Backcasting is a learning and innovation process. It is typically applied to find new ways to achieve desirable results for policy, planning, organisations and society. It begins with the development of a desirable future vision, followed by working back (or ‘backcasting’) from that point to identify steps to lead to its achievement. It is a useful way to develop insight and identify innovations for complex problems either within an organization, or at societal level – such as those relating to sustainable development.

**Backcasting is useful...**

<table>
<thead>
<tr>
<th>As a tool for:</th>
<th>If you’re trying to answer any of these questions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-term planning</td>
<td>How can we achieve a specific sustainability policy goal or target?</td>
</tr>
<tr>
<td>Innovation</td>
<td>How can we find more effective ways to deliver particular societal needs (through services, products or social innovations)?</td>
</tr>
<tr>
<td>Problem solving</td>
<td>How might we encourage a shift towards more sustainable production and consumption systems (e.g. water, energy, food)?</td>
</tr>
<tr>
<td>Learning &amp; insight</td>
<td></td>
</tr>
</tbody>
</table>

**The backcasting process**

While forecasting studies are based on the extrapolation of current trends to develop likely futures, backcasting focuses on the development of innovative ideas that break from current trends to attain desirable futures. Backcasting often includes stakeholders across disciplines and sectors. Participatory forms of backcasting can improve the innovativeness of proposals and lead to greater collaboration and spin-off.

**Typical backcasting steps**

- **Problem definition**
  - Identify unit of analysis or problem
  - Define key forces influencing it (social, economic, policy, technical)
  - Identify suitable sustainability principles or targets

- **Visioning workshop**
  - Assemble participants for a visioning brainstorm
  - The aim is to imagine an alternative future where that problem is rectified. What does that future ideal look like?
  - Ignore constraints and barriers at this stage - ask "What if...?"

- **Vision creation & evaluation**
  - Review ideas proposed in the visioning workshop and group them into clusters with similar themes (at or after the workshop)
  - Create 1-3 integrated visions of promising alternative futures
  - Evaluate these against sustainability principles or targets

- **Backcast**
  - Select the most favourable future vision
  - Identify necessary actions and interventions to build towards it
  - Consider barriers, enablers and actors

**Brainstorm rules:**
- Unusual ideas welcome; avoid criticism; focus on quantity; combine & improve ideas.
- Focus on the needs and practices that your service / product / policy is meeting. Can you think of new ways to fulfill these?
- Visions can be in written or visual format.
- The backcasting phase can be conducted in workshop format. Take barriers and think about turning them into solutions.

For more information contact: Prof Anna Davies (daviesa@tcd.ie) or Dr Ruth Doyle (rdoyle4@tcd.ie)