

# heritage

## **UserSense: A Tool and Method for Physiological Assessment of the User Experience**

Athina Bosta, Spyros Vosinakis



# HERITACT PROJECT

HeritACT is an European funded project that activates heritage through engaging experiences towards sustainable development by introducing innovative architectural design solutions and cultural practices to enable common action.



14 partners from  
five European  
countries



9 solutions and 7  
digital tools for a  
better integration  
for inclusive and  
sustainable  
heritage



3 pilot locations:  
Milano (IT), Ballina  
(IR) and Elefsina  
(GR)

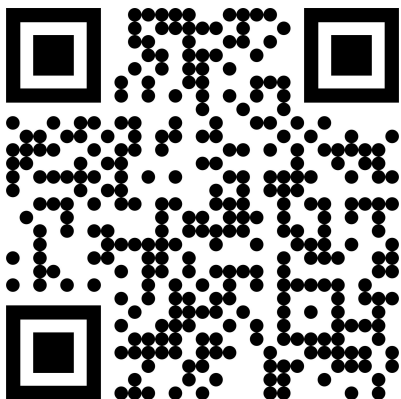


Alignment with the  
New European  
Bauhaus



3 years project

# HERITACT Toolkit



1. ParticiMap tool
2. SustainACT tool
3. UserSence tool
4. DesignYourHeritage tool
5. HERICraft tool
6. Fund4Act tool
7. NegoDesign tool

# Do we need the Usersence Tool?

Measuring **User Experience** can be accomplished in a range of methods.

User Experience **metrics** are about the participants, their behaviour and perspectives.

The Physiological Measurements based methods do not replace the Self-Report ones, but provide additional information.

- Wearable technologies collect and analyze User Experience data.
- Physiological measures hold insights into aspects of the Emotional Experience (Affective Computing).
- Subjective vs Objective Data

# UserSense In a Nutshell:

## Software



Analysis  
Command Line  
Application



Visualization  
Application  
(Experience  
Chart)



Mobile  
Application



## Documentation



User  
Manual

## Devices



\*Electroencephalography

# UserSense Evaluation

- ❑ Shaping a method for UX Evaluation utilizing the UserSense Tool
- ❑ Monitor the User Experience
- ❑ Gain valuable insights into user feedback and system performance.



1. *Decide the evaluation category (location and devices).*



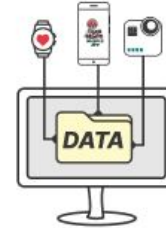
2. *Record the user's baseline.*



3. *Let the user perform the tasks.*



4. *Request self-report input.*



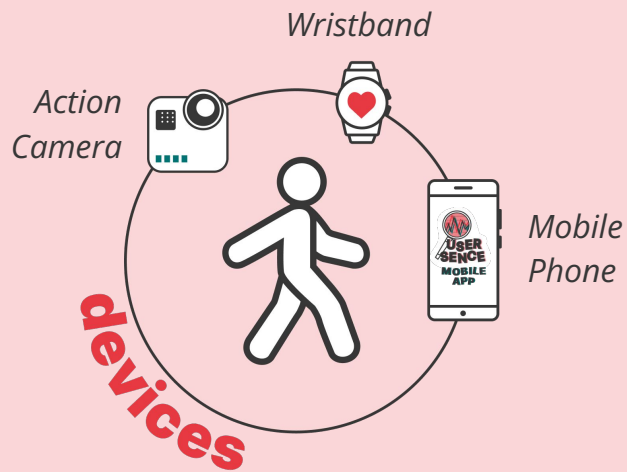
5. *Insert Data to the Analysis Command Line Application*



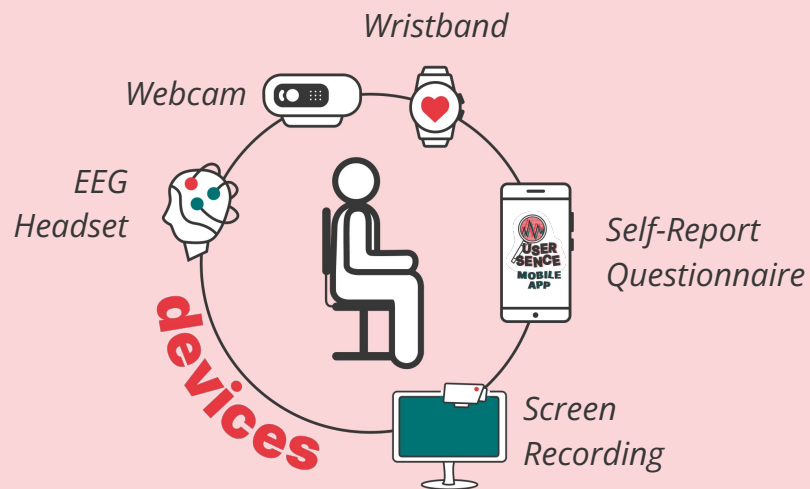
6. *Generate user's experience chart.*

*(Standard Usersence Evaluation Protocol Steps)*

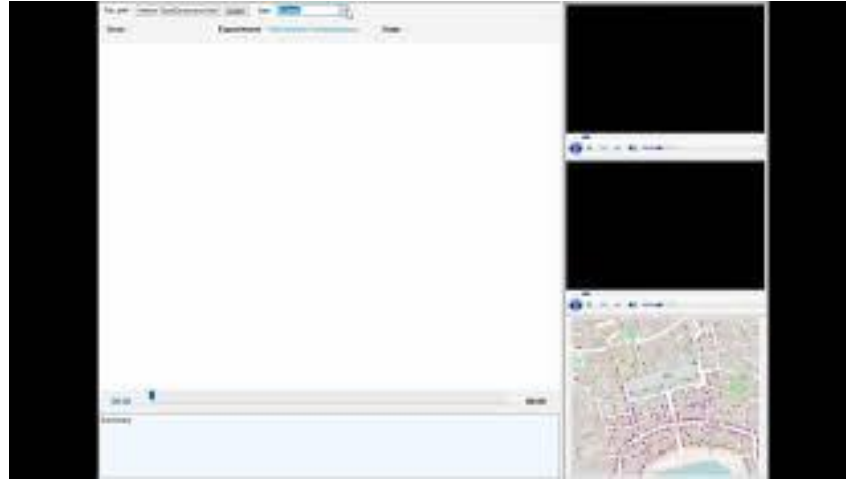
## In-Field Evaluation



## In-Lab Evaluation



# Insights: The Experience Chart

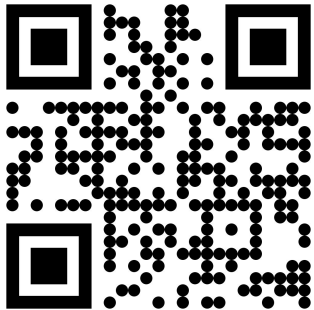


[Watch the Video Here](#)



# Before Saying Goodbye

Challenges, reflections, and  
what's next...



Visit  
HERITACT's  
website

- Raw Data are hard to get.
- More **Open Source Tools** are needed.
- Keeping up with the Data Scientists.
- Better safe, than data leakage.
- Biometrics = Ethics.
- Conduct UserSense Evaluations in  
Pilot Sites.

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