



HERITWINS.

Digitala tvillingar för cirkularitet av byggnadsdelar inom byggnadsvården

Andrea Luciani, Jennie Sjöholm , Max Spett
Luleå Tekniska Universitet

Background:



facebook

Norrbottnen retro och antikt - Köp, Byt & Sälj. 18 h · 🌐

Mått
B 137 Cm
H 163 Cm

OBS 1 st järnfönster

kan levereras till Grubbe/ ikea i Umeå 20/8
först till kvarn!
fast pris!

vill ni hämta upp själva finns det i byske

Annons finns på flera sidor

9,500 KR · KÅGE, VÄSTERBOTTENS LÄN
järnfönster

Like Comment Message



Background:

white

Projekt Tjänster FoU Aktuellt Om oss Kontakta oss



White ReCapture – en katalysator för återbruk i stor skala

Virkesbanken



Genom projektet Virkesbanken undersöker vi möjligheten att hitta ett koncept för materialförsörjning som ger tillgång till virke som hanterats enligt hantverkarnas förväntningar genom hela logistikkedjan, från skog till byggplats. Projektet sker i nära samverkan med de lokala hantverkarna, trävarubranschen och aktörer inom skogsindustrin.



Digital Twin: definition

“A digital twin is a digital representation of a real-world entity or system.”

“A digital twin is a virtual model designed to accurately reflect a physical object”

“A digital building twin is a virtual replica of a physical building and all associated technologies, systems, equipment, sensors, and actors.”

Aim

Exploring the potential of digital inventories of existing historic/traditional building components for improving reuse and circularity in the sustainable management of historic buildings.



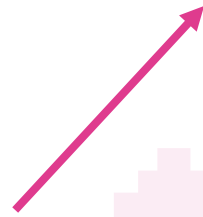
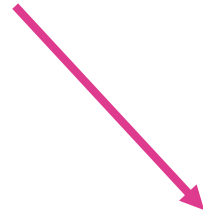
DIGITAL SCANNING
OF OBJECT or
BUILDING
COMPONENT

QUALITATIVE DATA
(e.g. style, building
period, material,
conservation state)

Assessment of the
residual or equivalent
embodied energy

INTEGRATION OF
THE INFORMATION
AND CREATION OF
THE DIGITAL TWIN

ONLINE
DATABASE



Targets and expected outcomes:

- develop an innovative and interdisciplinary way to implement circularity in the field of sustainable built heritage management.
- integrate digital visual and dimensional data acquisition techniques with qualitative assessments in a database to support the reuse and repurposing of spare building components from historic buildings.
- help to understand how to assess and use efficiently the embodied energy, emission-saving potential and residual service life of spare building components from historic buildings.
- Study the possibility to integrate all the information that will be gathered within already existing databases for circularity, such as the CCBuilds product bank

TACK!

