



Research and recommendations for performance measures under regulated, industry-led, end-of-life electronics recycling programs in Canada



Background:

- Canada’s industry-led electronics stewardship programs have undertaken **pioneering research in the development of a set of core key performance indicators** which are specifically focused and relevant to their products & supply chain.
- **Electronics are defined by economists as a durable good** with much longer (and often multiple) service lives than many of the products earlier stewardship programs have focused on (i.e. beverage containers, paint, used oil, etc).
- The primary purposes of the development and implementation of these core indicators will be to:
 - allow each program to **track its own performance** over time;
 - **facilitate comparisons and benchmarking** between jurisdictions, and;
 - **communicate performance accomplishments** and move towards developing realistic, data-based targets to government and other stakeholders

Findings & Recommendations:

- International case studies covering 13 different programs world-wide discovered a **wide range of measures across 5 common areas**: Operational, Financial, Accessibility, Awareness, Financial, and Environmental Impact.
- **Guiding principles** which the research team committed to following in the development of the core indicators were that each needed to be:
 - representative of performance;
 - easily communicated and understood by stakeholders;
 - based on accessible and reliable data;
 - cost effective, and;
 - able to facilitate fair cross-program comparisons.
- Moving forward, the programs will begin, or enhance existing, **data collection for these core performance indicators in order to have at least one complete cycle of data** available as a baseline for further work, including target setting down the road.

<p style="text-align: center;">Operational Indicators</p> <ul style="list-style-type: none"> ✓ Total WEEE Collected (tonnes) ✓ Total WEEE collected per capita (tonnes) 	<p style="text-align: center;">Financial Indicators</p> <ul style="list-style-type: none"> ✓ Total program costs per tonne ✓ Operational costs per tonne ✓ Overhead costs per tonne
<p style="text-align: center;">Accessibility Indicators</p> <ul style="list-style-type: none"> ✓ Per cent of population covered by collection sites ✓ Total collection sites ✓ Total collection events 	<p style="text-align: center;">Environmental Impact Indicators</p> <ul style="list-style-type: none"> ❖ <i>Total weight of material recycled as percentage of material collected (by weight)</i> ❖ <i>Greenhouse gas emissions</i> ❖ <i>Mass balancing</i> ❖ <i>Trends in processing</i>
<p style="text-align: center;">Awareness Indicators</p> <ul style="list-style-type: none"> ✓ Percentage of population aware of the program 	

✓ = Immediate Collection & Reporting
 ❖ = Future / In Development