



# User-Centred Development

Cobalt Design's response to  
Infrastructure Victoria's interim report  
*Recycling and Resource Recovery Infrastructure*





We believe Infrastructure Victoria's recommendations made in the "Recycling and resource recovery infrastructure" report (Report) provide solid groundwork for resource recovery outcomes—albeit with a couple of notable gaps.

We see the next steps as firstly, developing a robust plan to integrate a user and stakeholder-driven development process, and secondly capturing insights about key users and stakeholders. Capturing these insights will enable the delivery of tangible, implementable frameworks, infrastructure and clear targets that consider the Victorian user and stakeholder needs at a deeper level.

For example, the Report case studies several initiatives implemented in Wales. These may be relevant to Victoria. Or they may not be. Or, they may call for a significant adaption to make them suitable. A fundamentally different approach may be required to suit Victorian needs.

Without an integrated, user and stakeholder-driven development process, which firstly focuses on uncovering the diverse needs of the Victorian public, local councils, municipals and government, it cannot be well understood whether or not the Welsh initiative were suitable. And, if not, what would be.

Therefore Cobalt's response submission to the Infrastructure Victoria Report is proposing an integrated, user-centred design development process that considers the needs of the full breadth of stakeholders in recycling and resource recovery.

Main considerations of this should be;

- How Victorians across different household, profiles, locations and councils and municipalities currently manage their waste and recyclables
- Uncover the personal motivations, barriers, deterrents, and drivers behind the public's recycling habits to understand how best to implement any collection process
- Uncovering all relevant stakeholder's unarticulated needs, concerns and potential misconceptions of how waste should be managed at each stage of the recycling process; in a cradle-to-grave style analysis
- Validation of the survey data conducted by other organisations – this data is self-reported but may not accurately capture Victorians true or actual behavior – but rather their projected behavior
- Leveraging more qualitative, deep dive data to help identify clear, strategic targets that are relevant to and adoptable by Victorians
- Outlining a structured way to conduct an integrated user-led development process, which along with key council, government and subject-matter-expert input, would be able to define, and if needed, implement specific solutions, or pilot programmes, suited specifically to Victoria

# Response Summary

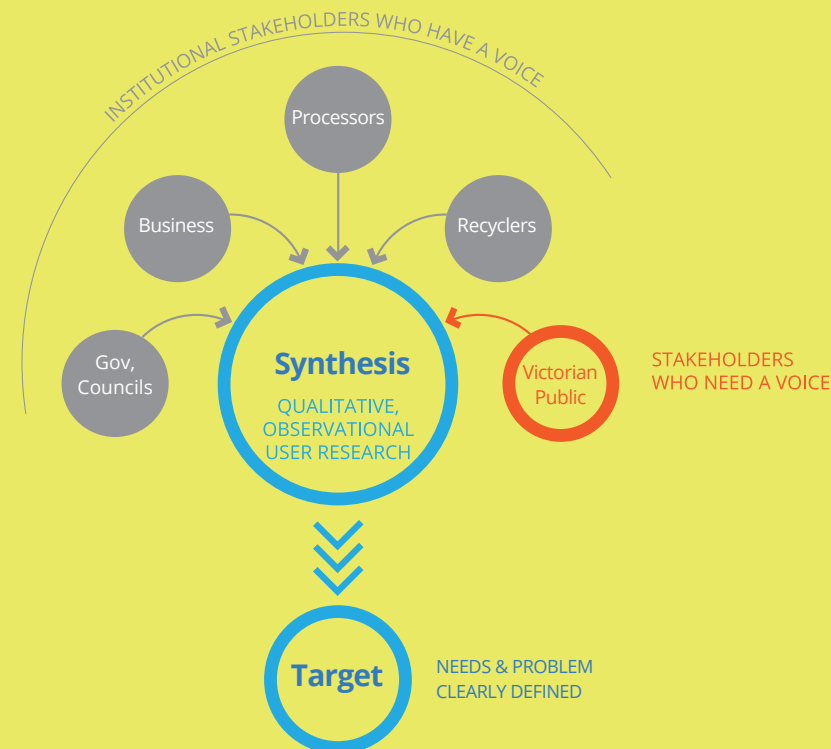
*An integrated, user-centred development process will define the right needs and direction for a successful solution.*

# User-Centred Development Process

The core steps to an integrated user-centred development process are:

- 1 Build a deep understanding of user and stakeholder needs
- 2 Based on this understanding, define the real problem(s) Victorians are facing with waste management, including evaluating how these would be addressed by existing solutions (i.e. Welsh initiatives)
- 3\* Develop creative ideas that address the unmet needs, using iterative design and prototypes to regularly evaluate how effectively these ideas meet user and stakeholder needs and validate proposed solutions
- 4\* Refine, engineer, prototype and document the chosen solution(s) before final implementation and rollout

\* Assumes any existing solutions would require adaption or are not suitable at all for Victorians



Agencies such as Cobalt can lead and manage each of these steps, which by definition, will combine the inputs from multiple organisations and representatives.

It can be rightly assumed that council and government stakeholders' input will be forthcoming and integral to any development and execution process. Hence, it is the Victorians' or end-users' inputs that need to be explicitly targeted alongside these to ensure:

- Victorians needs, across major municipals, are considered through each of the 4 development steps
- The end result is relevant, can be sustained long-term and is far more likely to be broadly accepted once rolled out
- Any proposed changes to the system are tailored to Australians and more specifically Victorian's and not a one-size-fits-all stop gap measure, but a solution that at its core is empathetic and user-centred

Throughout this process, Cobalt would champion the end-users by placing them at the centre of the development journey. This will result in an effective, standardised solution(s) that supports and educates Victorians in their waste management.

To build on the detail provided in our Response Summary, we would understand users real needs by gathering unique and targeted insights through our user-centred design research. Our observational, qualitative research will help reveal key parallels between user's waste management preferences and behaviours and their home environment and demographic.

This research would complement, rather than replace, conventional market research; such as quantitative data collection. We envisage experts in the market research field, who have access to the necessary tools, would conduct these supporting activities. Collectively these valuable findings, along with council and government stakeholder input, will allow us to deliver the second step of the process; clearly defining the set of real problems to address and the opportunity landscape.

Assuming the initial 2 steps expose a need for a new or adapted solution for Victorians, the findings would inform and drive the remaining steps; design, engineering and implementation (steps 3 & 4). As industrial designers and mechanical engineers Cobalt are able to develop creative, innovative designs that are also realistic and achievable. In particular, our engineering and manufacturing expertise would integrate with industry needs to ensure our end solutions are mechanically practical.

*Cobalt would champion the end-users by placing them at the centre of the development journey.*

*Please note this process overview is only a brief summary of the approach and tasks we would implement in an integrated user-centred development process.*





Cobalt has a breadth of consulting experience from research through development and implementation of projects.

We bring knowhow and insights not only for the needs of core users – the public – but also the needs of other stakeholders who will be integral to Victoria having an effective and sustainable recycling and resource recovery infrastructure. Cobalt is uniquely placed in having expertise in each critical phase of this exercise:

1. User needs research and analysis to define the opportunity and issues
2. Solution development through creative, iterative design
3. Implementation through engineering and alignment of technical input from supply stakeholders (government, industry, processors, etc)

Cobalt exists to enrich lives through good design. We do this by being 'seriously creative' which entails equal measures of creative passion as well as technical and commercial accountability.

Cobalt has developed a proven development process over 1200 new-product-development (NPD) projects that we have undertaken for clients since 1996. These include numerous development projects relevant to this exercise, such as rubbish truck development for Bucher Municipal, Food Justice Truck for ASRC as well as longterm engagements with Victoria Police, Yarra Trams, Bombardier and Alstom.

Other attributes include:

- When a client engages Cobalt, they get access to over 25 focussed designers and engineers, all with a breadth of UX research, technical and design experience that they can inject into an assignment.
- Commitment to our professionalism and output (refer to our Client Charter and other working arrangements)
- Innovative idea generation, and quality-system processes for checking design, prototype and tool-release stages.
- Our CAD and engineering development resources are amongst Australia's strongest collection of digital sketching, rapid prototyping, advanced 3D CAD modelling systems available.
- Since our foundation in 1996, and our experience in over 1200 product development projects Cobalt have developed proven and efficient quality systems and knowhow to ensure projects are delivered on time, on budget and to spec.
- Cobalt and our Principals Jack Magree, Steve Martinuzzo and Warwick Brown have been recognised for their skills and expertise within dozens of Australian, Victorian and international design and industry awards.

# About Cobalt

*Cobalt exists to enrich lives through good design. We do this through equal measures of creative passion, technical knowhow and commercial accountability*





**cobalt**

seriously creative