Table S1. Terminology used in the configuration of inputs and outputs

Terminology	Description
X	Existing values during the baseline year (2018)
Y	Planned/ projected values for any selected year
Y'	Revised planned/ projected values for the selected year (after taking the factor relationship into account)
F	Factor values

Table S2. The configuration of inputs used in the analysis

Inputs	Formulae
Product recyclability	• If $Y > X,\ Y' = Y \times F_{\substack{Behavioural \\ resistance}}$ • If $Y \leq X,\ Y' = Y$ *For example:* The government plans to increase product recyclability in 2025 to (Y) amount and is more than its value (X) in the baseline year of 2018 (Y > X). However, the increased rate of product recyclability will be affected by the drag from behavioural resistance factor (F) and will ultimately yield a lower value (Y′) compared to what was originally planned. The same concept applies to the rest of the inputs below.
Plastic consumption (Packaging & non-packaging)	• If $Y < X,\ Y' = \left[Y + {Y'}_{n-1} \times F_{\substack{change \\ in\ population}} \left(1 - Y'_{\substack{reuse \\ rate}} \times F_{\substack{reuse \\ rate}}\right)\right] \times F_{\substack{Behavioural \\ resistance}}$ • If $Y > X,\ Y' = \left[Y + {Y'}_{n-1} \times F_{\substack{change \\ in\ population}} \left(1 - Y'_{\substack{reuse \\ rate}} \times F_{\substack{reuse \\ rate}}\right)\right]$
Processing capacity	• $Y' = Y'_{\substack{Recycling\ option \\ efficiency}} \times \frac{X_{Recovered\ amount}}{X_{\substack{Total\ effective \\ recycling\ facilities}}}$
Recycling Efficiency	• If $Y'_{\substack{Sorting \\ efficiency}} > X_{\substack{Sorting \\ efficiency}}$ & $Y'_{\substack{Product \\ recyclability}} > X_{\substack{Product \\ recyclability}}$, $Y' = Y \times \left\{\left[\left(Y'_{\substack{Sorting \\ efficiency}} - 1\right) \times F_{\substack{Sorting \\ efficiency}} + \left(Y'_{\substack{Product \\ recyclability}} - 1\right) \times F_{\substack{Product \\ recyclability}}\right] + 1\right\}$ • If $Y'_{\substack{Sorting \\ efficiency}} \leq X_{\substack{Sorting \\ efficiency}}$ & $Y'_{\substack{Product \\ recyclability}} \leq X_{\substack{Product \\ recyclability}}$, $Y' = Y \times Y'_{\substack{Sorting \\ efficiency}} \times Y'_{\substack{Product \\ recyclability}}$
Reuse/ end-of-life proxy rate	• If $Y > X,\ Y' = Y \times F_{\substack{Behavioural \\ resistance}}$ • If $Y \leq X,\ Y' = \mathrm{Y}$

Sorting efficiency	• If $Y'_{\substack{Product \\ recyclability}} > X_{\substack{Product \\ recyclability}}$, $Y' = F_{\substack{Behavioural \\ resistance}} \times Y\left(1 + F_{\substack{Sorting \\ efficiency}} Y'_{\substack{Product \\ recyclability}} - F_{\substack{Sorting \\ efficiency}}\right)$ • If $Y'_{\substack{Product \\ recyclability}} \leq X_{\substack{Product \\ recyclability}}$, $Y' = Y$

Table S3. The configuration of outputs used in the analysis

Outputs	Formulae
Plastic Consumption (Total)	• $Y' = Y'_{\substack{Packaging \\ consumption}} + Y'_{\substack{Non-packaging \\ consumption}}$
Plastic waste to landfill	• $Y' = Y'_{\substack{Plastic \\ consumption}} + Y_{\substack{Recovered \\ amount}}$
Diversion rate	• $Y' = \frac{Y_{\substack{Recovered \\ amount}}}{Y'_{\substack{Plastic \\ consumption\ (total)}}}$
Recycling rate	• $Y' = Y'_{\substack{Diversion \\ rate}} + Y'_{\substack{reuse \\ rate}}$
Relative accumulative effort	• $Y' = \sum_{i=input}^{All\ inputs} Y'_i \times \frac{F_{\substack{Required \\ effort\ i}}}{X_i} - 100\%$
Relative accumulative cost	• $Y' = \sum_{i=input}^{All\ inputs} Y'_i \times \frac{C_i}{X_i} - 100\%$ *where C is the estimated percentage cost for any input,* $C = \frac{Estimated\ input\ cost \times 100}{Estimated\ total\ input\ cost}$ (Note that the cost estimation for any input is conducted through further research. For example, the cost to build a recycling facility that could handle half of Victoria's plastic waste in 2018 was approximately AUD 20 million. By disregarding other uncertainties related to costing, we can assume that it would take AUD 40 million to accommodate the full processing capacity in 2018. We can then work out how much each processing capacity is costing so that any changes to it in the later years would also result in an increase in its cost. Thus, economic and other uncertainties were disregarded in the process of estimation, and hence this study projects the estimated cost in simple percentage value to avoid any misleading communication.)