AUGMENTED URBANS

How technologies are changing the ways we plan and interact?

VASAB Webinar 7th Sep 2020
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AUGMENTING
URBAN PLANNING
PROCESS?


TIMEFRAME


TIMEFRAME
PARTICIPATION


TIMEFRAME
PARTICIPATION
TECHNOLOGY

OBJECTIVES

Co-developing and implementing PARTICIPATORY PLANNING PROCESSES, and integrated urban plans for urban resilience

Strengthening the collaboration in SOLVING ISSUES OF URBAN RESILIENCE within partner regions and in the Central Baltic area

Increasing planners and practitioners' EXPERTISE OF EXTENDED REALITY AS TOOL in design and development for resilient cities

EXTENDED REALITY (XR)

all real-and-virtual combined environments and human-machine interactions generated by computer technology and wearables

VIRTUAL REALITY (VR)

an interactive computer-generated experience taking place within a simulated environment

AUGMENTED REALITY (AR)

an interactive experience of a real-world environment where the objects that reside in the real-world are "augmented" by computer-generated perceptual information.

Stocksnap

Unsplash

AUGMENTED URBANS

DURATION | 1 Mar 2018 – 30 Apr 2021

FUNDING PROGRAMME | Central Baltic Interreg, S.O. 2.3 Better urban planning in the Central Baltic region

TOTAL BUDGET | 2.03 MEUR

ERDF FUNDING | 1.59 MEUR

5 Local Actions

= on-going urban planning processes that are test cases to try out XR tools

EXPECTED RESULTS

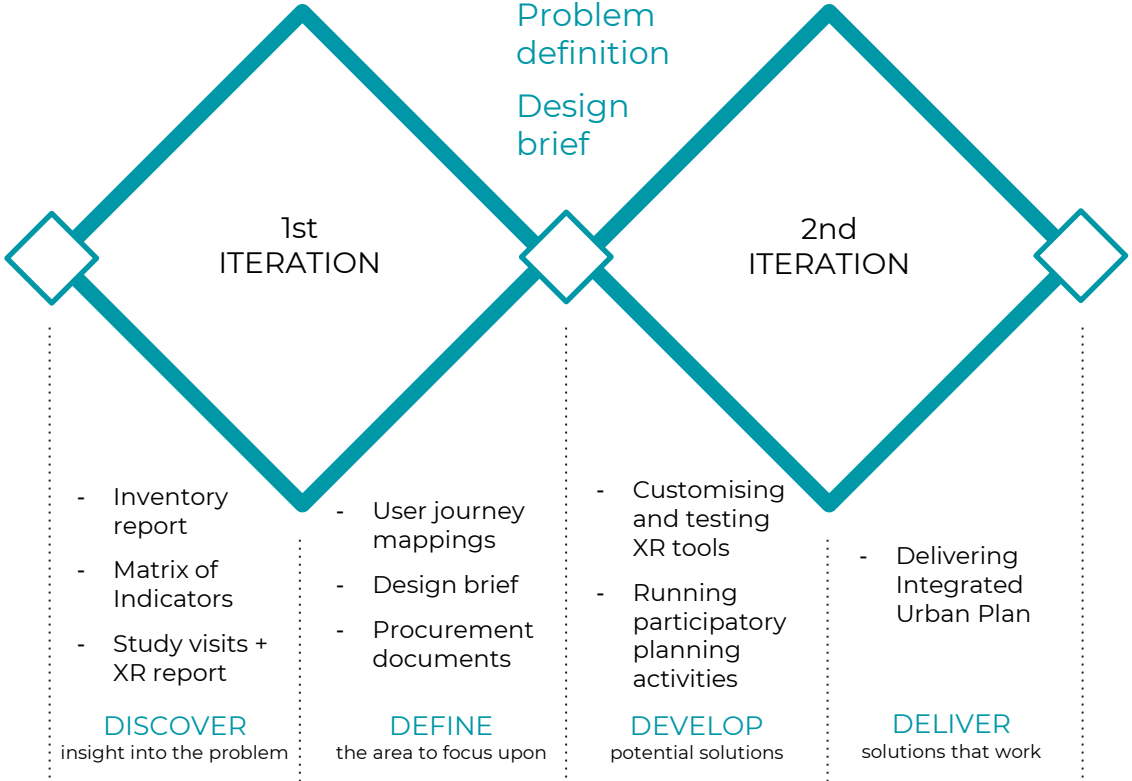
1. Definitions of sustainability and resilience, challenges and possible solutions in the Baltic Sea Region. / Matrix of Indicators
2. Visualisations of parallel implementation scenarios of plans. / Local Actions
3. Policy recommendations based on developed matrix of indicators to be shared on local, interregional and macro-regional levels
4. Expertise exchange both on local and interregional level, contribution to implementation from new stakeholders. / Planners' Forums and other project events
5. Working methods for utilising XR technologies in the integrated urban management and recommendations in which cases and state of the planning process they'd be best utilised. / Local Actions > Policy Recommendations
6. XR visualisations of the case areas, and the possibility to modify them. / Local Actions
7. XR scenarios of the cities in the future, aimed to guide planning and decision-making. / Local Actions
8. Communications of insights gained, interactive exhibitions, video reports, articles, scientific articles.

WORKS CURRENTLY IN PROGRESS

- Until Sep 2020: participatory Local Action activities
- Sharing results, testing and discussing the applicability and future prospects of XR tools, compiling policy recommendations and final publication
- Finalisation of the integrated urban plans by Nov 2020
- AU exhibitions in partner cities in Nov 2020
- Final event in Helsinki and online in 20-21st Jan 2021

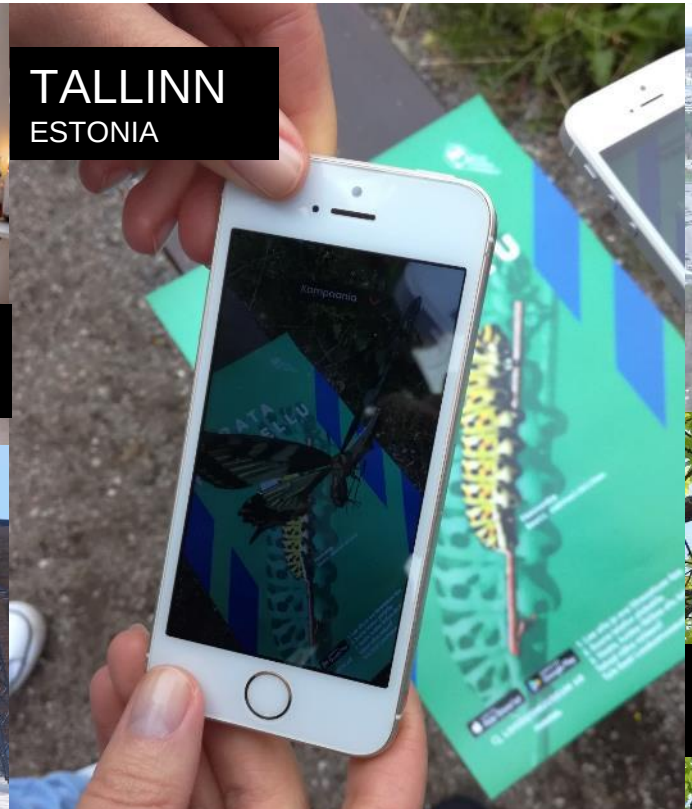
NEW CONCEPTS, REAL-LIFE PLANNING CASES

DOUBLE DIAMOND PROCESS FOR LOCAL ACTIONS



INTERREGIONAL COLLABORATION & LEARNING

CESIS
LATVIA



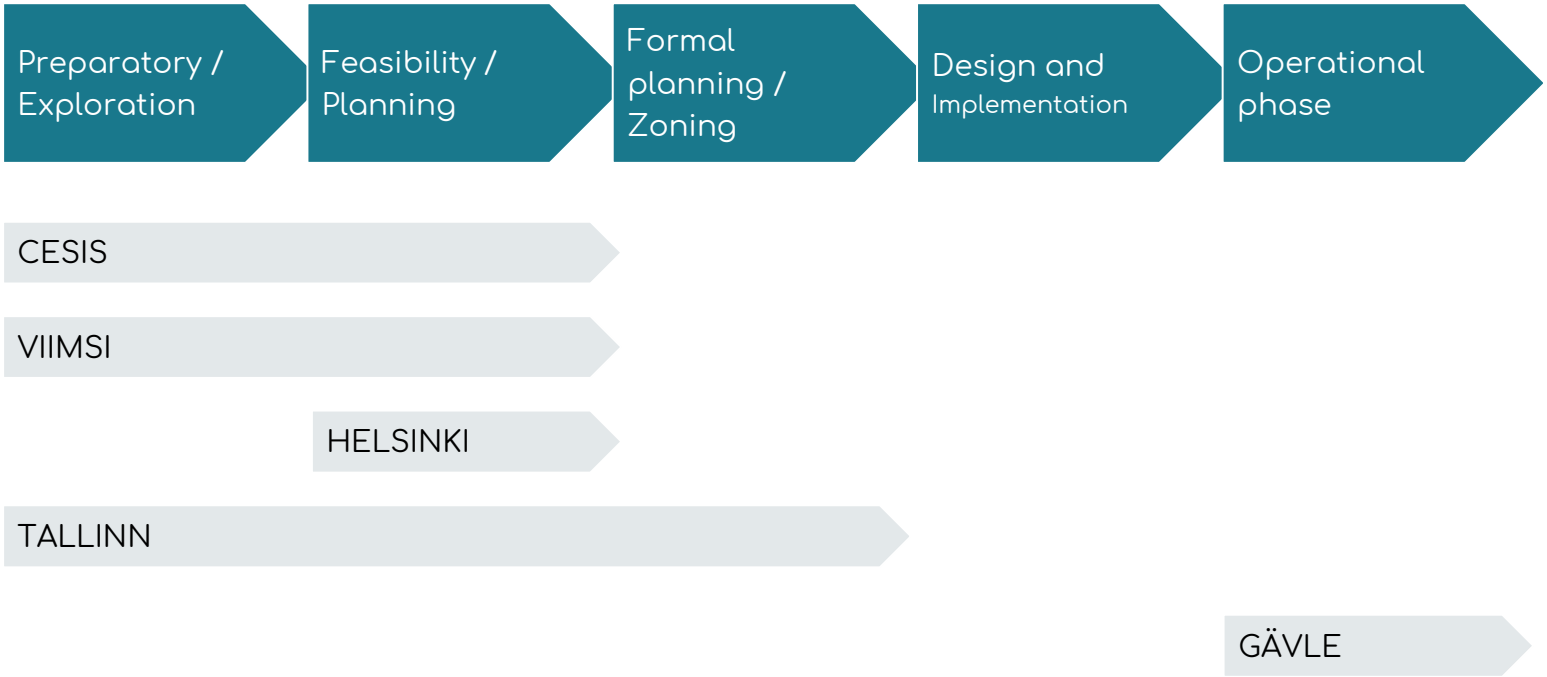
TALLINN
ESTONIA

VIIMSI
ESTONIA

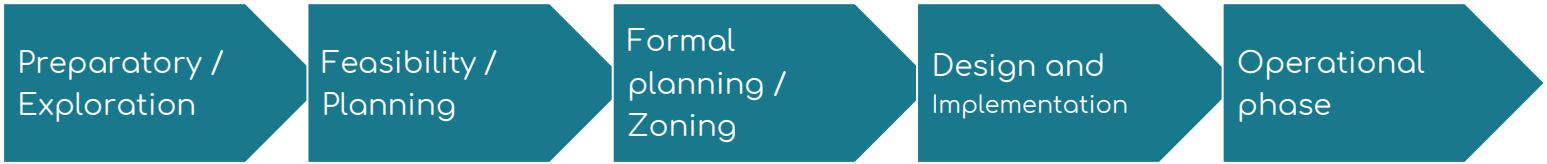
HELSINKI
FINLAND

GÄVLE
SWEDEN

LOCAL ACTION ACTIVITIES



LOCAL ACTION ACTIVITIES



CESIS	Online platform with 360 images of planning site & planning assistant chatbot to collect feedback
VIIMSI	3D visualisation and 360 videos to support public participation
HELSINKI	Two VR applications for collecting public feedback, touchscreen for visualisations
TALLINN	Mobile AR for raising awareness about local environment, plans and biodiversity
GÄVLE	AR for strengthen local residents connection to urban greens, and to guide people maintaining them

CESIS:

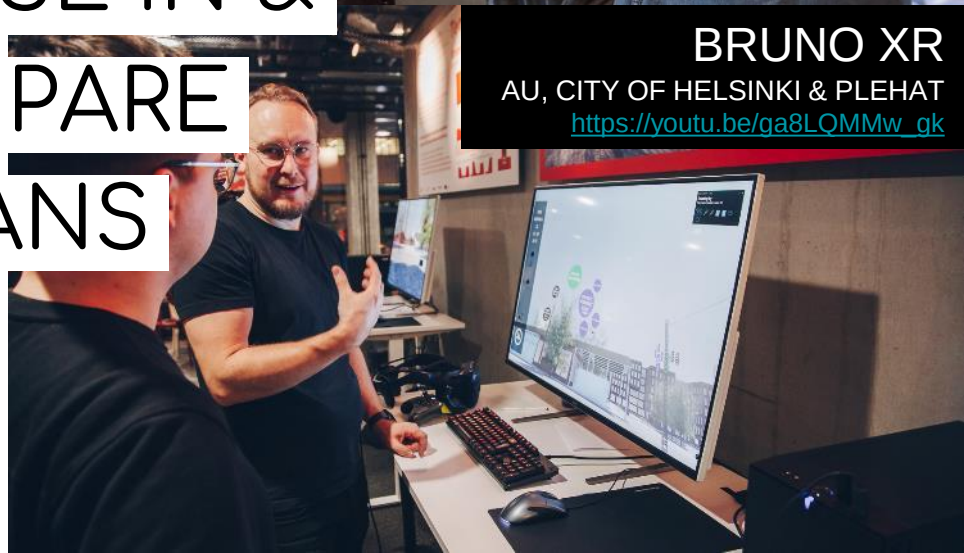
IN-PERSON & ONLINE PARTICIPATION

SIMPLE TOOLS: 360 PICTURES/VIDEOS I.E. A COMMUNICATION TOOL THAT

- Captures spatial experience
- Easy and cost effective way to capture current situation to allow virtual visits to the case site during workshops or planning meetings
- Can be combined with voice-overs adding further layer of information (e.g. citizen experience of the space, historical notes, future plans, identified planning challenges, or currently open questions)
- Can be used to follow-up temporal changes, seasons, times of day, development of urban structure
- Example: https://3d.cesis.lv

HELSINKI:

IMMERSE IN & COMPARE PLANS



BRUNO XR

AU, CITY OF HELSINKI & PLEHAT

https://youtu.be/ga8LQMMw_gk


Bruno Granholm square
Helsinki, Finland
a participatory and digital
cityplanning experience
PLEHATOO
Helsinki
Augmented
Urbans


TALLINN:
COMMUNICATE
THE URBAN
SURROUNDINGS
IN NEW WAYS
"liginikkus"
Puhangu 3, 5
"mastide uus elu"
Puhangu 9, 11
Puhangu 29
"vaba aeg"
Ehte 20
Kampaania
TERE TULEMAST
PUTUKAVÄILALE






Ristiku
Heino
uus
PARK

GÄVLE: ENGAGE RESIDENTS & GROUNDSKEEPERS

Including

1. Information about biodiversity and pollinators.
2. Information about meadows and management of them
3. Augmented reality 3D models of meadows, flower beds, trees and insects.


Augmented
Urbans

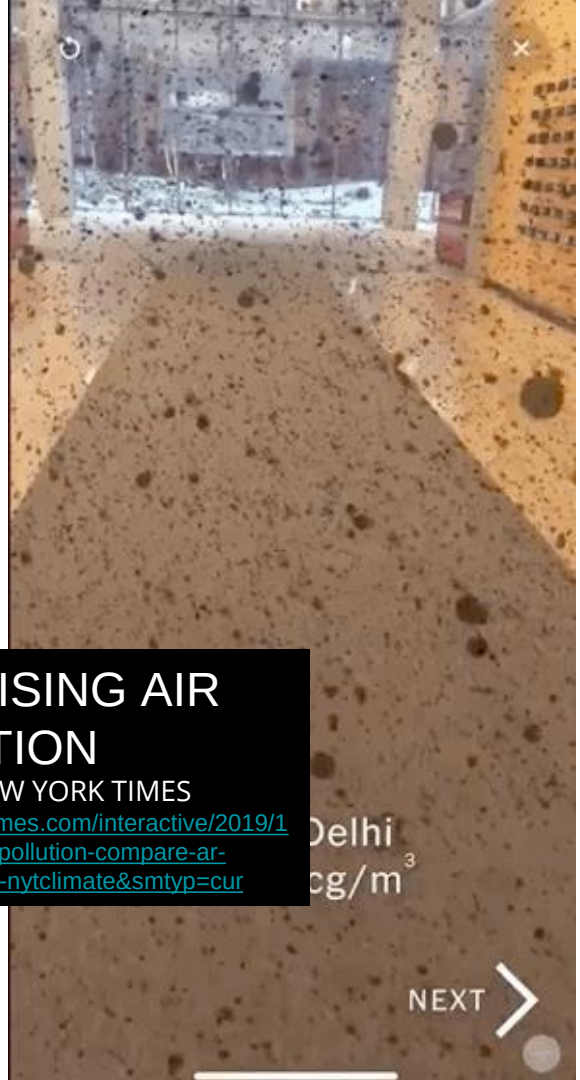
PRELIMINARY FINDINGS

THE ROLE OF XR IN THE INTEGRATED URBAN PLANNING?

- To raise awareness of the urban spaces and of the factors that they are comprised of
  - Provide experience of what is not yet (or anymore) there, visualise the factors invisible to human eye, strengthen the consideration of the spatial experience etc.
- To test urban environments before they are build
- To facilitate participation to the planning process
  - Public consultation, voting between different alternative plans, platform to provide citizen comments
- Should not replace face-to-face interaction, but extends it
- Blog post: https://medium.com/augmented-urbans/ten-ways-to-understand-the-urban-environments-better-with-xr-e76429493935

AR4CUP

https://twitter.com/covivio_/status/1228312723475304448



VISUALISING AIR POLLUTION

NYT APP / NEW YORK TIMES

https://www.nytimes.com/interactive/2019/12/02/climate/air-pollution-compare-ar-ul.html?smid=tw-nytclimate&smtyp=cur

VISUALISING VACANT SPACES

ARCHITECTURAL DEMOCRACY

http://architecturaldemocracy.com/

BLOCK BY BLOCK

UN HABITAT & ERICSSON

https://www.ericsson.com/en/blog/2017/9/co-creating-the-city--city-scale-mixed-reality-tested-in-johannesburg

SIMULATION & VISUALISATION?

- XR is a medium for visualisation, a communicative tool
- But what to visualise, capturing current state seems simple enough, but going beyond that quality simulations comes into play

“Emotional response to city design could guide urban planning”

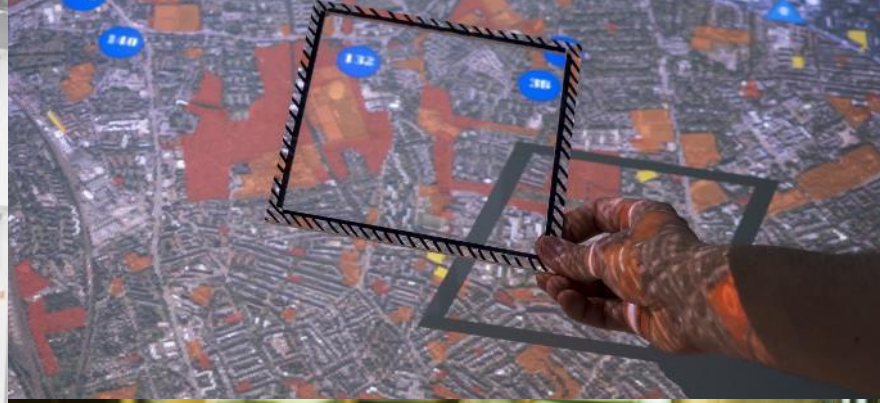
Horizon - The EU Research & Innovation Magazine, 6th Aug 2019

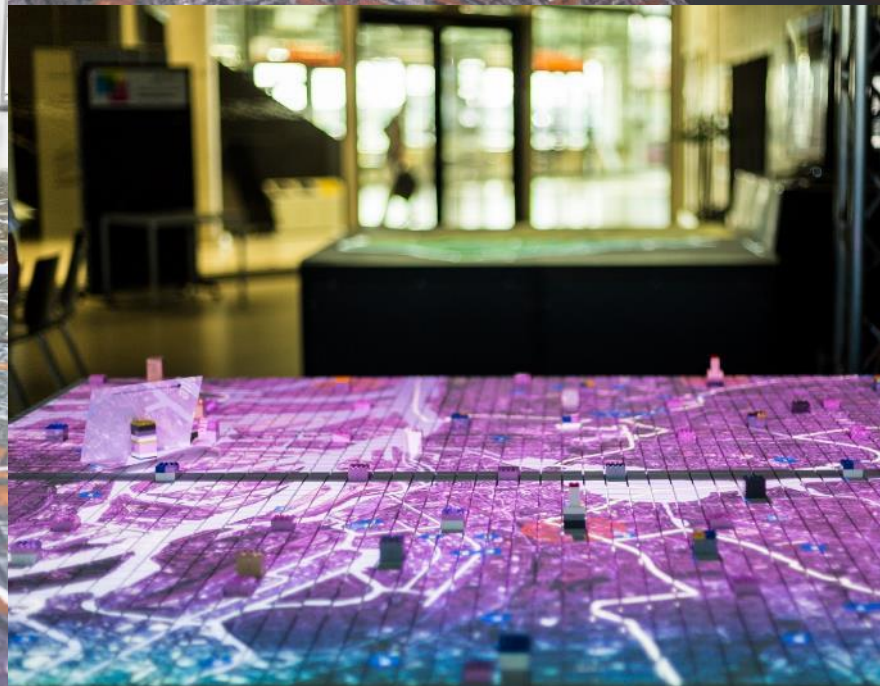
Deepening the understanding?
XR IN PARTICIPATORY PROCESS FOR DE-EMOTIONALISING PUBLIC DISCUSSION?

Ability to make things visible and create understanding of root causes of issues and thus base the conversations more on the facts

On the other hand XR is experience that has potential to evoke empathy...

”Pictures may give the facts but new technology transmits physical experience”



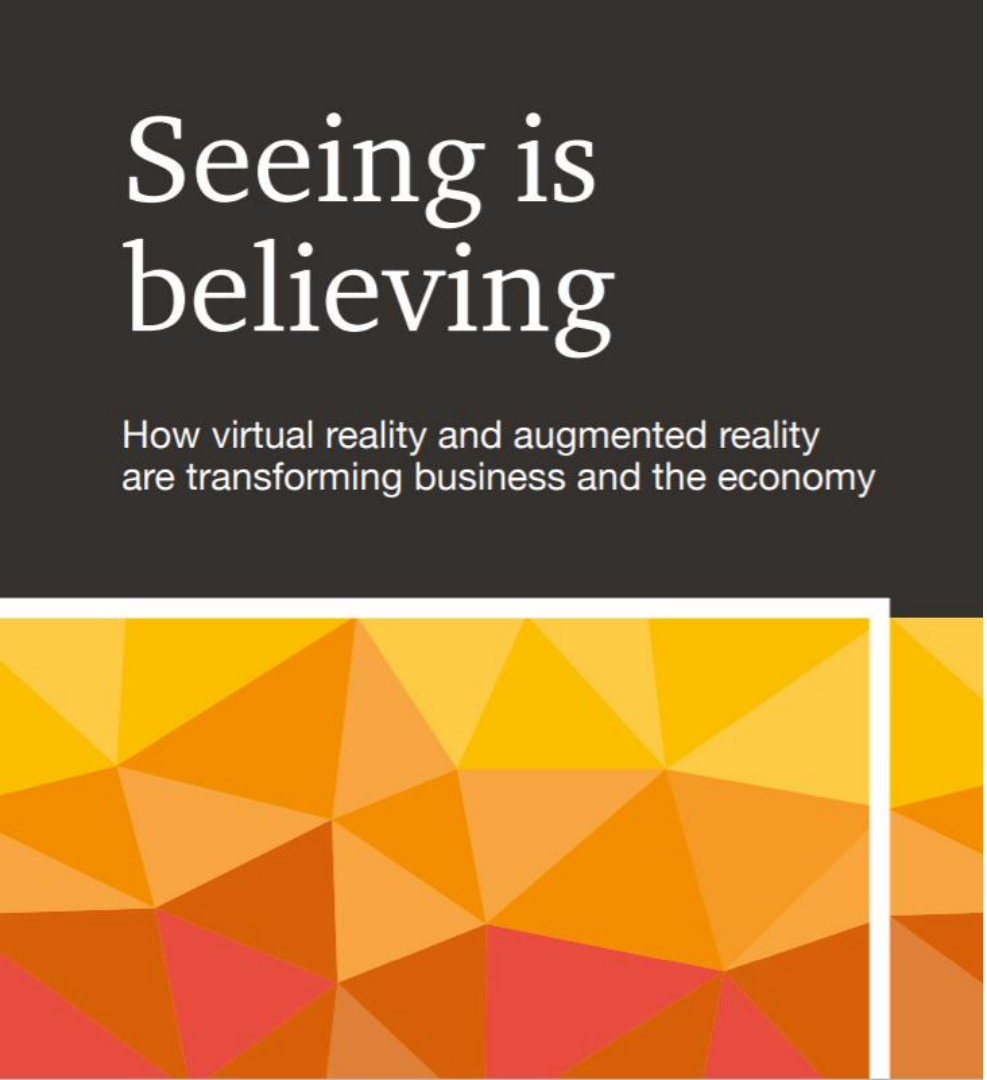


FINDING PLACES

HCU CITY SCIENCE LAB & MIT MEDIALAB

https://medium.com/mit-media-lab/shifting-priorities-finding-places-9ad3bdbe38b8

https://www.youtube.com/watch?v=J4u0yys24FE



How to get started:

1. Focus on solving problems - don’t get distracted by the hype
2. Think about more than just software
3. Create a seamless experience (i.e. think usability ja UX)
4. Start small and explore the potential with an initial pilot
5. Measure the result and act accordingly

https://www.pwc.com/seeingisbelieving

THANK YOU!

www.augmentedurbans.eu

https://medium.com/augmented-urbans

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