

# Reflection on the role of co-design in a large-scale international collaboration

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# Outline

- The meSch project
- The role of co-design in meSch
  - Co-design workshops
  - Exploratory labs
  - Case studies
  - Authoring feasts
- The meSch outcomes
- Reflection on the co-design process

# My journey

- BSc in Cybernetics (1981)
- Career in software development
- PhD focusing on the Evaluation of Information Systems in 2001 (Bucharest, RO)
- **How do people learn/know/share in communities?**
- Software Engineering, Open Source, Global Software Development (2003-2008)
- Social Media, Communities, Location-Based Social Media (2008-2010)
- Civic engagement, DIY, Community gardens, biodiversity (2010-2013)
- Cultural Heritage (2013-2017)
- Collaborative Economy (2017-2021)

# meSch – Material Encounters with digital Cultural Heritage

# 12 partners co-creating tools and applications



**Material EncounterS with digital Cultural Heritage**

Museums and their visitors



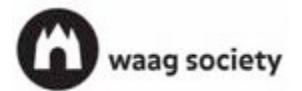
 UNIVERSITEIT VAN AMSTERDAM  
Allard Pierson Museum + 6 external

Digital heritage



 UNIVERSITEIT VAN AMSTERDAM  
Allard Pierson Museum

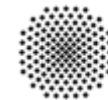
HCI, co-design co-evaluation



Information curation and access

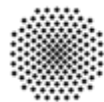


Personalization contextualisation



Universität Stuttgart

Embedded systems, smart objects



Universität Stuttgart



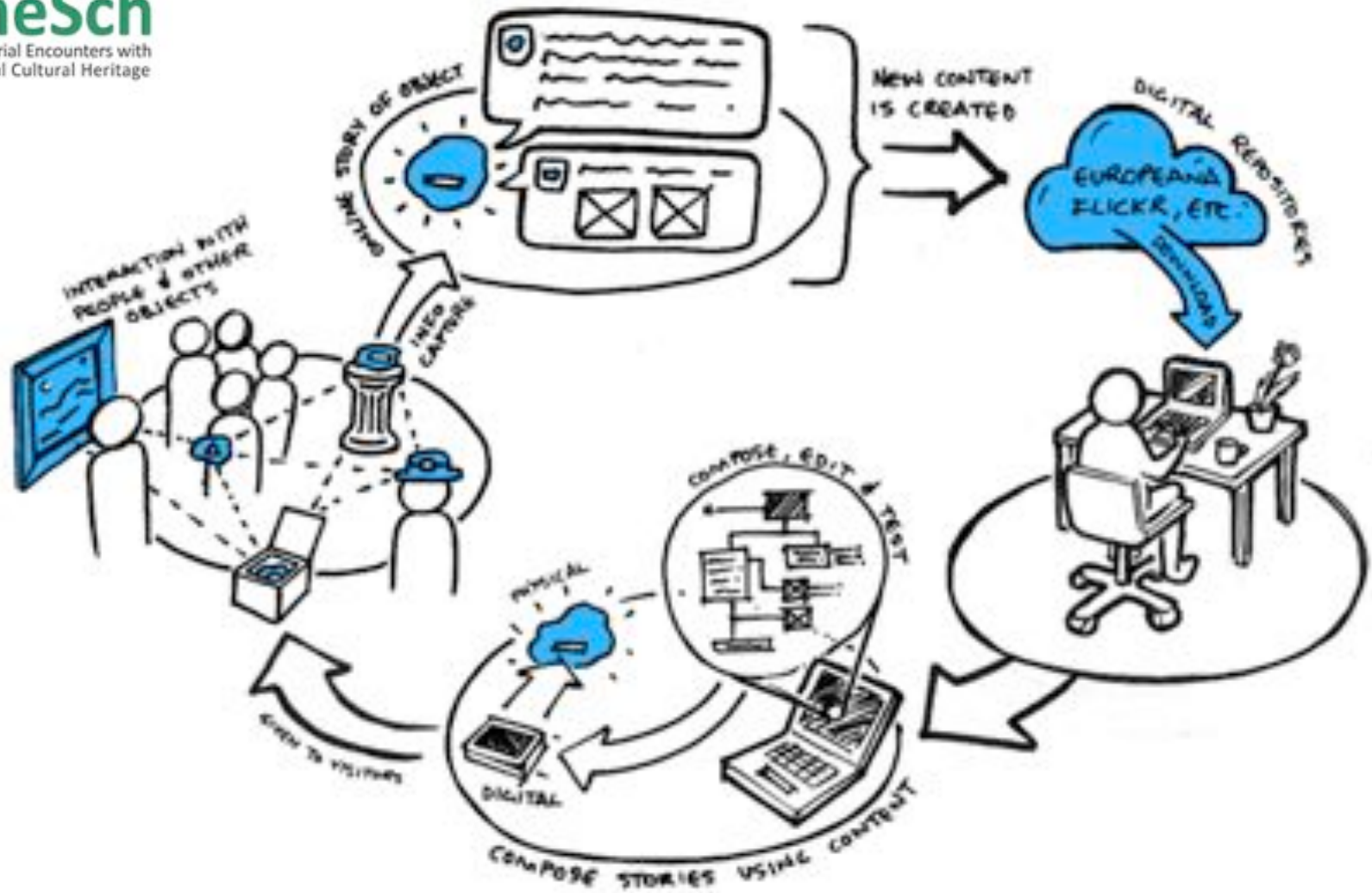
waag society

Art, design and public making



waag society





# meSch mission statement

To bridge the gap between physical and digital collections and enable cultural heritage professionals to create novel experiences that best convey the value of their institutions to their visitors onsite and online.



# Selected Publications

- Daniela Petrelli, Luigina Ciolfi, Dick van Dijk, Eva Hornecker, Elena Not, and Albrecht Schmidt. 2013. Integrating material and digital: a new way for cultural heritage. *interactions* 20, 4 (July 2013), 58-63.
- Ciolfi, L., Petrelli, D., McDermott, F., Avram, G. and van Dijk, D. (2015), “Co-Design to Empower Cultural Heritage Professionals as Technology Designers: The meSch Project”, in Bihanic, D. (Ed.), *Empowering Users Through Design*, London: Springer, 213-224
- Mark T. Marshall, Nick Dulake, Luigina Ciolfi, Daniele Duranti, Hub Kockelkorn, and Daniela Petrelli. 2016. Using Tangible Smart Replicas as Controls for an Interactive Museum Exhibition. In *Proceedings of the TEI '16: Tenth International Conference on Tangible, Embedded, and Embodied Interaction* (TEI '16). ACM, New York, NY, USA, 159-167.

# Preparing for co-design

# Cultural Heritage Professionals

- My team knew little about these practices;
- We started with interviews and observations in Ireland and in Europe.
- PhD student embarked on ethnographic work.

## **Publications:**

- McDermott, F., Clarke, L., Hornecker, E., Avram, G. (2013) **Challenges and opportunities faced by cultural heritage professionals in designing interactive exhibits**, Proceedings of the NODEM 2013 Conference, Stockholm, December 2013
- Maye, L., McDermott, F., Ciolfi, L., and Avram, G. (2014) **Interactive exhibitions design: what can we learn from cultural heritage professionals?** In Proceedings of the 8th Nordic Conference on Human-Computer Interaction: Fun, Fast, Foundational (NordiCHI '14). ACM, New York, NY, USA, 598-607.

# Participating museums

# Concept Generation and Prototyping

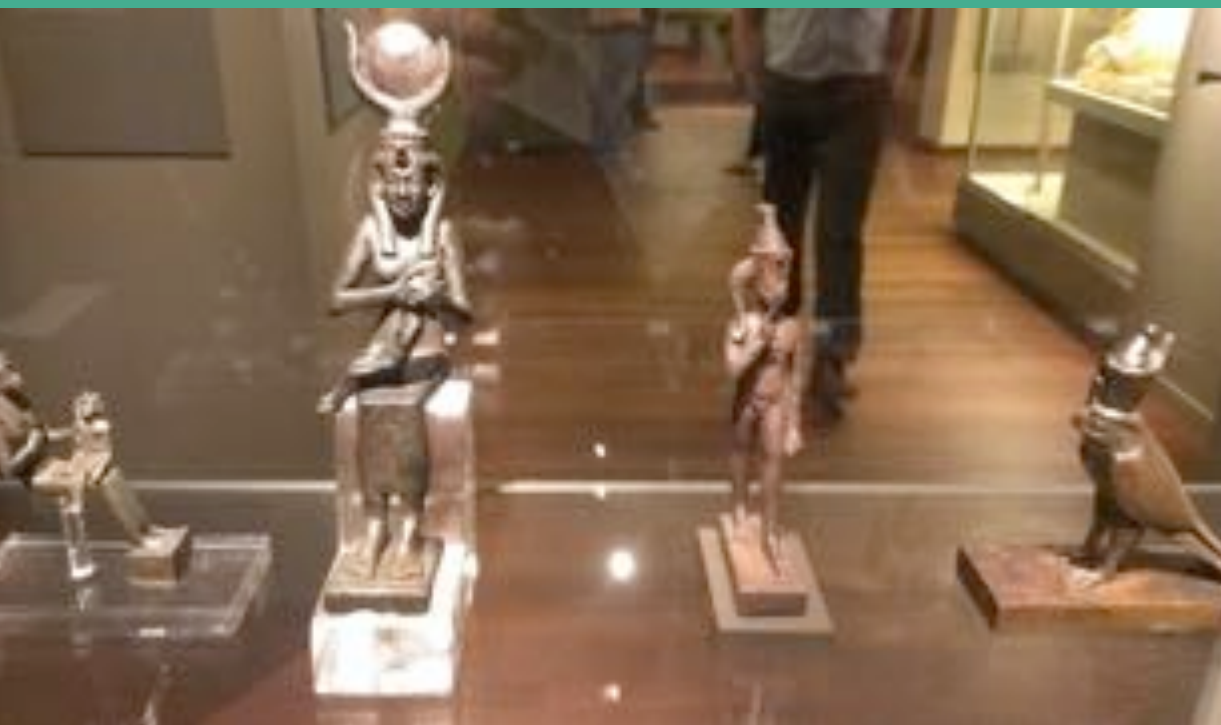
Partners collaborating with local heritage institutions and with the meSch heritage partners

Early prototypes to try out ideas and generate “templates” of interaction (“recipes”)

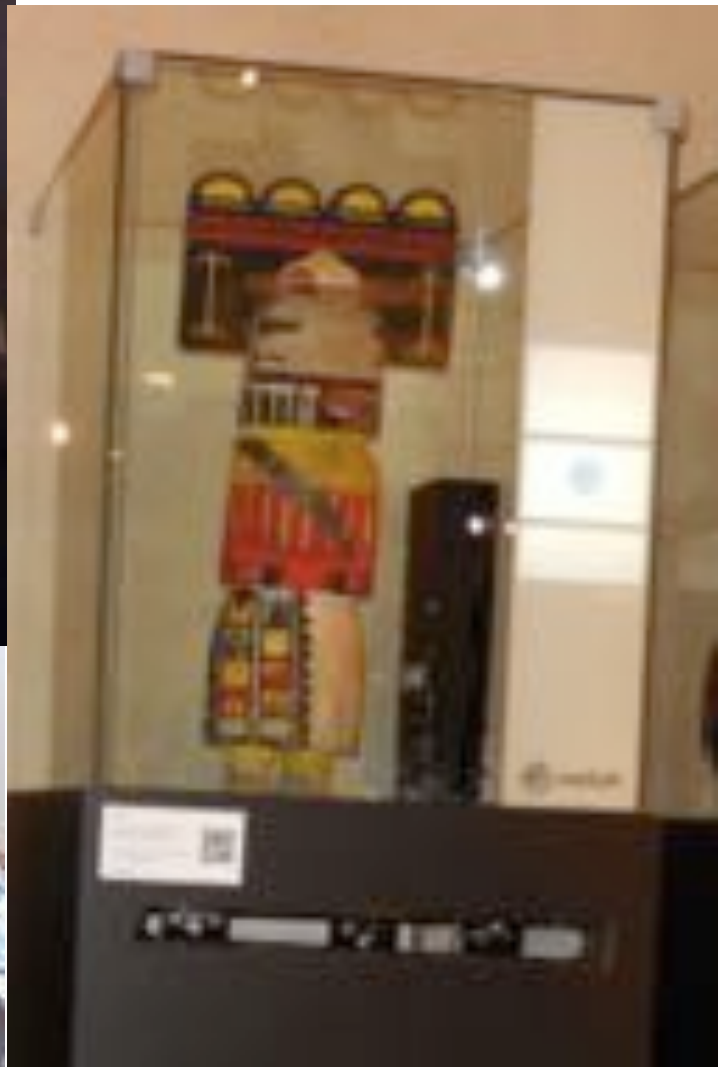
Functionality just one aspect, design and look & feel equally important

Portability: what is the interaction concept?

# Allard Pierson Museum, Amsterdam, NL



# Museon, The Hague, The Netherlands





# Museo Storico della Guerra, Rovereto, Italy





# Collaboration with local Cultural Heritage Institutions: NL



- Maritime Museum
- Dordrecht Museum

# Collaboration with local Cultural Heritage Institutions: UK



- Sheffield General Cemetery



# Collaboration with local Cultural Heritage Institutions: IE



- The Hunt Museum, Limerick

# Collaboration with local Cultural Heritage Institutions: ES



Co-design at MediaLab Prado

Co-design at Centro de Arte Dos 5 de Mayo

# Collaboration with local Cultural Heritage Institutions: UK



**Riverside Transport Museum,  
Glasgow, UK**



# Collaboration with local Cultural Heritage Institutions: DE



**The Weimar Historical Cemetery**

# Co-design activities

# Sheffield: Feb 2013 Kick-off - .Net Gadgeteer





# Amsterdam: June 2013- co-design from prototypes



# Trento: October 2013- scenario built around artefact





# Limerick: January 2014- co-design of authoring tool



# The emphasis in co-design activities was on:



- co-design in context
- creating shared understandings
- working with actual museum artefacts

# Exploratory labs



<https://youtu.be/q8NdtIYZgw8>

# Comparing two co-design perspectives

- Starting from an open brief – the Compass
- Starting from a working prototype – the Egg
- Publication:  
Ciolfi, L., Avram, G. , Maye, L., Dulake, N., Marshall, M.T., VanDijk, D., McDermott, F.(2016) “Articulating Co-Design in Museums: Reflections on Two Participatory Processes“, In Proceedings of the 19th ACM Conference on Computer Supported Cooperative Work & Social Computing (CSCW '16). ACM, New York, NY, USA, pp.13-25



# Designing the authoring tool

## Understanding the needs of cultural heritage professionals and co-designing the tool

Publication:

Martin Risseeuw, Dario Cavada, Elena Not, Massimo Zancanaro, Mark T. Marshall, Daniela Petrelli, and Thomas Kubitzka. 2016. Authoring Augmented Digital Experiences in Museums. In *Proceedings of the International Working Conference on Advanced Visual Interfaces (AVI '16)*, Paolo Buono, Rosa Lanzilotti, and Maristella Matera (Eds.). ACM, New York, NY, USA, 340-341.

# The Case Studies



# Applying meSch to public exhibitions

Case-studies: long-term museum exhibitions integrating meSch technology, in the hands of heritage institutions:

- “The Hague and The Atlantic Wall: War in the City of Peace” exhibition at MUSEON, The Hague (April-November 2015);
- “Feint: Unravel the Illusion of Movement in Greek Art” exhibition at Allard Pierson Museum, Amsterdam (June-August 2015);
- “Voices from Forte Pozzacchio” at Museo della Guerra, Trento (September-November 2015; March-July 2016)

# Case Study 1: The Hague and the Atlantic Wall



# The Atlantic Wall Exhibition, Museon, The Hague



<https://youtu.be/sK3AdQU9kkc>

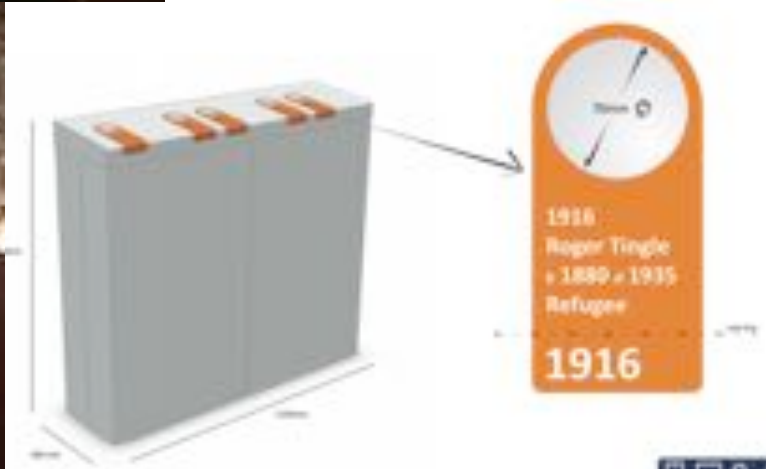
# Case Study 2: Feint: Unravel the Illusion of Movement in Greek Art



<https://vimeo.com/146224161>



# Case Study 3: “Voices from Forte Pozzacchio”



<https://youtu.be/DReu2J7eWx4>

# The Authoring Feasts

# Amsterdam Nov 2016



<https://youtu.be/q2qw6N9X7rM>

# Sheffield Nov 2016



<https://youtu.be/9XQtAssUm50>



Limerick Jan 2017



# meSch Outcomes

# Co-design resources

**CO-DESIGN RESOURCES FOR CULTURAL HERITAGE PROFESSIONALS**

Co-Design in meSch | Case Studies | Methods | Glossary | Resources | Team

meSch has put together a resource based on our own experiences with running co-design workshops. The resource will help you to run your own co-design workshops and get the best possible results. You will find templates for co-design methods, accompanied by examples of how they were implemented in our practice.



Interactive exhibits integrated in an exhibition

More... >



Addressing the key challenges of a museum

More... >



Repurposing smart objects or existing equipment

More... >



Designing for outdoors heritage sites

More... >

*Why should you involve others or create multidisciplinary teams when planning for new exhibitions and the interactive exhibits involved? Simple: because all the different expertises and points of view complement each other and guarantee the best possible outcome for all parties involved, especially for your visitors. Take advantage of these proofed methods and start your own co-design workshops today! Above you'll find four case studies to inspire you! Co-design is one of the pillars that meSch is built on. All our prototypes and exhibitions were developed in cooperation between designers, cultural heritage professionals, technical personnel and future users. Co-design, for us, means bringing together a broad range of different stakeholders and expertise to join forces in creating new interactive experiences for museum visitors that bridge the physical and digital realm.*

*This website contains detailed descriptions of the co-design methods as used throughout the meSch project and the accompanying glossary contains definitions associated with each of the methods. Each method includes a downloadable sheet, containing information as to how one could use the method. This website was designed to complement the meSch co-design booklet that is available for download [here](#).*

This website is part of the meSch project - <http://mesch-project.eu>  
Co-Design Resources for Cultural Heritage Professionals | Powered by Netra & WordPress



<http://mesch-project.eu/Co-design/>

# The meSch toolkit





# The meSch toolkit: from hardware to software

Proximity, Content triggering

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Demo Beacons



View recipe 

Multilayer content discovery, Free exploration & selection

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Interactive Cases



View recipe 

wwI, forte, trentino\_front

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Voices from Forte Pozzacchio - SHU



View recipe 

WWI, History

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Your new recipe Mon Mar 07 2016 19:43:22 GMT+0100 (Mitteleuropäische Zeit)



View recipe 

Free exploration

---

Augmented Reality Demo



Free exploration

---

Augmented Reality



Keys2Rome

---

Your new recipe Thu Mar 03 2016 11:38:21 GMT+0100 (Mitteleuropäische Zeit)

Multilayer content discovery, Free exploration & attraction & selection

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test recipe - DP



# Searching, structuring and tagging content

The screenshot shows a web application interface for content management. At the top, there is a navigation bar with tabs for 'Recipe', 'Content', 'Appliance', 'Behaviour', and 'Build'. Below this, the user's name 'Atarsikwal's content' is displayed. A 'Content Filter' input field is present. The main area is titled 'Content' and features a 'Media filter' section with icons for 'ALL', 'Image', 'Video', 'Audio', and 'Document'. A grid of content items is shown, each with a thumbnail, title, and a 5-star rating. The first item in the second row, 'Construction of the Atlantic Wall', is highlighted with a teal background. To the right, a sidebar contains several tagging sections: 'Target audience' (with a red 'All' button), 'Languages' (with 'English' and 'Dutch' buttons), 'Themes' (with 'Society' and 'Culture' buttons), and 'Point of interest' (with multiple buttons including 'L1000000', 'L1000001', etc.).

maSch All Recipes My cookbook 44 items maSch-DSU Logout

Recipe Content Appliance Behaviour Build

Atarsikwal's content

ADD CONTENT Content Filter

Content

Media filter

ALL Image Video Audio Document

Construction of the Atlantic Wall

Construction of the Atlantic Wall

Construction of the Atlantic Wall

Beau van de Ardennen

Beau van de Ardennen

Beau van de Ardennen

Saya Inquiari and Cingkarai

Saya Inquiari and Cingkarai

Saya Inquiari and Cingkarai

Select content item and click the checkboxes to tag them.

Target audience

All

Languages

English Dutch

Themes

Society Culture

Point of interest

L1000000 L1000001 L1000002 L1000003 L1000004 L1000005 L1000006 L1000007 L1000008 L1000009 L1000010



# Reflection on co-design in meSch

# Reflection on co-design and co-creation as process

- Activity or process?
- Ethos of the project
- Long term (4 years), large distributed team
- During the case studies, sustaining the co-design process outside of dedicated “activities” required effort and mediated communication
- Creation of a project team shared language (from ‘brief’ to ‘blidget’)
- Relying on each other’s expertise -‘transactive memory’ (Wegner 1985)
- Language groups
- Putting time aside to reflect on the process

# Reflection on co-design – data collection

- Participant/non-participant observation
- Documenting each activity retrospectively; postmortem after each co-design activity;
- (facilitator: part of the group or impartial?)
- Interviews with participants involved in co-design before and after the case studies
- Curators documenting the co-design process during the case studies
- Observation during and questionnaires after the authoring feasts

# Reflection on co-design: power relationships

- The brief sets the tone, the power relationships;
- Who benefits? How do we 'configure' participation?(Vines et al. 2013)
- Co-design takes time, while unilateral decisions are quick
- Intricacies, politics, lack of specific skills, lack of continuity
- The priorities of the project vs the priorities of the cultural heritage institution
- Motivations of cultural heritage professionals:
  - control over installation and content;
  - repurposing and reshaping interactive installations;
  - tangibility - the role of replicas
  - use of existing already digitised content; free content
- Is co-design feasible in a museum team? What is needed?

# Reflection on co-design: the many facets

- Co-design activities:
  - the kick-off dedicated to team building and setting the tone
  - co-design workshops for understanding curatorial practices and the affordances of the technology
- Co-design of the evaluation framework
- Co-design of the authoring tool
- Co-design of the co-design resource

# Conclusion

- Data analysis - still ongoing;
- How are skills and knowledge transferred across professional boundaries? Can we replicate this?
- How is the culture of the organisation influencing this process?
- Is there a way to support/scaffold team dynamics? Who creates the brief?
- How do we make the co-design process sustainable?
- Where do we go from here?
- Will cultural heritage institutions be able/willing to embrace co-design – while adopting (or not) the meSch platform?



# Thank You!

For blog entries and links to publications:

<http://mesch-project.eu>

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@gabig58

The project (2013-2017) receives funding from the European Community's Seventh Framework Programme 'ICT for access to cultural resources' (ICT Call 9: FP7-ICT-2011-9) under the Grant Agreement 600851.

