Transition Strategy Workshop
Towards a future of sustainable water consumption in Irish households

Trinity College Dublin | Long Room Hub | 5th October 2011

Consensus Team
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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

- **Water** (personal washing)
- **Energy** (home heating)
- **Food**
- **Transport**

- **SCRN** – Sustainable Consumption Research Network
Participatory backcasting process & steps

**Backcasting**: Dreborg (1996) “desirable” future visions

**Goal**: To design and evaluate future visions containing socio-technical innovations for more sustainable washing practices in Irish households and **to develop a Transition Plan to work towards their achievement**

**Backcasting research Phases**

- **2050 Visioning workshop**
- **Scenario elaboration**
- **Scenario feedback (online)**
- **Scenario sustainability assessment**
- **Citizen-consumer workshops x3**
- **Transition Workshop**
- **Transition strategy consolidation**

[Diagram of backcasting research Phases]

[Website: www.consensus.ie]
Water consumption issues

• **Quantity**: 160 litres per day per person, personal washing 40%
• **Cost**: €650 per person per year
• **Environmental costs**: abstraction & run-off
• **Leakage**: average of 40% from reservoir to home
• **GDA water shortages**: by 2015; water supply project
• **Climate change**: extreme events & unpredictable supply
## Consensus research framework

<table>
<thead>
<tr>
<th>Current response</th>
<th>Consensus approach (Transition Management)</th>
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<tbody>
<tr>
<td>Incremental improvements</td>
<td>Systemic innovation</td>
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<tr>
<td>Efficiency</td>
<td>Sufficiency</td>
</tr>
<tr>
<td>Predict &amp; provide</td>
<td>Manage demand</td>
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<tr>
<td>Short-termism</td>
<td>Long-term view</td>
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<tr>
<td>Non-interventionist</td>
<td>Intervention &amp; regulation</td>
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<tr>
<td>Top down</td>
<td>Co-creation</td>
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<tr>
<td>Growth</td>
<td>Wellbeing</td>
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(Key references: Kemp *et al.* 2006, Meadowcroft 2005; Shove, 2005; Seyfang, 2006)
Washing practices through time. In the year 2050...?
2050 Visions

Three distinct ‘visions’ integrating socio-technical changes:

1. **Aqua Adapt**: Adaptation of personal washing practices according to natural fluctuations in water supply.

2. **De-waterise**: Use of technologies that replace or dramatically reduce the need for water in personal washing.

3. **Water within limits**: Stringent regulations for lower water consumption together with enhancements in efficiency.
Aqua Adapt vision - characterised by high levels of cultural change

- **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
- **Low water availability**
  - **Gel wash** activated with minimum amounts of water. Body wipes, **Reduced washing**
- **Medium water availability**
  - **Short-timed shower**
  - **Bidet**
- **Government regulation of advertising** on beauty and hygiene
- **‘Waterfall Salon’** Socialising & **demonstration centres** for sustainable living.
- **Greywater systems** allow water reuse
- **Rainwater harvesting** (individual / communal) is only source for **ALL** washing needs.
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- **Government regulation of advertising** on beauty and hygiene
- **‘Waterfall Salon’** Socialising & **demonstration centres** for sustainable living.
Promising Practices identification

Promising Practices:
- Identified take into account results of sustainability assessment & public feedback
- Combine innovations from the three visions
- Permit focused development of Transition Plan

1. **Connecting** with rain fluctuations
2. **Using** water efficiently
3. **Re-evaluating** washing norms
Water Supply Monitor

Shows current & predicted water levels diagnosing appropriate washing behaviour

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

Greywater systems allow water reuse

Low water availability

Medium water availability

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

Using water efficiently

Government regulation of advertising on beauty and hygiene

Education and communication campaigns for low water consumption

Re-evaluating washing norms

Sample visions (Aqua Adapt) illustrating selection of Promising Practices
In the year 2050...“Every morning just after I wake up, I check my rain-monitor to see how much water I have. With advanced water filters, we use harvested water for most of our washing activities supplemented by just a small amount of water from the mains. When it’s rainy, I can use all the water I want but if there’s a dry period I cut back. The smart grid allows me to feed my excess water to the communal rainwater system”.

**Key components:**

**Rainwater harvesting**
- Every home in Ireland has rainwater harvesting systems

**Rainwater grid**
- Collective rainwater harvesting systems in built-up areas
- Smart water grid systems - excess rainwater sold back / redistributed

**Advanced water filtration:**
- Filtration of rainwater to levels suitable for washing activities

**Rain monitor**
- Shows weather forecast and water availability
Connecting with rain fluctuations… Today
Using water more efficiently

In the year 2050… “Thankfully none of our water goes to waste any more. Our ‘Wet Room’ houses all of our water consuming devices and water is filtered and recycled between functions before being used for green spaces. My shower cycles between ‘steam’, ‘wash’ and ’pause’ stages so nothing is wasted and I can see live updates of the quantity of water I’m using.

Key components:

Re-use:
• Re-use of grey-water multiple times between washing appliances in Wet Room

Greywater:
• Waste water used for irrigation and SuDS widespread

Appliance efficiency:
• Shower cycles
• Real time feedback on water usage

Design standards:
• Efficiency & labeling
Using water more efficiently… Today
Re-evaluating washing norms

In the year 2050… “We have reduced worries about body odor. Our ‘wash-monitors’ help diagnose when and where we need to wash so no water is wasted on unnecessary washing. A range of eco-friendly cleaning products help reduce our environmental impact and a less private approach to water means we reduce our water use overall. The less we consume, the more rewards we receive!”

Wash monitor:
• Monitors personal levels of dirt and odor and diagnoses appropriate washing

Gel wash & eco-friendly detergents
• For low-water, environmentally friendly cleaning

Wash-right education & awareness:
• Education for low-impact washing activities
• Monitoring & publicizing consumption levels online with eco-point rewards
• Communal washing solutions

Regulation:
• Regulation of chemicals in washing products and of advertising promoting excessive hygiene / beauty expectations
Re-evaluation of washing norms…Today
Brainstorm!

What policies, educational initiatives, business & technology plans could help pave the way to the ‘Promising Practices’ of sustainable water use in Ireland?

3 sub-groups
1) Connecting with rain fluctuations (orange)
2) Using water efficiently (green)
3) Re-evaluating washing norms (pink)

Timing
Start: 11:00 | Finish: 12:15 | 20 minutes in each sub-group

Rules
1. Unusual ideas welcome
2. Quantity of ideas favoured
3. Limited criticism
4. Combine ideas
### Transition Plan potential measures

#### People
- Education
- Community initiatives
- Social marketing
- Information & consumption visibility

#### Policy
- Binding targets
- Design regulations
- Planning legislation
- Subsidies / grants
- Eco-taxes

#### Technology / Business
- Product development
- R&D plans
- Voluntary codes of practice
- Demonstration projects
- Investment
## Workshop Format

<table>
<thead>
<tr>
<th>TIME</th>
<th>ACTIVITY</th>
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<tbody>
<tr>
<td>10:30</td>
<td>Registration tea &amp; coffee, Introductory presentation</td>
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<tr>
<td>11:00</td>
<td><strong>Promising Practices brainstorm – 3 sub-groups</strong></td>
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<tr>
<td></td>
<td>1. Connecting with rain fluctuations <em>(orange)</em></td>
</tr>
<tr>
<td></td>
<td>2. Using water efficiently <em>(green)</em></td>
</tr>
<tr>
<td></td>
<td>3. Re-evaluating washing norms <em>(pink)</em></td>
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<tr>
<td></td>
<td>- 20 minutes in each group, then attendees re-shuffle</td>
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<tr>
<td>12:15</td>
<td>Lunch</td>
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<tr>
<td>12:40</td>
<td><strong>Transition Path</strong></td>
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<tr>
<td></td>
<td>- 3 subgroups</td>
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<tr>
<td></td>
<td>- Elaboration of transition measures</td>
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<tr>
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<td>- Development of timeline to 2050 – key ‘actions &amp; actors’</td>
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<tr>
<td>13:15</td>
<td>Feedback</td>
</tr>
<tr>
<td>13:30</td>
<td>Event close</td>
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</tbody>
</table>
Transition Path – Key actions & actors

Goal:
Elaborate key measures
Plot over time
Identify barriers, enablers, actors

Timing: 12:40 – 13:10

- Key ‘Measures’ & ‘Actors’ over time.
Thank You!

Please complete the ‘evaluation form’ before leaving
(Takes c. 5 minutes)