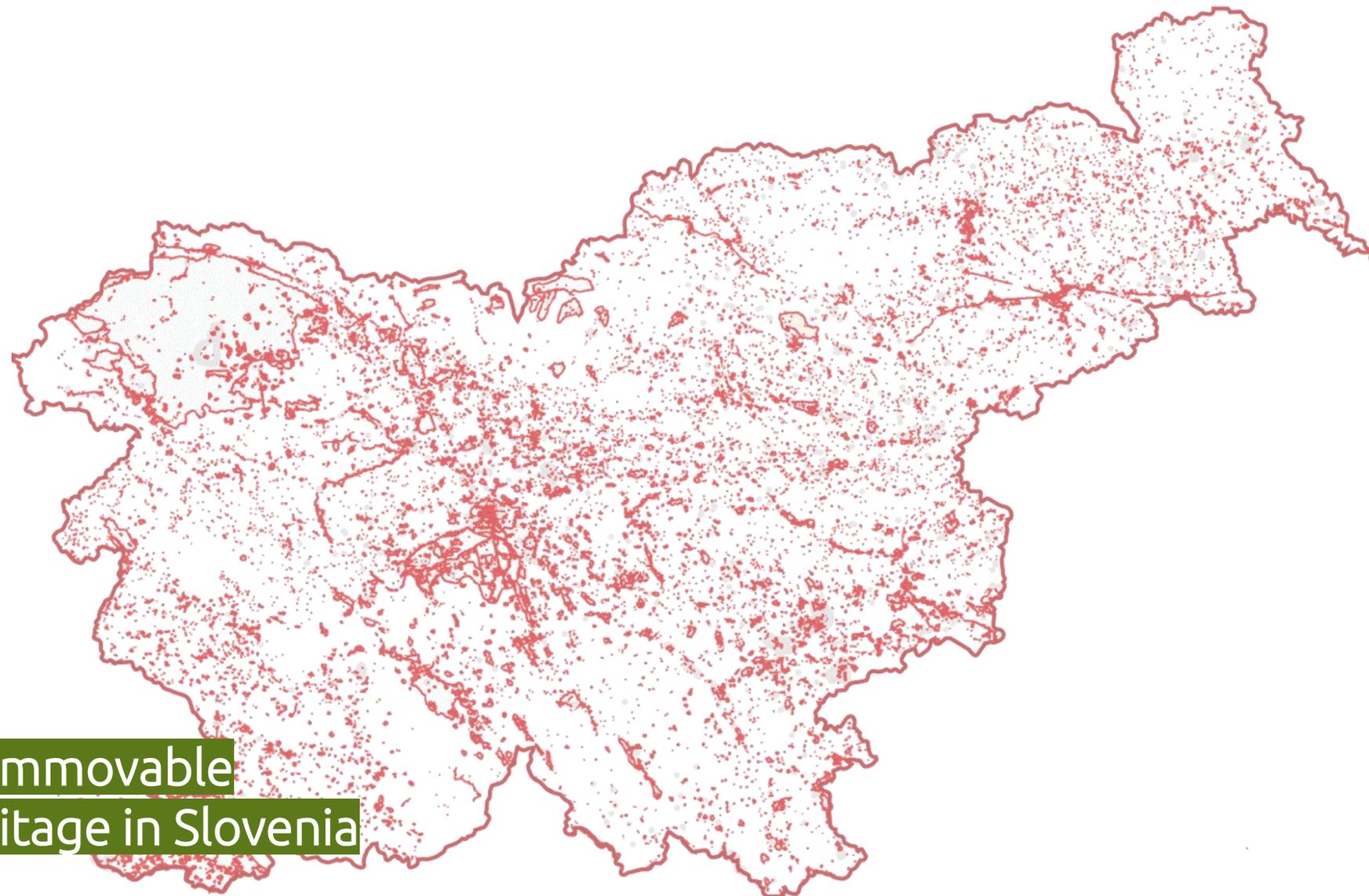
22

20

19

9

In 2019, Slovenia set **a mission** to become **one of the leading countries** with the most **digitally enriched tourist experiences of cultural heritage.**



Register of Immovable Cultural Heritage in Slovenia

Digital technologies can be of help

Digital layer of audio-visual information can narrate an engaging and interactive story



FILTER AND DISPLAY UNITS 



PRESKAR HUT

CULTURAL HERITAGE FOR FUTURE GENERATIONS

Slovenia is one of the leading countries in Europe in digital innovation of cultural heritage into enriched tourist experiences.

Between 2019 and 2022, 31 leading tourist destinations digitized at least three examples of registered cultural heritage and developed at least one new tourist experience.

We are proudly presenting the results!



KULTURNA DEDIŠČINA ZA PRIHODNJE RODOVE

Slovenija postaja ena od vodilnih držav v Evropi pri vključevanju inovativnih rešitev na področju digitalizacije kulturne dediščine v obogatene turistične izkušnje.

Med letoma 2019 in 2022 je 31 vodilnih turističnih destinacij digitiziralo vsaj tri primere registrirane kulturne dediščine in iz njih razvilo vsaj eno novo turistično doživetje.

S ponosom predstavljamo rezultate!

CERKEV MARIJE SEDEM ŽALOSTI



Awards



Digital Innovation of Cultural Heritage in Slovenia (Ministry of Economic Development and Technology) – 2021 (2nd place)



Digital Innovation of Plečnik Heritage (Tourism Ljubljana) – 2022 (3rd heritage)



Fly into the tannery of Europe (Šalek Valley Tourist Board)



Mysteries of submerged villages (Šalek Valley Tourist Board)



Master Plečnik (Tourism Ljubljana)



Fly into the tannery of Europe (Šalek Valley Tourist Board)



Mysteries of submerged villages (Šalek Valley Tourist Board)



Digital innovation of Plečnik's heritage project (Tourism Ljubljana)

More than visible

114+ 3D models of Slovenian cultural heritage (+ 360° photos and videos, photos, videos, animations ...)

31+ new tourist products

200+ new digital contents about Slovenian cultural heritage

31+ re-discovered stories and legends

Presentation at conferences and fairs (EXPO 2020 Dubaj, WTM London, Conventa, Alpe-Adria Fair, ...)

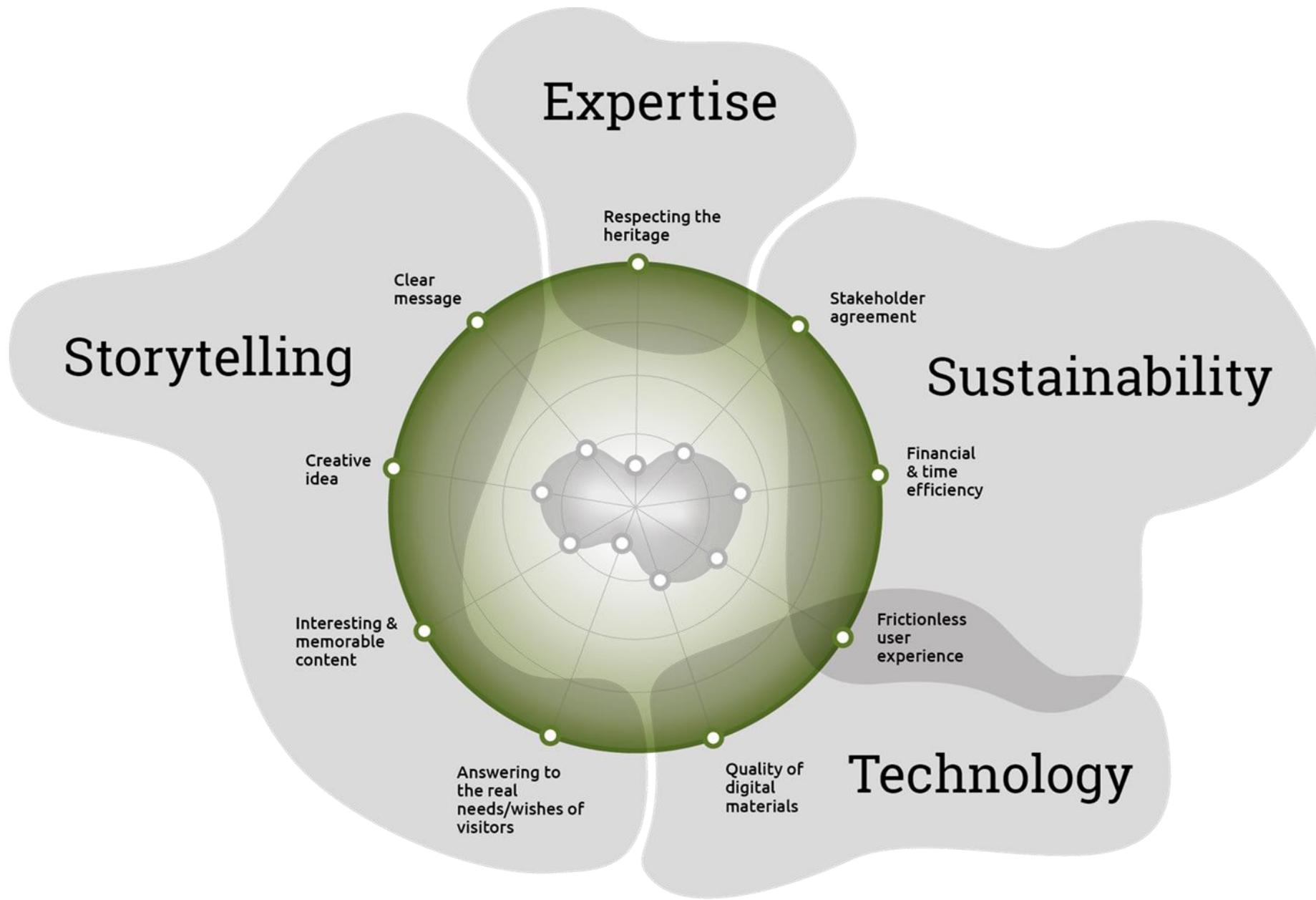
70+ representatives of destinations and museums for the first time involved in digital innovation

50+ SME involved in implementation of the projects

30+ creative and cultural industries involved in implementation, cooperation and consulting

New collaborations and partnerships

Bridging the divide between culture and tourism



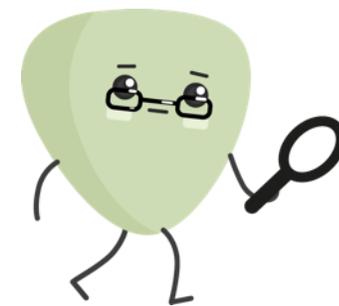
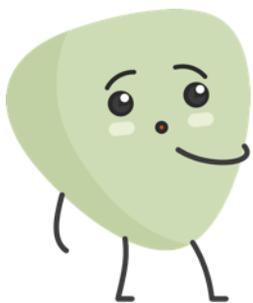
Digital Innovation Of Cultural Heritage

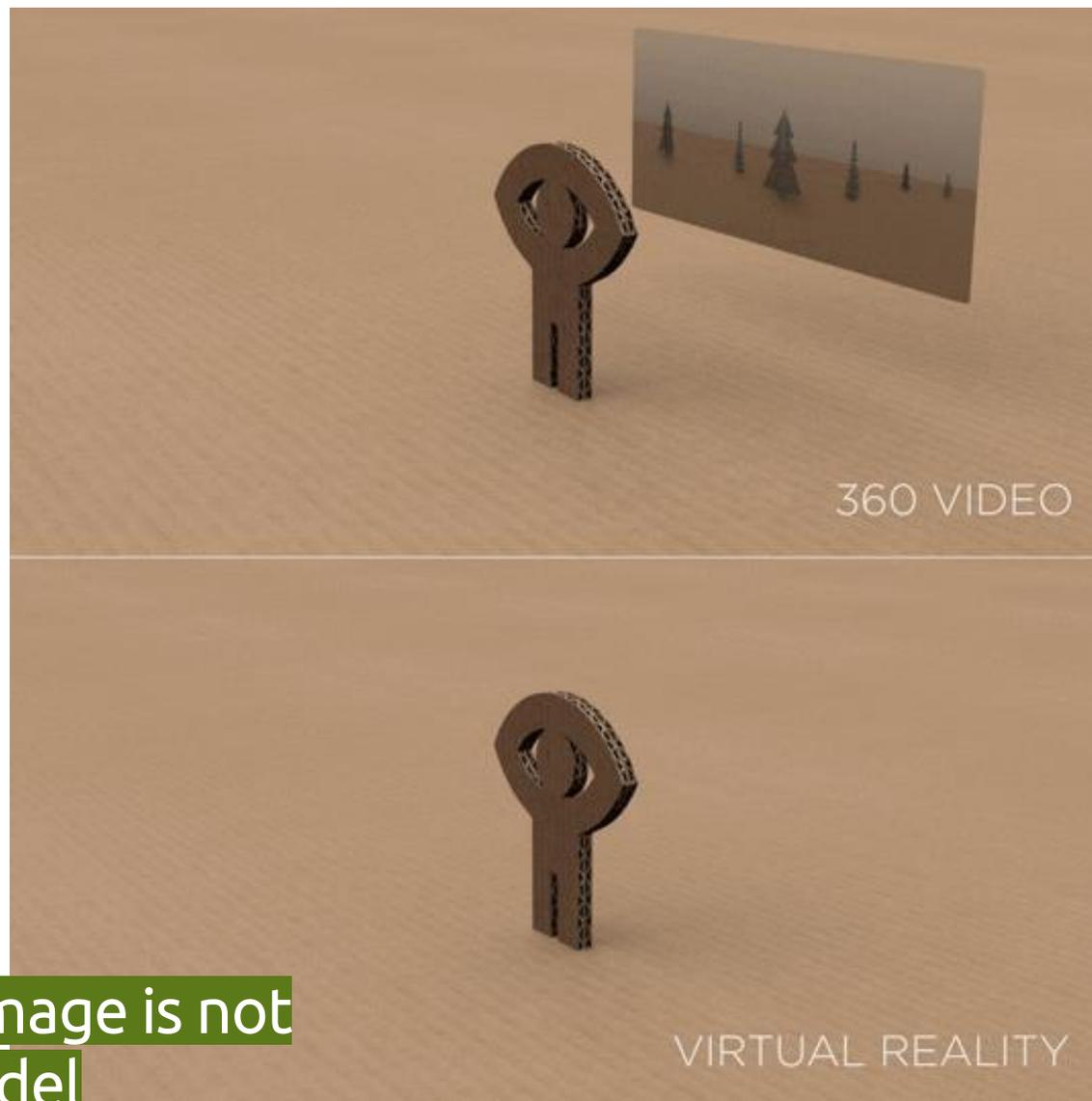
Toolkit for tourist destinations

In Slovenian and in English

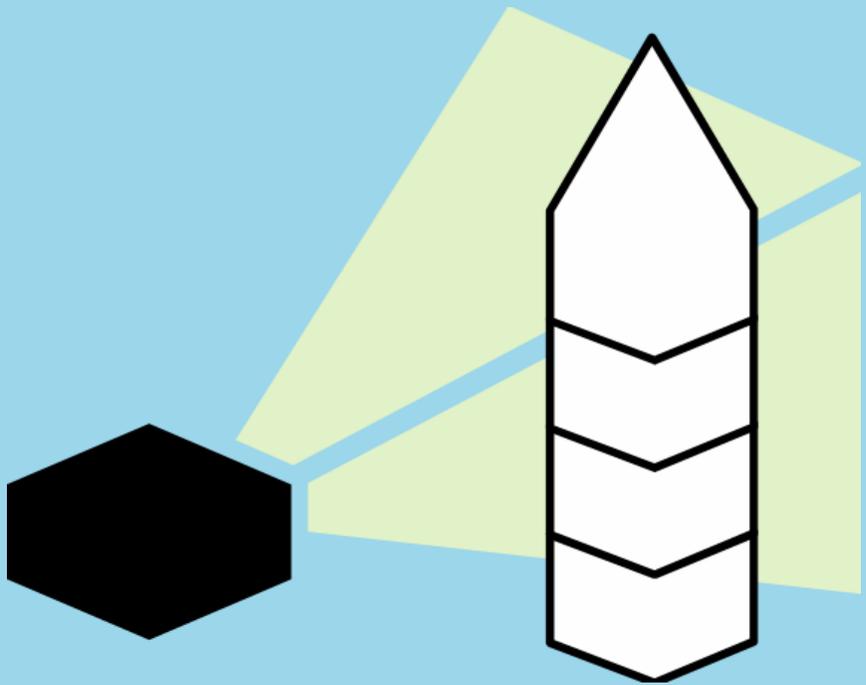


How a **3D model** is made?

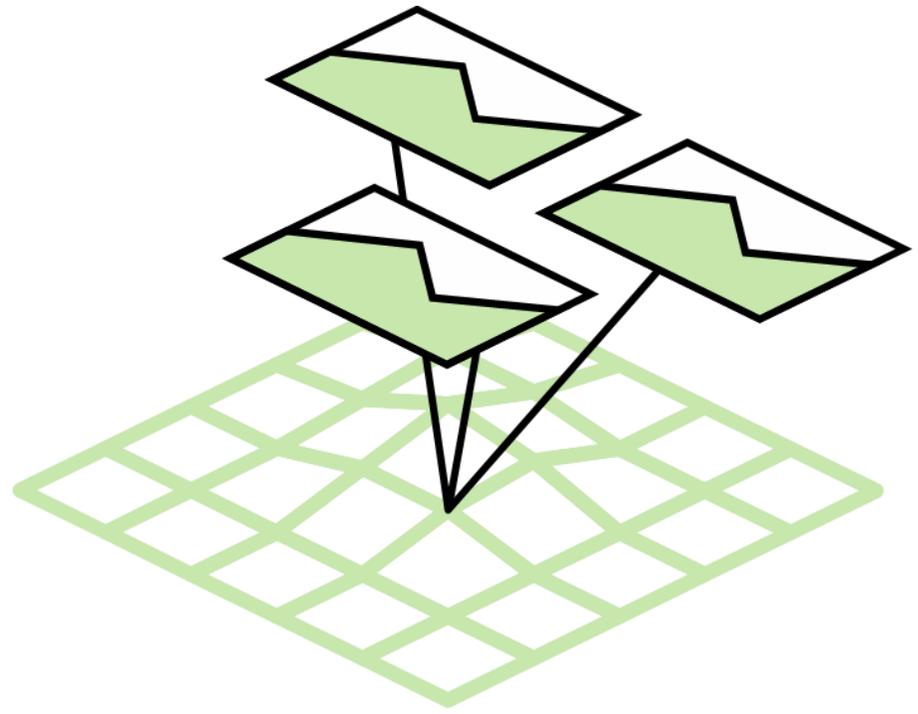




A 360° image is not
a 3D model



Laser scanning



Photogrammetry





HERITAGE+

by
ARCTUR



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AROTUR





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Photo capturing of an object

Organization of thousands of photos

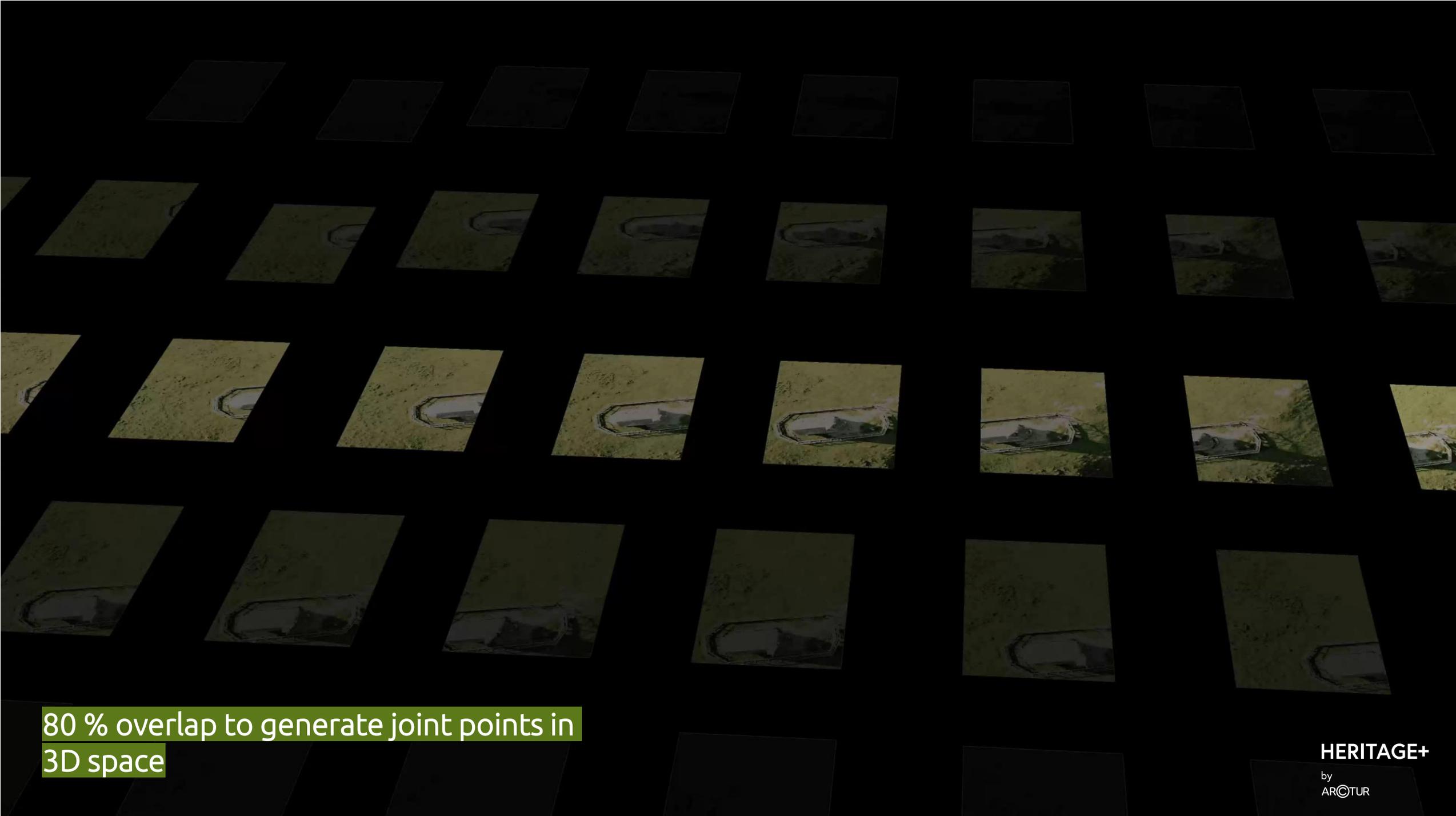
HERITAGE+

by
ARCTUR

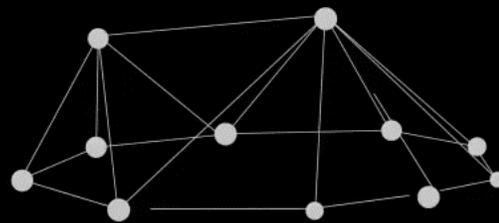
AS SHOT



Colour editing to reduce shadows



80 % overlap to generate joint points in
3D space



From few points to millions of points



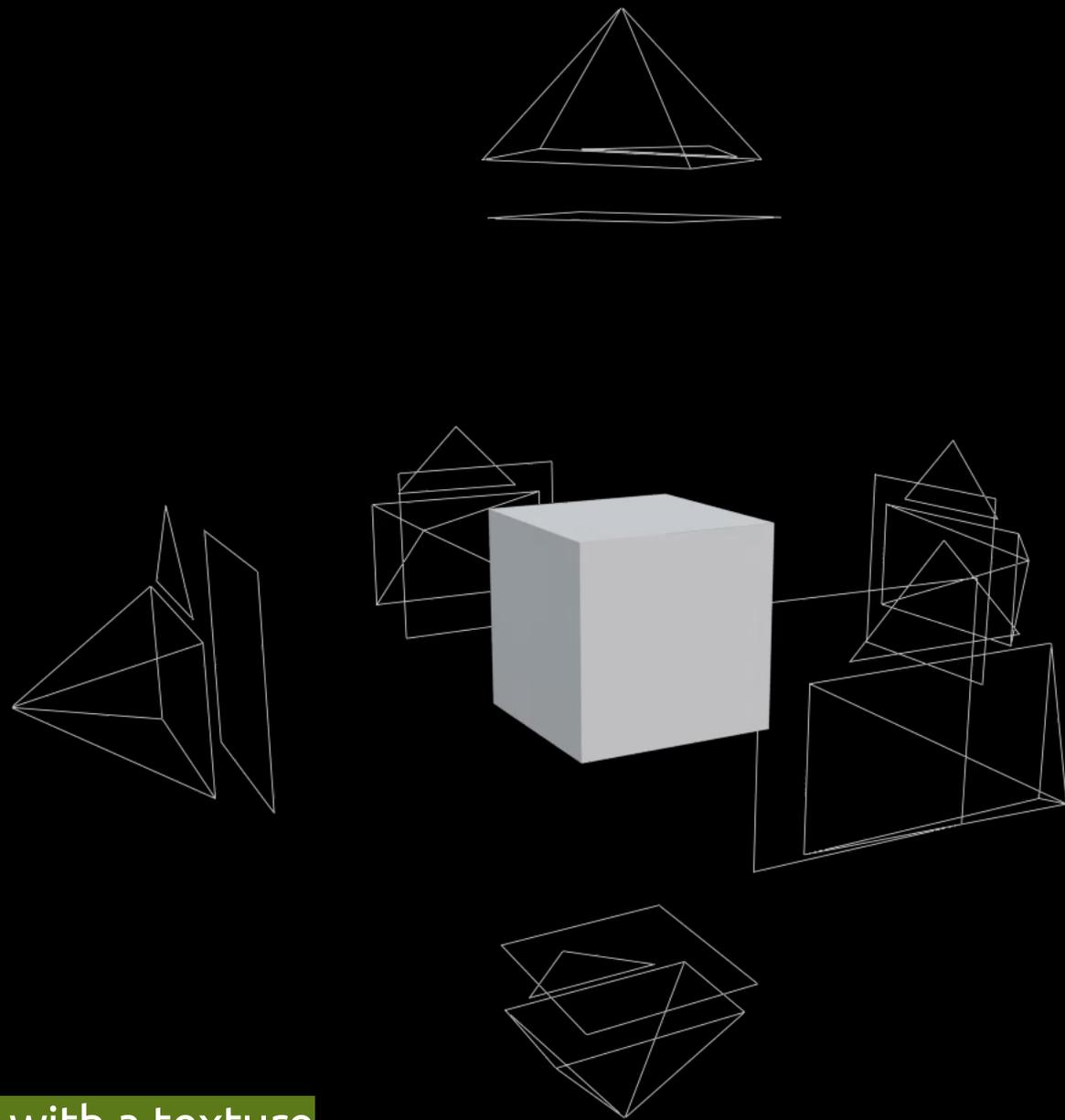
PointCloud with 23.165.012 points



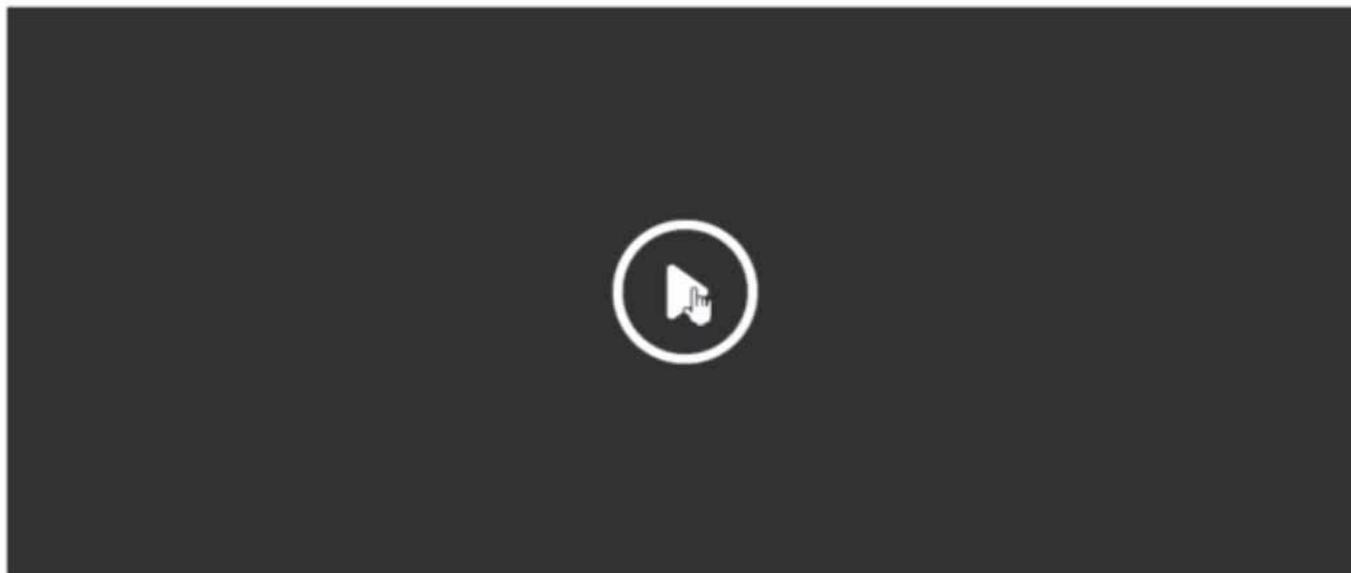
PointCloud with 18.050 000 points



Connecting points to create a mesh and
a solid model



Wrapping a 3D model with a texture

[← Back](#)[Publish to europeana](#)

Idrija – Kamšt water wheel with a water canal and a dam

Slovenia / [Industry and mining](#)

Early New Age (16-18 Century)

Kamšt is a device for pumping water from the Idrija Mercury Mine built in 1790 and operational for 158 years. Water from the Idrija River arrived at the 13.6-metre wooden power wheel along water canals (rake) and powered the pump, which drained water from the mine via a pumping mechanism. The mercury heritage of Idrija and that of the Spanish Almadén is on the UNESCO World Heritage List.

Online viewing of a 3D model [2215758 / Longitude: 14.0325371268532 /](#)



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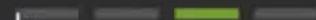
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Re-use: 3D model in a video

HERITAGE+

by
AROTUR

Re-use: 3D models in a hologram



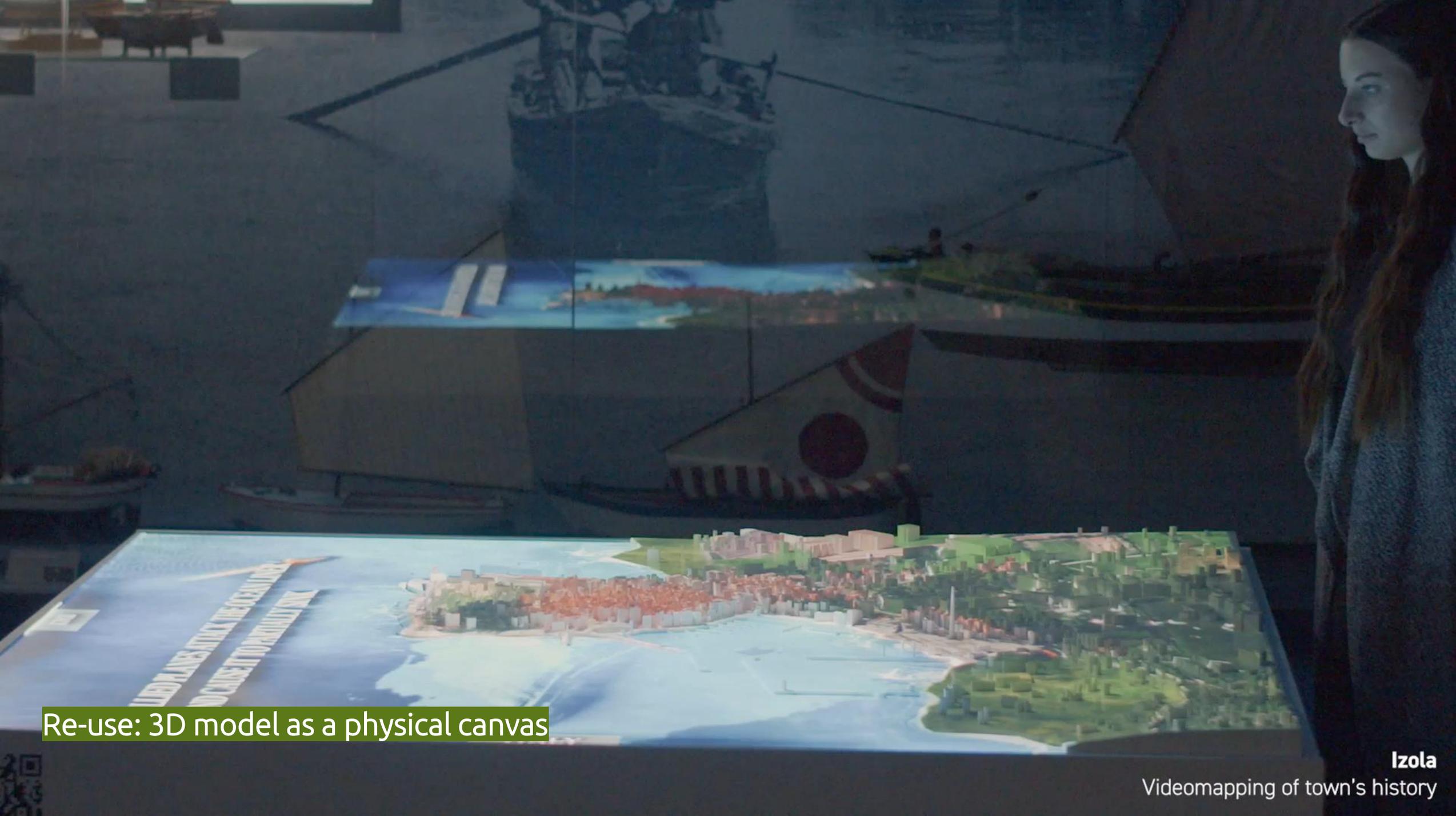
Re-use: 3D model as a Virtual Reality environment

Re-use: 3D model in Augmented Reality application

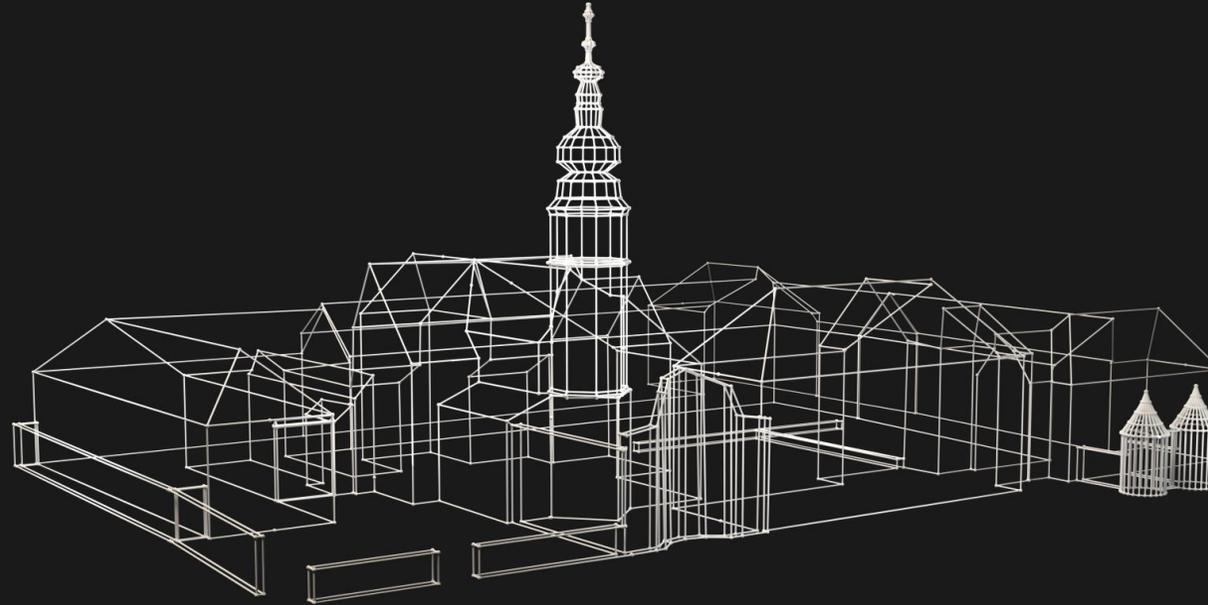




Re-use: 3D models in digital interpretation rooms



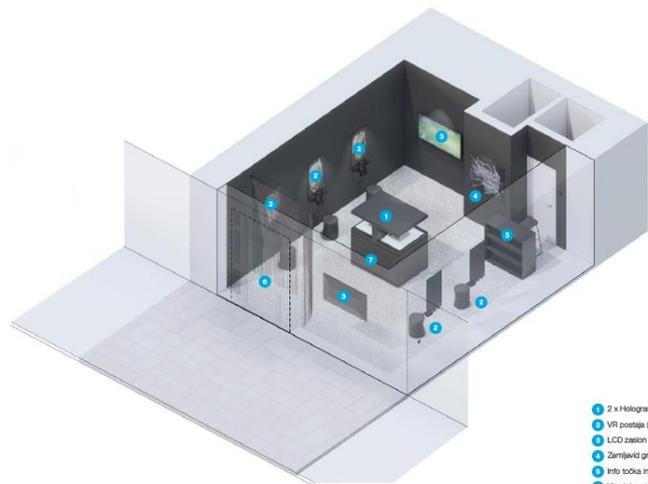
Re-use: 3D model as a physical canvas



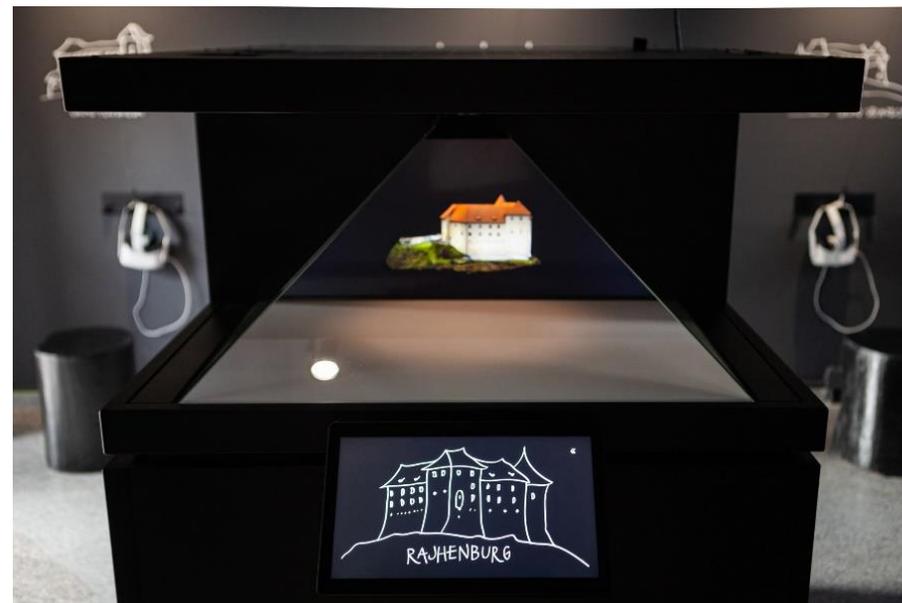
e-Castles of Posavje

RRA Posavje

Digital room in Spa center Čatež



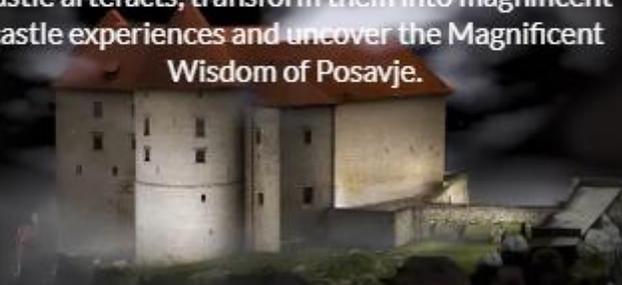
- 1 2 x Hologramski predvajnik
- 2 VRI postaja (VRI ocska in prenosnik sto)
- 3 LCD zaslon
- 4 Zimljevid gradov
- 5 Info točka in prostor za zaposelnega + računalnik
- 6 Vhodni zastor (pomirna zavesa)
- 7 Prostor za shranjevanje tablic



THE MAGNIFICENT SEVEN OF POSAVJE

7 MAGNIFICENT CASTLES,
7 CHANCES FOR UNFORGETTABLE
EXPERIENCE.
EXPLORE THEM ALL!

Embark on a magical journey: explore the rich history of the castles of Posavje, collect legendary castle artefacts, transform them into magnificent castle experiences and uncover the Magnificent Wisdom of Posavje.



Continue



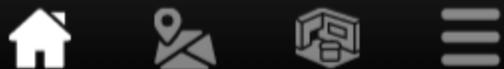
THE STORY

You take the role of the wizard's apprentice Engelbert who is trying to win the title of the Alchemist of Posavje.

In order to prove yourself you will need to travel to the seven magnificent castles of Posavje, explore their rich history and collect the legendary castle artefacts that are connected to it.

In the end, you will need to join all the collected artefacts and melt them into the Philosopher's Stone of Posavje, which will lead you to the Magnificent Wisdom of Posavje.

Continue



HOW TO PLAY?

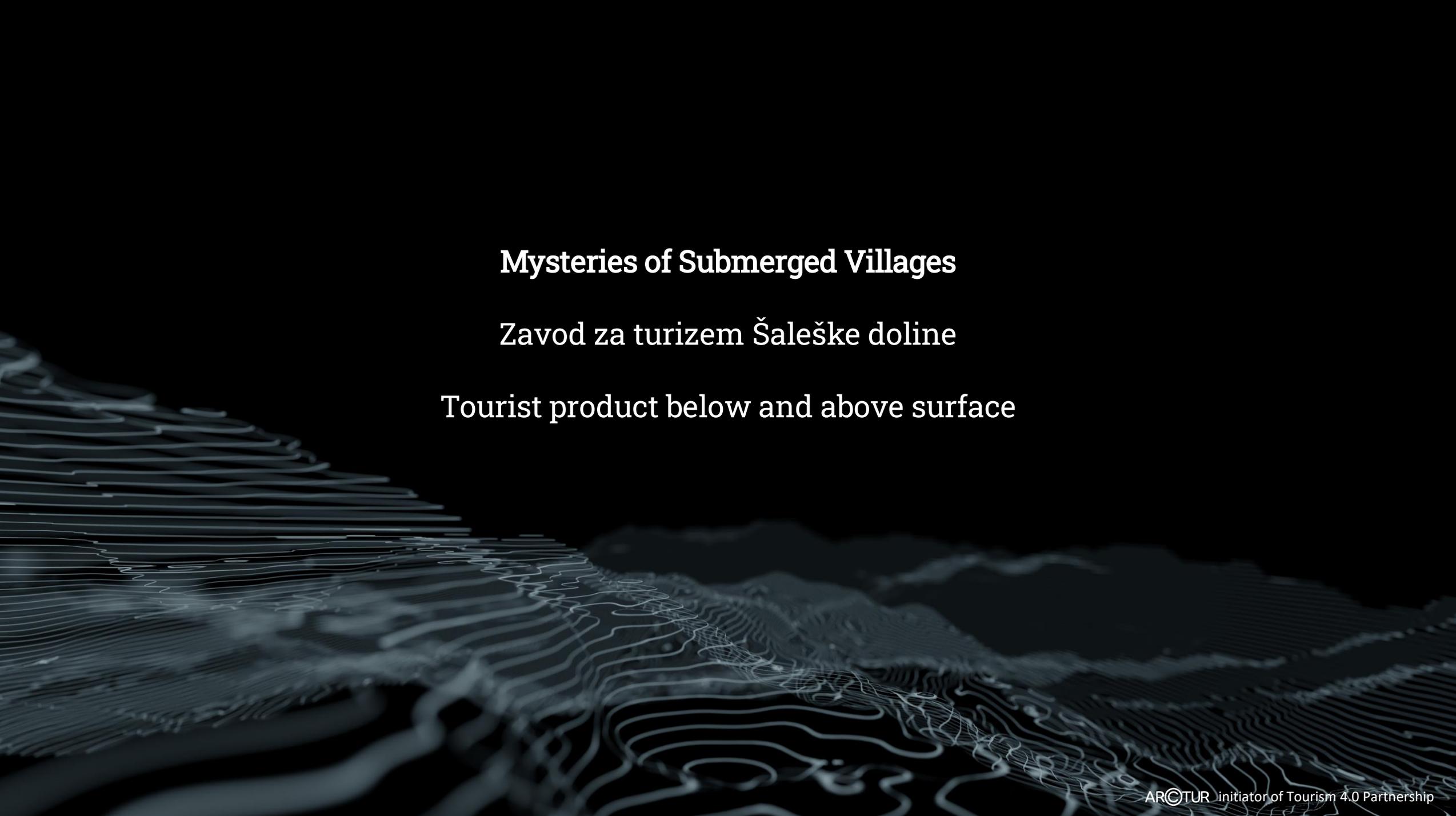


Pick a castle and begin exploring its specialties, legends and secrets.

•••••

Continue





Mysteries of Submerged Villages

Zavod za turizem Šaleške doline

Tourist product below and above surface





ENERGY 101
VE-001

Velenjska plaža



We want you!

Become a member of
Tourism 4.0 Partnership

Sign up:

joinus.tourism4-0.org

Workshop

- Group exercise (30 mins)
- Brainstorm ideas on how to create a digitally-enhanced cultural heritage visitor experience based on your group's source
- Each group will select a representative to present their group's idea and receive feedback
- Online version: <https://tourism4-0.org/wp-content/uploads/2023/07/REGINNA-Digital-Heritage-WS-Online-Document.pdf>

REGINNA^{4.0}

Matevž Straus

Heritage+ Lead, Arctur d.o.o.

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Funded by the
European Union



www.reginna4-0.eu