

From Information to Engagement: Tailored Science Communication for Disaster-Resilient Communities

Local, personal and experiential formats for disaster risk communication

Abstract

Research projects generate valuable scientific knowledge, tools and policy recommendations for disaster risk reduction. However, these results don't automatically become accessible or personally relevant to the citizens who could benefit most. The Human-Tech Nexus – Building a Safe Haven to Cope with Climate Extremes (The HuT) explores how disaster risk communication can become more locally grounded, personal and participatory, combining territory-based local desks, personal storytelling through The HuT Me & You Narratives, participatory theatre, serious games and capacity-building. Together, these approaches point to a transferable principle: personal before technical, local before generic.

Key points

- Technical information alone rarely makes complex disaster risk feel personally relevant.
- The Cesena case study shows Playback Theatre turning 2023 flood testimony into shared understanding of ongoing risk.
- Citizens contribute knowledge and lived experience — they are not only recipients of scientific information.
- The approach is adaptable for other EU-funded disaster risk projects — it isn't tied to one format or territory.

Background

Climate change is reshaping disaster risk across Europe, though the evidence varies by hazard: extreme heat is intensifying with high confidence, while trends in flooding, landslides and wildfire risk differ by region and are less uniformly established. Every territory carries a different risk profile shaped by geography, infrastructure and disaster history, and this knowledge often remains locked in technical language that's hard for non-specialists to connect to daily life. Resilience depends not only on technical solutions but on whether citizens understand their own exposure and know how to respond — and a persistent gap remains, since abstract concepts like probability and vulnerability rarely translate through conventional, one-way formats alone.

audience needs, why it matters to them, and how they engage. Traditional formats — reports, factsheets, lectures — remain necessary for expert and policy audiences but struggle to make abstract risk personally meaningful to the public. Participatory formats — storytelling, theatre, serious games — create a personal entry point and build trust and shared ownership, but they demand more time, resources and tailoring to each territory than a standard leaflet can do.

The HuT's Toolkit

Rather than one format, The HuT combines methods selected and adapted to audience, objective and territory:

From Dissemination to Knowledge Translation

Knowledge translation differs from generic dissemination: rather than starting from what an organisation wants to say, it starts from what an

APPROACH	FUNCTION	CONTRIBUTION
Local Desks	Sustained territorial engagement	Recurring local interface among citizens, researchers and institutions.
Me & You Narratives	Personal knowledge translation	Connects individual stories to shared community and scientific knowledge.
Participatory theatre	Collective reflection & dialogue	Communities interpret lived experience together via facilitated performance.
Serious games	Interactive, decision-based learning	Lets participants explore risks and consequences in a structured setting.
Capacity-building	Practical application	Strengthens local stakeholders' ability to use disaster risk knowledge.

Local desks are ongoing local interfaces, not one-off events: repeated interaction builds trust that a single campaign or webinar cannot, which matters most where institutional trust is already strained. Me & You Narratives reverse the usual order of science communication — starting with an individual's story ("me"), connecting it outward to the community ("you"/"us"), and introducing the technical concept only once a personal stake is established.

Case Study: Participatory Theatre in Cesena

Following the devastating May 2023 floods in Cesena and the wider Emilia-Romagna region, The HuT partnered with local theatre practitioners on two Playback Theatre performances, where the audience supplies real testimony live and performers improvise it into scenes. 'Storie in piena' (Teatro di San Rocco, 19 May 2024) marked the flood's first anniversary, delivered with Michele Calvello (HuT coordinator, University of Salerno), the Fuori Scena theatre company, the Oltresavio District, the Cesena Flood Victims Committee and Tipografia Gegraf. A second performance, 'Grounded. Learning Through Immersion' (27 October 2024, PB Theatre), reached a broader, mixed audience shortly after a fresh hydrogeological red alert in the region — so many attendees were processing an ongoing risk, not only a historical one.



Figure 1: Playback Theatre in Cesena – performers improvise scenes from testimony supplied live by the audience.

Participants used the space to reframe their experience: a grandmother recast the flood as an adventure story for her grandson; a public official described organising volunteers as repayment for help she'd once received; volunteers spoke about the community networks the flood had built. The key lessons: lived experience creates relevance that abstract risk cannot; communities become co-authors rather than an audience; and timing — sessions held near an anniversary or a fresh alert — connects memory to ongoing risk.

Implications & Recommendations

This logic is what travels to other EU-funded Disaster Risk Reduction (DRR) and climate resilience projects. Me & You Narratives and serious games travel relatively easily, since they can be adapted and shared without HuT staff on site. Local Desks are harder to replicate quickly:

they depend on sustained territorial partnerships and local capacity built up over time, which is also what gives them their strength. Theatre is hardest of all to scale, since it depends on skilled facilitation and a community's willingness to share real testimony.

Experiences from the HuT project identified six recommendations to support effective engagement across diverse audiences:

1. Combine formats rather than relying on a single channel.
2. Design around territory and audience from the outset, not as an afterthought.
3. Treat citizens as contributors, not only recipients, of risk knowledge.
4. Always connect personal narrative back to accurate, actionable risk information.
5. Invest in sustained local relationships over one-off events.
6. Handle emotionally sensitive participation (testimony of loss, trauma) with trained facilitation and clear participant consent.

Future Perspectives

- **Extending the Local Desk model and Me & You Narratives** to new territories and EU networks: building on open guidelines and narratives from all ten demonstrator regions, and on co-created events in Cesena (Storie in piena, Grounded), with partners GNDR and GWP Central and Eastern Europe as routes into wider networks.
- **Adapting serious games** to further hazards and decision-making contexts: Safe Haven already covers landslides, floods, wildfires and heatwaves, and early testing showed it improved risk awareness (EGU 2025).
- **Exploring digital and hybrid extensions of participatory storytelling**: building on The HuT Talks, the online Climate Stories and the Capturing the NEXUS photo contest.
- **Strengthening exchange between territories** facing similar hazards under different institutional conditions: through the International Disaster Risk Reduction nexus Forum (I-DRRnF) and links with related Horizon Europe projects via CERIS.

Conclusion

Disaster risk communication cannot be reduced to shorter or simpler technical information — it becomes meaningful when connected to the places people live, the experiences they recognise, and the decisions they need to make. The HuT's efforts, and the Cesena theatre work in particular, illustrate what can happen when communities become contributors to that communication rather than its audience.

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Learn more about The HuT project:

<https://thehut-nexus.eu>



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