

Future visions for sustainable personal washing practices in Irish households: Reviewing processes and results of vision generation, elaboration and assessment

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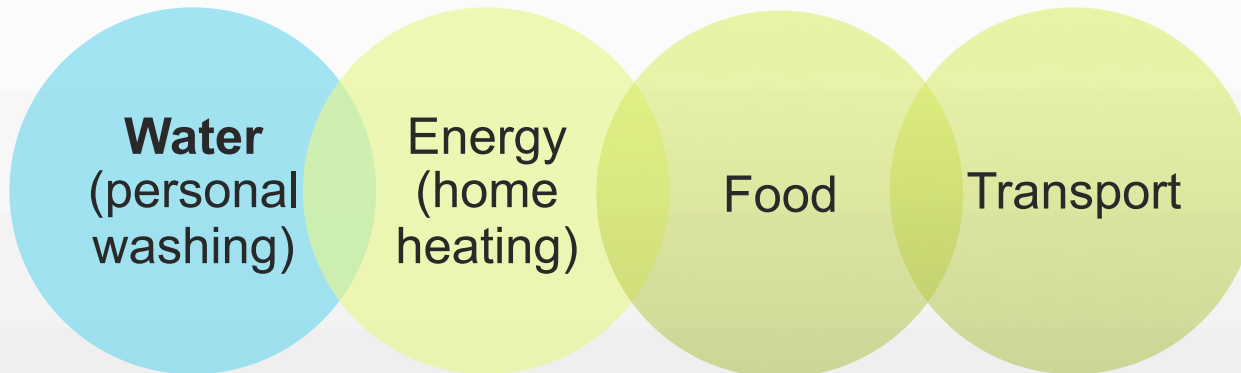
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Presentation structure

- What is Consensus?
- Water consumption in Ireland
- Approach: participatory backcasting
- Vision generation
- Vision elaboration
- Conclusion

Consensus all-Ireland research project

- **ConsEnSus**: Consumption, Environment, Sustainability
- Environmental Protection Agency (EPA) funded, 4 year project
- Trinity College Dublin & National University of Ireland Galway
- Consumption in Irish households



- SCRN – Sustainable Consumption Research Network

Water consumption issues & approaches

Sustainability challenges:

- 160 litres per day per person, 40% for personal washing
- Cost to state - €650 per person per year
- Leakage – average. of 40% from reservoir to home
- Climate change, water shortages



Dominant response:

- Predict & provide, supply-side focus
- Moderate efficiency improvements

Alternative approaches:

- Social practice theories of consumption (Bourdieu 1977, Giddens 1984, Reckwitz 2002; Ropke 2009)
- Sustainability transitions literature (Geels 2005; Loorbach 2010)

Participatory backcasting process & steps

Backcasting

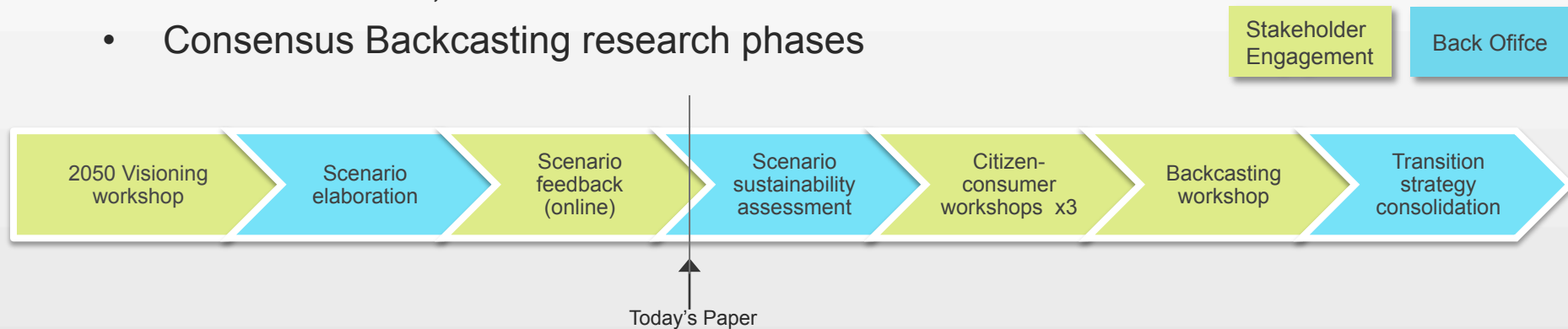
- Dreborg (1996) normative future scenarios

Goal

- To design, explore and evaluate future visions integrating socio-technical innovations to develop transition plans for more sustainable water use in Irish households

Participatory, iterative research

- Quist et al 2001, SusHouse
- Consensus Backcasting research phases



Visioning workshop structure & attendees

Attendees

- **21 Attendees**
- Supply (3)
- Washing products (2)
- Engineering (2)
- Planning / urban design (3)
- Architecture (5)
- Product design (1)
- Regulation (1)
- Policy (1)
- Sustainability communications (2)
- Consumer interest (1)

Structure

- **3 hours**
- Presentation (& problem orientation)
- Brainstorm (3 sub-groups)
- Clustering & rating
- Evaluation

- *How might we deliver the needs of washing more sustainably in the year 2050?*

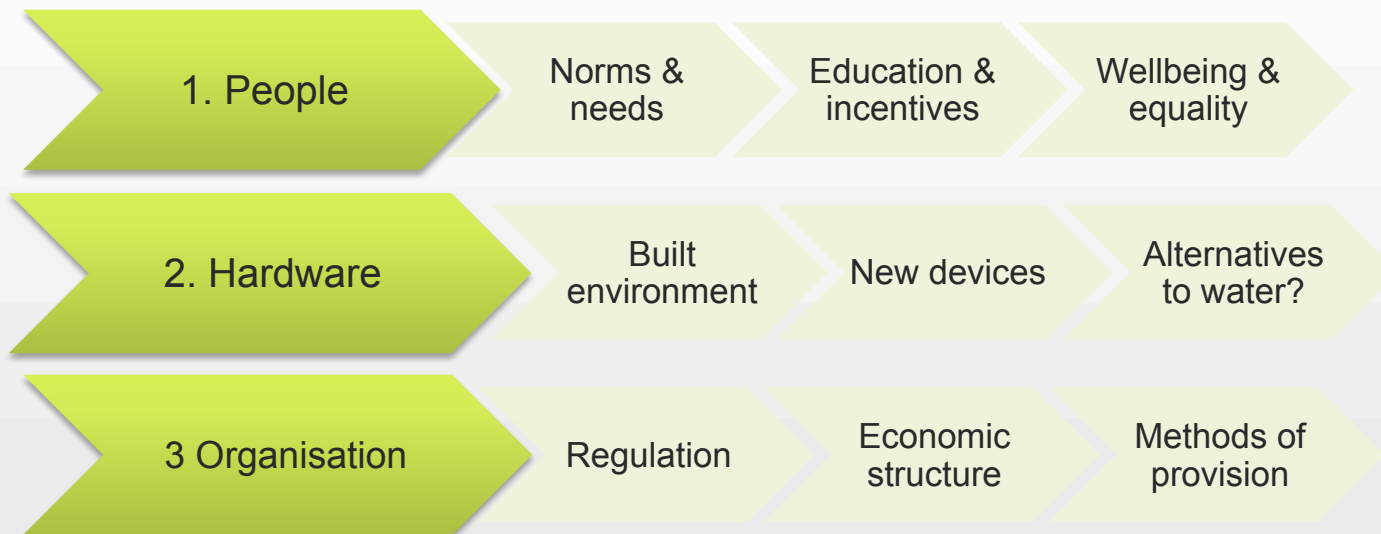
Visioning workshop idea generation

Practice-oriented design (Shove 2008)

1. Skills (practical know-how, institutionalised knowledge)
2. Stuff (devices, technology)
3. Images (meanings, rules, social relations)

Visioning workshop brainstorm framework

How can we deliver the *needs* of washing more sustainably in the year 2050?



"How use doth breed a habit"



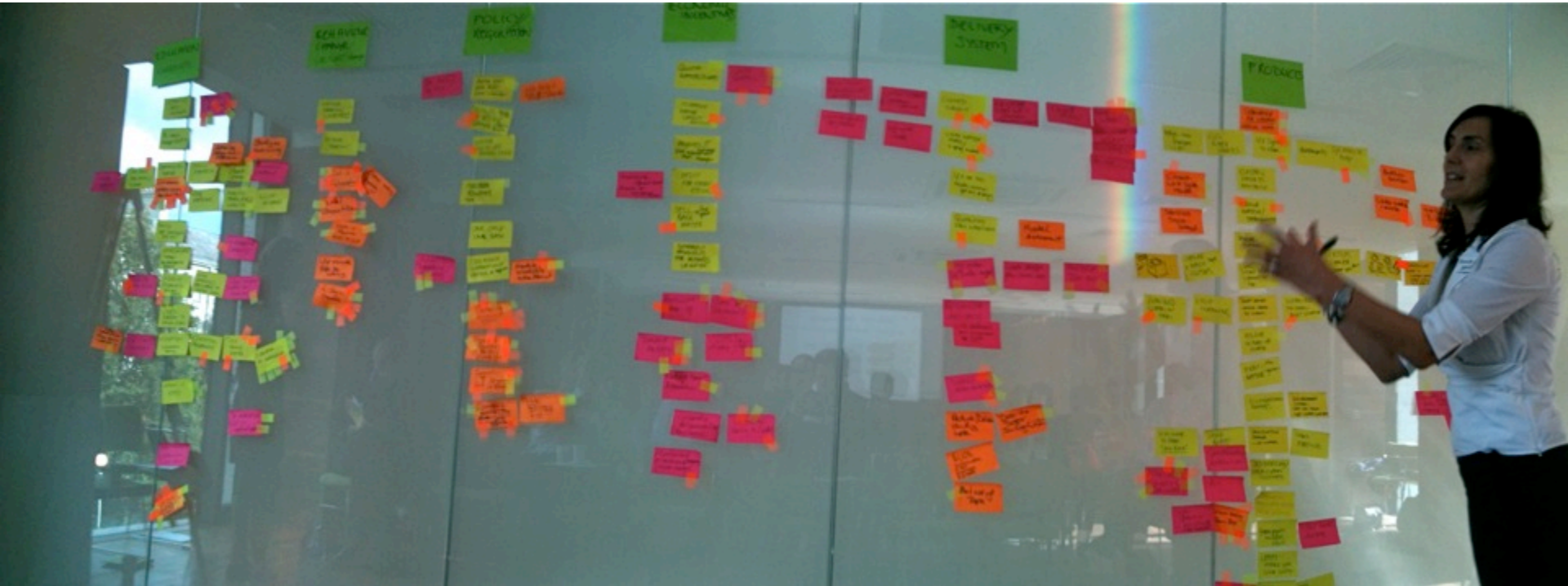
USE
Pears' Soap



Washing practices
through time



Visioning workshop clustering & voting



Metaplan (Schnelle1979)

Scenario elaboration matrix sample (back-office)

CLUSTERS	CONCEPTS	VOTES	TOTAL # IDEAS
People			
Social pressure	Information on water consumption quantities made available on social networking sites	1	45
Communal bathing	family shower room	2	
	Communal bath houses	8	
Hardware			
Design efficiency	Timed 2 stage shower: steam, followed by water rinse	4	50
	Greywater recycling between devices	2	
Novel devices	On-body smell & dirt monitor	2	
	nano-particle cleaner	6	
Organisation			
Local provisioning	smart water grid - homes sell excess rainwater to grid	1	48
	Rainwater harvesting for all homes	7	
Quotas & Restrictions	Personal quota card – scan before using all water	6	
	Pressure reduction & eventual cut-off if exceed quota	8	
Micro-metering	micro-metering on each outlet. Different costs for different uses & water qualities	1	
			143

Scenario elaboration - three 2050 scenarios

Aqua Adapt

- High levels of cultural change characterised by the adaptation of personal washing practices according to natural fluctuations in water supply.

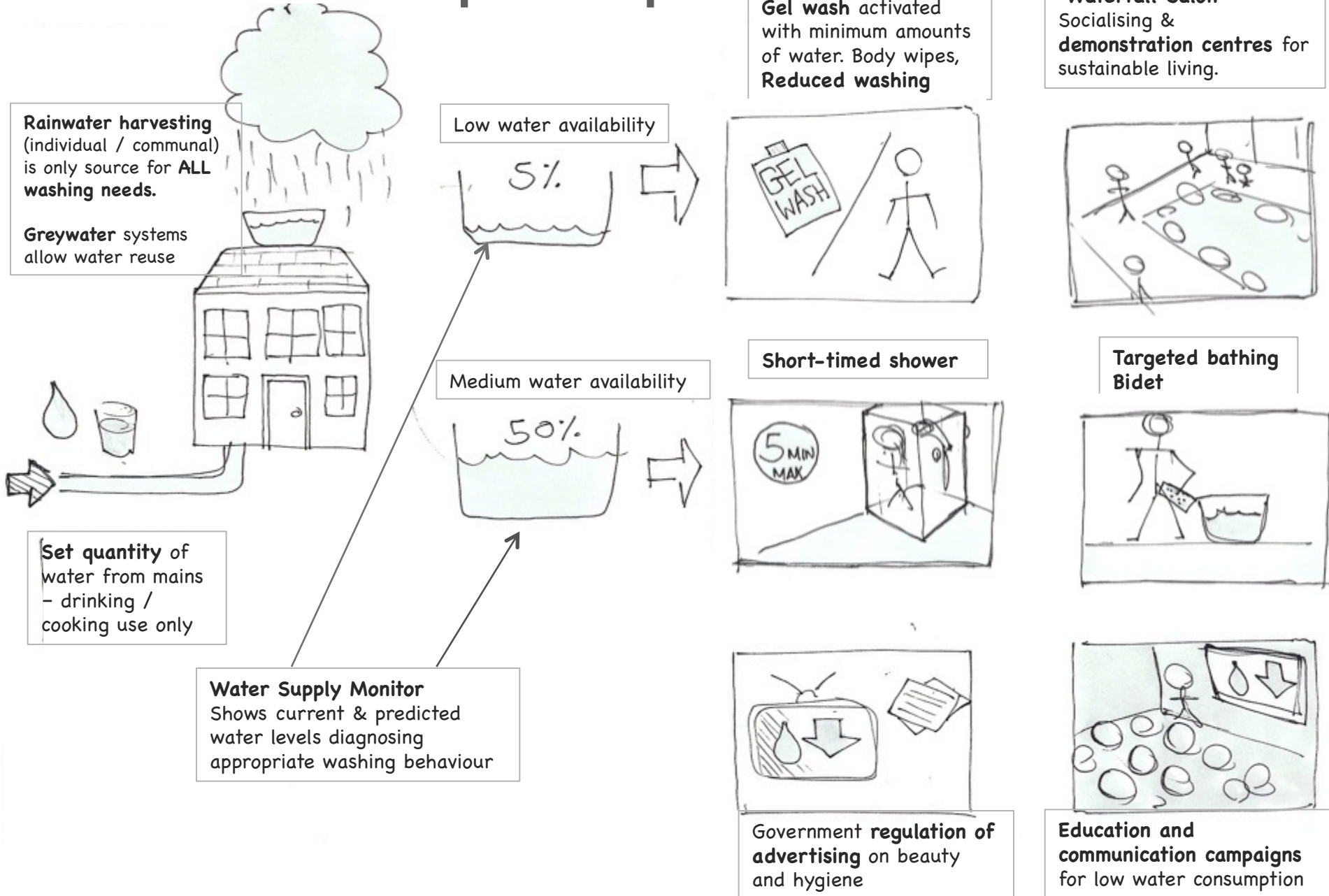
De-waterise

- Major technological advancement with the development of products that replace or dramatically reduce the need for water in personal washing.

Water Control

- Stringent regulatory and economic incentives for lower water consumption together with enhanced efficiency of water provision infrastructure and washing devices

Scenario 1 - 'Aqua Adapt'



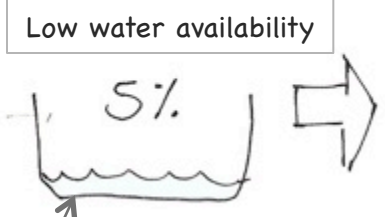
Rainwater harvesting
(individual / communal)
is only source for **ALL**
washing needs.

Greywater systems
allow water reuse



Set quantity of
water from mains
- drinking /
cooking use only

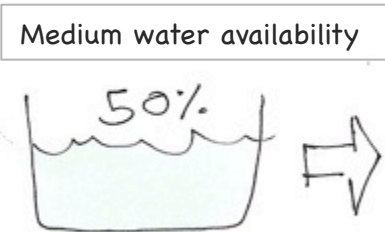
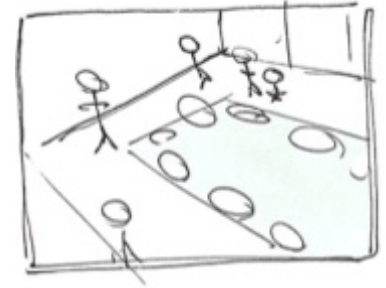
Water Supply Monitor
Shows current & predicted
water levels diagnosing
appropriate washing behaviour



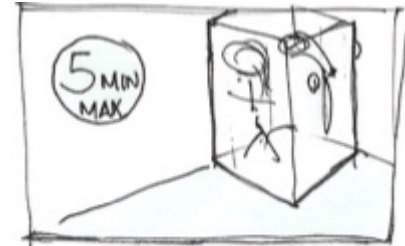
Gel wash activated
with minimum amounts
of water. Body wipes,
Reduced washing



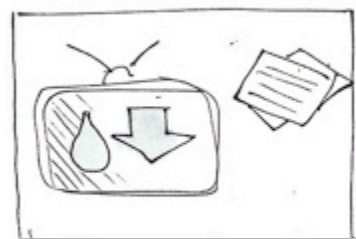
'Waterfall Salon'
Socialising &
demonstration centres for
sustainable living.



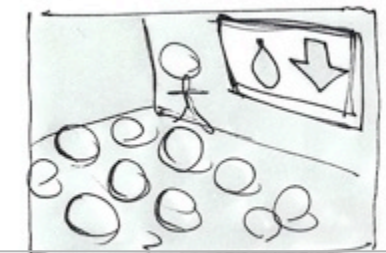
Short-timed shower



Targeted bathing
Bidet



Government regulation of
advertising on beauty
and hygiene



Education and
communication campaigns
for low water consumption

Scenario narrative ‘Aqua Adapt’

“It’s the middle of the Irish summer; Claire wakes up and checks the rainwater levels on her ‘supply monitor’. In the year 2050, everybody has rainwater-harvesting systems and these provide the only water source available for household washing activities. People are happy to adapt their washing practices along with other consumption activities in accordance with seasonal and weather fluctuations. Claire’s rainwater levels are getting very low and the heat-wave is predicted to last until the weekend. Not to worry, she gives her hair a quick gel clean and uses body wipes for refreshment. She’s looking forward to meeting her friends tomorrow in the ‘waterfall salon’, a public bathhouse funded by the government. People go here when their home rainfall levels are low, for a proper wash and some relaxation. They also serve as sustainability demonstration centres where people learn best practice tips on how to reduce their impact on the environment. When it starts to rain again, she’ll be able to have a timed shower or a bidet. Claire will keep an eye out to see when the forecast is for rain and when her water levels are fully replenished, she’ll treat herself to a long indulgent bath!”

Scenario feedback online forum

Open-ended questions for each scenario:

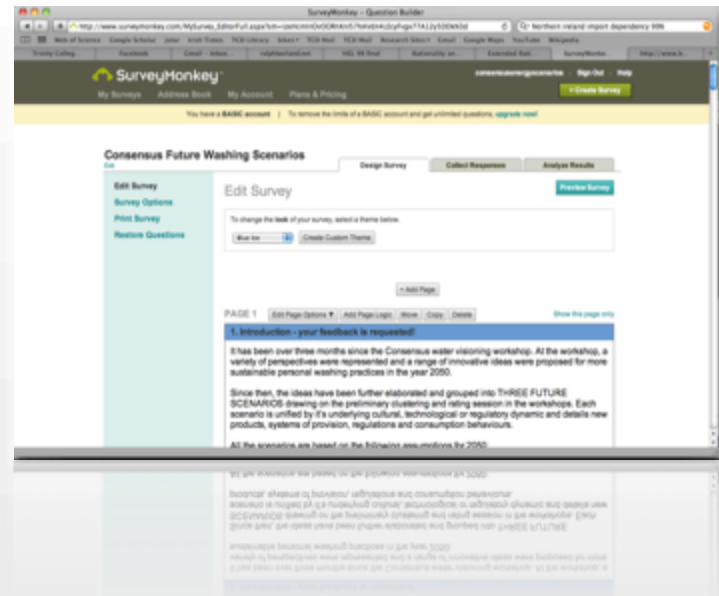
- Elements participants like / dislike the most?
- Suggestions on how to strengthen the scenarios?
- 'Fit' between collection of scenario elements?

Responses focused on:

- Elaborations
- Limitations
- Modifications
- Combinations

Response rate:

- 38%, 8/21 participants



Concluding thoughts

- **Vision generation**
 - Participatory, 143 concepts proposed, variance in ideas
 - Conceptual appeal of practice oriented approach
- **Vision elaboration**
 - Back-office clustering, ranking & online feedback
 - Visual and narrative representations
- **Backcasting steps**
 - Completed: Sustainability assessment
 - Completed: Citizen-consumer workshops
 - Remaining: Transition Strategy workshop
- **Challenges**
 - Translation of “promising practices” from scenarios into practical policy, R&D and

Thank You

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